Issue 146, Aug 6 , 2004

AMQ International

Strategic Asset Management

Let's Get Practical

What do you do when forced by regulation, audit, or the needs of some other profession, to adopt a rule which is just simply 'bad asset management'? We look at this problem on pp 764-765

Strategic Asset Management has a bias towards thinking (as opposed to the really essential stuff of 'doing'!) However, whereas thought without action is time wasted, action without thought is downright dangerous. So, in this issue we look at some thoughtful ideas at the practitioner level in our feature "The Thinking Practitioner" where we feature some good practice newsletters that you can access with benefit.

Finally, a follow on from 'The Characteristics of a Good Asset Management Organisation.

Contents

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The Thinking Practitioner

Where we showcase some of the valuable practical and informative newsletters that you may subscribe to for free. If you produce an informative newsletter and would like to have it considered for possible inclusion in a future issue of the "Thinking Practitioner", send hardcopies of the last two or three issues to "Strategic Asset Management" at PO Box 75 Salisbury South Australia together with access details.

Local Government and Roads

The **"I AM ONLINE"** newsletter, produced 3-4 times a year by ACEAM Pty Ltd and edited by Ashay Prabhu, holds much of interest for managers of roads and local government assets more generally. Here are a few short excerpts and if you like these, why not put your name down to receive future copies?

(If I were you, I would also ask for the back copies for Easter and Winter 2004 because we are only able to cover a tiny amount here.) **Write to admin@aceam.com**

From the Easter 2004 Edition

Service Levels and Performance Standards

Take a moment to think about how you set service levels and performance standards:

- Service Levels are functions of quality, quantity, intervention triggers and response times based on hierarchy, e.g. we will repair every footpath hazard of a 25mm lip, with a permanently executed repair within 3 months of identification.
- Performance standards are your ability to achieve these levels
  e.g. Given our resource levels, budgets and available skills, we expect to achieve the responsiveness in 70% of cases. Therefore there must be a realistic balance between adopted service levels and targeted performance standards.

How you set you service levels will impact on your inspection and responsiveness

Service levels may be set in two ways, i.e

- **Using intervention level** Set different intervention points for each hierarchy and a common response time for each hierarchy – e.g with footpaths – say, 25mm intervention in high pedestrian zones, 50mm intervention in medium pedestrian zones and 75mm in low pedestrian zones. Response times for repair are then set at say 6 months for each zone.

- **Using responsiveness**. Set common intervention points for each hierarchy and a different response time for each hierarchy – e.g with footpaths say, 50mm intervention for all zones and response times of 3 months in high pedestrian zones, 6 months in medium pedestrian zones and 12 months in low pedestrian zones.

The second method is easier for inspection inspectors. Note that it's a lot easier and more convenient to auto-set the responsiveness by hierarchy using your AMS in the office, than it is to measure different interventions on the field based on hierarchy.

The first method may also have the ability to create wrong negative perceptions e.g. ratepayers may find it difficult to accept varying interventions for say pot-holes but may be happy with varying response times, as long as the identification criteria for every incident is consistent.

From the Winter 2004 Edition

What is a robust performance model?

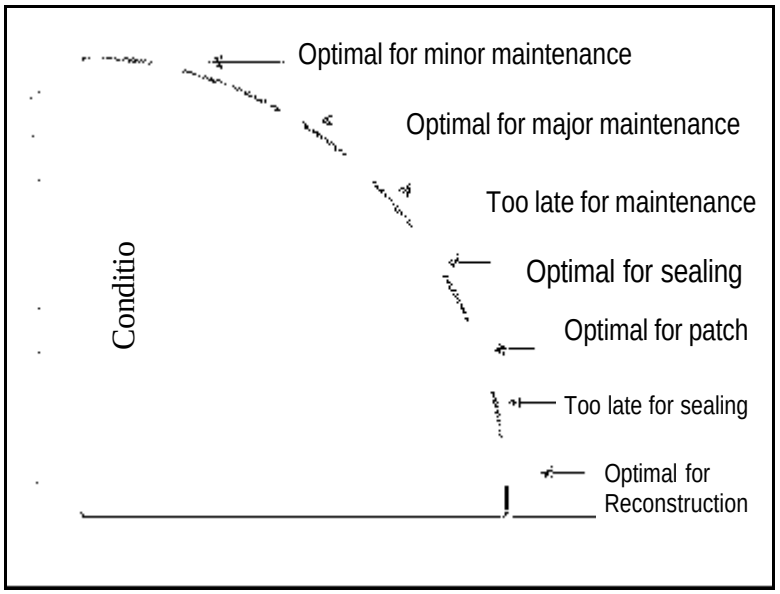
In a robust performance model, the definitions of good, moderate and poor condition must be based on:

1. council specific community acceptance levels of desired, tolerable and intolerable.
2. network specific deterioration criteria that refers to quantity and type of work required.

