A Wealth of Opportunities

A Report on the Potential from Infrastructure Asset Management in South Australian Local Government

Prepared for the
Local Government Infrastructure Management Group
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By

Dr Penny Burns	**AMQ International**
Jeff Roorda	**Jeff Roorda & Associates**
David Hope	**Skilmar Systems Pty Ltd**

Introduction

The resources needed to look after existing assets maintained by councils are set to rise sharply.

Councils look after some eight billion dollars of public assets that depreciate on average by 2% each year ($160 million). Councils currently spend $55 million on renewal of these assets leaving a shortfall of $ 105 million. Council spending on renewal is currently 7%. To overcome this shortfall this figure would need to be increased to 19 %.

Clearly a radical change in the way assets are managed must occur.

This problem is beyond being a mere funding issue. More funding, *by itself*, will not solve the asset management problem and could well exacerbate it. This is now very much a problem of integrated resource planning, in which a more strategic understanding of assets and the part they play in the provision of council services is essential.

With better understanding and a positive attitude to asset management there is a 'wealth of opportunities' for councils to improve their position, as indicated in this report.

Yes, more funding for asset renewal and, particularly, for asset maintenance, will be required by most councils. How much this can be managed within existing council budgets and how much by raising extra revenues is a matter for each council to determine.

In doing so, they will need to consider what services are needed – and at what level – by their communities. From that point, decisions can be made about who should provide those services. Direct provision by council is but one way of ensuring access to services. In the private sector, progressive companies are divesting themselves of assets; finding it more beneficial to focus on service instead and councils may well find that they can do the same.

Data gathered during the survey has also contributed to an analysis of the level of grant funding needed to sustain regional networks and is opening up the discussion of what should be the responsibility of local communities to maintain and what should be supported by the wider community.

The current situation is serious – but not hopeless. With imagination, the adoption of sound management practices, and co-operation with others (councils, governments, private sector) as outlined in this report, the challenge can be met.

The voluntary co-operation of ALL councils within the State in the collection of data, the survey and the site visits, is testimony to the commitment of local governments to solve their own problems.

We commend the report for serious consideration by all councils.

The South Australian Local Government Infrastructure Study Steering Committee

Rodney Donne	City of Burnside (Chair)
Jeff Tate	City of Onkaparinga
Frank Brennan	DC Wattle Range
Stuart Mathews	Local Government Association
Ray Pincombe	Local Government Management Association
Peter Vlatko	Local Government Management Association
Cleve Coyle	SA LG Financial Management Group
Bill Ross	SA LG Financial Management Group
Geoff Hatwell	Institute of Public Works Engineers Australia
Jane Gascoigne	SA LG Grants Commission
John Wright	Office of Local Government

Executive Overview

Councils are custodians of about $8 billion of public assets. The average annual cost of supporting these assets is approximately $160 million since they wear out or become obsolete at approximately 2% per annum. This is approximately three times the amount that councils are currently spending on asset renewal.

The asset information presented in this report has been provided by councils. **While the accuracy of some of this data is in doubt, even if individual councils were to adjust their data reporting by as much as plus or minus 20% this would not alter the main messages contained in this report.**

When the data is revised, asset renewal requirements are much more likely to rise than to fall because approx. $500 million of assets are recorded in the financial records yet not included in the current study for lack of age profile data. It would be wise, therefore, to consider the present figures, large though they are, as a lower bound on future requirements.

How has this imbalance come about?

Renewal has a 'delay function'; councils are now facing the renewal of infrastructure that was first established (often in better economic circumstances, and often with the help of state and federal funding) some 30, 40 or more years ago.

Renewal is lumpy; unlike depreciation which averages the renewal costs, actual payments for renewal are periodic, and for any given asset group renewal can be far less, or much more, than depreciation. Only sound long term renewal forecasting will let councils know where they stand in prepare for the renewal challenge.

Renewal is not associated with increased funding. Instead, it has to compete with many other demands on council, and recently these demands – for social and environmental reasons as well as for increased services – have themselves been increasing. Revenue increases have not kept pace with these extra demands; a limited revenue base and community sensitivity to tax (property rates) increases have been the main reasons.

Renewal is exacerbated where maintenance is under-funded.

A pre-disposition to increasing assets

Older notions that equate 'development' with 'progress' are increasingly coming under attack as communities recognise that development and social and environmental benefits are not necessarily compatible. But perceptions that the community 'expects' asset growth have tended to drive councils' spending patterns, with the result that, even while renewal of the basic asset stock falls short of what is needed, expenditure on new assets exceeds expenditure on renewal by some 50%. (Average annual spending on new assets is $79, cf. $55m on renewal.)

Focus on Service Provision

Councils have tended to focus on the provision of services, rather than facilitating community access to services. This has led to more asset ownership than, with hindsight, may be seen as either desirable or economically sustainable. Re-assessing what services – and, especially what level of service – their communities require, and seeking alternatives to council service provision, can seriously reduce the renewal funding problems councils are facing. Solutions include private provision, co-operating with neighbouring councils and the private sector in the provision of joint services, and administrative assistance to community bodies, such as sporting or social groups, where services can be provided more cost effectively.

Equity

Australians have long had a strong commitment to equity. The notion of a 'fair-go' for all, no matter where they live, is the reason for the 'equalisation' grants provided by the Grants Commission to supplement the revenue opportunities of councils. They are to ensure a certain minimum 'quality of life'. Cost data provided in this study will assist Grants Commissions in their understanding of overall needs as well as differentials. This applies to services provided to local communities.

Regional Benefits

But not all assets that councils own and maintain provide services purely for their local community. Many of them also provide regional, state or national benefits. Questions are now being raised about who should assist with the funding for these wider benefits. This particularly applies to the rural road network and roads of economic significance. These are issues that were raised at the Moree Rural Roads Congress in 2000 and further developed at the Mildura Rural Roads Congress in 2001. Recognition of wider service may present councils with opportunities for funding assistance – but it will also require of them greater accountability and responsibility for asset management. The issue of regional benefits is not confined to roads and there is greater scope for co-operation between levels of government to promote goals of industrial and agricultural development and tourism.

Asset Management Planning

Whether the issue be the funding of asset renewal, deciding which asset (if any) should be acquired, reducing the drain on council revenues from under-performing or unnecessary assets, or improving maintenance, the major tools that councils have available to them is their Asset Management Strategy (council's directions for the future) and their Asset Management Plan (options for meeting those future directions). Basic to these tools are up-front decisions about the desired level of services and who is to provide them. Asset information systems that record asset values and maintenance schedules are no substitute for well-developed strategies at the senior management level and sound, accountable and transparent asset management planning.

What needs to be done now?

An Asset Management Implementation Committee with broad representation needs to be established to receive the report and consider implementation of its recommendations and to take custody of, and maintain, the database.

Asset Management Strategies and Plans need to be developed by all councils and, as guidance, a pilot study could be established with a large and a small council in which the difficulties overcome and progress made was reported on a regular basis to all councils. Other councils should also be encouraged to report their own development to establish a store of case studies for the sector to draw upon.

Similarly those regions that have already developed a level of co-operation could be asked to document their procedures for use on the study website.

To encourage better documentation, it is suggested that the Local Government Association might create Annual Awards for the Best Asset Management Strategy and Asset Management Plan.

Skill training in asset management generally and in the construction of asset management strategies and asset management plans in particular will be needed.

Detailed recommendations are provided in Part Four: The Way Forward. There is also a checklist to help councils in establishing their own asset management procedures.

A Focus on Opportunities

This report is based on the survey findings, site visits and discussions with individual councils. It is designed to highlight and explain the asset management issues that affect all councils and to illustrate the opportunities that councils can gain. It is not an 'asset management manual'. The focus has been deliberately placed on decision-making from elected members to senior management and other staff.

Website

http://sainfrastructure.com

Councils are encouraged to use the database on the study website and to explore the further resources that they will find there. The database is 'live'; it is continually being updated.

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Part Two: Working Within Councils

Planning and Decision Making

Service Levels, Outcomes, Perception and Performance

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Glossary

Accounting Lives - the period over which the cost of an asset is allocated for the purpose of calculating depreciation. *See also* "Economic Lives"

Asset - A store of future service potential controlled by the entity as a result of a past transaction or other past events (Australian Accounting Standard 27 para. 12). Infrastructure is a subset of asset, *see* "infrastructure".

