

Submission

AASB Tentative Agenda Decision: Residual Value

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About APV



What we do

APV provides specialist valuation, asset management and asset accounting services for a wide range of organisations and sectors. We enjoy close partnerships with our clients across Australia, including hundreds of local councils, state government agencies, manufacturing and transportation businesses, universities and not-for-profit organisations.

Our services include:

- Fair Value valuations: land, buildings, plant, equipment, roads, water, sewerage
- Asset accounting: valuation and depreciation methodologies, compliance reviews
- Asset management: asset management frameworks, plans and systems
- Customised training and professional development: asset accounting and asset management.

As leaders in our field, we are proud of our unblemished record of audit approval. However, uncompromising quality is simply our starting point: *we deliver more than just figures*. We tailor our services to meet client needs, helping them get the most from their assets and plan effectively for the future.

And while valuation and depreciation can be complex, we keep it simple. We're constantly evolving to offer customers more flexibility and control. We use leading methodologies and custom-built valuation tools that are compliant, comprehensive, logical and truly relevant.

Introduction

The AASB issued a Tentative Agenda Decision regarding Residual Value following their Feb 2015 meeting.

The decision has drawn significant response from a wide range of expert practitioners who believe that the board's tentative decision has been based on an extremely narrow interpretation of the standards and that given nuances of both the valuation and depreciation of public and Not-For-Profit (NFP) assets **there is room for a more broader interpretation. Such an interpretation could be validated by the inclusion of an AUS paragraph in AASB116.**

The board published the decision as a tentative decision has now sought responses from those who disagree with their tentative decision.

The AASB alert regarding the tentative decision advised -

This tentative agenda decision, including proposed reasons for not adding the items to the Board's work program, is expected to be reconsidered at the Board meeting in May 2015. Constituents who disagree with the proposed reasons, or believe that the explanations may contribute to divergent practices, are encouraged to comment to the AASB by email to standard@asb.gov.au by 20th April 2015.

This paper highlights that the paper only deals with the interpretation of Residual Value. The tentative decision does not provide any specific guidance on –

- **the determination of Fair Value or**
- **the methods used to calculate Depreciation Expense (other to highlight that the method used shall depreciate the depreciable amount over the useful life using a method that matches the expected pattern of consumption of the future economic benefits).**

This paper highlights that the range of divergent practices evolved based on determining the timing, impact and cost of those asset management treatments to enable a more accurate estimate of the level of future economic benefit consumed from year to year (pattern of consumption). In the public sector it was recognized that due to the regular renewal there was a part of the value of the asset that was preserved (not consumed) between intervention points. This has been identified by the AASB as the long-life component. However due to limitations in existing accounting systems this required a manual work around.

The work around was achieved by the entities **recording the estimated value remaining in the asset at the time of intervention as the Residual Value in the various accounting and asset management system.** This achieved a pragmatic approach to providing the best estimate of the amount of value to be consumed between the periods of last renewal and the next renewal.

As a result it is recommended that any staff papers prepared as a consequence of the decision note that it –

- **deals only with the question asked: the determination of Residual Value**
- **provides no specific guidance on determining the expected pattern of consumption of the economic benefits**
- **as such it provides no specific guidance on acceptable or unacceptable approaches to determining depreciation expense**
- **both View One and View Two should provide similar results providing there is adequate componentisation**
- **To determine depreciation expense (for assets which are subject to regular renewal) entities need to consider the most likely asset management treatments that will be applied to undertake future renewal of the existing assets**
- **Based on that, in order to determine depreciation expense, they must apply a method that matches the expected pattern of consumption of the future economic benefit. This might be achieved by -**
 - **Creating separate components for the short-life part and the long-life part and depreciate accordingly; or**
 - **Adopting other approaches that they consider will provide a better estimate of the expected pattern of consumption of the future economic benefits.**
- **All assumptions used should be supported where possible by sufficient and appropriate audit evidence or sound argument.**
- **The diagram shown as View One be enhanced to indicate that the pattern of consumption of future economic benefit may variable.**



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Background

In October 2014 a paper was submitted to the AASB questioning whether the definition of Residual Value needed to be enhanced. The argument put forward was that there were a range of practices adopted across all jurisdictions and that these practices were well accepted. It also highlighted some inconsistency of different approaches used to determine the Residual Value.

