

For Practitioners, Policy Makers and Planners in Public Infrastructure

CHANGE AND VALUE

Do you understand 'Fair Value' - try this test!

Consider a council's water business that produces a return on assets and provides a dividend to council. If the objective is to generate income, fair value would be determined based on the net present values. However if the objective is to provide a service -and the generation of cash is a secondary (albeit important) aspect - then fair value would be determined based on replacement cost. The critical thing here is 'what is the objective?' (Hint: if it were unable to make a profit would the council dispense with the service it is providing?) David Edgerton takes you through 'fair value' valuations with his customary straight-forwardness, on pages 5-8.

But bear in mind this emphasis on 'objective' - it will become very important later as we shall see in a few weeks' time.

Change

Is all change good? Roger Byrne looks back at the way things used to be and is not so sure. See his survey of asset management practice on pp 3-4.

Editor: Dr Penny Burns

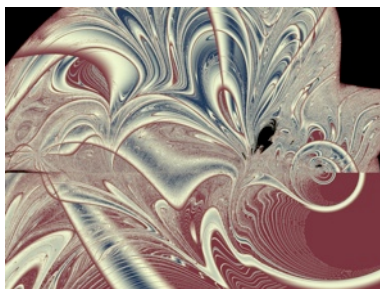
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Editorial: **The ‘Stickiness’ of Ideas**

Recently we have seen whooping cough, TB and diphtheria, diseases that we thought we had conquered, come back again. One view is that their general absence has made us complacent and so we are no longer taking the preventative steps that we need to.

I have been suspecting the might be said of asset management. Anecdotally, it seems, the bad ideas we thought we had knocked on the head years back, are again coming back into favour – idiotic ideas such as ‘free assets’ and historic cost valuations for long living infrastructure assets were not as dead as we had hoped.

It seems also that good practices we had instituted in the past have, somehow, slipped off our radar. Now an informal survey of their many clients by GHD, who have been in the asset management business from the beginning, seems to be telling the same story. Roger Byrne reports the findings of this survey in the in this issue on pages 3-4. Is it that we did not bed the ideas down firmly enough at the time? And if so, how can we do better in the future? In a later issue of SAM, he will look at how information and management tools can be better integrated.

Of course not all ideas, no matter how good we thought they were at the time, will last. Sometimes this is because, while good for some, the ideas may not have met the critical needs of *all* stake holders. Or we may have neglected to build in the capability to keep the ideas and information current. Or better ideas have since come along.

Or the asset management environment may have changed! A case in point is the adoption of ‘fair value’ by the accounting profession, in lieu of the ‘replacement value’ costing that has now been built into most of the asset management manuals. How do the new ‘fair value’ rules differ from the old, what is there to be known? I have asked Dave Edgerton to explain and he does so, beautifully, on pp 5-8, with the aid of a useful flow chart that will keep you organised.

However, in our efforts to ‘bed in’ our *current good ideas*, we need to be sure that we are not blocking out *future better ideas*. This is extremely important as we shall see in future issues when we report some of the most interesting new developments to come onto the asset management scene.

Consider and Enjoy!

Penny Burns,
Editor, Strategic Asset Management



How many of our asset management advances still stand proud and how many have sunk without a trace?

SURVEY

**ROGER BYRNE
GHD**

Background

We started by doing a survey of many of our clients to review:

- The progress they had made,
- The benefits they believed they had derived
- The issues that had contributed to improved performance in this area
- The issues that had detracted from improved performance
- Items that would assist in driving cost effective improvements in asset management.

Results of the Survey

The results of this survey were a bit of a shock to us, with the key conclusions being:

- Many clients who have rated highly on our TEAMQF quality rating (85) had dropped back losing over 75% of their gains made – to their scores pre commencing asset management e.g. (50).
- The changes that had been evident 5 years after they started were now lost and reports, continuous improvement activities were not practiced.
- Data on asset condition, performance and cost was no longer being maintained and in several organizations the data had been lost or discarded.