Asset System - A complex asset such as a facility or a network which consists of a number of essential but separable components which may be separately replaced to maintain the function of the system. The smallest aggregate of components that provides a distinct service outcome. Infrastructure assets are asset systems.

Capital Expansion - Investment in new assets designed to extend the same standard and type of service currently provided to ratepayers to a greater number of ratepayers, e.g. extending a drainage or a road network, or the provision of standard facilities in a new suburb. Extension is a function of population growth.

Capital Renewal - - Extending the functionality of an infrastructure asset by piecemeal replacement of individual components as they age or become obsolete. Ensuring that ratepayers continue to receive the benefits of existing infrastructure assets. Capital investment in renewal extends the period of service potential but does not change the total capital replacement value, thus it does not increase the size of the infrastructure asset portfolio. (*see* "component"; "infrastructure asset").

Capital Upgrade. Investment in new assets designed to improve the type of service provided to existing ratepayers. For example, widening the pavement and sealed area of an existing road, replacing drainage pipes with higher capacity pipes to provide a better service, building a grandstand at a sporting facility, or the provision of any new service to existing ratepayers

Component - An essential part of an asset which may be separately removed and replaced to extend the life of the asset. (e.g. road seal as a component of a road asset; or a roof as a component of a building asset)

Condition Based Depreciation - A method of estimating the depreciation or run down in service potential of an infrastructure asset (its change in condition) by the amount it costs to restore that service potential. This is calculated as an annuity over a forward renewal cash flow, hence it is also referred to as the "renewal annuity" method.

Current Replacement Cost (CRC) - The cost, in today's dollars, of replacing the assets concerned. *See also* "Written down current replacement cost"

Current Replacement Value (CRV) - *see* "Current Replacement Cost"

Depreciation - Loss of service potential through wear and tear and/or general obsolescence. Estimated in the balance sheets by application of a formula involving the Current Replacement Cost and the assumed Accounting Lives. But *see also* "Condition Based Depreciation"

Design Life - Period during which an asset can be expected to remain of acceptable physical quality and perform its intended function without repair.

Economic Life - The period from the acquisition of an asset to the time when the asset, while it may be still physically capable of providing a service, ceases to be the lowest cost alternative to satisfy a particular need. The economic life, at a maximum, is equal to the physical life; however obsolescence will often ensure that the economic life is less than the physical life. *See also* "design life"

Effort - *see* "Management Effort"

Expansion - *see* "Capital Expansion"

Growth Assets- Investment in assets that increases the size of the asset portfolio. Growth includes "extension" related to population growth (*see* "extension") and "upgrade", an increase in service levels (*see* "upgrade"). *cf.* "reinvestment".

Infrastructure Assets - Assets that are not replaced as a whole, but rather renewed piecemeal by the replacement of individual components whilst maintaining the function of the asset as a whole. Infrastructure assets have indefinite lives. Economic lives are assigned to components of an infrastructure asset. (*see* "economic lives"; "component")

Infrastructure Spending Gap - The difference between the "default" renewal expenditure projections and the current level of renewal expenditures.

Maintenance - General definitions such as those in Standards Australia "Glossary of Building Terms" include all actions necessary to retain the intended function of the asset (including restoration).

This study has defined maintenance in an activity sense as "Expenditure on an asset which maintains the asset in use but does not increase its service potential or life, e.g. repairing a pothole in a road, repairing the decking on a timber bridge, repairing a single pipe in a drainage network, repairing the fencing in a park, repair work to prevent early failure of an asset or a portion of an infrastructure network".

In practice, this is close to the accounting treatment of maintenance as "all of those actions to preserve the use of the asset that are deemed to be expendable within the accounting period". This, however, varies between councils.

Management Effort - Although measured in terms of the gap between current and future levels of capital spending (mostly that required for renewal), management effort represents all of the management avenues for closing the gap, i.e. reducing costs through greater efficiency, rationalisation, demand management, etc, making future provisions, and innovative funding.

Reinvestment - Capital investment in renewal of infrastructure assets or replacement of non-infrastructure assets. Re-investment does not increase the size of the asset portfolio. (see "replacement"; "renewal") *cf.* "Growth Assets"

Renewal see "Capital Renewal"

Replacement - the complete removal of an asset or a component of an asset and the use of another in its place. (*see* "component")

Service Delivery - the purpose for which an asset is held, measured in terms of service outputs or outcomes, e. g. road access, travel time, hours of library access, etc.

Strategic Asset Management Plan - A plan showing future changes to the asset portfolio (renewal, acquisition, disposal) to ensure that the asset portfolio stays aligned with the Corporate Strategy. It is supported by a full analysis of options, justified in terms of outputs/outcomes.

Sustainment - the cost of maintaining the function of an infrastructure asset portfolio by day to day maintenance and periodic replacement of components ("renewal"). (*see* "infrastructure asset", "maintenance", "replacement", "components")

Upgrade Assets - *see* "Capital Upgrade"

Written Down Current Replacement Cost - The Current Replacement Cost less Accumulated Depreciation calculated on the basis of accounting lives.

Part One: Overview

1. SA Infrastructure Study

"If you don't know what you've got, and you don't know what you need – then you can't match up the two and you're really in strife!"

Interview with Urban CEO

The Study

This study was initiated by the Metropolitan CEOs' Association and supported by a grant from the Local Government Research and Development Fund.

South Australian councils have voluntarily taken part.

The objective has been to assist councils in improving their asset management through

(1) the provision of a structured data base and analytical tools,;
(2) knowledge of the issues and good asset management practice; and
(3) providing a 'way forward' through suggestions, examples and recommendations.

(See Appendix 1—Project Brief)

Data Collection

No new data has been collected, but rather currently existing council data has been gathered, organised and presented in a way that is more useful for decision-making. Data covers the size, condition, value and renewal timing of councils' infrastructure asset portfolios. The website database is 'live' - that is, it is subject to change as councils refine data and improve their management practices. *Any changes to the database in the short term will not affect the report's major conclusions.*

Infrastructure Assets—Definition

Data analysis has been confined to infrastructure assets. These are large scale assets that are basically renewed rather than replaced (i.e. roads, bridges, drains, parks, buildings). Excluded are short-lived plant and equipment (including IT), land and trees and other vegetation. However most of the management processes recommended for long living infrastructure assets will also be applicable to non-infrastructure assets.

Box 1A. Council Stories: A large and growing urban council

This council area was mainly developed in the 1970s and 1980s. The area is still growing at 4% p.a. and about $20-$30 million of assets have been constructed by developers and transferred to council in the past 5 years.

Water quality is becoming increasingly important. The area contains a significant catchment for a major wetlands area and strategies for water quality include water re-use and managing aquifer and water supply for growing industrial development.

Opportunities: Councils with a large section of their assets likely to become due for renewal at approximately the same time need to plan their expenditures and revenues very carefully. Sections 11-14 dealing with Asset Management Strategies and the development of Asset Management Plans will be of assistance. Such councils should also consider now what service level can be afforded and work with their communities to gain acceptance for affordable levels.

There is also an opportunity for councils experiencing current growth to join together to document the costs of supporting developer contributed assets over the long term and using the information to support a case to the State Government in support of more appropriate infrastructure standards. See Part 3 "Working With Others".

Regional co-operation is also of value in dealing with the water quality issue.

1. SA Infrastructure Study

A Statewide Study

The ability to conduct the study on a state-wide basis has increased the value of its results, allowing a more comprehensive picture to be developed. It has been a major undertaking that has taken 15 months to complete.

Survey

A survey was constructed with the assistance of two reference groups to collect the data and information on asset management practices.

The full survey will be found at Appendix 2. The reference groups as well as the Steering Committee that guided the production of the study will be found at Appendix 3.

Preliminary Regional Briefings

A series of five preliminary briefings were held across the State to inform councils about the value of the study to their operations and strategy and to explain the nature of the survey forms. Copies of the survey were provided to councils at these briefings. The Briefings generated considerable interest and feedback on the survey forms leading to improvements.

Site Visits

The briefings were followed by site visits to each one of the 68 incorporated councils in the State. All councils were interested to take part and all have now submitted some information which is contained in the aggregate data on the website. The data is still being added to and refined. The major conclusions of this report are unlikely to be substantially affected by any such changes but readers are warned against drawing any major conclusions that are not indicated in the report.