Some practitioners argue that the Residual Value must be a cash inflow whereas others argue that when an asset is renewed the existing asset is disposed and is effectively replaced with a new asset. Accordingly they argued that the value that transferred from the disposed asset into the new asset (with new useful life) represented a cost saving and could be interpreted as the Residual Value.

Another way of looking at the issue was that the Depreciable Amount represented the value that would be lost over the life of the asset. **i.e. The Residual Value represented the value that would not be lost. As a result Depreciable Amount (using an asset management approach) could be interpreted as the total value lost between the intervention points when assets were renewed and the useful life re-set.**

The AASB issued a tentative decision on 23 Feb 2015 which stated –

- There were two common views of Residual Value
 - View 1: residual value is only recognised in circumstances when an entity expects to receive consideration for an asset that is at the end of its useful life and, accordingly, would not include the cost savings from the re-use of in-situ materials; and
 - View 2: residual value includes the cost savings from the re-use of in-situ materials.
- If significant values attach to in-situ materials, and they are expected to be recycled, the materials have not reached the end of their useful lives. Accordingly, the AASB considered that a residual value would only be recognised when an entity expects to receive consideration for an asset at the end of its useful life.
- Adequate componentisation of parts of an item of property, plant and equipment, and appropriate estimation of useful lives of such parts, would result in a similar overall depreciation expense recognised under either View 1 or View 2.
- On the basis of the analysis performed and in light of the existing requirements in Australian Accounting Standards, the AASB determined that neither an Interpretation nor an amendment to a Standard was necessary. Consequently, the AASB [decided] not to add this issue to its work program.

Scope of the Decision

It is important to note that the original paper submitted to the board and the decision flowing from the October 2014 meeting was specifically related to the **determination of Residual Value**. Likewise the tentative agenda decision from the Feb 2015 meeting relates only to the determination of Residual Value.

It is critical to note that the tentative agenda decision and associated papers provide no guidance in relation to other key aspects of AASB116 as they relate to the determination of Depreciation Expense. I.e. **They do not include any discussion around the appropriateness of commonly adopted depreciation methods or deal with specific technical issues such as the expected pattern of consumption of the future economic benefit.**

Under AASB116 the purpose of determining the Residual Value is so that it can then be deducted from the value of the asset to determine the Depreciable Amount which in turn is to be depreciated over the useful life. The **objective is to determine the maximum proportion of the asset value that should be subjected to depreciation**. Based on the tentative agenda decision this would essentially equate to the complete value of the asset (unless there was some scrap value).

It is important to note that the accounting standards do not mandate the application of any particular depreciation method. Nor do they require that Residual Value necessarily needs to be included as a direct input to the algorithm used to calculate depreciation expense (such as when the output method is used). Instead AASB116 requires that when calculating depreciation expense the entity must ensure that –

- Assets are to be split into components which have a different useful life or pattern of consumption
- For each component –
 - Depreciate the depreciable amount
 - Over the useful life
 - Using a method that matches the expected pattern of consumption.

Accordingly it is important that the final decision and any educational papers provide appropriate recognition that the tentative decision relates only to the determination of Residual Value and has no direct impact on the determination of Fair Value or the method used to calculate Depreciation Expense.

Evolution of Alternative Practices

The original question raised with the board indicated common acceptance of the use of Residual Values for long lived assets subject to regular renewal. This then begs the question as to why such approaches have been accepted in the past and to some extent promoted by a range of publications including –

- Auditor-General's Reports to Parliament
- CPA Australia guidance
- IPWEA guidance

My initial reaction to the issue was that the View Two interpretation was justified if the board was willing to accept a broader interpretation than taken in the tentative decision. This is also supported to some extent by the board's statement that both approaches should result in similar results. However as the AASBs are based on the IFRS framework (which is based on private sector principles) such a broad interpretation is unlikely to ever be accepted.

