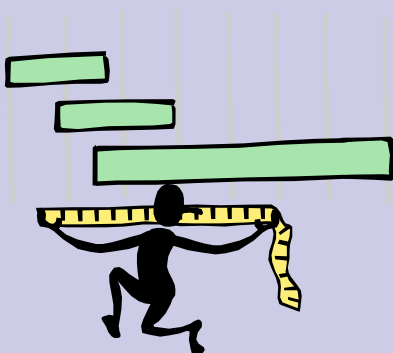


Strategic Asset Management

PERFORMANCE ASSESSMENT A NEW TOOL FROM WSAA



Check these out!	600
Brown and Caldwell Website New AMSIG website Water Asset Management Master Class	
Tools and Techniques	
1. WSAA—Performance Assessment <i>try it out!</i>	601
2. Life Cycles—the Speed of Adaptation <i>try it out!</i>	603
Observations	
Stephen Howe on Asset Management abroad	605
Communication	
Asset Management and ‘the War on Terror’	606

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A great asset management site, especially for utilities.

Brown and Caldwell, a US environmental engineering and consulting firm, and Australian utility, Hunter Water, have linked up to pursue water- and wastewater-related asset management projects throughout North America. This is their asset management site. I recommend it.

Here, just as a teaser, is the introduction to Ken Harlow's "**Assets and Allergies: (or keep those costs down, please!)**

"What a glorious thing is a utility—a vast network of pipes, pumps and plants providing the underpinnings for our entire quality of life! Small wonder that your Utility Manager's heart swells with pride when the ribbon is cut at that grand new treatment plant!

Alas, your Asset Manager has a somewhat more pessimistic, even morose, view of things. When he sees that beautiful new plant, his mind reels with numbers — and those numbers have dollar signs. He realises that not only has his utility added to its debt load, but that its entire cost structure has changed for the worse, forever.

To make a seemingly contradictory, but ultimately sensible diagnosis: Your Asset Manger is allergic to assets. But why?"

Read on at this website —I enjoyed it. It makes sense.

<http://www.bcwaternews.com/AssetMgt/>

AMSIG, the Asset Management Special Interest Group of the **Australian Water Association** now has its own website. You will find copies of past presentations and future programs.

<http://www.awa.asn.au/NSIG/amsig/index.asp>

And Be Quick for this one:

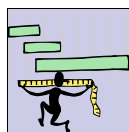
**Australian Water Association
Water Industry Master Classes 2003 Series**

Executive Focus: Strategy and Savings

Day 1 explains the principles of strategic asset management and provides the framework to allow an organisation to balance its financial, service, environmental and technical objectives.

Day 2 looks at where costs are greatest in the water and wastewater industry, identifies where savings can be achieved and how.

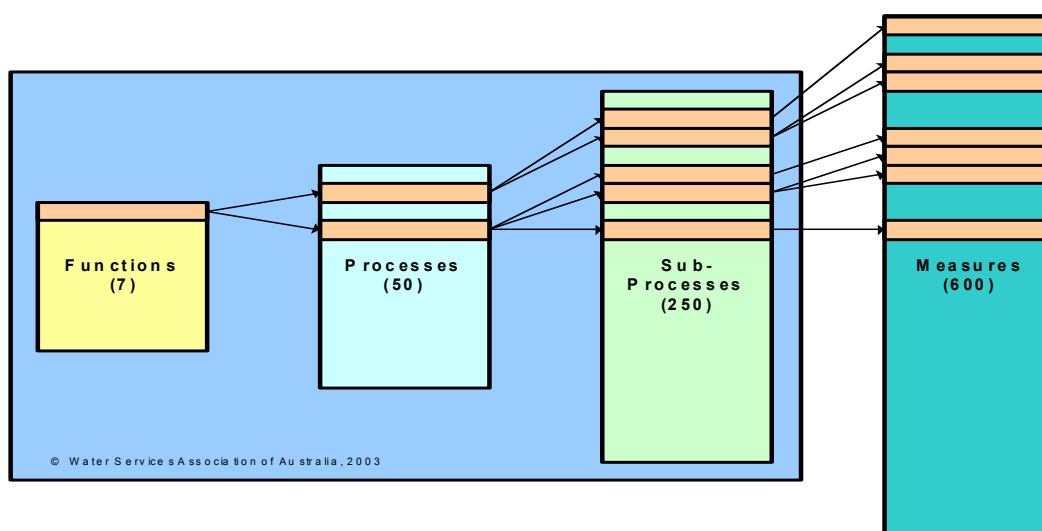
Full details of the course which runs on **11-12 November** at Suite 2, 44 Hampdon Road, Artamon, NSW 2064, can be found by emailing Chris Adam, one of the key presenters, at **cadam@cardno.com.au**