The site visits yielded much information about the problems that councils were facing as well as data and best practice information. A number of the best practice stories, those focussing on "Value for Money" rather than technical or construction excellence, have been included in this report.

Interviews

A number of interviews with CEOs and other senior managers, asset managers themselves and elected members helped to establish the current level of appreciation of asset management and its benefits.

Database and Website

A major achievement of the Study has been the development of a common data base and a website accessible to all councils.

The reasons why the study was undertaken are discussed in the following section.

A more detailed account of the methodology will be found at Appendix 4.

Box 1B—Tourism and the Private Sector

As councils diversify to implement economic development strategies they may encourage the private sector to develop tourist facilities or develop them themselves. This marina is a joint venture between a council and the private sector. A **regional asset management plan** for such regional initiatives is essential to model both short and long term objectives and cash-flows. (See Section 35—Regional Asset Management)

Opportunity: To compare and learn from others, and to see one's own problems in a wider context.

2. Why Asset Management?

"Every dollar spent on new capital this year will add between 10 to 25 cents every year – for ongoing maintenance/renewal, operations, cleaning, lighting, security, and interest."

Why have South Australian Councils voluntarily participated in this study of Infrastructure Asset Management?

Here are just some of the reasons. In the inset boxes in many of the sections in this Chapter are more —they describe, quite simply, the situation that councils are now facing.

Box 2: A Rural Council Undergoing Change

The road network in this council area was the critical link to move grain to silos during the wheat harvest. The nature of transport is now changing, with larger, faster vehicles reducing transport costs. The greater speed of the new vehicles is drawing out fines and reducing the period between gravel re-sheets adding to the costs of road maintenance for councils. But this is not the only consequence. The reduced transport costs are making it possible to transport grain further and to build larger, more economical, silos. Whereas, previously, smaller silos would deal with the local council area, now it is more likely that large regional silos will cater for many council areas.

Opportunity:

This would benefit from a regional strategy and co-operation between councils, if roads are to be sustained in good condition for all, see Part 3.

■ Financial necessity

The costs of maintaining assets are increasing year by year. So are the costs of other demands on councils. Revenues, unfortunately, are not keeping pace. So one of the reasons for increased interest in asset management is simply financial necessity.

■ Gaining a sense of 'control'

Another is the feeling that what is 'out of control' can be brought back within control by adopting a better-informed, more systematic approach. This is as important for morale as it is for service. Councils *want* asset management.

■ Desire for Relevant Forward-Looking Information

Managing the future requires information about future events but most of the information currently available to councils is not future oriented; it is backward looking. The financial accounts report what *has been spent*, technical records report what *has been done*.

But what is done is done! Councils cannot manage past actions, only future ones. Managers need to know what revenues and expenditures are *likely to be and why.* This study is the first step in providing good quality, forward-looking, information.

■ A Sense of Urgency

If funds are not available for replacing all assets as they fall due – and, as this report will show, they are not - then forward-looking information is necessary for the planning

2. Why Asset Management?

required to find and test alternatives such as extending asset lives, reducing costs, expanding capabilities, or finding new ways to deliver services requiring fewer or less expensive council assets.

■ The Need to Understand

However, it is a mistake to think of asset management as 'simply a technical issue' ,say, of constructing 'asset registers', collecting information or applying certain techniques such as renewal forecasts, although these are valuable in their own right.

These things are simply tools. For the tools to make a difference to council outcomes, there has to be a willingness to embrace them, an understanding of the benefits. Councils are looking for this understanding.

■ A Clear Sense of Purpose

Asset management is a 'way of thinking' that begins at the top with the strategic directions given by elected members; continues with the systematic analysis and evaluation that is carried out at management level; and concludes with purposeful action carried out at the operational level. It unites council from top to bottom with a clear sense of purpose. Asset management is a key element of council's integrated planning.

■ Elected Members are Challenging Old Shibboleths

Elected members are starting to throw off out-dated ideas such as "there are no votes in maintenance", or "more assets mean progress" and to apply more rational approaches to capital acquisition and maintenance. This is providing councils with better direction.

■ Is there a Better Way?

Councils are also starting to question whether they need all the assets they currently have. They are looking at the real benefits experienced by ratepayers and measuring them against the costs – and then they are looking for better ways of providing the desired outcomes but with fewer and, perhaps, different assets, or maybe with no assets at all! This study and its report will help.

More than Maintenance

Asset Management is far more than merely maintenance—but in all asset decisions, the consequences for maintaining the current stock, at least those elements of it that are still required, takes primacy. This is discussed in the next section.

Opportunity:
To achieve better service delivery, greater reliability and lower costs ,through better use of assets.

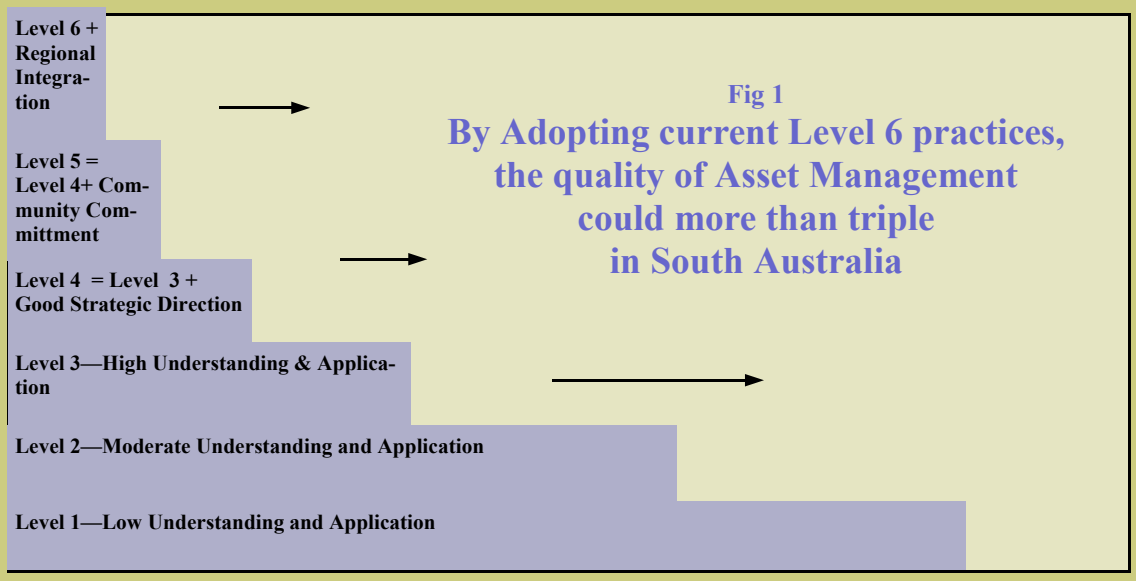


Fig 1
By Adopting current Level 6 practices, the quality of Asset Management could more than triple in South Australia

3. Maintenance First!

"If a city looks run down, untidy and unkempt, then shoppers and businesses will go elsewhere"

Interview with City Council CEO

The first rule of asset management

The first rule of asset management is "Maintenance First!" No matter how much it costs to maintain or renew an infrastructure asset, it will always cost more – *much* more! - to have to start from scratch and replace it.

Box 3A: A council with significant "developer contributions"

This is a mainly residential area and a third of the city was developed by the private sector in the 1980s. For ten years, the private developers managed the parks, gardens, and intensive verge plantings as a marketing attraction.

Now that the area is developed, these parks and gardens assets have passed to council to maintain.

The water bill alone is quite extensive and council has been spending a great deal on parks maintenance and development and is now concerned that this is diverting resources from assets such as roads and drains. A major aquatic centre is now 20 years old and will soon need major refurbishment.

Opportunities:
Councils in this situation would benefit from Section 24 on "Pricing as an Information Tool" to identify the costs of the different services and different service levels provided throughout the council and to use this information in their Community Consultation (see Section 28). Refurbishment of their major aquatic centre would benefit from the development of a business case (see Section 15).

The assets that are currently in the portfolio are presumably the most important, which is why they have been given priority in acquisition, so it makes little sense to put them at risk for the sake of acquiring lesser important assets that have been able to wait until now.

There are two important exceptions to the maintenance first rule and they are:

1) *Where you have taken a deliberate policy decision* to write down the quality at which you are maintaining an asset because the community no longer needs such a quality and it is therefore cost-ineffective to continue with current practice. (For example, ceasing to re-sheet a gravel road where traffic flows are low and declining because of industrial or population changes.)