Upon further reflection and discussion with a range of experts and clients I considered the evolution of these approaches. They resulted from the desire (and I would argue achievement thereof) to closer align asset accounting and asset management. I concluded that the **approaches used were designed to match the pattern of consumption and unfortunately the term Residual Value was adopted to assist in this endeavor purely for simplicity.**

Under these approaches the term 'Residual Value' was used as a simple means to describe the estimated value remaining (preserved) in the asset at the point of intervention. **The tentative agenda decision has in turn described this as the recyclable amount.**

The range of different approaches have evolved from common agreement across all professions that different asset management treatments taken at different stages of the asset lifecycle had an overall financial impact on the total cost to provide the services and maintain the service levels of the assets. **As such the overall 'loss of future economic benefit' through wear and tear and obsolescence was dependent on the impact and timing of the various asset management treatments employed to renew or relief the assets.**

In layman's terms, the impact of different asset management strategies would result in a shorter or longer useful life and therefore should result in different depreciation rates.

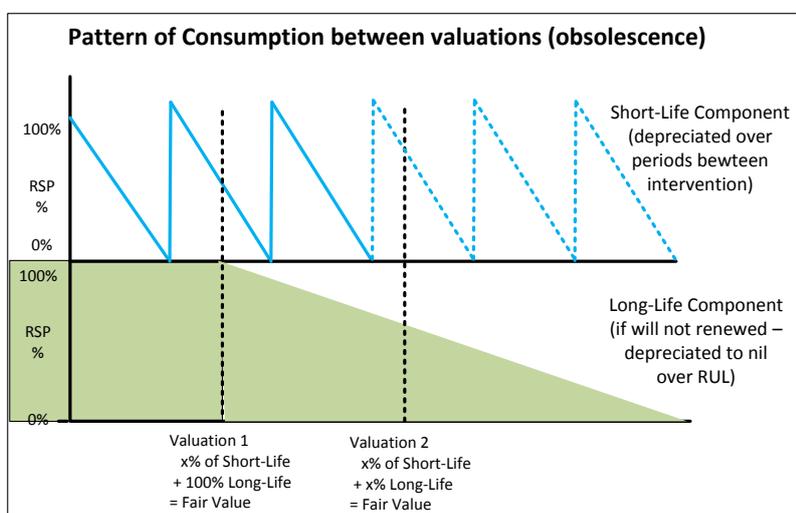
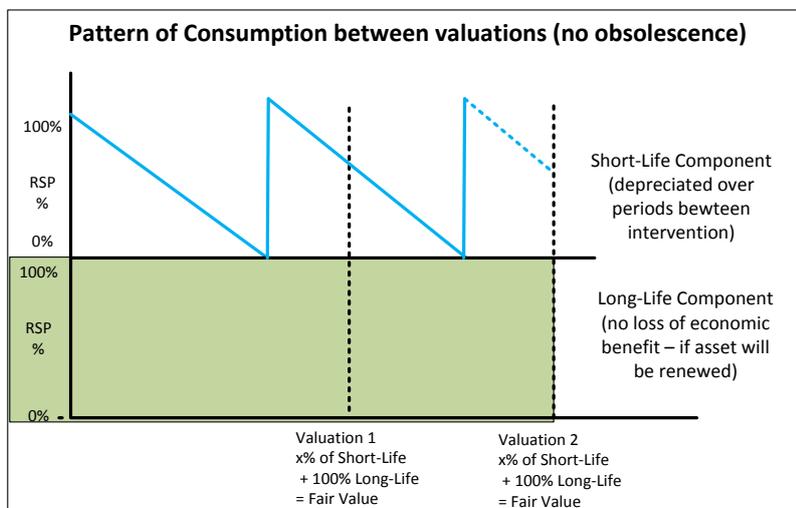
As a result a range of practices evolved based on determining the timing, impact and cost of those asset management treatments to enable a more accurate estimate of the level of future economic benefit consumed from year to year (pattern of consumption). With robust asset management the overall value of benefits provided by the assets should be extended over a longer period of time than if no or poor asset management practices were adopted. Accordingly the rate of consumption (depreciation) would alter over time based on the success of the asset management strategy.

