Queensland Government

Queensland Treasury
Non-Current Asset Policies for the Queensland Public Sector

NCAP 5 Depreciation and Amortisation

OVERVIEW

This Non-Current Asset Policy (NCAP) discusses the principles underlying the depreciation of property, plant and equipment and amortisation of intangible assets.

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5.1. DEFINITIONS AND CONCEPTS

Where non-current assets, including intangible assets, have a limited useful life they must be depreciated in accordance with the requirements of AASB 116 *Property, Plant and Equipment* and AASB 138 *Intangible Assets.* The term 'depreciation' should be used when referring to non-current assets that have physical substance. The term 'amortisation' is used in relation to intangible assets.

AASB 116 defines depreciation as "*the systematic allocation of the depreciable amount of an asset over its useful life.* AASB 138 defines amortisation as "*the systematic allocation of the depreciable amount of an intangible asset over its useful life.*"

Essentially, depreciation is an allocation process, in which the cost of an asset (or any other amount substituted for cost) less any expected residual value, i.e. the depreciable amount, is systematically allocated over the useful life of the asset to the agency, that is, the time over which it is expected to earn revenue or provide service potential to the agency.

In accordance with the definition, the depreciable amount of an asset should be allocated on a systematic basis over its expected remaining useful life to the agency. Critical to the exercise of recognising depreciation expense is estimating correctly the depreciable amount of the asset and its useful life.

With the exception of land, investment property measured at fair value and some unique heritage and cultural assets, most non-current physical assets have limited useful lives and their service potential diminishes over time to a point where it is entirely consumed or lost, or to a residual value at the point it is sold or disposed.

5.1.1. Exclusions from Depreciation and Amortisation

The following assets are not depreciated or amortised:

- inventories, as they are held at lower of cost and net realisable value;
- non-current assets whilst classified as held for sale or while they are part of a disposal group classified as held for sale (Refer AASB 5 *Non-Current Assets Held for Sale and Discontinued Operations*, paragraph 25);
- an intangible asset with an indefinite useful life (Refer AASB 138 paragraph 107);

- investment property accounted for under the fair value model (refer AASB 140 *Investment Property* paragraphs 76 and 79);

- land, where its service potential is not expected to diminish with time or use (refer AASB 116, paragraph 58);

- heritage and cultural assets (e.g. works of art, objets d'art, rare books and manuscripts, library collections, museum pieces and unique historical objects) with indefinite lives i.e. where their service potential is not expected to diminish with time or use, for which curatorial and preservation policies are demonstrated to be in place, and where the agency can demonstrate that it has the operational and financial commitment and capacity to adhere to such policies into the foreseeable future (refer also to AASB 116, Implementation Guidance paragraphs G3 and G4);

- biological assets carried at fair value, the accounting for which is covered by AASB 141 *Agriculture* (paragraphs 10-30); and

- work in progress assets, as depreciation only begins when an asset is available for use i.e. in the location and condition necessary for it to be capable of operating in the manner intended by management (refer AASB 116, paragraph 55).

Reasons for the non-depreciation of library heritage collections must be documented and included in the notes to the financial statements.

5.1.2. Recognition of Depreciation Expense

The depreciable amount of an asset is depreciated over the asset's useful life.

The depreciation charge for each period is to be recognised in profit or loss unless it is included in the carrying amount of another asset. For example, AASB 102 *Inventories* requires that a systematic allocation of fixed and variable production overheads be included in the cost of converting materials to finished goods. Fixed production overheads would normally include depreciation expense.

Depreciable Amount

AASB 116 defines '*depreciable amount*' as "*the cost of an asset, or other amount substituted for cost, less its residual value*" and '*residual value*' as *"the estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were*

already of the age and in the condition expected at the end of its useful life". For the avoidance of doubt, residual value does not include expected cost savings from reuse of part of an asset.

Refer to NCAP Tools Illustrative Example 5.1.1.