For the model to be representative of pragmatic road behaviour, the treatment interventions must be based on specific knowledge of council's treatments and the effects of these treatments on condition.

A robust performance model is one that has judicious decision capability and only allows treatment decisions to be within "zones of optimal influence" as shown below. ***Once the condition score is beyond an optimal zone of influence, the treatment is no longer deemed a valid, feasible treatment.***

Therefore a robust performance model is one that in general has the following characteristics:



1. The models are based on specific condition data that best represents treatment performance in their council.
2. There is an established relationship between condition scores and treatments i.e. an optimal intervention matrix has been established and zones of optimal influence have been identified.
3. They have a documented, organization specific condition measurement method that is reliable, repeatable and simple to use.
4. The have good quality, network representative and treatment related condition data.
5. Most importantly they have site-tested the outputs of their models and refined the parameters based on its findings.

Once these parameters are established, very little can go wrong in terms of prediction or prioritisation or optimisation. A robust model, which has rigour in its content, will always provide outputs with high integrity.

The Thinking Practitioner

FACILITIES MANAGEMENT

Strategic Facility Services' newsletter "Strategy" also comes out 3-4 times a year. It is edited by Ami Sudjiman. You can download past newsletters from their website **at www.stratfac.com.au** and have yourself put on the distribution list for future issues by **emailing sfs_admin@stratfac.com.au**

A great feature of this newsletter is Ami's ability to extract the essential principles from her practical experience and codify it for easy application by others.

Here are just a few examples.

MAINTENANCE SPECIFICATIONS: FIXED TIME SCHEDULE VS PERFORMANCE

Strategic Facility Services has assisted many organisations preparing maintenance specifications when renewing their maintenance contract. M expressed a desire to use performance specifications. However, those with good technical knowledge are often not confident that they will rece the required level of services, and hence prefer to use the Fixed Time Schedule. They like the assurance of signing the docket when the work h physically been done. Yet many do not have the resources to be that diligent.

Here are more explanations to help you decide for yourself which one would suit your organisation and your workload.

Fixed Time Schedule Specification	Performance Specification	Comment
Written primarily in technical language, it identifies the exact types of maintenance activities and frequency considered appropriate for each plant and equipment supporting the building services; eg yearly inspection and service of …, monthly services of …	Written in non-technical language, the specification identifies only the required outcomes or performance for the various building services supporting the facility, eg range of indoor temperature, and hot water system, plus the availability of the fire protection and safety system.	Buyers need to have either good technical knowledge or a technical consultant to prepare the fixed time schedule specifications. In preparing performance specification, buyers require limited technical knowledge or assistance from consultants, other than an understanding of the required outcomes.
Buyers prepare the FT schedule specs, based on their understanding of the performances required to meet their operations, combined with knowledge of the equipment, and expect the maintenance contractor to carry out all the maintenance tasks as scheduled.	Buyers expect the maintenance contractor to be a true expert in providing maintenance in facilities, and know how to prepare appropriate maintenance plan/ schedules to meet the performances specified, given the physical condition and age of the equipment.	Using performance specs, buyers are passing most of the risks associated with delivering maintenance to the contractors, who are expected to prepare maintenance plans and estimate the costs to deliver the services. This may cause some stress during tender period, if no historical records of the plant and equipment is available. Under FT schedule specs, buyers carry all the risks associated with designing the required maintenance schedules to support their operations.
As part of the tender submission, tenderers only needs to submit the proposed value of the services offered based on the maintenance schedules provided by the buyer.	As part of the tender submission, tenderers are required to prepare a sample maintenance plan for selected equipment in the building, identifying the proposed maintenance tasks and their frequencies, as appropriate to deliver the performance specified. The costs to deliver the necessary services form the basis of the bid.	Responding to a Performance Specs, tenderers will need to be able t design a maintenance plan to meet the specified performance, and provide a reasonable tender price. The buyer needs to confirm and accept the use of the plan and the proposed contract value as part of the tender assessment. When FT schedules specs are used, buyers only need to assess the proposed contract value.
Tender prices will only cover the labour costs of carrying out the specified works, with all costs of break down repairs and replacement of items to be claimed as reimbursements during the contract period.	Tender prices will cover the labour costs of carrying out the works in the proposed maintenance plan and, depending on the use of Works Repair Limit as part of the Contract Conditions or not, the price can either: a) Exclude all breakdown repairs and replacement of items (and claim them as reimbu…	Tender prices for the FT specs tend to be higher than those using a performance spec when all reimbursable are covered by the buyer (see option (a) in box to the left). This is because the Maintenance Plan proposed by the tenderers may contain better targeted maintenance activities with lower labour costs than those specified i the FT schedules. Tender prices using performance specs under option (b) will potentially ha… …tice, as tenderers need to take … …acements under…

