



Typical Timber Bridge

6. FINANCIAL AND MANAGEMENT REPORTING

6.1 Asset Valuation

6.1.1 Role of Asset Valuation

The introduction of an accounting standard specifically for local government (AAS27 – Financial Reporting for Local Government) required councils to provide information about a broad range of assets that had not been previously reported. While past council financial statements had included information on vehicles and plant, office equipment and computers and, in some cases, buildings, the great bulk of council assets had gone unreported. In most cases, the unreported assets were not specifically recorded in an asset register. The effect of both non-reporting and non-recording was that those assets were not generally considered in a strategic context. The natural consequence of the lack of a strategic framework within which to consider assets is poor (or no) planning for their required maintenance and eventual replacement, with maintenance and renewal being a reaction to crisis rather than an effective, efficient and well-planned management process. The subsequent valuation of those assets has highlighted their financial significance.

The accounting standard requires that councils report or disclose the following information:

- The nature and type of assets (asset categorisation, e.g. land, buildings, infrastructure – broader groupings);
- The replacement (renewal) value of all assets (current replacement cost);
- The current value of all assets (written down current replacement cost);

- The amount of depreciation of all assets (the service potential used up);
- The cost and valuation bases used for assets; and
- Accounting policies relating to assets (e.g. valuation methodologies, depreciation rates, economic lives of assets) and any changes from the previous year, with an outline of the effects of the policy changes.

6.1.2 Variations in Valuations

Assets are generally valued at their renewal cost. They are “carried” in the accounts at their renewal cost, less any depreciation. A number of valuation methodologies have been used by councils. They include:

Historic Cost. The original cost of the asset. In some instances, this cost has been used due to a lack of better information. The older the asset, the less relevant this cost will be. This valuation methodology will understate the replacement cost of the assets and understate the renewal profile of the assets.

Current Replacement Cost. This is the cost to replace the asset in new condition. In some cases, council officers have used unit rates of construction to obtain this cost. This is a particularly useful and relatively inexpensive methodology, well-suited to infrastructure assets such as roads, footpaths and drainage, and the practice should be encouraged provided that current unit costs are readily available and that the process be systematised to allow for regular revaluation of such assets. Such a basis is generally not as suitable for more complex infrastructure assets which have an element of ‘one-off’ costs built into them, such as buildings, bridges (excluding culverts) and some parks assets. The use of a qualified valuer or quantity surveyor to determine the replacement cost is more appropriate for complex assets. This valuation methodology is generally considered to provide the most accurate replacement cost and therefore the most accurate renewal profile.

Market Value. Some councils are using market value for some of their assets. While market value is useful for assets that are held for resale or assets used to generate revenue (the return on investment test). However, it is not an appropriate methodology for long-lived assets that are not used to generate revenue. Firstly, it is not a useful measure to determine depreciation, or the amount of the asset being used up. This means that only one value will be held in the accounts, the written down cost, for which market value is a surrogate. Using market value as a surrogate for current replacement cost will generally understate the asset value (but not always) and understate the future renewal profile.

6.1.3 Keeping Valuations Current

The relevant accounting standard requires that the value of assets be subjected to periodic review. This is particularly important where assets are subject to periodic price changes, either through technological advances, material scarcity or inflation. The more current the valuations the more accurate the future renewal profile.

6.1.4 Overcoming Shortcomings in Asset Valuations

At the individual council level there are a number of things that councils can do to make up for anomalous asset valuations. They relate to using the technical information that councils have, or can gather, on their assets to provide information to effectively manage the large asset stock. Many councils are using these techniques. The techniques include:

Condition Assessment. The use of professionals, either council staff or consultants, to regularly assess the condition of the asset network and provide information which is useful in determining optimum maintenance levels and the timing of asset renewal. In the case of roads they include such measures as roughness indicators and pavement deflection testing.

Asset Registers. The use of an asset register which contains details about the construction, maintenance, rehabilitation and reconstruction of components of the asset network provides the capacity to analyse the infrastructure network and determine maintenance and renewal costs and timings, based on the recorded information.

Asset Management Systems. The use of computer-based packages such as pavement management and asset life cycle systems, provides a further level of sophistication in managing assets. Such systems are usually predictive in nature and can be used to optimise maintenance and renewal costs. In particular, they can be used to assist in ensuring that limited resources are deployed to the best advantage to maintain service levels of infrastructure assets.