2) *where you have taken a deliberate policy decision* to phase the asset out of existence because the community's need for it has now passed. In this case, while it continues to be used, a minimum level of maintenance to ensure community safety will be necessary. When even this level of maintenance cannot be justified, the asset should be closed and, if possible, disposed of.

Assets not maintained are assets lost

Assets that are not maintained will decline in quality, eventually becoming so degraded that they become an aesthetic, social or environmental hazard.

3. Maintenance First!

What is Maintenance?

Full maintenance for a gravel road (ie ensuring the road continues to serve the community at the level it was designed for) includes regular grading and periodic re-sheeting.

For a sealed road it includes crack-sealing to extend the life of the seal, re-sealing when crack-sealing is no longer effective, and eventually refurbishment of the pavement.

For buildings it includes everyday maintenance of the building fabric, periodic renewal of major elements such as roofing, wiring, etc, and eventually, major modernisation overhaul.

Best Practice

This study has been designed to provide all councils with the information available to, and being used by, best practice councils.

Best practice Councils have assessed the cost of fully maintaining their asset portfolios and have assigned their assets into core (essential) optional (nice to have) or surplus (no longer needed, or can be downgraded).

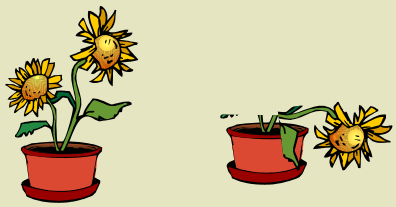
Realisation of just exactly how much assets are costing provokes asset rationalisation.

Individual Council Cost Information

Information now on the website helps councils determine full maintenance costs. "Average Annual Cost of Asset Consumption (AAAC)" measures the annual cost of 'using up' or consuming the assets service potential. *This is the average level of re-investment or renewal required.*

The cost and timing of renewal is discussed in the next section.

Opportunity: To maximise the extent of your assets and asset services to the community, put maintenance first.



Box 3B: The Under-funding Problem

If maintenance funds fall short of the full maintenance requirements, there are two options that can be taken.

1. Share the available resources around as far as they will go.
2. Select the assets that really need to be preserved and ensure that they get funded first, then the next most essential, and so on in turn.

The first of these is most common. The maintenance branch gets less and less funding each year, but the assets that it needs to maintain get older and more expensive to maintain, higher environmental standards need to be adhered to and new assets get added to the portfolio. So there are more costs but less budget. The first stage is often to 'share the money around as far as it will go'. Then, when serious problems crop up, they will be given 'emergency funding'.

It is like watering a garden when there is not enough water to go around. You can give each plant an equal amount, but since that is not enough to sustain any of them they start to wilt. Then you choose the most wilted and give it extra attention to revive it. But it is generally too late. This is a policy to maximise losses!

The solution to the under-funding problem is to prioritize from the beginning—this is the role of the Asset Management Strategy and the Asset Management Plan, see Part 2.

The AMS and AMP will tell you how much you can afford to divert into new growth and how much is required to sustain existing assets.

4. Costs—Beyond Funding

The Size of the Renewal Problem is such that it has gone beyond funding

"We have been somewhat reactive in the past—if another council had it, then we wanted it! We can't afford that now."

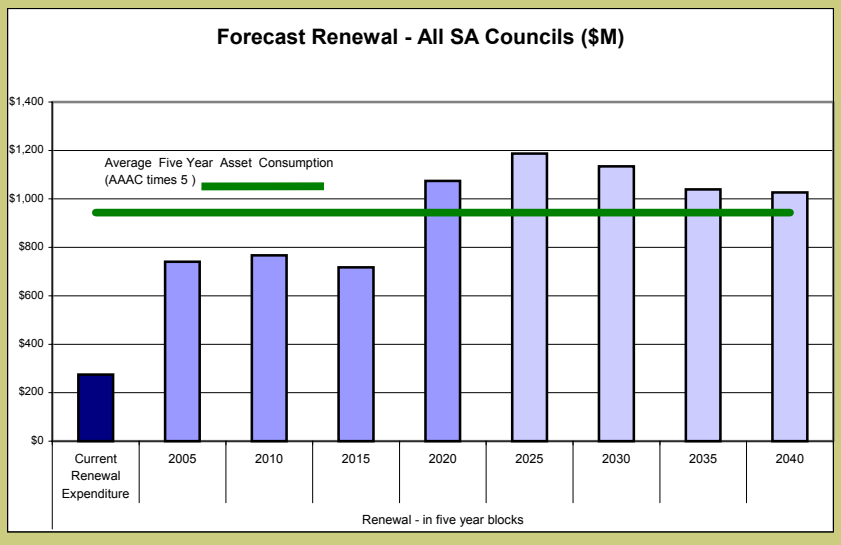
Interview with Non-Metro Urban CEO

■ Renewal Set To Treble And Quadruple Over Next 20 Years

There has been concern for some years that councils are not spending enough on maintenance and renewal of their assets. These concerns are clearly supported by the findings of the survey. Projected levels of annual renewal over the next 15 years are almost three times the current level. This rises to almost four times the current level within 20 years. (Fig 4A)

Unless there is some rationalisation of assets, services and/or changes in asset management practices, councils will need to find increases in their renewal budgets of 200-300% - or face serious decay in community services and amenity

Fig 4A



■ These Figures Under-State Future Renewal Requirements

More funds will be required for maintenance and renewal, fig 4A shows that the increases are not 'once-off' but rather that required renewal will rise to a new higher level and then stay there.

Moreover, these figures, while large, in fact under-estimate the total renewal problem for council for three reasons:

(1) Does not include all infrastructure assets.

The study projects the renewal of about $7,500m of assets reported, but there are at least another $500m of assets that, according to Grants Commission figures, are in the balance sheets of councils, but have not been reported. (A number of councils failed to report data on assets because their data bases were not adequate to the task.)

(2) Forecasts only infrastructure assets currently held – and not the assets still being acquired.

Expenditure on new assets actually exceeded the amount spent on the renewal of existing assets. The asset stocks are estimated to be growing at approximately 2% per annum. This new growth will also add to future renewal.

(3) Non-infrastructure assets will also require renewal.

This study did not examine the future renewal costs of plant and equipment but these need to be added to the council's overall future asset renewal requirements.

4. Costs—Beyond Funding

Renewal Issue Goes Beyond Funding

Fig 4A shows the overall State picture; for rural councils and for urban fringe councils the situation is even more severe, with required increases of the order of 5 to 6 times current levels. Increases of this magnitude require solutions that go beyond mere funding.

What is affordable?
Councils need to decide how much infrastructure they can afford to sustain in the longer term and what this means to them in terms of annual costs.

What is necessary?
Where councils are unable to afford to sustain a standard of infrastructure that is considered necessary either to provide a basic quality of life for the community or to sustain nationally required infrastructure networks, new methods of funding and maybe management will have to be developed.

Integrated Planning
The issue of asset renewal cannot be looked at in isolation. Councils need to plan the services, and especially the service levels, that they can afford. This affects all council activities not simply maintenance and renewal.

Social and Environmental Consequences of Neglect If the asset renewal issue is not solved, asset decay will be reflected in such things as:

- Dangerous or impassable roads
- Non-functional buildings and parks
- Environmental damage (eg storm waters unattended)
- Declining revenue through lost tourism

Four 'Large Ticket' Items

Figures 4B and 4C show that there are four asset groups that dominate the annual cost of sustaining assets, namely, roads (sealed and unsealed), footpaths, stormwater drainage and buildings.

Stormwater drainage has a very large asset value (19% of total replacement value for all councils) but lasts a very long time and so is less significant in terms of average annual asset costs (only 8%). However for older established city councils, stormwater drainage renewal could present a very large cost in the next 10 –15 years.