Useful Life

AASB 116 defines useful life as "*the period over which an asset is expected to be available for use by an agency*" or "*the number of production or similar units expected to be obtained from the asset by an agency.*"

The following factors are relevant in determining the useful life of non-current physical assets:

- expected usage of the asset i.e. its output;
- expected physical wear and tear, although a planned maintenance program may extend the useful life;
- technical or commercial obsolescence e.g. technological innovations in newer, similar assets may render an asset's useful life shorter than what might have otherwise been the case; and
- legal or similar limits on the use of an asset such as the expiry date of related leases, or compulsory replacement of assets for safety reasons e.g. aircraft, elevators.

In addition, and most importantly, the estimation of useful life should be based on the agency's past experience and its realistic planned replacement program as outlined in its asset planning. Tensions often exist between the replacement timeframes estimated by engineers and those in which fiscal provision has been made for asset replacement. If an asset is expected to be used by an agency beyond an 'ideal' or 'optimum' replacement timeframe, the extended period is the useful life which should be used. This assessment is a matter requiring professional judgment to be exercised at each reporting date.

The useful life of a depreciable asset to one agency may well differ from the useful life to another agency or even within the same agency as a result of differing use or service requirements e.g. the estimated life of sensitive technical equipment in North Queensland may well be less when compared to similar equipment located in Brisbane, due to climatic differences.

The useful life of an asset to an agency may be shorter than its *economic life*, which is defined in AASB 16 as *"Either the period over which an asset is expected to be economically usable by one or more users or the number of production or similar units expected to be obtained from an asset by one or more users".*

Refer to NCAP Tools Illustrative Example 5.1.2.

Where an asset is planned to be sold to another entity, such an intention should not itself impact on existing estimates of remaining useful life and residual value. This is consistent with the cessation of depreciation when an asset becomes classified as 'held for sale' - there is an expectation that there should be a carrying amount for assets classified as 'held for sale'. For example, if the remaining useful life was re-assessed to fully depreciate the asset by the date of sale, the carrying amount would probably be reduced to zero by sale date. This is not considered logical, as it would likely result in a sudden large increase in depreciation together with a potentially large profit on sale.

5.1.3. Commencement and Cessation of Depreciation

Depreciation expense commences from the time the asset is first put into use or held ready for use (usually from the end of the relevant month). Where an asset is a complex structure made up of interdependent sub-structures which require installation in successive stages, it must be considered as being held ready for use only after installation has been completed to a stage where a service or product can be obtained.

Depreciation of an asset ceases at the earlier of the date that the asset is classified as held for sale (or included in a disposal group that is classified as held for sale) in accordance with AASB 5 *Non-Current Assets Held for Sale and Discontinued Operations* and the date that the asset is derecognised.

Depreciation does not cease when the asset becomes idle or is retired from active use unless the asset is fully depreciated.

5.1.4. Disaggregation of Assets for Depreciation

Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item and has a materially different useful life is to be depreciated separately.

Some assets, for example a power station, may consist of a number of integral components that will function only when all components are combined. Discrete components of the asset may have

different useful lives and different methods and rates of depreciation. NCAP 2 Complex Assets contains detailed criteria for the identification of significant components.

Refer to NCAP Tools Illustrative Example 5.1.3.

5.2. DEPRECIATION BASES

The two most common bases for depreciating assets over their useful lives are the time basis or the output/service basis. Agencies must choose the basis which is most suitable for the assets they hold.

The decision to select a time or output basis for depreciation charges will be a judgement having regard to the manner in which the subject asset will deliver its embodied economic benefits over its useful life.

5.2.1. Time Basis

Using the time basis, the useful life of an asset is determined by the following factors:

- expected physical wear and tear;
- obsolescence (both technical and commercial); and
- legal and other limits on the use of the asset.

The useful life of an asset is normally the shortest of the applicable alternatives. As an example, computer hardware may have a physical life of ten years but become technically obsolete within five years. In this case the appropriate life is five years provided replacement is based on technical obsolescence. Should an agency decide to use a non-current physical asset beyond the ideal or optimum replacement timeframe, then the depreciable amount should be allocated over the longer period.

5.2.2. Output/Service Basis

This basis is appropriate where the service potential of an asset is expected to be extinguished in direct proportion to the utilisation of the asset and before the asset becomes technically or commercially obsolete.

Refer to NCAP Tools Illustrative Example 5.2.1.