Technical Data Bases and Information. Many councils have data bases which contain technical information about the councils assets. In addition, there are a range of technical data bases which can be accessed by councils to provide information about the maintenance of infrastructure assets, e.g. Australian Road Research Board library, CSIRO, other university and research facilities. Much of the technical information is available through the internet. Accessing the latest data on asset management and new technologies for maintaining and renewing assets can provide councils with opportunities to minimise financial costs and maximise the services provided by infrastructure assets.

6.2 Why Councils Have Been Slow to Capitalise on Information.

To a large extent the reason why councils are slow to capitalise on the benefits of good information or asset management is that they are going about it the wrong way.

To understand this, it is useful to think of Asset Management as the interlinking of three elements.

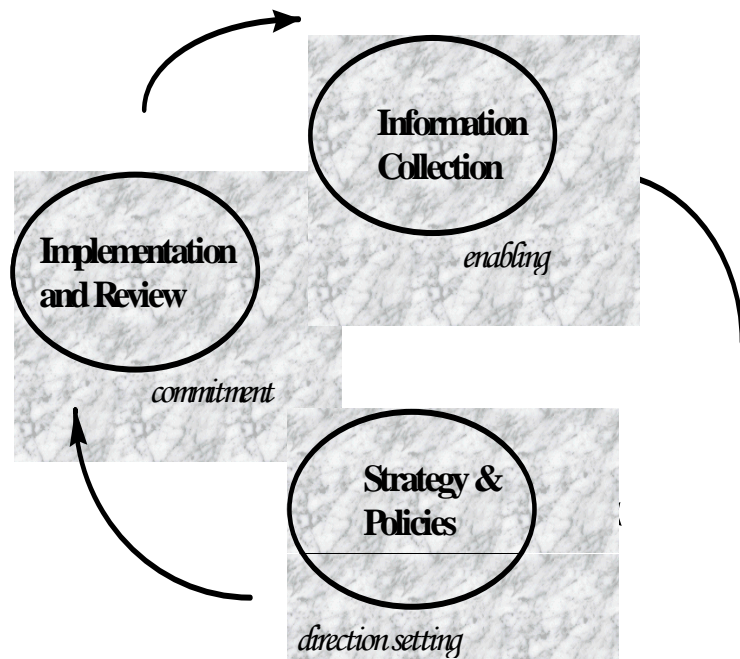


Figure 6.1

Information Collection – This may be termed the “arms and legs” of asset management. Councils sometimes confuse data collection with knowledge (as in “knowledge is power”, implying the more data collected the better). But data must be analysed to become information, and that information must be related to prior information and understanding to become knowledge. Even with this analysis and understanding - which is generally not taking place! - information or knowledge is still only an enabler, it makes better asset management possible but it doesn’t make it happen.

Strategy and Policy – This may be thought of as the “brain, or the mind” of asset management. Strategy sets general directions while policy guidelines determine how things must be done in order to comply. Compliance with strategy ensures that IF something is done it is generally the right, or effective thing, but it does not make it happen.

Victorian Infrastructure Study – Facing The Renewal Challenge

Implementation and Review - It is commitment to action that actually produces outcomes. This is the true “heart” of asset management. Implementation makes *it happen*.

Local governments are currently approaching asset management from the *information collection* perspective, using a “bottom-up” approach driven by technicians.

State Governments tend to approach asset management from the perspective of *strategy and policy*, a “top-down” approach, driven by policy analysts external to the operating agency and with no responsibility for the ultimate outcome.

Real success in asset management today is going to those who take the *implementation and review* perspective. This is neither bottom-up nor top-down, or rather it is both, but in an *integrated* manner.

The *implementation and review* perspective starts with an objective, it uses data collection, but selectively, *it analyses the information to solve the problems set by the objective*, sets directions for the achievement of *that outcome*, takes action - and reviews the consequence!

It is a very practical and pragmatic approach and one which councils would be very comfortable with were it not that they are feeling the pressure to conform to the data collection ‘fad’ that is currently seizing many asset managers. A good example of best practice in the ‘Implementation and Review’ approach is Ballarat City Council, the winner in the recent Australia and New Zealand Asset Management Competitions. It is a good example of outcomes resulting from a commitment to action which drove the information collection and analysis.