- Some clients believed they had derived significant benefits from the improvement that had been implemented, while other senior management teams didn't even know what we were talking about
- Clients expressed concern over their ability to decide how to set the best appropriate practice for their organization and which assets to which it should be applied.
- They felt that the processes being promoted by the industry organizations and consultants like GHD were incapable of being tailored to their specific problems and needs.
- They were unable to effectively monitor the progress they were making (or decline)
- They found the benefits difficult to quantify and although they knew it was good it didn't actually save money against existing budgets.
- They were unable to decide what was really important. What to do next. What would represent the best bang for their buck.
- They were unable to keep the council and senior management focussed on the program as it went for too long. Other issues arise and distract the senior management and councillors from what the staff see as core activities – the delivery of community services using infrastructure rich programs.

- Inadequate budget and application of resources means that most AM improvement programs never meet their timelines nor achieve their original objectives.
- Organizations that had purchased all the original AM Manuals (Australian / NZ and the IIMM) and full sets of GHD AM manuals could not find any of them. It was presumed that departing staff had taken them with them.
- No clear ISO based quality framework existed to enable organizations to fully understand where they are currently and what they need to do to improve.
- Organizations allowed most asset management activities to be completed by their consultants and never really took ownership of the results.
- Inadequate training was undertaken to raise the awareness and understanding of AM across the whole organization (all business units) and vertically down through the organization from its elected members to management and to the actual workforce carrying out the activities be they contractors or in house staff.

Conclusions Reached From Survey

The key conclusions reached by our group of clients around the world were:

- The life cycle processes of sound asset management are now becoming a science and are common world wide for similar services.
- The specific best practice techniques applicable to individual asset types are also well known (e.g. condition assessment / maintenance / valuation / rehabilitation etc.)
- The data we need and the information systems required to store and manipulate the data are meeting the life cycle asset management needs.
- We had not successfully addressed the organizational and group / individual change management issues that ensure that the processes and practices were bedded into the organization and set in concrete.
- The range of implementation success was significant ranging from minus 25% to over 200% increase thereby resulting in an equivalent range of benefits being achieved.
- The waste of effort and investment in the poor performers was considered significant (GHD view)
- The way the organization communicates this with all stakeholders especially its customers / ratepayers and the community at large.
- Difficulty in quantifying the benefits that have been derived by others and being able to apply them to their organization and more importantly convince the elected members that they are real and tangible.

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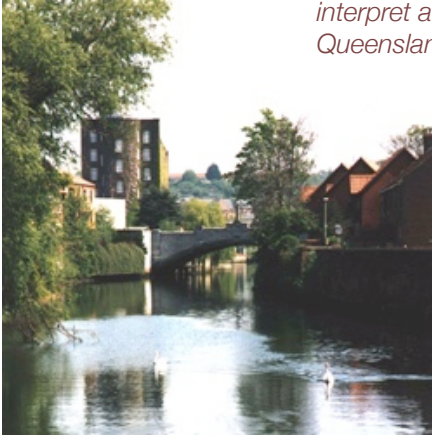
What can we do to prevent our good ideas vanishing with the tide?



The Causes of Poor Performance

The principal causes to the key problems identified were seen to be:

David Edgerton is well known in Audit and Accounting Circles for his ability both to interpret accounting legislation and practice and to innovate. Formerly with the Queensland Audit Office, he now has his own successful valuation practice, APV.



David Edgerton

Understanding **FAIR VALUE**

These notes accompany the
FAIR VALUE DECISION TREE
on page 7

1 Market Value Basis

The definition of Fair Value is “The amount for which an asset could be exchanged between knowledgeable, willing parties in an arm’s length transaction”. If there is an active and liquid market or evidence of market value, the asset is to be valued accordingly.