5.3. DEPRECIATION METHODS

The key issue in the selection of an appropriate method of depreciation is that the method chosen must closely reflect the expected pattern of consumption of the future economic benefits embodied in the asset.

The method chosen must be applied consistently from period to period unless there is a change in the expected pattern of consumption of those future economic benefits.

5.3.1. Time Based Methods

Within the time basis for the depreciation of non-current assets, the two most common methodologies used are the straight-line method and the reducing balance method.

Straight-Line Method

The straight-line method allocates the depreciable amount in approximately equal amounts in each accounting period over the useful life of the asset being depreciated. The method would be suitable for use in depreciating assets which deliver their embodied economic benefits in approximately equal quantities in each accounting period over their useful lives.

Refer to NCAP Tools Illustrative Example 5.3.1.

Reducing Balance Method

The reducing balance method allocates larger amounts of the depreciable amount in the earlier periods of an asset's useful life and lesser amounts in the later periods and would be suitable for use in depreciating assets whose embodied economic benefits are delivered in a similar pattern.

Refer to NCAP Tools Illustrative Example 5.3.2.

For assets with nil residual value, a reducing balance method calculated using a percentage of the asset's written down value (e.g. 20% of asset carrying amount per year) would not reduce the asset to nil at the end of its useful life. Agencies should either adjust the asset's depreciation method in its final years, or fully depreciate the asset in the year it is scrapped if the accumulated depreciation is not material.

Other Methods

Other methods of allocating the depreciation amount over time may also be appropriate. As an example, the depreciable amount could be allocated over a time in a way that reflects the expected consumption of the economic benefits embodied in an asset based on engineering estimates or previous experience with similar assets.

5.3.2. Units of Production/Output Method

The allocation of depreciation should be based on the actual units of production or output in each reporting period and may vary between reporting periods. In this instance, depreciation is calculated using the following formula:

$$\frac{\text{Actual units of output during reporting period}}{\text{Estimated total units of output expected from asset}} \times \text{Depreciable amount}$$

The units of production basis requires a systematic basis for measuring the service potential consumed.

Refer to NCAP Tools Illustrative Example 5.3.3.

5.3.3. Non-Complying Methods of Depreciation

Interpretation 1030 *Depreciation of Long-Lived Physical Assets: Condition-Based Depreciation and Related Methods* does not permit the adoption of condition-based depreciation or any other method of depreciation that includes any of the characteristics detailed in paragraph 8 of the Interpretation. Condition-based depreciation can be used only where its characteristics conform to the criteria detailed in AASB 116 for the recognition of depreciation.

The 'renewals' approach, that assumes subsequent expenditure on the asset does not increase the future economic benefits of the asset but will maintain the future economic benefits at existing levels, is not permitted (refer paragraph 8(d) and 19 of Interpretation 1030).

5.4. CHANGES IN DEPRECIATION

5.4.1. Annual Reviews of Useful Life and Residual Value

AASB 116 requires that the residual value and the useful life of an asset be reviewed **at least** at the end of each annual reporting period. If expectations differ from previous estimates (i.e. expectations with respect to the depreciable amount or the useful life of the asset) the consequential change in the rate of depreciation is to be accounted for as a change in an accounting estimate in accordance with paragraphs 32-38 of AASB 108 *Accounting Policies, Changes in Accounting Estimates and Errors.*

Refer to NCAP Tools Illustrative Example 5.4.1

Adjustments to the estimated useful life must be made in the earliest year in which a change is deemed necessary. This will achieve an allocation of cost that most closely aligns with the consumption of the asset. Delaying adjustments to estimated useful life to when the asset is close to becoming fully depreciated are to be avoided, wherever possible.

A change in depreciation method e.g. from units of production to straight line, will be a change accounting estimate requiring prospective adjustment in accordance with the requirements of AASB 108.

Any change in the calculation of depreciation as a result of the annual review of useful life and residual value will be a change in accounting estimate and adjusted prospectively. A material change in consumption requiring the method to be changed is also treated as a change in an accounting estimate. Disclosure must be made in accordance with the requirements of AASB 108.