Ballarat City *started with an outcome objective*: to answer the question “What should we spend on our roads?” and “Is the current expenditure adequate”. This is a top-down, strategic issue. The problem was analysed and defined - and *then* information was collected and analysed to find an answer to the question, i.e. the information collection and research was itself outcome focussed. This was the technical, bottom-up perspective. The answers to the research were then adopted as its strategic approach to road management by Council - generating the outcome. Review has already determined that the information needs to be refined which will occur once the Council’s pavement management system is fully operational.

The solution required the integration of financial modelling, considering the sources of income, as well as technical decay modelling. It is unusual to find a holistic approach like this in councils (or in other levels of government either) where the financial and technical functions tend to remain as separate silos.

The Ballarat example above is an excellent example of detailed analysis of information. The trouble with the more traditional collection approach is that it tends to become an end in itself. “Better” *information* is the aim. With the

strategic or policy approach, the aim becomes “better” *decision making*. There is nothing inherently wrong in either of these positions, it is just that what is “better” cannot be defined in the absence of defined outcomes and until there is implementation, there are no outcomes! With the implementation and review approach, “better” *means* “better outcomes”.

It may seem “logical” to first collect the data, then develop the strategies and finally implement the process and then review, but there is good reason for suggesting that councils would do better to reverse this process, that is to start with reviewing the success of current practice in achieving a defined objective.

6.3 Asset Accounting

There are many issues related to the effectiveness of asset accounting for asset management. One is the lack of an accounting framework that supports asset management. East Gippsland is an exception for it has an accounting framework based on life cycle costing.

Accounting Systems that Aid Asset Management

East Gippsland Shire Council has developed a chart of accounts that focuses on asset life cycle costing and integrates within a single asset sub-system to provide asset accounting and asset management information.

Assets accounts provide information on the asset life cycle from acquisition, operation, maintenance, upgrade/replacement and disposal. Assets are also classified by function for Grants Commission reporting. The Chart of Accounts defines activities relevant to each phase in the asset life cycle and also defines activities for non asset related service delivery.

Activities are divided into four categories:

- Service Provision (non asset related) expenditure incurred by service groups
- Operating expenditure of a recurrent nature required in the day to day operation of an asset, e.g. mowing, cleaning, utility costs
- Maintenance expenditure required to achieve an assets planned useful life, e.g. resheeting gravel roads, redecking bridges, patching road seal
- Capital Expenditure required to create, extend the life of, or replace an asset

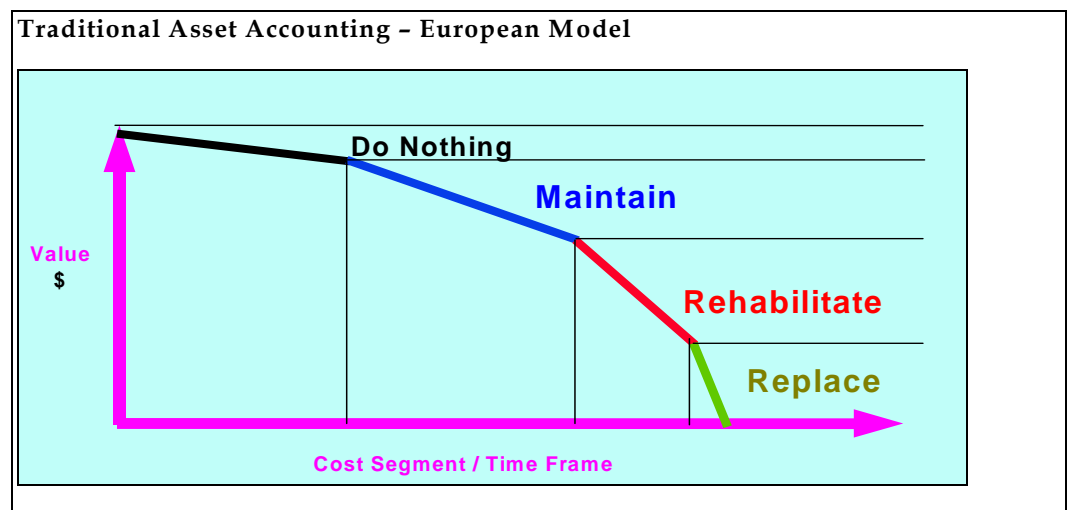
6.3.1 Traditional Accounting is not designed for Infrastructure Assets