PERFORMANCE ASSESSMENT A NEW TOOL FROM WSAA

Andrew Foley, Director Industry Services, WSAA

The Water Services Association of Australia (WSAA) has developed a framework that enables both self-assessment and benchmarking of asset management. The framework assesses key processes of Asset Management across 600 plus measures. The measures are then combined into seven key asset management functions.



The assessment of processes determines whether the utility has implemented the necessary elements that facilitate sound decision making and support sustainable service provision. This is different to previous models that have focussed on output ratios to measure asset management.

The framework also differs from other models as it does not aim to provide a single metric score for asset management. Instead, the framework focuses on determining the asset management profile of a business. The business can then assess the drivers of this profile and determine whether it is suitable for the business.

For example: If a utility is faced with a declining population, it may be appropriate to have relatively low scores for 'planning and acquisition' since this is not a major driver. On the other hand, it should be aiming to have relatively high scores for 'replacement and rehabilitation'.

Apologies!

- Last issue was # 125 (not #124 as indicated on the cover)
- Somehow we skipped ten pages, so if you are looking for pp 581 to 590, you can stop, they don't exist!
- And WSSA, of course, is WSAA—the Water Services Association of Australia. (sorry, WSAA!)

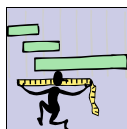
Last Friday week was obviously more hectic than I realised!

The framework is not sensitive to utility scale or scope enabling it to be used as a benchmarking tool without the need for normalisation. Further, the framework does not set out to adjust metrics based on differing operating constraints. For example, if a utility is politically constrained from bundling projects and seeking economies of scale, the asset acquisition function is not adjusted for this. Instead the metric will reflect a lower outcome with the improvement to be made by removal of the constraint. The stakeholders can then undertake an informed cost-benefit analysis for improvement.

An additional emphasis of the framework is its transparency.* As there will be no “black boxes” the utility can quickly drill down to identify and prioritise where the greatest opportunity for improving asset management exist. One of the frameworks most valuable uses will then be as a tool to review business improvements in asset management over time.

* Ed: Its transparency also commends it as a tool for regulators to be able to assess, and for utilities to be able to demonstrate, sound practice. Andrew tells me that it takes about four person weeks to do the complete assessment. WSAA are training and accrediting industry consultants who may be called in either to do the whole job, or simply to verify the in-house results. This results in a higher level of confidence in the figures. There are three levels of confidence— Level 1: in-house only; Level 2: consultant assessed; Level 3: accredited consultant assessed. The WSAA model is already being applied in the United States where it has attracted the interest of the Environmental Protection Agency (EPA), and it is also attracting attention in New Zealand and the UK.

Further information on the Asset Management Assessment Framework can be obtained by contacting **Andrew Foley**, Project Director, WSAA email: andrew.foley@wsaa.asn.au



Try it yourself!

Example This will give you an idea of the detail and depth of the descriptions for each of the measures that together sum to a profile of your agency.