A change to the useful life of an asset that is revalued at current replacement cost would also necessitate a revaluation adjustment to the asset's accumulated depreciation, in addition to prospectively adjusting future depreciation charges. *Refer to NCAP Tools Illustrative Examples 5.5.5 and 5.5.6.*

Corrections of errors are distinguished from changes in accounting estimates. Where depreciation has been incorrectly calculated in a prior year, this should be treated as an error and corrected retrospectively in accordance with AASB 108. Judgements about estimates that should have been (but weren't) made in a prior year must not be used for the purpose of 'error correction'.

Refer to NCAP Tools Illustrative Examples 5.4.2 and 5.4.3.

5.4.2. Re-Lifing Fully Depreciated Assets

Where an asset is carried at cost, should it transpire that the asset still has some useful life after it has been fully depreciated, it is Queensland Treasury policy that re-lifing or revaluation of the asset is not permitted.

Where an asset is carried at fair value, the revaluation process should ensure an asset will not still have some useful life after it has been fully depreciated. Where large numbers of assets are fully depreciated and are still in use, a review of the depreciation rate or annual review processes may be warranted. Annual reviews of non-current physical assets should ensure that a situation will not arise where fully depreciated assets are still in use.

5.5. OTHER DEPRECIATION ISSUES

5.5.1. Subsequent Costs

Costs incurred subsequent to a non-current physical asset first having been put into use, or held ready for use, must be added to the carrying amount of that asset and depreciated, *where it is probable that future economic benefits will occur, in excess of the originally assessed performance of the asset.* Subsequent costs which have been capitalised shall be depreciated over the remaining useful life of the asset to which they relate.

These increased future economic benefits can result from an increase in the annual output of the asset, or an increase in its useful life or both. An example is the modification of an item of plant to extend its useful life or increase its capacity thereby increasing the service potential of the asset.

5.5.2. Spares

Major spare parts and standby equipment may qualify as property, plant and equipment when an agency expects to use them during more than one period. Where such spares are used only in connection with a particular asset and do not have a separate useful life to the asset, they must be depreciated over the useful life of the asset. Spares that are distinguishable from stores and supplies which are normally consumed on an ongoing basis are to be recognised in terms of AASB 102 *Inventories.*

5.5.3. Treatment of Accumulated Depreciation/Amortisation on Revaluation

Agencies should note paragraph 35 in AASB 116 and paragraph 80 in AASB 138 that describe the application of the gross and net methods of revaluation.

Consistent with Treasury's policy in NCAP 3.9:

- the net method of revaluation be used for specific appraisals using a market or income approach (e.g. discounted cash flow), where the assets so valued comprise a material proportion of the relevant class;
- the gross method of revaluation be used for specific appraisals using a cost approach (e.g. current replacement cost) , where the assets so valued comprise a material proportion of the relevant class; and
- subsequent indexation should not cause a change in the method of revaluation used in the last specific appraisal.

It is important that valuers (or other relevant professionals) are instructed as to the method of revaluation that applies under the circumstances (refer also to the last section of NCAP 3.6 Revaluation Methods and Frequency, and Appendix 3.3 Content Required from Valuers (or Other Relevant Professionals).

Net method

Under the net method, accumulated depreciation/amortisation as at the date of recognition of the revaluation is eliminated against the gross amount of the asset. Accumulated depreciation/amortisation then "recommences" subsequent to the date of recognition of the revaluation. Hence, as agencies are encouraged to recognise revaluations well prior to financial year end, it is expected that there will be a balance in accumulated depreciation/amortisation at year end, according to how early the revaluation was recognised. Agencies are not expected to recognise a further elimination of such a balance at year end.

Refer to NCAP Tools Illustrative Examples 5.5.1 and 5.5.2.

Gross method

Under the gross method, which is used for current replacement cost valuations, the asset's gross amount and accumulated depreciation are restated to achieve the new carrying amount. Where the asset is depreciated using a straight-line basis, the new depreciation charge determined after the revaluation should also reflect a consistent rate of depreciation throughout the entire useful life of the asset, i.e. the overall depreciation profile (or line chart) should remain a straight line.

Refer to NCAP Tools Illustrative Examples 5.5.3 to 5.5.7.

