WHY OUR MINDSETS NEED A RE-SET

This issue is overtly political (albeit with a small 'p') and we shouldn't shy away from that, nor from our responsibility as AM experts to educate and support our communities and companies in the more effective choice and use of assets.

To start with, why do we insist on equating more infrastructure - *any* infrastructure - with better or more service? There may be an excuse for the general public but asset managers should know better - and DO better.

see p. 2. 'Why our Mindsets need a Re-set"

At least New Zealand is moving in the right direction by requiring its local authorities to think ahead, consider the options - and communicate these options and their consequences to the community to enable them to be involved in decision making. This is to be mandated in New Zealand but it is worth voluntary adoption by everyone so I have included the details of their proposal.

see p. 5. A 30 Year AM Strategy

Finally, given that few of us really seem to understand what it means to be 'business like' in our operations and management, I have included a very thoughtful piece by Ken Harlow of Brown and Caldwell. It is a long time since I have referred readers to Ken's site but this piece will show you why a visit is well worthwhile.

see p. 7. Doing Business like a Business; or is Asset Management Really Difficult

That's it! Please enjoy - and engage!

Penny

Dr Penny Burns, Editor, AMQ International
08 8359 0559 www.amqi.com

OK. Controversy Time!

Do our Mindsets need a Re-set?

Why do we allow ourselves to be gulled into believing that more infrastructure equals more service, when it clearly doesn't?

Infrastructure - *by itself* - yields no service

We have all laughed at the 'Yes Minister' episode where the brand new hospital wins the Nightingale Award for the best run, most efficient, hospital - but has yet to have patients for it has no medical staff.

Yet, with the possible - and only partial - exception of roads and footpaths, I know of no infrastructure that provides *any service at all*, *without the added input of operations and maintenance.* Does a new school provide service without teachers, without lighting, air conditioning, cleaning, security, etc?

Moreover most of our existing infrastructure could provide more and better service if it were combined with a greater input of operations, maintenance and improved asset management.

So more infrastructure - far from being essential to the provision of more service - **is neither necessary, nor sufficient.**

Yet, for what do we applaud our politicians - more money for O&M, or more money for new infrastructure?

The answer lies in the campaign leaflet that came through my door the other day for the South Australian state elections to be held in a few weeks' time. The party's campaign slogan is 'Building a stronger South Australia' and the party has a clear and well defined program of action for doing just that, BUT, perhaps recognising that few will visit the website and study the program, nor pay much attention to the TV ads, the brochure condenses the 'building' slogan down to four show piece building works. The quick impression is that building a stronger South Australia is the same as more buildings for South Australia.

Why does this work? The easy answer is that infrastructure is visible in a way that services are not, but is this the only reason?

Nor is this mindset only found in South Australia, nor in Australia as a whole. A few weeks ago, Andreas Hack of the Hobart City Council sent me an article from Der Spiegel, showing that even Germany, the poster child of efficient production in Europe, suffers the same experience. In translation it reads

"Everything that is built must also be repaired. But for that there is too little money, and so the rehabilitation gap grows from year to year. Instead, the bulk of the budget flows into prestigious new large buildings : highways, ICE high-speed lines and mega-ports of often dubious national economic benefits . The result: The rail network is decrepit ,

thousands of bridges are considered to be in danger of collapsing , traffic on our roads slows from onw pothole to another, from one traffic jam to another."

So it seems that this is a Global Mindset! That doesn't mean it doesn't need re-setting.

The general public can, perhaps, be excused, for they probably assume that more infrastructure comes with a sufficiently increased budget for O&M to enable the infrastructure to do its job. Experience, however, has surely taught Asset Managers that this is hardly ever the case!

DO Asset Managers know better?

Surrounded by asset managers I ventured the notion that we leapt too readily to the notion that improved service meant more infrastructure and I was angrily attacked by one fellow who said that more infrastructure was 'obviously' needed, and as proof, he cited the morning chaos on Melbourne roads.

I remembered that the road widening some years ago on the Tullamarine Highway and resultant toll roads shortened my airport to city peak hour trip by 20 minutes. It was well worth the toll. Within just a few short months, however, the time was back up to an hour again, and I still had to pay the toll. What was my gain? What was anybody's gain?