Function 4 – Asset Operation

Process 4.1 – Business Objective Knowledge

Sub-process 4.1.2 – Communication of Business Objectives

Measure 4.1.2.2 – “The agency defines and communicates business objectives.”

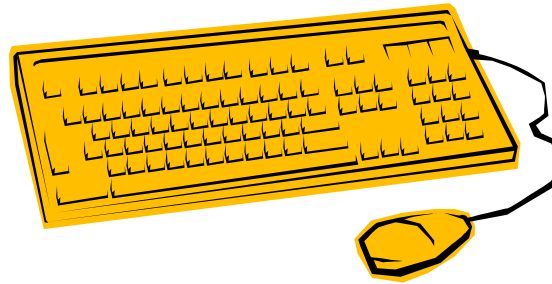
Intent: To ensure that the business objective is documented and communicated to all who need to know and understand its requirements.

Example Scenario: The agency has an operational constraint that any planned outage of water supply expected to exceed 2 hours shall be communicated to all affected customers one week prior to the interruption. Operators responsible for isolating a water supply zone know the relevant parts of the business plan or operating licence so as to properly plan a shutdown.

Typical Questions:

- Have any of you seen the agency business objectives documented?
- Do you have a copy you can show me?
- Who in the agency is responsible for making sure you receive a copy of the business plan or business objectives?

**Life Cycle Analysis:
Will computer keyboards become
obsolete within the next ten years?
Or within the next 3?**



The other night I had a long debate with a friend of mine who runs an accounting office. He had argued that voice would replace keyboards. "Not any time soon", I responded. "Not so", he said, "within the next 5 years – no, within the next 3 years!" "In my business", he explained, "time is money. I am always looking for ways to reduce costs whilst increasing service. And I can certainly talk faster than I can type!"

Well, of course, the computer technology that will make this possible is already available. This is invention. What my friend was talking about was the speed of adoption for the new invention.

We were on for a \$20 bet, so I pressed by friend to tell me what it was that I should be able to see in his office, Oct 2nd 2006, that would enable us to know who had won the bet. Would one keyboard less computer constitute a win for him, or did, say, the majority of his computers need to be changed to the new technology by this date for the bet to be won? Or all of them?

This is the crux of the problem in forecasting 'functional lives' for life cycle costing models because technical changes generally need to be 'phased in'.

"Well", he said, "it will depend on how expensive they are when they become generally available. Also I turn my machines over every 4 years, some will then be almost brand new and I can't afford to scrap everything at once!"

"And", I suggested, "I guess your staff will need to be trained to use the new dictation technology". "Well, yes", he replied, "But for those who are not keyboard literate, learning to speak to the machine has to be simpler than learning a keyboard!"

Earlier he had told me how much he relied on a group of women in the 35-45 year age range who were excellent and dedicated workers. These workers are all keyboard literate, indeed highly so! It is likely that they would resist conversion to the new technology because it would make their skills obsolete. So worker resistance would need to be factored in to the life cycle assessment.

In making my bet, I was guessing that the cost parameters of the new technology itself, plus staff training and overcoming staff resistance, would take more than 3 years. (I would suspect that his 'core' worker group, the 35-45 year age range, would prefer not to adopt the new technology at all! Younger members of the company, who have not already learnt the old skills would likely be more willing. So one of the factors in determining the life cycle of existing technology could be *the rate at which the company was growing*.

Here I am dealing with just one individual accounting office and that makes the predictions harder. If I were to consider all accounting officers, I could work on the basis of probabilities. Some 'leading edge' offices, like my friend's, would be in the 'early adopters', others would wait a while, while some would be brought into the new millennium, as they say, 'kicking and screaming'.

This means that in predicting functional lives of assets, we need to predict not only the earliest adopters but also the speed of adoption. Existing technology could start to be phased out as early as three years, perhaps, but when would it be complete?

When assessing future economic lives, one thing that we can be sure about, is that "the future will not be the same as the past", so the life span of assets that we are now disposing of, may not be much of a guide to the future.

