Issue 145, July 23 , 2004

Strategic Asset Management

AMQ International

Are you a GOOD ASSET MANAGEMENT ORGANISATION?

How do you know?

Join our International Panel of Experts as they discuss this issue in the
www.amqi.com/forums

Discussion has already started, read and comment

The Panel has been drawn from the water industry which was one of the earliest to develop sound asset management approaches in Australia, New Zealand and the UK, and is in the lead now in the USA.

However, the forum is open to everybody—water industry or not—for the principles of good asset management generalise fairly easily. The Panel will ensure that there is continuing activity in the forum so bookmark it now and visit often over the next 6 weeks or so and contribute. (You will need to join the Virtual Asset Management Community to post your ideas, but membership is free.) To get the mental juices flowing, see our lead article by **Ken Harlow of Brown and Caldwell.**

Contents

Researched and written by Dr Penny Burns, AMQ International.
Published fortnightly. Subscription, Comment, or Inquiries to

AMQ International
PO Box 75 Salisbury South Australia
Tel 618 8281 5795
Email: sam@amqi.com Website: www.amqi.com

Ken Harlow, Brown and Caldwell (USA)

What statements could you make if you were a good asset management organisation? Ken Harlow, one of our Panel of International Specialists for the Current Forum, presents the following to 'kick-off' the discussion on ***www.amqi.com/forums***

Why not join Ken and the other panellists and contribute your ideas on this important topic?

We are an Asset Management Organization

We are dedicated to understanding our customers' expectations of us and to providing the levels of service that our customers find of value.

Policy

Our Board provides leadership by setting clear service level policies and by funding our operations to meet these service levels while assuring the long-term sustainability of our infrastructure. Our Board requires full life cycle analysis to support major asset expenditures and zero-based budgeting for normal operations.

We support our Board through superior knowledge of the costs and associated risks of all asset decisions required to achieve mandated service levels.

Asset Management Program

Our management shares a common vision of asset management and communicates it clearly with staff. This vision is customer- and asset-centric. Management strives to understand our customers' perception of our services on a value basis and communicates its understanding with the Board so that it can formulate sound service level policies.

By sharing whole of life asset management across our organization, we have broken down the barriers among functional units. Asset management is reflected in our organization by defined roles and responsibilities. Quality is ensured because all of our key business processes arise from planning, and our performance against plans is measured and the plans constantly improved. Our Strategic Asset Management Plan, governing business process planning, is integrated into our corporate business planning and is subject to the same improvement cycle.

We know the benefits we expect from AM and we measure the benefits achieved along with their costs. We measure our performance against planned service levels and costs at high levels (visible to customers and regulators) and at lower levels (supporting performance indicators). Both plans

Asset Management Support

We know our assets. More importantly, we know what it is we need to know, and we strive for better asset knowledge in all areas where it makes business sense.

Our assets are identified at a consistent level of detail and organized hierarchically to support cost of ownership rollups and criticality analysis. Assets are also assigned to classes to support comparative economic analyses and the improvement of asset class knowledge.

We know our exposure to risk at both facility and asset levels so that we can make optimal economic decisions on maintenance, condition monitoring, repair, rehabilitation, and replacement.

Part of our asset knowledge is the cost of ownership of our assets. We know what it costs to own our assets now, what it will cost in the future, and why. We plan for costs of ownership on a forward-looking basis and manage actual costs against those plans. Cost of ownership planning begins with asset conception and continues through the entire life cycle.

Asset Development

We are extremely cautious in capital spending because we know that new facilities impact our capital and O&M budgets on a continuing basis. All proposed projects are scrutinized carefully to ensure that the investment is the right one for our customers and at the right time. Projects are subject to repeated examination that involves revisiting the needs for the project as well as all reasonable alternatives to meet those needs. Decisions to move ahead, modify, defer, or cancel projects are based primarily on economics including risk costs.

When we do move ahead with a project, we consider all legal means of procurement. We involve O&M personnel early on in design to assure a maintainable and operable facility. We require asset enumeration in accord with our hierarchy during design and construction, so that the facility will be delivered accompanied by a database of asset knowledge. We also plan for life cycle costs of ownership based on detailed knowledge of likely costs for maintenance, condition monitoring, reinvestment, and other resource requirements.

Asset Operations and Maintenance

We maintain our assets for appropriate reliability. We know which assets must not be allowed to fail as well as the reliability requirements for all other assets. We monitor asset condition or use predictive maintenance wherever it makes economic sense.

We record all O&M activities in a carefully structured way along with the costs of those activities, so that we build histories of ownership costs. By careful and structured record keeping and the use of our own in-house “expert panels,” we know the expected failure rates (and costs) for critical assets, and we know how maintenance practices and frequencies are likely to impact failure rates. By using this knowledge, we continually optimize our maintenance program to direct our resources precisely to where they’re needed and away from where they’re not.

