AMQ INTERNATIONAL
STRATEGIC ASSET MANAGEMENT

Issue 262, March 23, 2009

KNOW YOUR AUDIENCE

AM Plans, pt. 2

Whether your plan is small and tightly focussed, or large and detailed will depend on what it needs to do.

Plans may differ in their purpose, and thus in their target audience. Whether they 'work', i.e. are effective, is measured by how well they deliver on that purpose.

In the last issue I indicated what I particularly liked in the Joondalup AM Plan, a plan that was directed to senior executive and councillors to gain their understanding and co-operation for the asset management tasks to be undertaken. This was not a plan that talked about what was to be done to the assets themselves, but rather one that focussed on asset management improvement. For this audience and purpose, a short, sharp and shiny plan was ideal.

In this issue we look at two longer, more detailed plans. Melinda Hodgiewicz, Discipline Chair for Engineering Asset Management at the University of Western Australia, has chosen as her exemplar, an electricity lines distribution company in NZ. After a serious black out left Auckland in the dark for more than 5 days, the electricity distribution companies have been required to publish their asset management plans showing what they plan to do to keep the system functional so that their customers can 'keep them honest'. Only the lines distributors are affected as they have monopoly control over their regions. Market competition is assumed to ensure good asset management by the generators.

Phil Caffyn, the editor of 'Pipes and Wires', is our other specialist who is contributing his thoughts to the "What I like" feature. Phil is an AMP practitioner, responsible for the preparation of 23 of the 29 electricity lines AMPs in NZ. To avoid a conflict of interest here, Phil has chosen as his exemplar, the Ruapehu Water Supply Plan.

Editor: Dr Penny Burns, ***AMQ International***
PO Box 75 Salisbury South Australia 5108
Telephone 61 (0) 8 8359 0559
Email: amqi@amqi.com ***Website www.amqi.com***

WHAT I LIKE ABOUT

ORION'S 10 YEAR MANAGEMENT PLAN

Dr. Melinda Hodkiewicz:

Example:
AM Plan – A 10 year management plan for Orion's electricity networks 2007-2017

Background:
Orion owns and operates the electricity distribution network in central Canterbury, New Zealand. In 2007 Orion issued a publically available Asset Management Plan that sets out how they will "*provide, maintain and operate Orion's electricity network while meeting agreed levels of service, quality, safety and profitability*" for the period 2007-2017.

The AM Plan and a Summary document is publically available via the Orion web site http://www.oriongroup.co.nz/publications-and-disclosures/asset-management-plan.aspx

Highlights:
Orion's AM Plan is consistent with the outcomes for AM Strategy and Plans suggested in PAS 55-2 Sections 4.3.1 and 4.3.3. These include:

- The AM Plan objectives are consistent with a set of stated AM principles and defined Levels of Service (Safety, Consumer Services, Environmental responsibility and Economic efficiency). Responsibilities are defined and assigned.
- The Levels of Service are unambiguously defined and target and actual performance measures for year ending 2007 provided. Historical data is also provided.
- Stakeholders for the AM Plan are identified. There is a list of their perceived interests and how these are accommodated.
- Asset descriptions/ functions and relevant tactical information (performance, condition, design standards and historical data, maintenance/replacement/ creation/ disposal plans are provided for each asset class. This information is presented in a concise and accessible way. Performance v LOS requirements can be assessed and risks identified.
- Key strategic issues are summarised at the start of the AM Plan and the relevant supporting information can be found in the details of the document.

HOW PRACTITIONERS SAW THE ORION PLAN

In June 2008, the Orion AM Plan was discussed in a postgraduate class for experienced engineers as part of the Engineering Asset Management and Risk unit at UWA. The class was asked to comment on the Orion AM Plan which had been put forward as an example of 'good practice'.

Length of Plan, 'Value for Money'?

Somewhat to my surprise, the length of the AM Plan (204 pages) was a major stumbling block for everyone in the class. The engineers questioned whether the time taken to produce the plan was worthwhile and whether it was actively used for budgeting and other annual decision processes.

Duplication of existing business processes?

Some felt that the process of developing the AM Plan would result in a duplication of existing business processes in their organisations.

Data Availability?

Many also expressed the view that for their organisations (mainly mining and oil and gas) the necessary information to produce the sections of the plan particularly predicting future demand and providing historical life cycle data at the asset level was not reliable and readily available.

Lessons Learnt

The major lesson I took from this discussion was that the AM Plan needs to be 'fit-for-purpose' for each organisation.

There is no one-size-fits-all approach.