5.5.4. Investment Property

AASB 140 provides for a fair value model or a cost model to be used for valuing an investment property. **Queensland Treasury policy mandates the use of the fair value model by all not-for-profit agencies that are consolidated into the whole-of-Government financial statements** (except in the rare and exceptional circumstances where fair value is not reliably determinable on a continuing basis – refer to the section titled 'Investment Property' under NCAP 1.7 Guidance on Particular Asset Types).

However, *for-profit* statutory bodies and agencies *not consolidated* into the whole-of-Government financial statements are permitted discretion to choose either the cost or revaluation model for investment property (refer to NCAP 3.10 Specific Valuation Issues for further information about this).
Depreciation charges are not applicable in respect of these types of assets valued under the fair value model but are applicable, in accordance with the requirements of AASB 116, where the asset is measured at cost.

5.5.5. Leased assets

Lessee

Right-of-use assets of the lessee are depreciated from lease commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term. However, if the lease transfers ownership of the asset to the lessee at the end of the lease term, or if the lessee is reasonably certain to exercise a purchase option, then the right-of-use asset is depreciated over the useful life of the underlying asset.

Lessor

For operating leases, the lessor retains the assets on its books and continues to depreciate them by applying the agency's normal depreciation policy for similar assets. For finance leases, the leased asset is derecognised and depreciation no longer applies.

5.5.6. Leasehold Improvements

Where improvements are made to a leasehold property, these improvements must be allocated progressively over the unexpired portion of the lease or the useful lives of the improvements to the agency, whichever is the shorter. The unexpired period of the lease should include any options to extend the lease term when the exercise of the option is reasonably certain.

5.5.7. Amortisation of Intangible Assets

The depreciable amount of an intangible asset with a finite useful life is to be amortised on a systematic basis over the useful life of the asset.

An intangible asset with an indefinite useful life is not amortised. The term 'indefinite' does not mean 'infinite'. It is unlikely that an agency would have an intangible asset with an infinite useful life. On the other hand, an agency may well have an intangible asset which, at the time it is developed, has an indefinite useful life e.g. the intellectual property associated with a vaccine that brings a significant disease under control. Such an intangible asset would not be amortised but would be tested for impairment at each reporting period.
Similar to depreciation, amortisation is usually recognised in profit or loss but may be absorbed into the carrying amount of other assets e.g. amortisation of intangible assets used in the production process could be included in the carrying amount of inventories.

Also similar to depreciation, the amortisation method for an intangible asset with a finite life is to be reviewed at least at the end of each annual reporting period. The useful life of all intangible assets should be assessed annually (even intangibles with indefinite lives – to confirm they continue to be indefinite).

5.5.8. Heritage and Cultural Assets

Some heritage and cultural assets may have a service potential that could diminish over time and should be depreciated accordingly. Works of art, objets d'art, rare books and manuscripts, library collections, museum pieces and unique historical objects should not be depreciated if the service potential is not expected to diminish with time or use.

Where heritage and cultural assets are not depreciated, it must be demonstrated that appropriate curatorial and preservation policies are in place. These policies would typically be those developed and monitored by qualified personnel and include:

- a clearly stated objective about the holding and preservation of items;
- a well-developed plan to achieve the objective, including demonstration of how the policy will be implemented, based on advice by appropriately qualified experts;
- monitoring procedures; and
- periodic reviews.

If no depreciation is charged against such assets, the notes to the financial statements shall disclose the reason for this action.

5.5.9. Road Earthworks

In some circumstances, the service potential of road earthworks is expected to be retained due to the absence of any events that may cause physical deterioration e.g. excessive usage, flooding or land movement, and the earthworks are not expected to become obsolete in the foreseeable future. Such assets, due to their unlimited useful life, are not subject to depreciation. Where management have assessed and assigned a useful life to road earthworks, this asset is depreciated.

It is necessary for an entity to assess which of its road earthwork assets have indefinite useful lives and which have limited useful lives.
The depreciation or non-depreciation of road earthworks assets are to be reviewed at least at each reporting date to ensure that the accounting policy applied reflects the most recent assessment of the useful lives of the assets.