Fig 4B

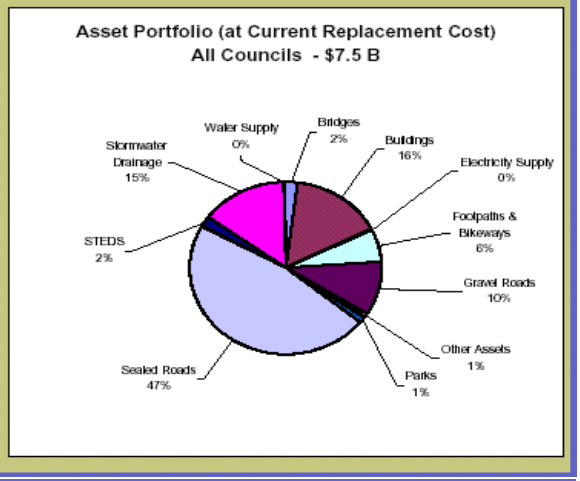
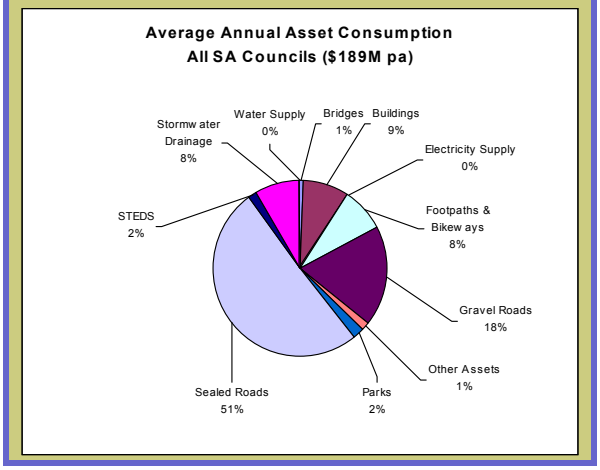


Fig 4C



Parks and reserves, while not a large item overall, are a serious problem for a few "garden suburb" councils, particularly those that have been subject to large scale private development within a condensed time period.

Every council's problems are different and Sections 8-10 examine the particular issues affecting metro urban, non-metro urban, and rural councils. However they all have in common the need to rethink what the community really values, what is affordable, and how best to manage the large renewal expenditures that are looming. This is the subject of the next section.

Opportunity: Average Annual Asset Consumption (AAAC) is an indication of what annual reinvestment in assets is needed in the longer term. Failure to meet this long term average will result in asset and service failure.

5. Managing Renewal

"The next time this asset needs to be renewed —it won't be"

Rural CEO

One way to manage the future hump in renewal is not to do it! ("Managed Non-Renewal")

There is a world of difference between the non-renewal that happens by neglect and 'managed non-renewal'.

Over time as new opportunities arise, or communities change, the assets and the services they provide become out of kilter with real community needs: local community centres may be less utilised when the roads improve and people can utilise newer facilities some distance away; small local silos and the roads that serve them may become less valued when changing industry needs encourage the growth of larger regional silos, and so on.

Taking a fresh look at what services are really required can reduce renewal demands considerably. Consider:

Facilitating services rather than providing them Many councils assist community groups to fend for themselves, sometimes with seed money, but quite often just with organisational advice. Facilitation avoids asset ownership and thus renewal, but the community still gets the service.

Re-assessing service levels. Over-provision of services is just as costly as under-provision, but whereas the community will complain about under-provision, they often won't comment when an excess is provided. Thus a road maintained to a high standard when only an average standard is required will probably not be identified by consumers. Councils can save themselves a great deal of cost by reducing service levels where they are not really needed (see Section 22 Service Levels).

Structured Deferral. Asset renewal can be deferred, but at the cost of a lower quality of service. Where service levels cannot be afforded at the level the community would like, the community need to be informed about the options.

Box 5A: Renewal, Asset Life and Service Level

Core infrastructure needs to be replaced – for these essential assets, the question is when and how much will it cost. But there is also a choice of how.

Work to date shows the economic life for any asset class can vary greatly depending on factors such as environment, climate, soil type, traffic, construction materials and techniques, and level of service criteria.

Some assets with low loading and friendly environmental factors may last well over 100 years or a period that seems indefinite. Others in the same class experience total failure within 10 – 15 years or even less.

Gathering more knowledge about asset life is critical to asset management plans.

Consider the picture above. Whether or not this asset has failed depends on level of service criteria. It still performs a drainage function (with ponding immediately after rain) and retains the adjoining pavement.

If aesthetic upgrade is desired--a change in direction—**the least cost time to do it is when the asset is being renewed, and not simply for aesthetic reasons now.**

5. Managing Renewal

Renewal needs to be presented as part of an integrated planning approach to council services as a whole and an asset management strategy that supports, and can be seen to support, the integrated planning approach is a useful communication tool. (see Sections 11-14 on developing Asset Management Strategies and Plans)

Another way to manage renewal is to anticipate it

Renewal is an Opportunity to Change Direction with Minimum Loss.

This can perhaps best be explained by a small domestic example:

Imagine you have an ageing electric water heater that you plan to change to gas when it needs renewing in order to obtain the benefits of instant, plentiful hot water at reduced costs. However your house is not currently connected to the gas supply.

One winter morning the shower water is stone cold, the heater non-repairable - and you find you cannot get gas connected for three weeks! Reluctantly you turn to the only option open to you if you don't want to suffer three weeks of cold showers, and that is to forgo your desire for a gas water heater and replace the old heater with a new electric one.

What has happened here? *By failing to plan ahead* you have missed the 'opportunity to change direction with minimum loss'.

The same thing can happen in council. For example, an ageing building needs major repair. Now is a good time to rethink the need for the building for that purpose. Maybe functions could be removed to another location and the land and building disposed of before becoming a major cost? Good Asset Management requires forward planning.

Renewal Forecasts and Advanced Planning

This is what the renewal projections are intended to do; they are not prescriptions, but guidance to provide an indication of renewal opportunities in time to give council the chance to consider options and choose the most appropriate path*.

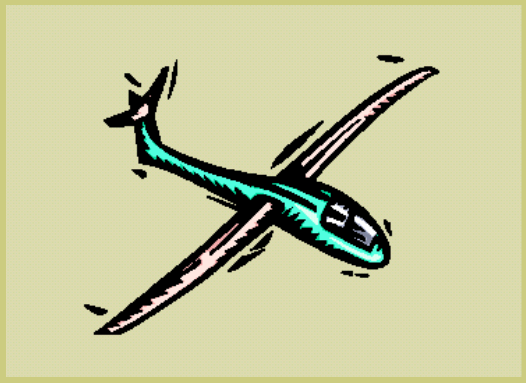
The next section looks at funding renewal and why current practices lend themselves to over-capitalisation and the serious renewal problems councils are facing today.

*See also Section 17 - Using Renewal Projections.

Opportunity: By asset management planning - be able to change direction with minimum cost!

Box 5B

Asset Preservation!



The following, sadly, is a true story. Names have been omitted to avoid embarrassment to the council. Full marks to the councillor raising the question. The old idea of asset management was to manage so as to 'preserve the asset' as here, the new idea of asset management is to manage so as to deliver council's goals on services.

The council had just spent $60,000 resurfacing the local airstrip and questions were raised at the following council meeting. It went something like this:

Q: How many airplanes use that airstrip?
A: Well, none actually, they prefer to go to the next town where the airfield is bigger, staffed and more convenient.

Q: You mean no-one uses the airstrip?
A: No, it is used by gliders.
Q: But isn't it true that gliders don't like to land on hard surfaces and so they use the unsurfaced edges?
A: Well, yes
Q: (in exasperated tones) Then why on earth did you resurface the airstrip?
A: (indignantly) To preserve the asset of course!

Renewal should not be automatic!

6. Scope for Capital Spending

"Council has been using up reserves to spend on infrastructure as a matter of a deliberate policy of upgrading. Now we have little in hand to cope with future renewal."

Rural CEO

"Our council has not increased its rate revenue to cover natural growth or inflation, so we are going backwards."

Rural CEO

How much can councils spend on assets?

"We determine how much we can spend on assets by taking the Net Operating Surplus and adding Depreciation".

This is a common form of budgeting for capital spending and where assets falling due for renewal are of approximately the same amount as annual depreciation, it will serve councils quite well. The depreciation amount then funds renewal and the net operating surplus funds additional assets. No problems.

But only the net operating surplus is really available for new, additional assets. Depreciation is a cost, the cost of the wearing out and growing obsolescence of assets and will need to be paid at some time in the future or the assets will be lost. It can be spent on renewal, or it can be put into a renewal reserve.