Asset Rehabilitation and Replacement

We determine the timing of reinvestment in existing assets through analyses of economics and risk and plan for reinvestment well in advance. We see asset replacement as a major opportunity for

savings because we subject all replacement projects to the same level of scrutiny as new projects.

We learn from reinvestment and update our asset plans and asset class plans accordingly. All reinvestments, be they replacements, refurbishments, or betterments, are communicated to Finance so that our financial reporting remains accurate.

Asset Funding

We forecast capital needs for thirty or more years. Our forecasts include capital needs for expansion, upgrades, and reinvestments. We know our near-term capital needs in detail and longer-term needs more generally. In particular, we forecast long-term reinvestment needs based on our individual asset plans. When future reinvestment needs are not constant, we recommend prudent reserves to avoid unnecessary debt issuance or unstable rates.

We share our forecasts with our Board and recommend funding methods in order to support formulation of informed funding policies.

Asset Financial Reporting

The asset database that supports our financial reporting is identical to or synchronized with other asset databases supporting planning, engineering, and maintenance. It accurately reflects the assets we own and is updated to reflect additions, refurbishments, betterments, and replacements.

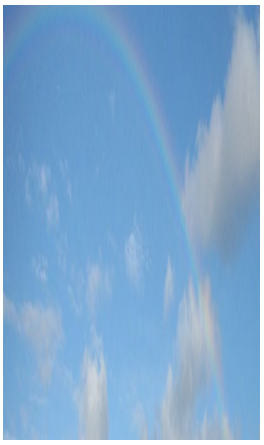
We report on the condition of our infrastructure in our audited financial statements, along with forecasted future financial needs to sustain it and our associated funding plans.

General

We provide service as if we were the customer. We spend our customers' money as if it were our own.

The International Asset Management Panel for this Forum

- **Chris Adam**, Cardno-MBK, Leader of the Special Interest Group in Asset Management for the Australian Water Association **(Australia)**
- **Steve Albee**, US Environmental Protection Agency's Office of Wastewater Management **(USA)**
- **Roger Byrne**, GHD, (**Australian**, but currently based in USA)
- **Patrick Campbell**, Asset Manager with 3 Valleys Water **(UK)**
- **Andrew Foley**, Water Supply Association Australia **(Australia)**
- **Ken Harlow**, Brown and Caldwell. **(USA)**
- **Debra Olney**, MWH **(New Zealand)**
- **Duncan Rose**, Parsons Ltd **(USA)**
- **Will Williams**, Water Resources Commission **(UK)**



Your Call

(Where issues are raised that would benefit from a wider community input – and *YOU* are invited to take part)

"Those who cannot remember the past are condemned to repeat it"*

George Santayana, Life of Reason,
Reason in Common Sense, Scribner's, 1905.

With our national paper running a series of 40-year retrospectives to mark its anniversary, I have cast my mind back to issues that used to be on every conference agenda. Why is it that some topics that were once hotly debated seem now to have faded into obscurity? Were they resolved? Did our world change to make them irrelevant? Were they just 'too hard'?

This is not just an idle inquiry. As a new generation of practitioners take up the asset management task, and as countries overseas seek to use Australia and New Zealand as a guide to what may happen as they set foot on the asset management path, there is every chance that these issues may surface once again. Maybe this will be beneficial and we will look afresh at an issue and solve it, or it may be a waste of time, if a solution has already been found or if half-remembered obstacles block new lines of development.

Your Call invites you to submit questions and answers. If you know the answer to today's riddle, please tell us.
If there are other issues that used to bedevil you but have now vanished off the radar and you don't know why, please tell us and we will try to find an answer..
Write **info@amqi.com**

And to lead off, here is my query:

Have CSOs gone the way of UFOs - unresolved but no longer discussed?

In the late 1980s, early 1990s, there was a lot of interest in what constituted a CSO (A Community Service Obligation) – and how to measure it. The issue arose in the context of the commercialisation and privatisation of government businesses, such as telecom (and, later, other areas such as water) and came down to this:

PTO →

* Sound familiar? William L Shirer made these words the epigraph for his "Rise and Fall of the Third Reich"

The Bureau of Transport and Communication Economics **defined a CSO** as

> **"a government requirement to provide products or services to community groups at a price less than the cost of supplying them"**

What was all the fuss about?

If, as a commercial business, the newly commercialised/privatised government business is expected to recover its costs of operations (and a commercial dividend) from its customers, what was the government's ongoing role in paying the costs of those unprofitable services that it wished the agency to continue?

The basis for Conflict

Naturally enough, the government wished to limit its costs with respect to the new agencies, and the new agencies wanted to maximise the revenue take from the government, so there was a basis for conflict. This conflict surfaced in two ways: what exactly constituted a CSO, and how was it to be measured or valued.

What constituted a CSO?

Let us take Telecom as an example. The BTCE (Bureau of Transport and Communication Economics) identified the following Telecom services as CSOs:

- Unprofitable standard telephony services;
- Unprofitable public telephone services;
- Services provided at concessional rates to disabled customers.