2 Cost of Acquisition Basis

In an active and liquid market both “amount to be realized upon sale” and “cost to acquire” would be the same. However, when there is no such market the approach is fundamentally different. Rather than estimating what you receive from sale of the asset, AASB 116 requires an estimation of **what it would cost you to acquire the assets**.

The Cost of Acquisition Basis measures what it would cost to acquire the asset **not** what you could sell it for. For example, public sector entities often acquire green space by purchasing freehold land at market value. They then rezone or place restrictions on that land that result in the land being unable to be sold or developed in the future. In this situation, the limitation on development does not reduce the service potential of the asset. Its Fair value is the estimate of **what it would cost to acquire the asset**. I.e. Market Value of freehold land with similar characteristics.

3 Asset is surplus to needs

For assets considered surplus to needs, service potential is limited to what could be generated either by sale as is or through sale or re-use of scrap material following demolition.

4 Reproduction or Modern Equivalent

Determining depreciated current replacement cost depends on whether replacement with a modern equivalent asset or reproduction is the more economical way of *replacing the asset’s service potential*. An entity’s management might choose the less economical means (due to subjective factors), in which case the intended method of replacement would *not* form the basis of estimating depreciated current replacement costs. (For example, it might decide to upgrade at the time of replacement)

However a less expensive modern equivalent need not *necessarily* be used. A solar panel powered light on top of a steel pole could replace the safety function of an old stone lighthouse, but if capturing its heritage and tourist service potential requires reproduction, this is the value that should be used. The focus is on replacement of required service potential.



5 Identify all costs to be valued

The standards require all costs to be included in the valuation. This may include a range of costs that may not be immediately apparent:-

AASB116 states that total cost includes –

- Purchase price including duties & taxes after deducting trade discounts and rebates
- Any costs directly attributable to bringing it to operation
- Initial estimates of dismantling or rehabilitation where an obligation exists

Examples include -

- Sunk Costs (originally incurred but never to be repeated. Eg making a cutting in the side of a mountain)
- Reacquisition or Reconstruction Costs (based on likely method used to reconstruct or acquire asset)
- Third Party Costs (compensation or reconstruction of assets controlled by third party. Eg relocation of a third parties infrastructure to construct a dam, reconstruction of road belonging to a third party so you can replace pipes running underneath)



When valuing pipes that run under road that would require destruction and later reconstruction of the road to undertake renewal of the pipes, it would exclude the cost to reconstruct a road *where the road was also controlled by the entity*. Alternatively, these costs would be included if the road was controlled by a third-party. In the first scenario, inclusion of the road reconstruction costs would result in double counting and internal transactions would require elimination.

Note: This highlights that neither the Greenfield or Brownfield methods are necessarily correct and do not necessarily comply with the requirements of AASB 116. These are engineering terms and are not defined or incorporated into the accounting literature. Depending upon the situation, either method may result in the exclusion of costs that should have been included or the inclusion of costs that should not have been included.

6 Split Complex Assets into Components

Where a complex asset comprises a number of separate and significant components that have different useful lives, those components must be accounted for and depreciated separately. This requirement supports the Asset Management function in that assets are managed from an Asset Management perspective at the component level.

For example, roads would generally be split into formation, pavement and seal. Buildings would normally be split into roof, envelope, wall, fit-out & services. Sunk costs, such as some types of earthworks and design costs, may form a separate component (depending upon the nature of how their service potential is consumed). Likewise, third-party costs may also need to be captured as a separate component.