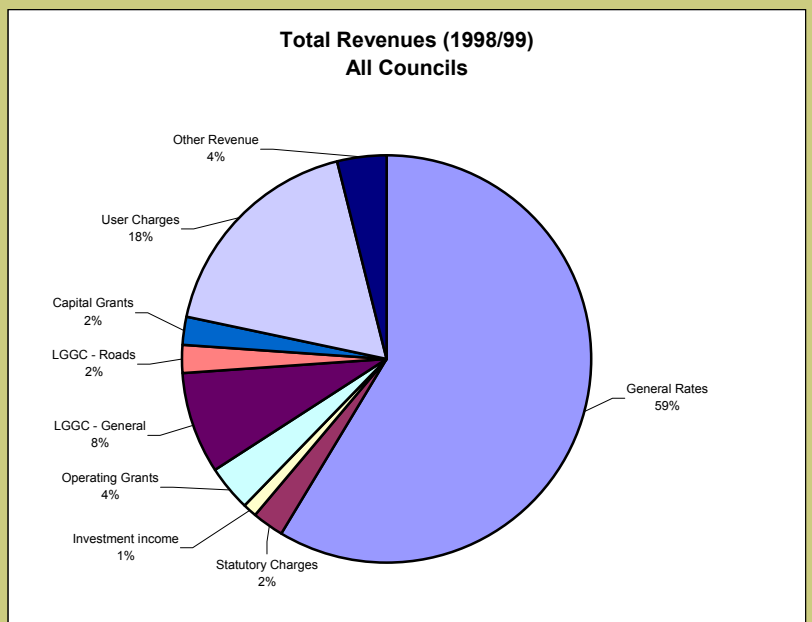
If it is spent on new assets (or if, having had the foresight to create a renewal reserve, the council then allows reserves to be used for new asset acquisition), when assets start to age and require renewal, there will be nothing to fall back upon. Without reserves, or with insufficient reserves, the council will have to switch capital spending from new to renewal, and such is the 'lumpiness' of renewal that the amounts falling due will frequently exceed depreciation and require the net operating surplus also to be devoted to renewal if assets are not to be left to degrade. And even this may not be enough.

Unfortunately, once councils become accustomed to a certain level of spending on additional assets they can be reluctant to reduce it. This can be seen in the fact that while renewal due is three times the amount of renewal currently being provided, councils are still spending more on additional assets than they are on renewal. ($79m p.a. on additional assets c.f . $55m p.a. on renewal)

What is the scope for capital spending?

Councils may consider that their ability to invest is determined by their available cash and the amount they can borrow. In the short term this is so. But the more assets that councils acquire, the more they have to maintain, and the more they have to eventually renew.

Fig 6A



6. Scope for Capital Spending

The long term sustainable asset level

In order to tell whether a council has reached, or even exceeded, the sustainable level of asset holdings, it should look to the AAAC, the average annual cost of asset consumption, and compare that amount with the amount that it is prepared to spend, on an annual basis, on asset renewal, after allowing for full maintenance.

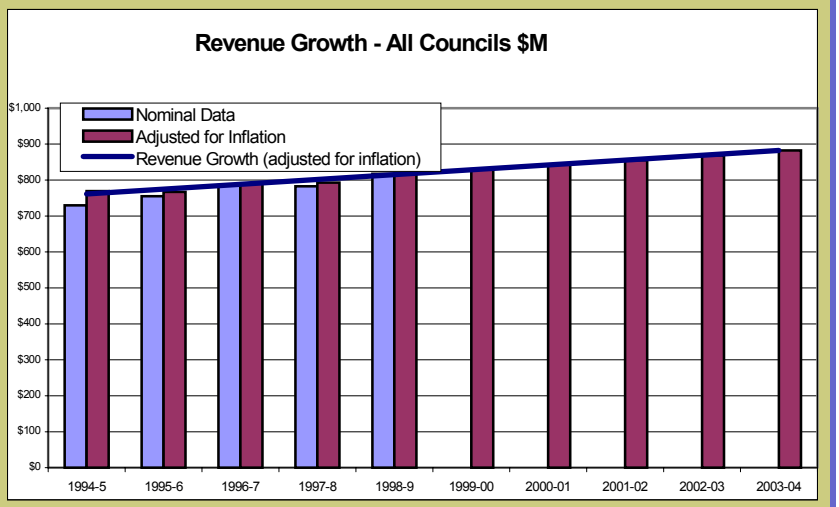
If the spending limit is not sufficient to sustain the asset stock, councils should reduce their asset holdings. If they fail to do this by deliberate decision, it will happen anyway by neglect. However, councils will be able to ensure minimum loss and prioritise their asset reduction if they do it deliberately. Nature can be somewhat random.

What is the long term desirable reinvestment level?

If revenues are growing strongly, councils can confidently plan for an increasing level of reinvestment and this will support an increasing level of total capital stock. But if revenue growth is sluggish, councils may find that all of the growth is being absorbed by needs other than infrastructure re-investment. This is more likely to be the current situation for most councils for over the past five years, (see Fig 5 B) council revenues have increased, on average, by only 1.5% per annum. Quite a number of councils have growth rates lower than this, a sizeable number have negative growth. (see Fig 6C).

Fig 6C has projected a continuation of this level of growth, but councils are not in complete control of their revenue futures. General rates, the revenue element most under the control of councils, accounts for only just over half of the revenue received. Grants account for just under 20% and real growth in grants has been very flat.

Fig 6B

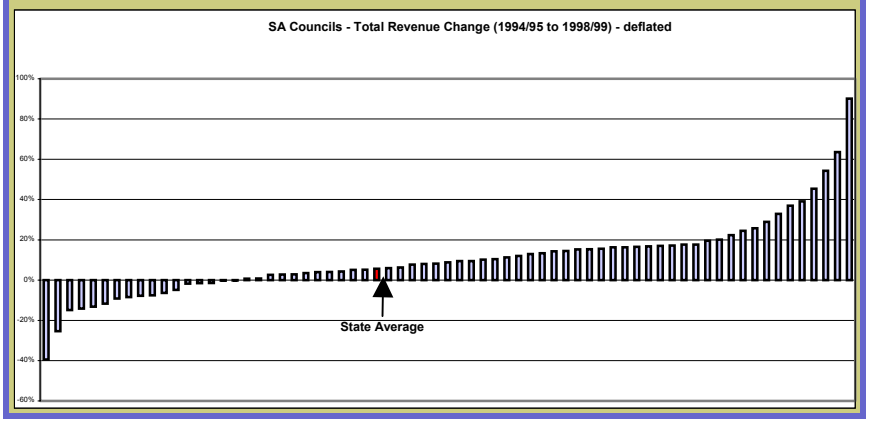


What is the Future?

There do not appear to be any good arguments for assuming that revenue growth will be stronger in the next 5 years.

How councils can bring their costs and revenues into balance is the subject of the next section.

Fig 6C



Opportunity: To understand the role capital spending plays in the over-capitalisation and renewal problem.

7. Matching Costs and Revenues

"Council has been reluctant to get rid of any assets even if they weren't pulling their weight. "

Interview with Non-Metro Urban Council CEO

"Our asset maintenance and renewal bill is increasing every year, but our revenues are static"

City Asset Manager

The Size of the Problem

Over the 5 years to 2004-05, if the revenue growth trends shown in Fig 6A continue, councils will receive an extra **$251m** in revenues to meet a forecast extra renewal demand of **$466m.**

But renewal of infrastructure assets are just one of the financial demands on councils which is why we argue that the renewal issue goes beyond funding, it requires management.

What this Means for Councils

Councils vary greatly in their age profiles and renewal requirements as well as in their income growth rates. Some councils mainly metropolitan urban councils, will have as much as five to ten years comfortable planning time to raise renewal reserves and plan for future change. Others, the non-metro urban councils and the rural councils may need to act with far more speed and external assistance may be required. (See Part 3: Working with Others)

What Can Be Done?

At the same time as renewal requirements are starting to bite severely, asset stocks continue to grow. (For rationale, see previous section) A good start to addressing the renewal issue would be to examine where capital funds are going now.

The survey showed the following pattern of capital spending:

Expansion (increasing assets to meet increasing populations accounted for over $47m p.a. of current capital expenditures.

Upgrade (increasing assets to increase the standard of service provided to the population) accounted for another $30m+ p.a.

In total, *new asset spending* amounted to $77.7m p.a., compared with renewal spending of $54.9m p.a.