To simplify the approaches, and in many respects to fit the capabilities of existing financial accounting systems, the approaches substitute the useful life and the period between interventions (as per View One short-life component) and estimated value remaining in the asset at the time of intervention as an estimate of the Residual Value. **This achieved a pragmatic approach to providing the best estimate of the amount of value to be consumed between the periods of last renewal and the next renewal.**

The lesson from my reflection however was that –

- these approaches evolved to provide a better estimate of the expected pattern of consumption of the future economic benefit (i.e. they deal with paragraph 60 of AASB116).
- Residual Value was only used as a term to help explain how the different asset management treatments would result in a different loss of future economic benefit and to fit within the limitations of existing financial accounting systems.
- As the analysis of the asset management approaches identified the ‘value lost’ between interventions this represented the amount to be depreciated. The balance therefore represented a non-depreciable amount. This of course was considered consistent with the concept of Residual Value.
- Calling the expected value of the recyclable part at the time of intervention ‘Residual Value’ enabled existing financial accounting systems to deal with the calculations without requiring significant system redesign.

The following diagrams shows the value of the recyclable part being ‘preserved’ on the basis that while renewal is expected to occur there is no loss of future economic benefit of this part. However in cases where renewal is not expected to occur into the future the ‘preserved value’ is reduced to the Residual Value (nil).



As a result it is important to note that the tentative agenda decision –

- **deals only with the question asked: the determination of Residual Value**
- **provides no specific guidance on determining the expected pattern of consumption of the economic benefits**
- **as such it provides no specific guidance on acceptable or unacceptable approaches to determining depreciation expense**
- **both View One and View Two should provide similar results providing there is adequate componentisation**
- **To determine depreciation expense (for assets which are subject to regular renewal) entities need to consider the most likely asset management treatments that will be applied to undertake future renewal of the existing assets**
- **Based on that, in order to determine depreciation expense, they must apply a method that matches the expected pattern of consumption of the future economic benefit. This might be achieved by -**
 - **Creating separate components for the short-life part and the long-life part and depreciate accordingly; or**
 - **Adopting other approaches that they consider will provide a better estimate of the expected pattern of consumption of the future economic benefits.**
- **All assumptions used should be supported where possible by sufficient and appropriate audit evidence or sound argument.**

Pattern of Consumption

As stated previously, the scope of the AASB paper was limited purely to the determination of Residual Value. **It did not provide any guidance on the determination of Fair Value or Depreciation Expense.** AASB116 includes a range of requirements regarding the calculation of depreciation. The staff paper prepared for the board included reference to the Residual Value and the Useful life. However it did not include any analysis of the impact on depreciation as a consequence of the need for the depreciation approach to match the expected pattern of consumption of economic benefits.

Key paragraphs of AASB116 Property, Plant and Equipment include:

43 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 shall be depreciated separately.

50 The depreciable amount of an asset shall be allocated on a systematic basis over its useful life.

51 The residual value and the useful life of an asset shall be reviewed at least at each financial year-end and, if expectations differ from previous estimates, the change(s) shall be accounted for as a change in an accounting estimate in accordance with AASB108 Accounting Policies, Changes in Accounting Estimates and Errors.

60 The depreciation method used shall reflect the pattern in which the asset's future economic benefits are expected to be consumed by the entity.

61 The depreciation method applied to an asset shall be reviewed at least at each financial year-end and, if there has been a significant change in the expected pattern of consumption of the future economic benefits embodied in the asset, the method shall be changed to reflect the changed pattern. Such a change shall be accounted for as a change in an accounting estimate in accordance with the AASB108.

Depreciation is understandably a complex issue and requires consideration of how each of the key inputs impact on the others. For example – Residual Value is defined in terms of the when you consider the asset to have reached the end of its useful life. Likewise the pattern of consumption will impact the assessment of how much and how soon the remaining service potential is consumed.

It should be noted that the Australian Accounting Standards have always required that the method of depreciation use a method that matches the pattern of consumption. However in the early days the then AAS4 Depreciation provided that it 'should' be used' but if it were too difficult or not possible to do so that the straight-line method could be used as a default because it was simple and easily understood. However this was changed in 1997 (18 years ago) and resulted in the removal of straight-line as a default and mandating that the method **MUST** match the pattern of consumption.

The pattern shown in the diagram for View One indicates a straight-line pattern with the long-life component being depreciated over a very long life. As stated previously the decision of the Feb 2015 meeting indicates that this estimated life might be longer than the operational life.

This example is however of course only one interpretation of what might occur in the future and based on a specific paradigm. It is the responsibility of the entity to determine the pattern of consumption based on the factors that drive its consumption and their experience with similar assets.

This might include assessing how much future economic benefit is lost via the adoption of different asset management strategies. This in turn should impact on the calculation of depreciation expense.