Another issue is the failure of traditional accounting models to deal with the nature of infrastructure assets. This traditional depreciation model reflects the book value treatment that an asset will receive in a chart of accounts under an accrual arrangement. At a pre-determined point in time the asset reaches a zero book value and its full cost has been written off against the business. This is a strict financial interpretation of the impact of asset ownership but it does not reflect the actual situation that Council finds itself in as the owner of substantial infrastructure. The American and Canadian Accounting Standards adopted for government business do not record or depreciate infrastructure assets as it is agreed that the information generated does not reflect the true

health of the business. Australia has followed the British and EEC model. What is clear is that neither Accounting Standard is useful in portraying the true situation of the business. The North American model understates the true infrastructure asset costs by not allowing for the inevitable run-down in service potential which has to be restored and the European model overstates by assuming complete run-down and replacement.

Applying a more appropriate depreciation model based on asset condition led to Ballarat being able to plan better and make better use of their limited funds.

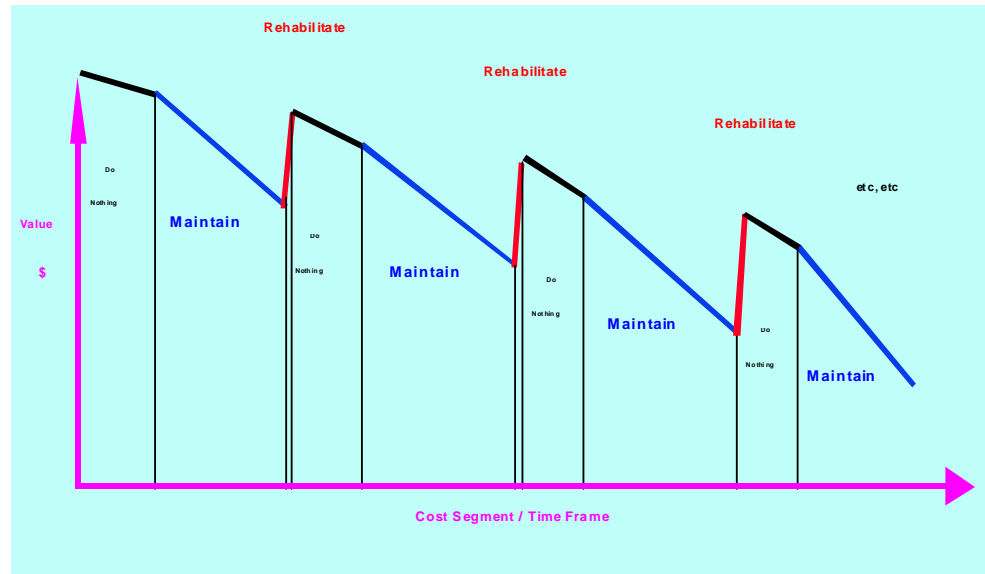
The following model produced by Ballarat Council makes the point.



As Ballarat recognises the model above may only have some relevance if the description of the cost segments are changed to:

- Should **Maintain** But Didn't!
- Should Have **Rehabilitated** But Didn't!
- Have To **Replace**!

The realistic depreciation model for major infrastructure assets the City of Ballarat believe is more useful is shown below.



This generic depreciation model better describes the actual management approach applied to infrastructure assets. The declining value of the asset at each rehabilitation indicates that there is a limit to the application of rehabilitation as a management solution, but the real ‘Economic Life’ in virtually all situations is much longer than current lives suggested in accounting manuals and guidelines.

This model underpins the “Condition Based Depreciation” approach discussed in Section 2 – “Strategies For Action”.

In the absence of detailed condition information from councils, the model used in this Infrastructure Study has projected major road component replacement. That is, it has projected road sealing separately from pavement reconstruction.

A number of councils have reported that they would consider changing their accounting framework to provide the information required by the Infrastructure Study and the “what if” scenario modelling framework to be provided as part of the study, if there was an ongoing State requirement for the information.

6.4 Lack of Integration across Functional Silos

It was apparent during the site visits that there was often little integration between different sections of council responsible for assets; for example, the accountants would use different assumptions about life expectancy from the engineer, and the road engineer and the drainage engineer would frequently not combine engineering and management.

