

Making your Asset Management Plan Dynamic: Part 1

- Most Asset Management Plans start with great enthusiasm and commitment
- Some continue to grow and develop and maintain the initial enthusiasm and support
- Many die in some dusty corner with the spiders

In this issue

We look at **what is involved** in making your Asset Management Plan **grow with your organization** – making it **DYNAMIC**

The Virtual Asset Management Community's Leadership Recognition

Our current leader is: **CHRIS ADAM, Cardno MBK, Qld**

Chris has 210 credits and is the first member to reach RED TWO rank

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| ▪ Convening the Community's first city chapter | 100 |
| ▪ Articles, links, tools & templates provided | 60 |
| ▪ Postings to the Discussion Forum | 50 |

Norm Eason, Stephen Howe, Ron Riegel-Huth and **David Grugeon** have reached RED ONE rank. Rankings are based on member's contribution to the Community.

Demonstrate your interest in asset management, your community spirit and your ability - see the Community Leader Program at www.amqi.com

*Researched and written by Dr Penny Burns, AMQ International.
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AMQ Intenational
PO Box 75 Salisbury South Australia
Tel: 618 8281 5795

Email: sam@amqi.com Website: www.amqi.com

Why does the enthusiasm flag?

Activity creates adrenalin in organisations but the initial excitement that is ignited may not be sustainable if:

Expectations are not met

Top management are initially supportive of asset management plans and planning *because they think that they will get useful information to support their management and planning decisions.*

But what they end up getting can be less than encouraging—instead of tools to help them find better, more cost effective, more innovative and value-adding ways of doing business, *frequently what they see coming out of the AMP process are constraints!*

The *most common output from an AMP process is a list of new or renewal capital works or maintenance activities.* Almost invariably, the total budget demands are greater than previously expended. (In fact, demonstration of this 'need' is often the reason for the enthusiasm of the asset management staff themselves. This can be a case where the expectations of the AM team are NOT the same as the expectations of Management.)

What management wants is a way of improving outcomes within a budget constraint. What they get are simply more budget demands. Seen from their angle, the AMP may be a failure!

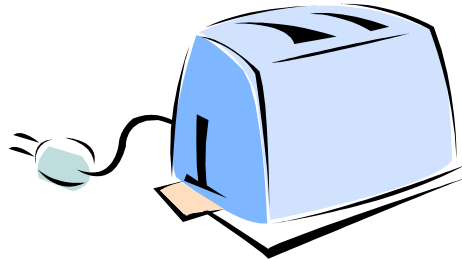
Improvements are not ongoing

The **first plan** is qualitatively different from those that should follow. The **first plan** brings 'order out of chaos'. It codifies existing knowledge and provides a framework for understanding. It sets out the current aspirations of the organisation and current plans for achieving those aspirations.

So far, so good. But this is only a foundation, to be built upon. If no structure is erected on this foundation, the asset management process in effect stops. The asset management plan is static.

And a static plan is, in effect, a broken plan. See next.

Asset Management Plans and the *Broken Toaster*



There you are with your broken toaster but all the innards are sealed away, inaccessible to a screw-driver, so what are you going to do? Given the expense of a repairman, the only realistic option is to replace.

We often feel pretty much like this when faced with a non-functioning AMP. **Where do you get in to fix it?** And the solution is usually the same, too – **Re-do!**

Now with a toaster it is pretty easy to see whether it is working or not – the bread stays down cold, white and limp instead of popping up warm, brown and crusty. Diagnosis is easy – but fixing the problem is hard.

With the AMP, the diagnosis CAN be just as easy – if you know what to look for! And in many cases, it CAN be repaired. In the next issue (SAM # 113) we will show you just how to 'get in and tinker with the innards'.

But first, let us attend to the diagnosis:

Is your AMP 'broken' (or does it just need a shake?)

Here are the clues:

- Top management does not accept the outputs of the AMP as justifying funding
- It is not central to top level decision making
- There was high initial confidence but that was followed by rapid decline and, to all intents, abandonment
- **No one uses it!** (Except the asset management team, maybe, in a forlorn hope that the programs it forecasts will actually be funded.)