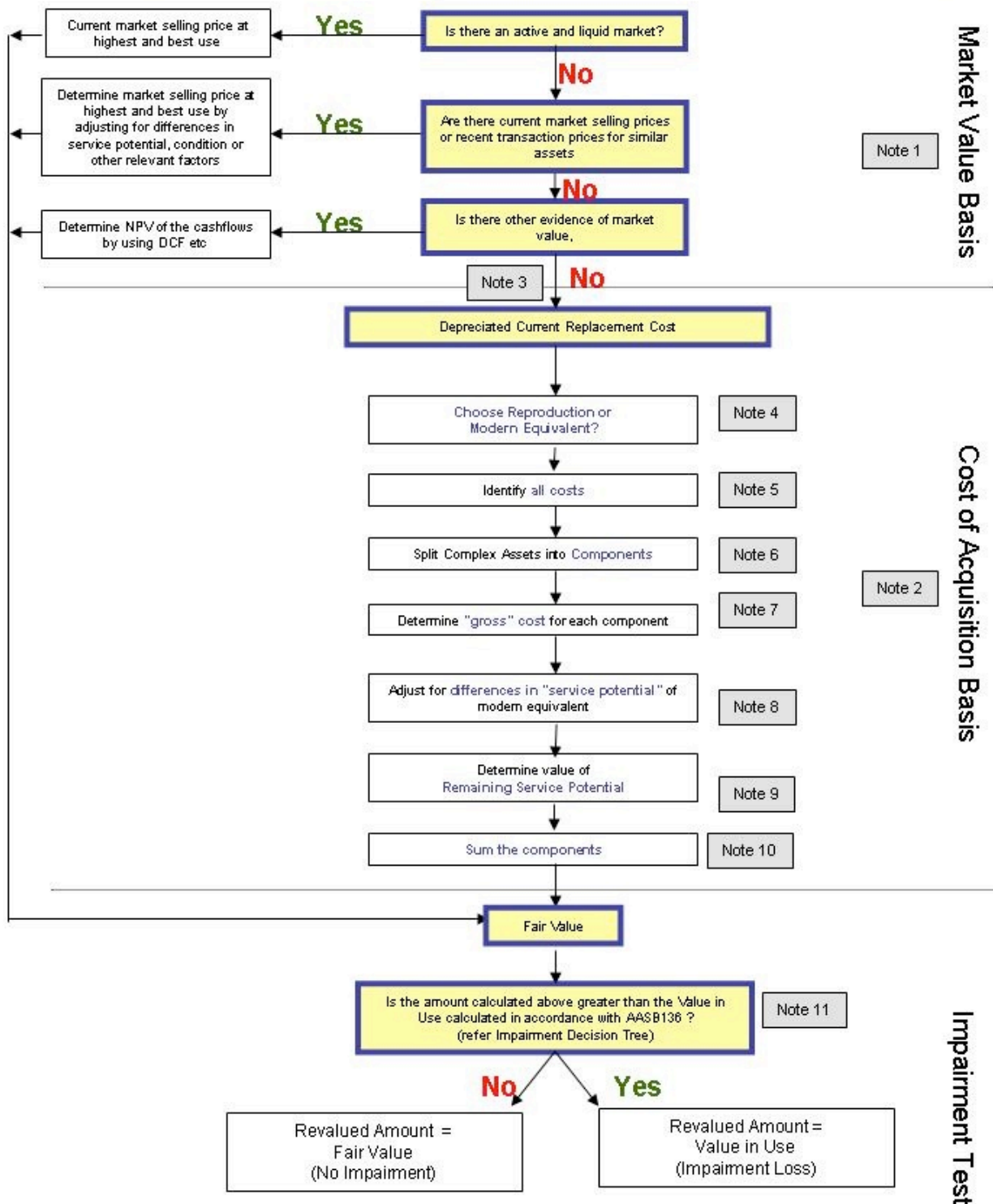
7 Determine “Gross” cost for each component

For each component, an estimate is required of what it would cost to replace or reconstruct at either reproduction or use of a modern equivalent. Sometimes this is straight forward (like for like) but may be difficult due to changing technologies or in relation to costs only incurred when the asset was originally acquired (eg. Compensation to third parties to relocate their assets).