For the complete table, download January 2004 edition at www.stratfac.com.au

DELIVERY OF PREVENTIVE MAINTENANCE SERVICES

one package vs multiple packages

Issues	Package	Description	Comments
General	Multiple	Usually evolves from a defects liability period following initial construction, major refurb or installation of new equipment	Mainly used by organisations who have a history of utilising their own staff to manage, supervise and carry out some of the maintenance tasks. The organisation is looking for one or more contractor to carry out maintenance tasks, whilst keeping the management and co-ordination tasks in house.
	Single	Emerge from general acknowledgement that maintenance needs to be carried out to support the operation of the building	Mainly used by organisations who would like to concentrate on their core business, and prefer to have another organisation manage and deliver maintenance services to meet their operational requirements.
Scope Identification	Multiple	All maintenance services to be delivered or tasks to be carried out will be divided into several contracts, usually based on trades discipline or type of equipment	You will need to carefully identify the services or tasks required to be delivered in each package, ensuring that nothing is being left out or doubled up. If the packages are based on trade discipline, beware that some services eg air conditioning, may require at least three different trades to maintain.
	Single	All services and tasks are to be compiled into a single contract	You still need to identify most of the services or tasks to be delivered, but under a single maintenance contract the contractor is expected to be able to manage and co-ordinate the maintenance tasks.
Performance	Multiple	You are relying on a number of organisations to do the maintenance tasks, based on their expertise.	You are spreading the risks, and hence are only faced with a possibility of some of them not performing and only sections of the services in the building experiencing problems.
	Single	You are relying on one organisation to do all your maintenance tasks.	All your eggs are in the one basket. If you end up with a non-performer, you may have problems throughout your building.
Tender Preparation Stage	Multiple	There are several tender documents and specifications to prepare, outlining separate tasks, methods of delivery, and possibly different tender and contract conditions.	You will need to be both technically minded and know your building fairly well to prepare the tender documentation, even with the support of a consultant to prepare the specification. There is a lot of double checking to do to ensure that nothing has been left out.

To see the whole thing go to www.stratfac.com.au and see April 2004

You also get useful helpful advice such as the following:

Don't let leading edge technology push you over the edge

Like many of us, you may be tempted to use leading edge technologies for your facilities. The temptation to use new technology often becomes even higher when you learn about its benefits for energy consumption, the environment, or your current operations and maintenance costs. However, a number of these technologies are so new, that no one knows yet of its true impact on the user/ operator, how it should be maintained or where to locate spare parts and skilled technicians. The frustrations in using some of the new technology make many people feel that they are being pushed over the edge. And warranties usually are not enough in this case, as they don't always cover operational issues. But, if you must have new technology, make sure that you don't get pushed around by it. Why don't you invite the supplier or manufacturer to install the new technology in your building under a continuous improvement deal, where:

- you provide feedback (rather than complaints) on the use, operation, maintenance etc. of the new technology;
- the supplier uses your feedback to improve the design and operation of the technology; and
- they provide you with the improved versions free of charge or at a substantial discount.

What do you do when required by a higher authority to implement a practice not conducive to good asset management?

In general, when poor practice is mandated – take the simple 'rule' that is causing the trouble and elaborate. Here are some examples.

Green Fields Site Values

For example, if a green fields site value is required by Generally Accepted Accounting Practice, but you need a brown fields site value in order to either assess the benefit-cost of treatments resulting in deferral of renewal or simply to be able to put relevant figures for renewal in your asset management plan then elaborate – provide the required green field site BUT also provide extra brown field site value data for asset management. The green fields site value is not of much benefit to asset managers, but conversely the brown field site value lacks the precision and auditability that the accountants require. Where the one value can't serve two conflicting tasks, elaborate!

100% Performance Standards

What if, for legal reasons, you are required to commit to 100% of your service level aspirations, rather than some lesser percentage as suggested in the article on pp 760-761 that allows for the impact of budgetary constraints? This now looks as if it may be required practice under the new Roads Management Act.

One option is to set the service levels so low that attainment is automatic. This makes it easier for the lawyers when and if a complaint is received, but it provides little guidance as to standards to be aimed at by asset maintainers – so it is not good asset management practice.

An alternative is to 'elaborate'. To choose a higher service level with a 100% performance standard 'except in special circumstances to be documented at the time' Suppose that abnormally wet weather creates more footpath lifting than can be coped with in the specified time within the budget? Or suppose that a serious problem somewhere else within council suggests that resources be shifted from one area to another? Either way, you can't meet your performance standard of 100% - but the reason is documented, so you are ok. This bit of elaboration will provide needed management flexibility and enable staff to aim at the higher service level. It isn't even necessary to spell out the 'special circumstances' in advance; although this is another option.