The choices for managing Asset Renewal are:

1. Capital Expenditure Switching

An immediate option for councils is to switch spending from new to renewal. This would have a number of positive benefits for council

(1) it would more than double the amount of renewal and prevent the loss of essential assets

(2) It would avoid increasing the asset base and thus putting more demands on the available maintenance funds – maintenance could thus concentrate on the existing asset portfolio, again acting to prevent the loss of essential assets

Plant and Machinery and other Non-infrastructure Assets

This study has not sought or reported information on non-infrastructure assets such as plant and machinery, but the same asset management principles apply. Councils need to ap-

7. Matching Costs and Revenues

ply the same rationalisation and assessment techniques to their plant and machinery and other short lived assets. This could increase their scope for managing infrastructure renewal.

Other Options for Matching Costs and Revenues

1. Increase revenues

Rates

An across the board rate rise of 10%, for example, would raise about $45m. If carried out in the first year and sustained this would cover (on a statewide average basis) about half of expected increases in renewal. To justify the need for any such action, however, councils would need to be able to demonstrate that

- Council is spending current incomes as wisely and efficiently as possible, and that
- The extra expenditure would result in benefits greater than the costs – leading to a higher quality of life for ratepayers

Grants.

To increase incomes by the same amount via grants would require an increase in grant funding of 40%. It is possible that increases of this magnitude could be argued for some councils but even more documentation of need and demonstration of efficiency would be required. (See Part 3)

User charges.

User charges, including reimbursements, account for about 16% of total revenues. Like grants, a very large increase in this amount would be needed to produce a similar effect to a 10% increase in rates, but there could be scope for increasing user charges in many councils and this should not be overlooked.

2. Reducing Costs

By reducing the size of the total asset portfolio
through

- Greater utilisation freeing up surplus assets for disposal
- Rethinking need for assets or services
- Changing the method of supplying services

By re-assessing and extending economic lives ,
through

- improved and better targeted maintenance
- Design modification
- More focussed risk management, and
- More appropriate, 'fit-for-purpose' asset and service standards

Matching Costs and Revenues

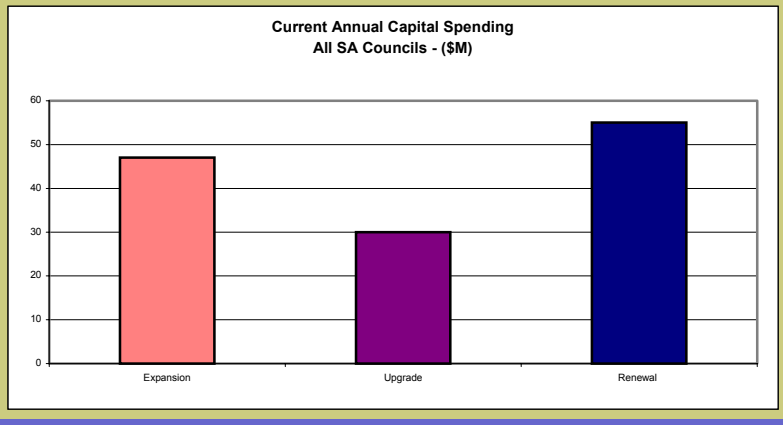
A water utility automatically projects its costs in order to determine what prices it can charge and still remain solvent; it also projects its revenues because the prices it charges will impact on the demand for its service. Revenues will also be affected by population changes and lifestyle changes (for example, the demand for 'English-style' gardens or swimming pools or evaporative air conditioners.) Its goal in such projections is to **ensure that its revenues match its costs**.

Forward projection of costs and revenues is just as essential for councils and for just the same reasons. (see also Section 20)

The next three sections examine the costs and revenue implications of renewal for metropolitan urban councils, non-metro urban councils and rural councils as these major council groupings differ in the size, immediacy and scope for tackling the renewal problem.

Opportunity: To demonstrate that council remains in control of its future in that its revenues will be sufficient for its projected costs.

Fig 7



8. Metro Urban Councils

"Passing on assets in as good a condition, if not better, is part of sustainability"

Interview with Metro Urban Council CEO

"A few years ago funding growth of the council area was a problem—now it's the pressures and costs associated with urban infill"

Metro Urban CEO

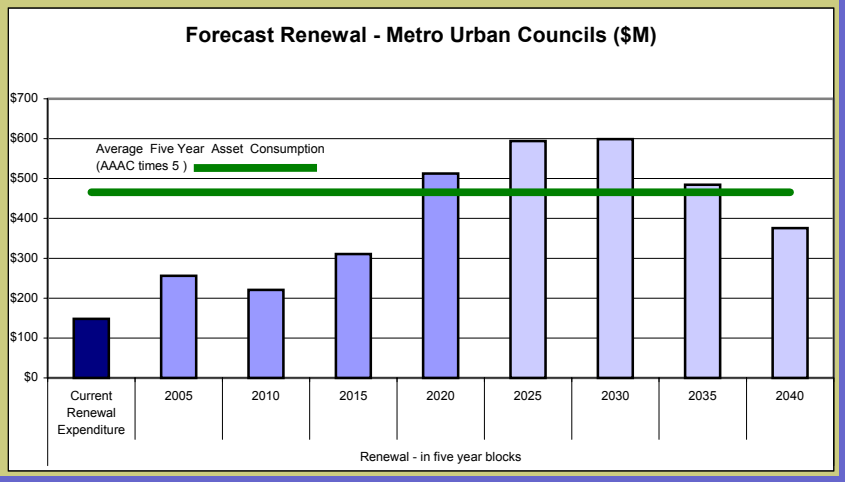
Metro Urban Councils

Metro urban councils — which includes all developed Adelaide metropolitan councils classified UD under the Australian Classification of Local Governments— in general, face a long period of increasing asset renewal reflecting the steady growth in asset portfolios that has occurred in the past and is still occurring.

Planning Time

Over the next 20 years councils are likely to see a more than 3 fold increase in renewal compared to the current level of renewal activity but, unlike non-metro urban and rural councils, renewal demand will increase relatively gradually giving good planning time.

Fig 8A



Gradual 'Ramping Up'

Looking at the period beyond the next 20 years, the longer term sustainable level of renewal is given by the horizontal line representing the AAAC (the average annual asset consumption or the average rate at which the current asset stock is wearing out.) This level is very high relative to current renewal activity so that it will be important for metro urban councils to take full advantage of their planning time.

Replacement Value

Major asset groupings for metro urban councils, in terms of Replacement Value are:

Sealed roads and bridges	55%
Stormwater Drainage	19%
Buildings	16%
Footpaths and Bikeways	8%

AAAC

In terms of the average cost of sustaining these asset groups, some are more dominant than their RV would suggest and others are less dominant:

Sealed roads and bridges	66%
Stormwater Drainage	10%
Buildings	9%
Footpaths and Bikeways	13%

This change in proportion reflects the shorter than average lives of roads and bikeways and the somewhat longer than average lives of drainage and buildings.

8. Metro Urban Councils

Fig 8B

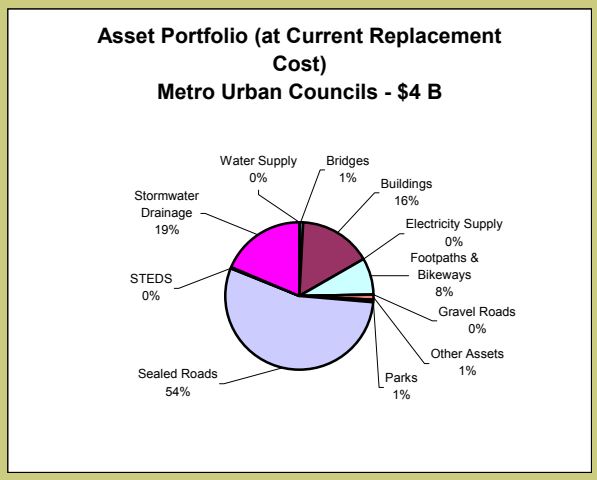
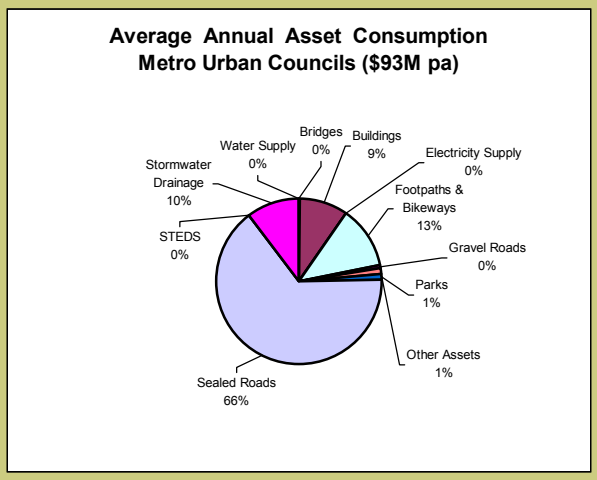


Fig 8C



More detail for buildings that distinguished the short lived and long lived components could change this picture somewhat.