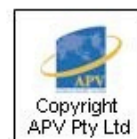
8 Adjust for differences in “service potential” of modern equivalent

With changing technology and practices, it is often the case that the “modern equivalent” is designed or constructed differently than the existing asset or has a different capacity or longer life-cycle. These differences represent differences in the total service potential of the existing asset and the modern equivalent. For example, an existing 4 metre wide road may now be replaced with a six metre wide road. While both transport cars from A to B they have different costs and deliver differing levels of service potential. The wider road may allow increased traffic speeds, aesthetics and safety. The difference in service potential between the existing asset and the modern equivalent needs to be adjusted so that the “gross cost” represents the value of the total service potential embodied in the existing asset and not what it would be replaced with.

Fair Value (AASB 116) Decision Tree



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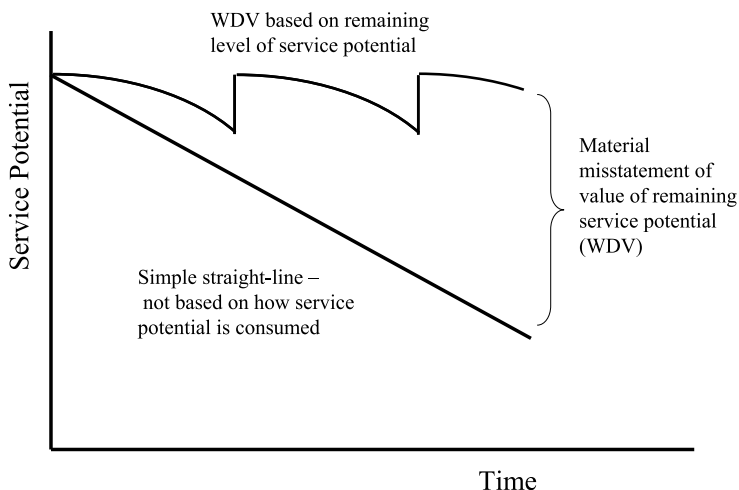
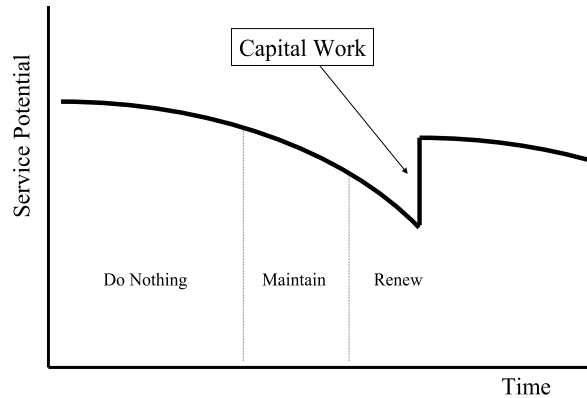


9 Determine Value of Remaining Service Potential (WDV)

Critical to this step is understanding of –

- how the assets are to be accounted for at the components level;
- the treatment of costs subsequent to initial acquisition;
- the nature of how the assets service potential is consumed; and
- the pattern in which the service potential is consumed.

Assets valued on the Current Replacement Cost basis are generally complex assets and maintained through ongoing cyclical maintenance for an indefinite period of time in order to deliver outcomes at a service level that meets the community's needs. This pattern can be represented graphically (see figure)



Simply converting the “gross” cost to WDV by the use of straight-line depreciation based on long-term and subjective assumptions may result in material error in the calculation of the WDV with corresponding material error in the calculation of Depreciation Expense. This can also be graphically represented as shown to the left.

10 Sum the Components

While the value and depreciation are calculated at the component level, these are then added together to provide the WDV for the individual asset. Future depreciation charges are to be calculated based on the pattern of consumption of the separate components and not the WDV of the total asset.

11 Comparison to Recoverable Amount (Impairment Test)

The final step in the process is to compare the Carrying Amount (Cost or Fair value) with the Recoverable Amount calculated under the Impairment Test (AASB136).

If the Carrying Amount (Cost or Fair Value) is greater than the Recoverable Amount, the Revalued Amount is deemed to be the Recoverable Amount (Impaired Value).

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