(in other words, explicit subsidies)

Telecom claimed some other activities were CSOs, including:

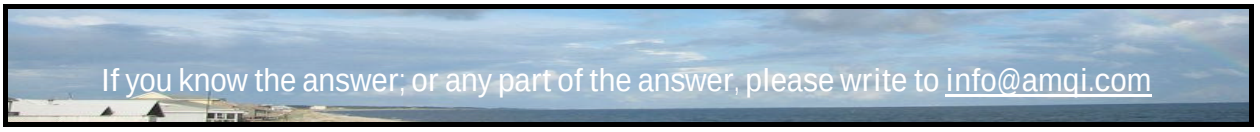
- Provision of national infrastructure (redundancy capital and route diversity)
- Support for the Australian telecommunications industry through 'buy Australian' policies; and
- Consumer protection through regulation of standards of equipment connecting into the network.

(in other words, not-so-explicit subsidies)

How was a CSO to be valued?

There were also differences in the way in which the activities were valued. There was a lot of debate on this but what it came down to was that the regulators such as the BTCE wanted to count just the marginal cost of providing the services and the agencies wanted to count the average cost (including a profit margin). To my mind the agencies had the right of it – the Government was acting as a customer in requesting these non-profitable services be provided, and since other customers were now being charged full commercial rates, why shouldn't it?

My question now is: Has the government gradually dropped the whole idea of paying for CSOs? If so, what impact has this had on service quality and asset management? If not, have the costs kept pace with changing prices, what is the procedure, and again what impact has this had on services and asset management?



Is Funding an Asset Management Issue?

The Allen Consulting Group prepared a report in August 2003 for the Property Council of Australia entitled "Funding Urban Public Infrastructure: Approaches Compared" The focus of the comparison was the impact of funding source on State Gross Product and estimated employment over the next 15 years.

The funding sources considered were:

- Government debt
- Special Purpose Vehicles (SPVs) (variants of PPP/PFI contracts)
- Residential rates
- State [and Federal] taxes
- User charges

Missing from the analysis was any recognition that the choice of funding source impacts the nature of the asset task undertaken—and thus the life cycle cost.. In actuality…

The source of funding has a major bearing on

- **What is done (renewal, upgrade, expansion**

Private venture capital favours upgrade and expansion. The Allen Report for the Property Council states that Australian governments are facing two key challenges: meeting an increasing need for new and upgraded infrastructure and how to pay for the needed infrastructure" - the whole issue of funding renewal of existing infrastructure is thus neatly by-passed!

Federal government grants (funded from government debt or federal taxes) often favour 'showy' projects (where signs can be erected announcing that the Federal Government has funded the work) over less visible projects (but ones that may yield greater overall benefit.)

- **Where it is done**

Government funding tends to favour sites that it already owns; private funding favours green fields sites because of ease of operation and access, and greater control. Private funding (depending on the nature of the contract) may also favour locations that support commercial interests over social interests.

- **The quality of construction and resultant service life**

Councils have voiced concern over the shorter service lives that seem to arise from developer funded and constructed works. Because the new constructions are handed over to the council for ongoing maintenance, there is less incentive for low maintenance to be built into the construction. The same issue has also been raised with respect to BOOT projects, where the asset reverts to government control after about 20 or 30 years.

A state water authority observed that developer laid small reticulation pipes began to require attention as early as 40 years, when previously a 80 year life had been anticipated.

- **Maintainability**

Where maintenance is the long term responsibility of the constructor, there is likely to be more attention paid to the impact of siting, construction technique and materials used on overall maintainability. Construct and maintain contracts may thus favour maintainability.

- **Integration within portfolio management**

Often the greatest casualty in the drive for more funds is that access to funding becomes more important than overall balance in portfolio management. Assets may tend to be treated as 'stand alone' additions. Even worse, the maintenance requirements of these assets may drain the budgets that are supporting the rest of the asset portfolio.

- **Asset information**

This is the vexed question of information provided on hand-over, a difficulty with any form of funding, but maybe more difficult with some.

- **Forward planning ability**

The great advantage of debt funding is the ability to plan and have some control over the planning of the asset portfolio. This is often thrown into confusion by governments – both state and local – taking up opportunistic offers from the private sector that may be outside the parameters of corporate policy but 'well, any funding is better than none, right?"

These are just a few of the impacts on asset management - there are many more.

Yet, for many agencies, the decision on funding source does not involve Asset Managers

Perhaps it should? I have opened a discussion forum on Sources and Funding and the Asset Management Decision on the www.amqi.com website (just go to Discussions)

Please add your experience of how the funding source has affected the decisions made by your agency. (Don't name your agency, just describe it in a general fashion, ie "small rural council", "urban water authority" or whatever.) If Asset Managers are to have a strategic input into what is a very strategic asset management decision, the more they know to watch out for the better.