This fitness for purpose assessment has to include an understanding of the current business processes around asset decision making, the planning horizon, asset data quality, and the asset management maturity of the organisation.

Melinda Hodkiewicz is the Discipline Group Leader for the Engineering Asset Management Program at the University of Western Australia. She is currently managing the development and launch of a postgraduate (Masters of Engineering in EAM) program at the University.

WHAT I LIKE ABOUT

RUAPEHU'S WATER SUPPLY PLAN 2006

Phil Caffyn

Introduction

As an asset & regulatory strategist, I've got some fairly deeply held views on what makes a good AMP. Two of the more salient of these views are…

- That it is a "management plan" that describes the strategies, policies and plans that will be used to manage the assets (and not just a narrative description of the assets).
- That all lifecycle activities are strongly and obviously linked to the Levels Of Service (LOS) and the Demand Forecasts chapters.

An example of a good AMP

As an example of a good AMP, I've chosen the Water Supply AMP published by the Ruapehu District Council in June 2006. This AMP was compiled to meet the requirements of Part 1, Schedule 10 of the Local Government Act 2002, and was released to the community to demonstrate that Council is prudently managing the District's water supply assets, and to provide a basis for consulting on the price-service trade-offs available.

What makes it a good AMP ??

The aspects that make Ruapehu's Water Supply AMP good, in addition to a clearly stated purpose, are:

- The linkages to other planning documents and activities are clearly stated (pp 11, 13) so the AMP has a clear context within Council.
- The process of deriving LOS and KPI's from community consultation and legislative requirements is clear and obvious, and fits obviously within a strategic framework.
- The drivers of future demand are clearly stated, along with a clear recognition that demand can be managed.
- The important aspect of funding the asset life cycle is clearly noted.
- The capital works summary identifies the drivers of each project.
- The performance improvement process "reaches back into the organization" and goes beyond the simplistic notion of writing a better AMP.

Phil Caffyn is a director of Utility Consultants Ltd, a management consultancy specialising in infrastructure asset & regulatory strategy. Phil has advised 23 of New Zealand's 29 electricity distributors on various bits of their AMP's, hence the decision to examine an AMP in the water sector.

I asked Melissa and Phil to comment on what they particularly liked about their example plans. This does not mean that everything in the plan is necessarily to be emulated. So when you look at the plans of others, do so with a critical eye.

One very common trap to avoid is

The Multiple Purpose Trap

When you consider what purposes your own plan is to serve, ask yourself the following question:

Who is the audience for this purpose?

If the audience for each purpose is the same, then you have no conflict of interest. All you have to do is ensure that the presentation of your plan is done with the audience in mind.

Audience Conflict!

However, if the different purposes address different audiences, then you do have problems.

A plan presentation suitable for a general community audience will not be very useful for the daily technical use of employees. And a detailed operational plan that is helpful for employees will fail to convey the big picture issues that interests a community audience.

Similarly a plan that addresses the needs of councillors will be different from that which addresses the needs of maintenance staff.

More or Less Value?

I feel sure that most planners would consider that they were 'adding value' to their plan by addressing multiple purposes. They would feel that they were 'giving more'. But are they?

For example, Orion states that its AMP aims to

- meet the Electricity Information Disclosure Requirements and, beyond this legal requirement,
- to be a technical tool to be used on a daily basis by employees, and
- to demonstrate responsible stewardship of network assets on behalf of the community

Orion needs to ask itself whether the audiences for these three purposes are the same or different. The Information Disclosure Requirements are aimed at customers of the Electricity Lines Companies. Are these customers likely to have the same level of

technical knowledge - and interest - as the employees who are expected to make daily use of the plan?

And who is the audience for a 'demonstration of responsible stewardship'. Is it the companies' customers, the general community, customer watchdog associations, regulators, who?

Each of these possible audiences would suggest a different presentation style if the plan were to be truly effective.

(and this might account for why it is difficult to find anyone outside the company who has actually read the plan!)

Ruapehu states that its AMP

- is to demonstrate to the community that the council is managing the water assets responsibly
- and that it is a 'tool combining management, financial, strategic planning, engineering and technical practices to ensure the LOS requires by customers is provided at the lowest long term cost to the Community.
- provides a formal record on the AMS, practices and management tactics adopted by Council for the management of water supply assets
- provide a long term view of where its water supply assets are currently at, what issues are projected to impact on the assts in the future, and what LOS the assets should provide to the Community at a cost that can be afforded

What audiences are being aimed at by the Ruapehu Water Supply Plan? The first aim suggests a wider community audience, the second a specialist, technical audience, the third suggests that the intended audience is actually councillors and perhaps senior management, and the fourth?