Another way of tackling this problem is similar to the green fields site value example. You provide what is needed by the regulator, but then add the information that you need for management. So, you can state the minimum service level to be 100% of the time, but add the 'aspirational' goals of higher service levels that you will meet, say 70% of the time. If this percentage is shown as increasing over time, say 70%, 75% and 80% over the next three years, this will probably be well received by ratepayers, overcoming the problem for credibility that could result from stating only a very low service level that you are capable of achieving all the time.

'Input based' rather than 'performance based' contracts

Good contracts are based on the achievement of performance but few contracts are written this way. This is because it is lawyers, who write most of the contracts, find it an easier task, and one that can be accomplished sooner, to check off promised inputs to the process. Thus when South Australia was determining the form of contract for its 15 year, $1.5 billion outsourcing contract with the dual goals of reducing operating costs and increasing outputs from the water industry, the initial contract conditions prepared by the lawyers had lots of clauses such as ' will establish a research institute for water industry research' and 'will set up a head office in South Australia'. These are examples of 'enabling inputs'. By committing to establish the institute, for example, the contractor takes no responsibility for how effective this will be in achieving the government's two objectives. In other words, he is not faced with a responsibility for performance.

The choice was between accepting this initial - but ineffective – contract that met the legal requirements, or developing a measure of performance that had the support of the industry, the Australian Bureau of Statistics and, eventually, the contractor. SA chose the harder route of 'elaboration' - it worked to create acceptable measures of SA exports and based contract returns on the increase in this figure. Although initially resisted by the contractors who were more accustomed to the traditional contracts (and knew how easily they could get around them) it eventually turned out to be very profitable for both contractor and government.

Historical or Current Valuations?

There is something nice about a historic valuation – it's so definite: you can read the value off the receipt. But what you gain in convenience you lose in relevance for an 80-year-old receipt for 'Twenty Guineas' is not terribly relevant today. Nevertheless you will often see academics, such as Stephen King, advocating the use of Historical Valuations for Regulatory Purposes simply because the figures are not amenable to manipulation. From a regulatory point of view this has value. From an asset management point of view, it does not. If required to adopt historical values for regulatory purposes you have the choice of supplementing with current values – or arguing for a superior regulatory test based on current values.

> What you don't have to do is to lie down and put up with it. And whingeing, whilst traditional, is not that effective either!

Your Call

Do you have situations where you feel hemmed into poor asset management practice because of mandated rules designed for some other objective?

Or have you found a way around the mandated rule that worked?

Why not share it? Write <**yourcall@amqi.com**>

Are you a Good Asset Management Organisation?

In the last issue we printed a paper by Ken Harlow, of Brown and Caldwell of the USA, who set out a very comprehensive view of what it took to be a good asset management organization.

Do you agree with Ken? – and if so, are you there yet? If not, what are you missing on? What do you reckon you can do about it?

Do you disagree with Ken? – is he asking for too much? Or maybe he is not asking enough? What are the issues he has missed out?

What are the essential characteristics?

Duncan Rose, GHD (USA)

- **A shared conceptual framework** – 'horizontal' as well as 'vertical' – where this framework beds down a step by step blueprint for setting the techniques and training in place to achieve an asset centric culture**.**

  Some follow up issues: *How do we know when the conceptual framework is genuinely shared by all? When it isn't what can we do to achieve it? Is an asset centric culture one that we wish to encourage?*

Roo1, Australia,

- **Communication Strategy** - In responding to the discussion that Duncan engendered, Roo1 brought up an interesting point.when he said "After playing a major part in bringing the organization through the processes of reactive, short term planning, asset management education, acceptance of responsibilities and then to long term planning, I find that something major is still missing. For the sake of this argument lets call it a form of Communication Strategy"

  Some follow up issues: *Many of the process implementation tasks in asset management are undertaken as projects which have a short – but intense- existence. Over what life do we need a Communication Strategy? Is it simply information, or is there more to it?*

Andrew Foley, WSSA, Australia

- **Do we really need a universal definition of AM?** – Andrew, recently returned from an International Water Association Conference in Asset Management in San Francisco, reflects on a number of the issues raised by the audience there, namely has to have CEO buy-in, good communication and a universal definition of AM is needed. Andrew takes issue with this last point.

  Some follow up issues: *Does looking for the characteristics of a 'good asset management organisation' imply a 'universal definition' and 'everybody doing things the same way?' Why do senior managers often find AM communications so very dry and boring? (I have my answers, what about you?)*

This discussion has been running on the VAMC site at **www.amqi.com** now for several weeks and we have some very interesting comments, some of which I have excerpted above. But why not read them all for yourself – better still why not read …. **and comment!**