The Characteristics of a Static (unused, broken) Plan are:

- It was probably prepared 'bottom up' – with lots of operational detail but little strategic justification or tactical analysis
- It has a tendency to 'gold plate' – the motivation, after all, was often to document the need for more funding!
- There is no provision for updating data or assumptions
- There is no integration with the organisation's business

A well functioning Dynamic AMP on the other hand

- Has many users
- Is fundamental to top level decision making
- Is trusted and well resourced

And its characteristics?

- Both bottom up AND top down in nature, takes a corporate viewpoint
- Is continually being improved and enjoys the confidence of the organization
- Incorporates sensitivity analysis and scenario modelling
- **Answers many questions and has many users** (strategic, tactical and operational)

The Key to Success is

The number of users! And the uses to which they put the plan.

The more questions that the AMP can answer, the more users it will have and the more valuable it will be seen to be.

Also the more people who depend on it for answers, the greater the chance it will fully resourced.

Unfortunately, many plans were designed to meet an initial statement of need, were 'bottom up' in nature and did not address the top level corporate needs, did not build in the ability for continuous updating and improvement, and initial enthusiasm and confidence quickly fell away. **Is this your situation?** (Hint: Can your AMP serve the users and answer the questions on the next few pages?)

Who are your Users and What Questions do they need answered?

Just as assets are there only to provide a service, so is the asset management plan! We need to consider what it is that the user needs to know. Consider the needs of the various stakeholders:

Customers, community,

After the Longford Gas Explosion, the Sydney water quality scare, the Auckland energy outage in the CBD, both customers and the general community want to know that the organisation is being managed so as to provide an ongoing, reliable service—not one subject to service disruptions

Regulators (financial, technical)

Regulators want to be reassured that the service being provided is of the required quality AND provided at the lowest possible cost to the community

Strategic Management

Strategic managers want information to help them make long run choices about the services they provide and the risks that they face

Tactical Management

Tactical managers want information to help them decide the optimum procurement and management strategies, given the service level and risk choices that have been made

Operational Management

Operational managers want to know what has to be done next! They need a detailed plan of works and the budget to accompany it.

How does your AMP serve these stakeholder requirements?

If you find that, while the operational management requirements are well served, the others need attention, you have the makings of a STATIC plan and need **to improve the fit** between what your stakeholders require and what the plan provides, to make your plan DYNAMIC

In the following pages we examine some of the questions that could usefully be asked of an AMP. What we find is that the answers are generally not to be found in the normal AMP 'outputs' – the prioritised maintenance, new capital works, and renewal works lists. This is not to say these outputs are not required – of course they are! But it definitely suggests that they are *not enough*.

The questions presented here have benefited from being workshopped with asset managers economists and regulators at a workshop organised by the Water Services Supply Association. They focussed on the economic and technical issues and these are common to all organizations. In addition, there will be service level and environmental and social standards issues that may vary from organization to organization, so these questions should be seen as a standard subset, but not the total.

Improving the fit

Between what the plan currently does and what the business wants

Data credibility— can your data withstand critical attack?

Quality of assumptions—can you justify your choice?

Rigour of the analysis—will it stand up to examination?

RELEVANCE TO THE ORGANISATION—is there a clear link between the activities in the plan and well articulated business objectives?

For a dynamic plan, you must be able to answer 'YES' to all of these questions.

To explore what these questions mean in practice, consider the following:

Data Credibility

Information technology (AIS, GIS) can be of assistance – but it is not enough! Consider the following questions that may be asked (indeed should be asked) of your asset management plans.

* How well does the plan show your understanding of demand for the service?

- Are there sound long-term records of demand? How long?
- What are demand projections based on?
- What evidence is there that the agency understands the demand of the key customer sectors?
- Have relevant state government or local government development plans been reflected in the AMPs?
- What methodology is used for both short and long term forecasting? Why is this the best methodology for the agency (i.e. what other methodologies are there?)
- How does the agency make robust correction for seasonal or 'one-off' effects on demand?



Sources of data include: Population projections (ABS); demand management studies, customer surveys; willingness to pay studies; national, state, territory or provincial plans; People: planners, network planners, client services managers

* How well does the plan show your understanding of your assets?