We are all familiar with the Parkinson principle that work expands to fill the time allotted to it, well traffic on our roads is subject to a rather similar effect as just about any traffic planner can tell you - traffic expands to fill the space allotted to it. Why, then, do we persist in measuring the benefits of new roads, ring routes, and tunnels by travel time savings which for many people will evaporate very quickly as traffic increases?

Why did this asset manager believe that more roads in the city would ease his traffic problem?

False ideas take hold and become a 'meme' - an idea universally believed, not challenged - yet wrong.

When I was doing my original work on the cost and timing of asset renewal in the mid-80s, a colleague working as a transport economist, rang to ask me why, when they could 'show' that the rate of return on roads was 5:1, that politicians did not spend more money on roads.

A few years later, I joined some friends for breakfast in Sydney who had recently been involved in a value management study for the Road Traffic Authority. With grins all over their faces, they asked "How do you calculate the benefits from a road project?" it turned out that, *assuming* a benefit to cost ratio of 5:!, the local engineers had automatically assumed that the benefits of any of their road projects would be five times whatever their costs turned out to be.

In just such a way, ideas stick - no matter how accurate, or inaccurate, they may be.

Do the Benefits outweigh the Costs?

Another idea that has become a 'meme' is that it is cheaper to expand within the city rather than build at the fringe. Yet retrofitting is exceedingly costly. Why is this information - available to asset managers, not more widely disseminated?

At the moment Melbourne is constructing the very controversial East West Tunnel. Even the most optimistic estimates show that the costs are more than double the benefits to be received - and we all know that budget cost estimates are universally exceeded and benefits overstated.

Most of the controversy has arisen because the full costs to the community have not been factored into the decision (see the last article in this issue for the importance of this for public infrastructure.)

What else can we do?

OK, you ask, what else can we do?

Congestion pricing is one option that most immediately comes to mind. Simple, effective and easy to implement. London does it by pricing train tickets into and out of London at peak times at a considerable premium on the off peak rate. Sufficient to make you think twice about whether you want to arrive in London before 11 am or leave before 7 pm. Oxford does it by having no parking spaces available! They use a Park 'n Ride facility instead, with a bus to take you from there into the city. Melbourne, would not need to be so extreme, but congestion pricing, reduced parking, and a switch to public transport would be both cheaper and more effective.

Objections:

1. But that is not asset management!

Pricing and Demand Management are not asset management! That is the realm of infrastructure economics. Not our responsibility. No? Consider the story of the Electricity Trust in South Australia who automatically responded to increased demand by planning a third power station when a combination of increased utilisation of existing facilities and demand management proved - once mandated on them - to solve the problem far more cost effectively. Pricing and Demand management ARE asset management options.

2. But that is political!

Yes, indeed it is. What makes us think that AM should not be concerned with community and customer service, with social values, with, in other words, politics? If Asset Managers, who are best placed to know the cost and service consequences of poor asset choices, do not speak up, what hope do we have to improve?

What are your reactions? Is this our responsibility as asset managers?

- An asset management PLAN details the decisions you have made with respect to assets,
- An asset management STRATEGY explains why you have made these decisions.
- A STRATEGY needs to look out further than the PLAN

  (and, for consideration, would a well developed LT AM Strategy permit a shorter, and thus more accurate, AM Plan?)

A 30 YEAR ASSET MANAGEMENT STRATEGY

As part of the update of the Local Government Act now passing through the NZ Parliament, local authorities will be required to prepare and adopt, as part of its long-term plan, an infrastructure strategy for a period of at least 30 years.

This is worthy of voluntary adoption by all local authorities and utilities, so I am including an outline below of what is proposed in New Zealand.

The purpose of the infrastructure strategy is to

identify significant infrastructure issues for the local authority over this period and

identify the principal options for managing those issues and the implications of those options

The infrastructure strategy must outline how the local authority intends to manage its infrastructure assets, taking into account the need to-

renew or replace existing assets, and

respond to growth or decline in the demand for services reliant on those assets, and

allow for planned increases or decreases in levels of service provided through those assets, and

provide for the resilience of infrastructure assets in the event of natural disasters by identifying and managing risks relating to such disasters and by making appropriate financial provision for those risks

The infrastructure strategy must include

Indicative estimates for each year covered by the strategy of projected capital and operating requirements associated with the management of infrastructure assets; and

the following assumptions on which the indicative estimates are based:

the assumptions of the local authority about the life cycle of significant infrastructure assets

the assumptions of the local authority about growth or decline in the demand for relevant services

the assumptions of the local authority about increases or decreases in relevant levels of service, and

if the assumptions involve a high level of uncertainty, then the local authority must indicate the nature of that uncertainty and give an outline of the potential effects of that uncertainty.