6.5 Emphasis on Technical Issues of Supply not matched by an Equal Emphasis on Demand and Outcome Measurement

The vast improvement that has been experienced in recent years in the techniques of information collection and recording - GIS, video condition

monitoring, etc - have led to a situation where councils are often well resourced in the supply of technical data. This data is often heavily under-utilised, contributing only to filling out the asset register but not being used to determine the cost effectiveness of different maintenance/replacement options and their impact on service delivery. In terms of asset management these new techniques are not reaching their full potential.

6.6 Current Asset Management Practices

In order to establish a feel for data accuracy in the validation process, the survey collected information on the current level of asset management in councils. Answers to questions were the assessment of respondents rather than an independent view, nevertheless the information is indicative of the current state of asset management in councils. That councils tended to err on the side of caution when estimating their own asset management ability is the view of the consultants who visited councils on site and observed some of their practices to be better than councils had reported. However, it was clear that whatever the council wide answer to an asset management category, actual performance varied considerably between asset categories.

The data collected by the survey related to council effort in:

- Strategic Planning
- Asset Accounting
- Customer Satisfaction
- Asset Utilisation
- Demand Management
- Joint Use of Facilities
- Capital Evaluation
- Analysis of Service Gaps and Duplication
- Risk Analysis
- Data Warehousing
- Analysis of Future Trends

Practices by councils varied widely, but it was encouraging to see that a number of councils were using a range of techniques and practices to determine customer demand and satisfaction, asset utilisation and service gaps.

6.7 Service Levels/Standards and links with management plans

6.7.1 Service Levels Linked with Asset Lives

An understanding of an asset's performance - in the light of what the community requires - is the key to estimating its economic life and the likely time of its replacement. Thus defining asset performance requirements such as standards of service provision and levels of utilisation assist in better management and investment decision-making.

Service levels and economic lives are inextricably linked. This is easy to see for roads where the higher the level of road roughness that the community will tolerate, the longer the life of the road. But it also applies to traffic congestion and the demand for new roads. The existing network will be sufficient if the community is prepared to accept a higher level of congestion than if it demands a lower level.

The importance of educating the community about the service level - cost of service link is thus vital.

6.7.2 Service Strategy

A ‘service strategy’ defines what services, for whom, where, when, for how long, at what level and what cost and price, an asset is needed. Service strategies are defined in terms of service outcomes rather than in terms of specific asset solutions. This is essential if certain tools of asset management such as demand management and option analysis are to be taken advantage of.

Unfortunately few councils have the well developed service strategies needed to underpin an asset management plan.

6.8 Demand Management

Demand management is the active intervention in the market to influence the demand for services and assets. The management of demand for council services can be influenced by such measures as community education and pricing policies and can dramatically reduce or defer asset requirements.

Councils are making some use of user-pays pricing systems but could do more. User pays pricing would be of assistance where one ward has a facility which is not available in other wards of an amalgamated council. If such a facility (e.g. child care facility) is paid for, or subsidised from rate revenue, there is a tendency for all wards to demand the same treatment. A user pays pricing system establishes the real demand (i.e. willingness to pay) for the facility, as well as providing funds for its establishment.

6.9 Life Cycle Asset Management

Life cycle costing focuses on all asset costs, not simply the initial acquisition cost. Indeed, it places particular emphasis on costs incurred following acquisition, such as operations, maintenance, repair, replacement, and disposal.

The recurrent costs of power, cleaning, security, maintenance and property holding, as well as the labour and finance charges attributable to the asset, are frequently neglected in the process of capital budget decision making.

It is tempting to focus on a financing option which promises initial “savings” but ignores the longer term costs.

Life cycle analysis requires a good information base. Maroondah Shire Council used the requirement to report assets under AAS27 to establish the data required for life cycle costing. Their work won them the Worley-GHD Award for Asset Management Excellence in the 1997-1998 Australia and New Zealand Asset Management Competitions.

Life cycle asset management requires that the life cycle costs be recorded for existing assets, to act as an aid in projecting them for new assets. Few councils have the facility to easily derive life cycle costs. An exception is East Gippsland, as mentioned above, who argue that financial accountants need to focus attention on developing accounting systems to support asset management. This is, indeed, a high priority. The Chart of Accounts used by East Gippsland is ideally situated to ongoing analysis and asset planning and requires only that Capital Expenditure be further broken down into replacement capital and new capital (upgrade and extension) in order to meet with the continuing information needs of the Infrastructure Study reporting and with councils' individual needs for "what if" analysis using the model framework provided.