Many asset management practitioners and asset accountants recognize that the pattern of consumption of most long-lived assets is not constant (straight-line) and that it is constantly impacted by the success of the asset management framework, changes in asset management strategies, the impact of obsolescence, changes in technology and changes in community demands and expectations.

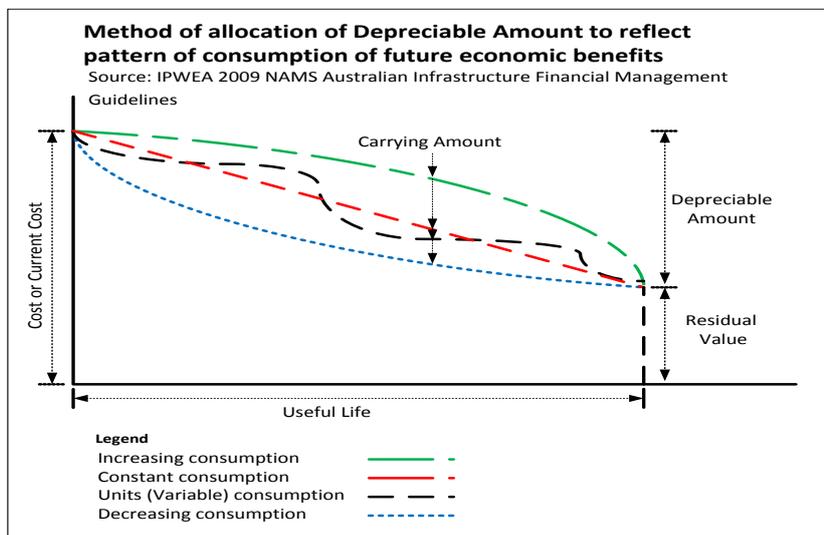
If the pattern did not change and remained constant then this would render the benefits obtained from improved asset management as a waste of time and resources. Clearly this is not the case. Changes in asset management practices and strategies result in changes in the rate of consumption of future economic benefit. In layman’s terms this could be interpreted as changes in the Useful life or RUL. This is only one reason why entities need to undertake annual reviews of the useful life, residual value and pattern of consumption.

Additionally many asset management practitioners recognize that for long-lived assets it is impossible to even remotely predict the time to decommissioning (as used as the time of disposal under View One). For example – how do you accurately predict the useful life of a dam spillway? Is it 150 years or 300 years. The difference in these assumptions will result in a 100% difference in the amount of depreciation expense. Some might argue the life of a dam may even be in excess of 1,000 years.

Both the CPA Australia guide to valuation and depreciation of public and NFP sector assets (2013) and the IPWEA Australian Infrastructure Financial Management Guidelines (2009) as well as previous Best Practice Guidelines issued by the Queensland Audit Office (1999, 2000 & 2003) have recognized that the ‘pattern of consumption’ could either be –

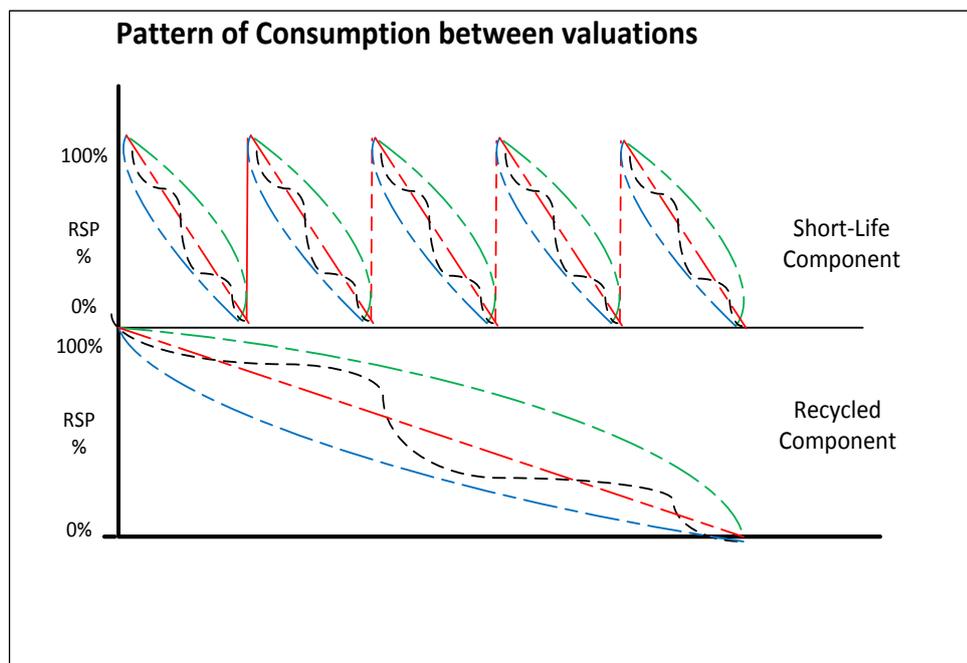
- constant
- increasing over time
- decreasing over time
- variable over time