The infrastructure strategy may be included in the local authority's long term plan or be provided separately

Infrastructure assets include:

- existing or proposed assets to be used to provide services by or on behalf of the local authority in relationship to the following groups of activities:
- water supply
- sewerage and the treatment and disposal of sewage
- stormwater drainage
- flood protection and control works
- the provision of roads and footpaths, and

any other assets that the local authority, in its discretion, wishes to include in the strategy.

For discussion on this strategy and to keep up to date with all developments in local authority asset management in New Zealand, I recommend Ross Waugh's Blog.

BROWN AND CALDWELL

DOING BUSINESS LIKE A BUSINESS
OR,
IS ASSET MANAGEMENT REALLY DIFFICULT?

Ken Harlow, Director of Management Services, Brown and Caldwell

Introduction

We often hear top managers say, "We need to do business more like a business!" These managers usually have in mind things like clearer strategic direction, more efficient use of resources, stronger systems of accountability, and so forth.

"We need to do business more like a business." What does this mean? Should public utilities act like private companies?

Laudable goals to be sure. But asset management puts the whole issue in a much clearer perspective. What does "doing business like a business" really mean? Do we simply need to follow the private sector model? Let's see.

The Private Sector Model

It is generally accepted that the role of management in a private sector company is to maximize the wealth of its owners. The word "wealth" is somewhat tricky because it must take into account both current and expected future earnings, reinvestment of earnings in the business versus dividends paid out to owners, performance compared with the overall market, exposure to business risk, and other factors. For a publicly owned company, the "wealth" of the owners is reflected in the value of its stock. That value is determined in the marketplace by investors (owners in fact) who analyze the business and buy or sell ownership shares based on their expectations of future returns compared with other possible investments.

So the primary concern of the private sector manager is financial return. Within that framework, the manager operates under certain constraints imposed by law or regulation. Such constraints may involve antitrust, product safety, hiring and personnel matters, and protection of the environment. A responsible manager will comply with these constraints but will not usually be proactive. Since the constraints are seen as factors that limit financial return, compliance means following the letter of the law and nothing beyond that.

In short, the manager is responsible to the company's owners, not to the larger community. He or she is constrained by law from certain activities that may have socially harmful consequences, but within those constraints there is a clear goal—to maximize the financial wealth of the owners.

The Public Sector Model

Public sector agencies are in a different situation. Their "owners" are usually also the customers for the services the agencies provide. We'll refer to these owners/customers as the "community."

If a public agency were to follow the private sector model, it would deliver the cheapest services possible because that would maximize the community's wealth—but only in the narrowest possible sense. In their role as customers, the community may also value reliability and quality of service, things that may cost a bit more but that they may well find worth the added price.

The "owners" of a public agency are the community it serves. And they're the "customers" as well. This changes things—a lot!

Furthermore, the activities of public agencies impact the community in other significant ways as well. Their services provide the basis for economic development and a rising tide that "lifts all boats." On the other hand, they tear up the roads, imposing on the community the economic costs of traffic delays, lost business income, and residential disruption and inconvenience. They run the unavoidable risk of violating regulatory strictures, potentially causing the community to pay substantial fines and to incur other significant costs as well. They use valuable real estate, making it unavailable for other purposes. And the list goes on.

So in the model for the public sector, "wealth" is defined in the broadest possible sense—the so-called triple bottom line that really implies overall quality of life. In short, a public agency tries, or should try, to:

1. Understand the levels of service that, given their financial, environmental, and social
costs, provide the best value proposition to the community.
2. Deliver those levels of service with the lowest impact to the community, taking into account the same financial, social, and environmental factors.

This is obviously different from the private sector model, and the difference arises from the larger duty of a public agency and the fact that its owners and customers are the same group of people.