The economic lives that you use for your assets will determine your future planning – for both new and renewal assets, and your funding policies.

Try it out!

You may like to consider how long the assets for which you are responsible will be functionally relevant. (Note: this is very different from saying how long they will physically last).

Some of the things you need to take into account are:

- The rate of change of technology and the benefits of the new technology
- The rate of change of demands on the assets
- The flexibility or inflexibility of the assets (that will determine how amenable they are to modification rather than complete replacement)
- And this, in turn, is often a function of - design, construction technique, and location

Or, try your hand at the economic lives survey template that you will find at www.amqi.com in "Tools and Templates" on the "Resources" page.

In the next issue:

The results of the functional lives survey which was published in "Strategic Asset Management" in Issue 118 (July 11 2003)

Stephen Howe on Asset Management Abroad

—“Risk-Based Prioritisation of Works Programs”

Stephen reports on his 2003 overseas study tour results. This is section 5 of his report. The full report can be accessed at the Municipal Engineering Foundation of Victoria site at http://mefvic.org.au/reports/03_HoweS.doc

If you have any observations to share as the result of your overseas travels, please write sam@amqi.com

“It is apparent from the sites visited on the study tour that most overseas public works organisations have yet to develop advanced, explicit risk –based methods of prioritising works programs, in drains, paths or even other asset types. Even where there has been substantial financial or staff resource capacity, a high legal claims/cost history or centrally imposed and regulated management and reporting regimes, the approaches used have generally only applied risk management methodologies in an implicit manner, via template-based hierarchies of inspection and reactive maintenance response.

In the United Kingdom, this phenomenon has probably been due to the imposition of the national Performance Indicators for all municipal organisations, and corresponding Code of Practice for Maintenance Management (Ref.13) used to assist in managing road reserve assets (the recent version of which replaced an earlier version published in 1989). The implementation of the hierarchy-based approaches arising from these influences have perhaps allowed the U.K. authorities to “relax” a little and not progress into advanced asset management/decision support techniques such as “intentional” or explicit risk-based prioritisation.

In Canada and the U.S.A., the reasons for a lack of application of the techniques seen in Australia would appear to be a combination of a lack of awareness (minor factor) and distraction on other priorities. Whatever the reason, the nett result is that some organisations in Australia seem to be ahead of the U.K., U.S.A. and Canada in the area of *advanced* asset management, though the existence of the template hierarchical approaches to inspection and reactive maintenance in the U.K. and associated reporting of key performance indicators would put the typical U.K. municipality ahead of the typical Victorian Council in relation to managing footpaths at least.

With regard to drains, the asset ownership/responsibility structures in the U.K. mean that municipalities have a much smaller, less complex asset base to manage than Victorian Councils, and in North America, the fact that most stormwater drains are also combined sewers has added both a commercial impetus and a unique difference – renewal issues and management strategies/techniques tend to be related to the wastewater issues rather than the stormwater issues. With the exception of the City of Jefferson, Missouri, there was nothing observed on the study tour that approached a risk-based approach to works planning, and even that example was one where the developed approach was assisted by the twin drivers of recent catastrophic floods and significant consultant input.”

Asset Management and the War on Terror



Now may not be a good time to sell the message of impending asset doom to your constituency.

With war, terrorism, and economic misery dominating the front pages of newspapers and occupying a large proportion of the 6 o'clock news, social commentator, Hugh Mackay (author of the Mackay Report) suggests that Australians are “tuning out” and “insulating themselves from the bad news and from the ravages of social and economic change by turning their focus inward and concentrating very heavily on their backyard, their own family, street and suburb”.

In other words, your scare story may make the headlines, but it won't necessarily win the hearts and minds, *or even get the attention*, of your stakeholders!

At this time, a better approach could be to promote positive stories of what can be done, pitched at the small scale, local level.