This has been diagrammatically represented as follows –



AASB116 requires an annual review of the expected pattern of consumption. Accordingly we recommend that the board's decision reflect –

- **AASB116 requires an annual reassessment of the pattern of consumption**
- **It is the responsibility of the entity to determine the pattern of consumption for each component based on their understanding of how the assets behave the likely impact of future asset management strategies and the potential for legal and other obsolescence.**
- **That the pattern of consumption for each component may be different (as shown below).**



Conclusions and Recommendations

There are a number of potential implications flowing from whether an entity chooses to literally adopt View One as a method of depreciation or to continue to adopt existing depreciation methodologies which use an estimate of the recyclable value as in input to determining the expected pattern of consumption of the future economic benefit.

If a literal interpretation of View One is adopted most entities will need to significantly expand their asset registers to include a short-life and a long-life component for most existing components. This in turn will create significant complexities and associated costs and risks in trying to reconcile the asset management systems to the financial accounting systems.

The approach of estimating the value remaining in an asset at the expected time of renewal in order to better estimate the pattern of consumption has gained strong acceptance over the past twenty years. The key benefit of this approach is that by substituting this figure for the 'Residual Value' in accounting systems the entity is able to achieve the same outcome as View One without needing to invest significant resources, increase risk or implement significant changes to their financial systems. There is a strong belief that provides a more accurate measure of the depreciation expense as it provides closer alignment to the real pattern of consumption.

The board has already noted that both View One and View Two should achieve similar results provided there is adequate componentization.

Given this we believe there is sufficient scope within AASB116 to include an AUS paragraph which, for assets subject to regular renewal, to adopt the concepts described as View Two as an acceptable interpretation of Residual Value.

Even if the board is unwilling to adopt a broader interpretation it is recommended that any staff or educational paper note that -

- **The board's decision deals only with the question asked: the determination of Residual Value**
- **It provides no specific guidance on determining the expected pattern of consumption of the economic benefits**
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- **All assumptions used should be supported where possible by sufficient and appropriate audit evidence or sound argument.**

About the Author



Mr David Edgerton
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**Asset Accounting,
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**Bachelor of
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David is an internationally recognised leader in asset accounting and asset management. He was named the 2001 National Public Sector CPA of the Year.

Before joining APV in 2006 David worked extensively in asset accounting and asset valuation across the public sector through his roles with the Queensland Audit Office (QAO).

He completed audits of state government departments, local governments, statutory bodies and corporations. He was chair of the Audit Office's Asset Valuation Audit Advisory Group and was a key contributor to its Better Practice Guides for Non-Current Assets.

Since the early 1990s, David has devoted significant time to corporate governance, asset accounting and asset management issues. This has included being:

- CPA Australia's representative on the Australian Asset Management Collaboration Group
- Author of CPA Australia's guides to the valuation and depreciation of public sector and NFP sector assets under the international accounting standards (2013) and Australian Accounting Standards (2015)
- Convener of CPA Australia's Infrastructure Assets Discussion Group and member of the Queensland Public Sector Committee
- Contributing author of the NAMS Australian Infrastructure Financial Management Guidelines
- Author and presenter of CPA Australia's Asset Accounting and Asset Management in the Public Sector program.

David's audit and accounting background is evident in APV's quality-control process and compliance record. He is also a highly sought-after presenter, has a flair for providing practical and innovative solutions to complex problems, and enjoys fostering co-operation across a broad range of stakeholders.

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