So Why do We Call it "Asset Management?"

The discussion above applies to all public agencies. Police, fire, parks and recreation, social services, and so on should all be concerned with the value they provide, and they should understand value in terms of the benefits their services bring to their communities and the costs, broadly defined, of those services.

Why are public utilities different, and why do they need a business model that might be different from that of other public agencies?

The answer is simple. Public water and wastewater utilities are among a small group of businesses whose main line of endeavor is the provision of services using large networks of expensive, long-lived assets. Similar businesses include petrochemical conveyance, refineries, road and rail transportation, and a few others.

These businesses have two things in common:

1. The levels of service they provide are determined by their decisions, past and present,regarding the infrastructure.

2. Similarly, their costs are largely driven by the infrastructure they own and manage. In the case of public water and wastewater utilities, almost all costs (excepting perhaps purchased water) are driven by the infrastructure.

So for businesses in these industries, the value they provide is determined largely by the quality of the decisions they make regarding their fixed assets. These decisions have to do with creating new assets, maintaining and repairing assets, and refurbishing and replacing them. In short, the main avenue for these businesses to increase the value they provide is to improve their asset decisions—which is what asset management is all about.

Surprisingly enough, this is where the private and public sector models converge. In asset management, infrastructure decisions are made exactly as they would be in the private sector, with one very big exception: Benefits and costs of any action (or inaction for that matter) are defined in triple bottom line terms. That is, social and environmental factors are fully considered and treated exactly the same as more tangible and easier-to-quantify financial benefits and costs.

A public agency whose services depend on ownership and management of a vast and expensive infrastructure network needs to build its business model accordingly.

In other words, when approaching asset decisions, a public infrastructure agency practising asset management will continually try to:

1. Understand the economic costs to the community of non-financial costs such as traffic delays, water service interruptions, collection system spills, etc.

2. Understand the value proposition of the community in terms of the best balance between levels of service provided and the associated costs of service.

3. Analyze each decision to determine whether it will bring value to the community—that is, whether the benefits will outweigh the costs.

Is Asset Management Difficult?

In a word, yes. Here's why.

1. Utilities need to understand, in a quantifiable way, the benefits they bring to their communities and the costs they cause the communities to bear. The author knows of no utility in the United States that can claim a full understanding; most, indeed, have little or no understanding at all.

2. Utilities need to understand their communities' preferences for levels of service vis-à-vis the costs of service. Again, this understanding is rare, to put it charitably.

3. Asset decisions must be approached rigorously, in each case providing confidence that the decision is bringing value to the community. Many or most utilities currently approach even decisions involving tens or hundreds of millions of dollars on a largely intuitive basis.

4. Throughout all this, utilities must be dedicated to providing least-cost service given the service levels their communities require. Currently, efficiency measures are often subordinated to concerns over labor relations, procurement procedures, institutional relations with other municipal service providers, and so on. Many times it's easier to just accept things as they are than to aggressively represent the customer's (and owner's) best interests.

So a utility practicing asset management will have an outward focus on the community and an inward focus on efficiency—the opposite of typical monopoly behavior. Most public utilities in the United States have a long way to go on both fronts. Progress will certainly entail structural changes, changes in staffing mix, better understanding of asset risks, far more rigor and clearer accountability for asset decisions, a higher bar for approval of such decisions, and possibly significant changes in overall staffing levels, particularly at larger agencies. Above all, some of the most fundamental attitudes of managers, even top managers, may have to change.

Why should we change when change is difficult, incentives few, and rewards small? Well, there is a reason, perhaps…

None of this will be easy. In fact, much of it will be very hard. It will be doubly hard because there is currently no legal or regulatory mandate for change, at least in this country.

On the other hand, public utility managers can afford to make progress carefully and to accept less than full success along the way. A private business, if it fails to accurately understand its customers' preferences or to maximize internal efficiency, will shortly find itself in bankruptcy. A public utility will face a lighter but perhaps still significant penalty:

The knowledge that it is bringing less than full value to the community it serves. For many managers, and probably for the best managers, this alone will be a sufficient spur to action.

Interested? Bookmark Ken Harlow's Asset Management Page:
http://www.bcwaternews.com/AssetMgt/