- Are there comprehensive, accurate records of the length, size and material and/or other relevant characteristics of the assets?
- Is the age and condition known? (If estimated, how?)
- Are there comprehensive, accurate records of the capacity and utilisation?
- Has the condition of assets been systematically assessed at the level of maintenance planning?
- Has the serviceability of assets been systematically assessed? When was it last done?
- Is there a whole life cost maintenance policy? What is it based on?




Sources of data include: asset database/s; geographic information systems; condition studies; maintenance reviews; People: the operators; maintenance supervisors

Improving the fit (cont)

* How well does the plan show your understanding of standards to be applied?

- What range of service standards are used to base asset management? Is this sufficient?
- How have these service standards been costed?
- What community consultation have the service standards been exposed to?
- If not, how are the service standards justified with reference to customer needs and expectations?
- Where mandatory standards are not sufficient, what discretionary standards been adopted? Why?
- Are there adequate records of past performance?
- What are the reporting thresholds? Are they appropriate?
- What are the performance targets? Are they reasonable?

 Sources of data include: Operating licences (if required); customer contracts or charters; (if the planned project has been in the press, what are the alternative views?); business case justifications; customer satisfaction surveys, customer complaints records; (for performance) – peer review.

* How well does the plan show your understanding of costs?

- What is the basis of cost estimates?
- Are costs based on an appropriate balance of detailed outline project specific estimates and generic costs?
- Are generic costs derived from an appropriate cost base?
- Has the accuracy of cost estimates been robustly assessed, is the overall accuracy fit for purpose?
- Does the cost base reflect any identified or general efficiency assumptions?

 Sources of data include: post implementation reviews; cost information;

Quality of Assumptions

Assumptions may be the result of

- Unthinking acceptance of 'what everybody knows' *
- Inspired guesswork
- Experienced 'gut feel'
- Test and analysis

* as, for example, in the instance of the transit organisation that replaced its buses every 12 years. Why 12? Well, everybody 'knew' that was the right answer. Actually, it derived from an off-the-cuff announcement by a Chief Engineer some many years previously who had said "Nobody knows how long buses last, *but it shouldn't be longer than 12 years!*" The 12 years had passed into organisational folklore—but subsequent rigorous analysis and testing showed the appropriate figure to be between 15 and 16 years.

Rigorous Analysis

*** How well does the plan show your understanding planning for growth and higher standards?**

- What time horizons been adopted – are they appropriate?
- Have an appropriate range of alternatives been considered as part of the planning process?
- Are the principles of least cost planning understood and adopted? What is the evidence for this?
- Has the optimum opex/capex balance been explored and adopted? What is the evidence for this?
- Are proposals critically reviewed and challenged through value management or other methods?
- Are costs systematically and satisfactory estimated?
- Do the plans demonstrate increased efficiency?
- Have the projected outputs over time been assessed and documented? If so, where?
- Is there an appropriate system of prioritisation? What is it?

*** How well does the plan show your understanding planning for Asset Maintenance?**

- Have probability consequence and cost of failure of assets been systematically assessed?
- Have future asset deterioration rates been assessed objectively (or only by projection of past trends)?
- Are an appropriate range of alternatives considered as part of the planning process?
- Has the optimum opex/capex balance been explored and adopted?
- Are proposals critically reviewed and challenged through value management or other methods?
- Have costs been systematically and satisfactorily estimated?
- Are any efficiency gains projected in the plans?
- Have the projected outputs over time been assessed and documented?
- Is there an appropriate system of prioritisation?

*** How well does the plan show your understanding of Procurement Strategy?**

- Is there an appropriate balance of term, framework, and conventional contracts?
- Do procedures ensure value for money?
- Where direct labour is employed, are steps in place to ensure value for money

*** How well does the plan show your understanding of Program Management?**

- Are contractual risks identified and shared where appropriate?
- Is there effective post project assessment to confirm objectives have been achieved?
- Are lessons learnt applied within the planning process?
- Is there an appropriate approvals process and rigorous financial control process?

Moving with the times

*** How well does the plan cope with changing needs, goals, assumptions?**

- What performance measurement and monitoring and feedback processes are used?
(Changing objectives can change the tools needed to do the job; eg a change from a construction to a maintenance/reconstruction focus.)

CONTINUED IN THE NEXT ISSUE—”Making your AMP dynamic, part 2”: (Getting into and repairing the innards”)