All purposes are valid - but not for the same audience!

All of the AMP purposes described here are valid. But not for the same audience! Which means that to be effective, they need to be written and presented differently for each audience. Any plan that starts with three pages of acronyms to be mastered before proceeding with the report, as does the Ruahepu Plan, is hardly 'community friendly'

One way of dealing with this is to create a 'strategic' or 'executive' overview. The Orion Plan has written its overview in a way in which I, as an economist, can understand the issues. In other words it has omitted the technical detail and speaks of the broad issues in a non-technical manner. In the Water Plan executive summary, however, a lot of technical and legislative detail remains, and some issues, such as levels of service are dealt with in five different places within the same summary.

Remember: The aim of ANY Plan is to Communicate.
So it pays to give attention to the needs of your audience/s.

Tell me a story!

It is not only children who enjoy stories. What is history, the evening news, jokes and even gossip, if not stories?

Stories can convey messages in a very powerful way.

Here are a couple of my favourite asset management stories. Please tell me yours.

This is my all time favourite. It may be apocryphal but it is too good not to repeat.

> In the early 1980s New York was the first major city to run into serious problems with decaying assets. Newspaper articles at the time ran headlines like "The Big Apple - rotten at the core!" Of particular concern were the roads. New York had concrete roads which last well but are difficult to repair, particularly with New York's traffic densities. When potholes started to appear, metal plates were fixed to the roads to cover them until such time as they could be repaired. So many of these metal plates appeared that passengers in the city's buses had an increasingly bumpy ride and eventually the roads started to take their toll on the buses themselves. The City Fathers called for tenders for buses that could withstand the road conditions and, eventually, they received a bid from, I believe, Peugeot. "Yes', they said, "we have a bus that could work for you, but.... " "But what?" said the City Fathers, seeing the embarrassment on the faces of the bidders. "Well", they said, "this is a bus we normally only sell to under-developed countries"!

The moral of such a story is clear and powerful: Without good asset management and maintenance, first world infrastructure can revert to third world status.

But the moral of stories is not always clear.

Consider this one

> Some years ago I was told of the electricity utility that was undergrounding wires - directly into bare earth, no conduits. This was quicker and easier for the contractors and the first up cost was lower. But when the time comes to replace those wires - and this will happen more quickly than if they had been laid in conduits - the replacement itself will be far more costly - because the ground will have to be dug up again with all attendant costs and disruptions to the public, whereas with the conduit it would be a relatively easy re-threading job.
>
> Since most of the cost of laying the underground cables was in digging the hole, and the incremental cost of using conduit was relatively small, it initially seems crazy that the utility would have chosen to go this way.

But is it?

I have often thought about this since I heard the story because it raises a number of decision issues as well as recording issues.

Consider

- Net present value discounting, if interest rates are 5% or so, will show relatively little gain from extending life of an asset from, say 50 to 70 years. So even if the cost of life extension is small, the discounted value may be insufficient to cover it. If we are applying cost benefit analysis, it could therefore not be worth doing the 'better job', even for quite a significant life extension.

- This raises a philosophical issue that I know a number of engineers have wrestled with but it is not one for which we currently have a satisfactory answer - and that is, is the current discount rate the right rate to apply to long living infrastructure assets? Should we choose a lower rate - 2% has been suggested. Treasuries have, however, objected to this.

- The difficulty is that in Cost Benefit analysis we give weight and value only to the present time. And infrastructure is inherently a benefit for the future. Should we be using analysis which gives explicit weights to the future - and, if so, how would we do it?

- Another issue is how we record asset values in our books. If we record 'at cost' then a wire laid into bare earth would be valued at the cost of that action. The asset value of a wire laid within a conduit would be rather higher, but not much.

- But now suppose that we revalue these assets at 'replacement cost'. The replacement cost of the wire into bare earth would be about the same in real dollars as the 'at cost' figure since the replacement task basically duplicates the initial task.

- However the 'replacement cost' of the wire in conduit would be much less, since the task is much easier.

- This 'good' result, however, could upset accountants who would see their 'at cost' value for the wire in conduit being 'written down' almost as soon as it is acquired.

... and this is not the end of the issues that this simple story of the electricity utility raises.

Do you have good stories, ones that send a message, or ones that raise interesting issues, that you would be prepared to share with a wider audience?

In the interests of improving asset management - **PLEASE TELL ME YOUR STORY**