Unfortunately, most councils had little detailed information on buildings that would enable this breakdown.

Good Practice Tip
from the Adelaide City Council

Make Asset Renewal More Attractive to Elected Members—"Value Add"

'Recently we had the occasion to do major work on Albert Bridge. It took $2m out of the $20m budget and it was an asset originally provided by the State. We sold this to the council by looking at value-added "add-ons". We put lights under the bridge so that tourists could appreciate the beautiful heritage works of the bridge.' CEO

Box 8: Old Established Urban Council

The Housing Trust used to own 13,000 of the 43,000 residential properties in this council area or 30% of the total stock. Now the numbers are reducing to some 3,000 to 4,000 as a result of the Trust selling its properties to the private sector. The new owners require a higher standard and a wider range of services than the former occupants. Demands on social, library and cultural services have increased rapidly. The council is undertaking an expanded program of community consultation to come to terms with the changing demographics in its council area.

At the same time as it is experiencing increased demands for new and upgraded services, it also has to contend with renewal and maintenance of its existing asset stock. The road network is 680 km but only 1% has been replaced in the last 5 years. Council suspects this is not enough and more will be required – but when, and how much? There is also no drainage renewal program and the

condition of drains is unknown and a potential liability.

Opportunities:
Councils in this situation would benefit from:

Incorporation of discussion on service levels in its community consultation

The development of Asset Management Strategies and Asset Management Plans (see Part Two).

9 Non Metro Urban Councils

"You have to get over the feeling that you have to own everything!"

Interview with Non Metro Urban CEO

Renewal Imminent

Non-metro urban councils—(those councils classified as urban fringe (UD) or urban regional (UR) by the Australian Classification of Local Governments—are in a more critical position than metro urban councils in that increased renewal requirements are imminent.

Near term renewal falling due (i.e. renewal due in the 5 years to 2005) is estimated to be more than three times the current level of renewal spending for this group of councils.

For non-metro urban councils to 'ramp up' to this level of renewal spending would require major spending re-allocations, but even allocating all new capital spending to renewal would not suffice with this level of increase.

Councils in this position will need to employ all of the asset management techniques referred to in this study to bring their situation under control. Unlike metro urban councils they do not have the benefit of extended planning time. Urgent decisions need to be made to ensure that essential assets are protected. Councils that are in the average position shown in the renewal chart in Fig 8A will need to immediately assess their situation.

Little Scope for Deferral

Because the 5-10 year period is equally difficult, there is little scope for simply deferring renewal. Instead, councils will need to determine their core assets, downgrade assets, rationalise assets, and extend economic lives by better maintenance. Revenues may need to rise if all services are considered essential. This is a situation in which an Asset Management Strategy (see

Box 9: An urban council with a substantial developing fringe

About 2/3 of the city was built by the State Government 40 years ago as a satellite city and construction took place within a relatively short period of 10 years. The council is now facing the problems of intensive renewal and modernisation of a very large part of the council area. Footpaths are just one asset showing distinct signs of decay.

This council was formed by the merging of two councils that had operated with very different service levels. There is now Pressure for equalisation of levels of service on equity grounds.

While mainly urban, the council has an agricultural area that, as a result of a new system developed by the State for the re-use of treated Adelaide effluent that has provided access to cheaper water, is in the process of moving from low value crops to high value flower and vegetable farms. These crops have a low tolerance for dust and growers are putting pressure on council to seal a number of roads at a total cost of many millions of dollars.

Opportunities:
Councils facing these problems could benefit from

- Joint local government-state government co-operation in meeting the renewal challenge (see Part 3 "Working with Others")
- Identifying the costs and benefits of different service levels and negotiating suitable levels with the community. Where it is not feasible to address service level differentials they could be offset to some extent by other services or by negotiated rate reductions.
- Where increased service levels are of direct financial benefit to an identifiable sub-group of ratepayers the use of user pays charges or levies is most appropriate and levies could be used for the flower and vegetable farms since they would be the prime beneficiaries of the upgraded roads.

9 Non Metro Urban Councils

Part 2) is essential, as ad hoc decision making can make the situation worse rather than better.

Major asset groupings for non metro urban councils are (in terms of Replacement Value):

Roads (mostly sealed) and bridges	51%
Drainage	15%
Buildings	13%
Footpaths	6%
STEDS	3%

As with urban councils, the average annual asset consumption of these groupings does not exactly mirror their percentages in Replacement Value terms because costs are affected by the average economic life of the different asset types. Drainage is very long lived and thus is less dominant in the average costings.

Continuing Growth

Many of the councils in the fringe metropolitan area continue to experience reasonable levels of growth in residential and business development. Even though most of the infrastructure is provided by developers there is a need to provide ancillary infrastructure to meet the level of service provided to the rest of the council area. This, combined with the increased operating and maintenance costs of the new assets increases the stress on council revenues to fund asset maintenance and renewal.

This may be compared with the situation for rural councils as a group which is covered in the next section.

Fig 9B

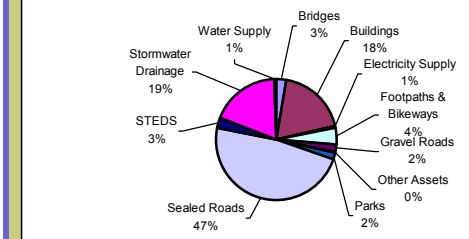


Fig 9C

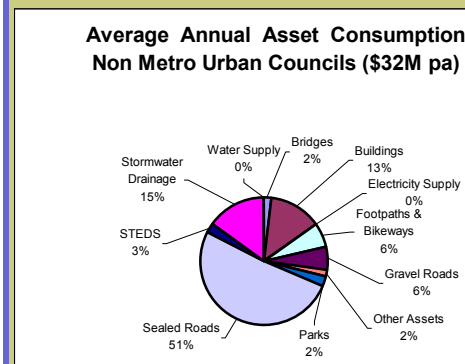
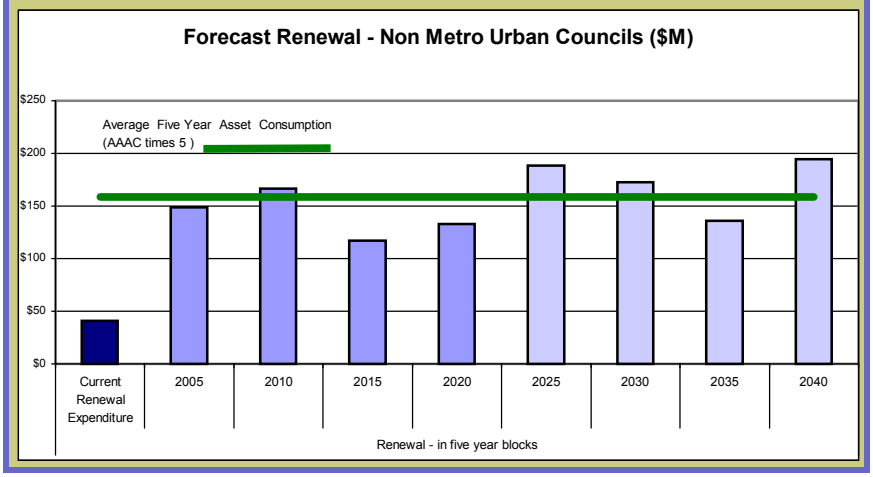


Fig 9A



10. Rural Councils

"We will never have enough money to maintain everything we have"

Interview with Rural Council CEO

Renewal Urgent

Rural councils are in a similar position to non-metro urban councils only more so!

A comparison of current renewal and renewal falling due in the five years to 2005 shows an almost fourfold increase required immediately.

Nor is this increase a one-off! With some fluctuations, the level of renewal falling due will remain at this new level from now on – as indicated by the average asset consumption cost, the horizontal line in fig 10A

This picture represents an unsustainable future.

Asset standards are the other side of the coin to economic life. The shorter the desired life, the higher the desired standard, and conversely. Short economic lives add considerably to costs. The average annual asset consumption cost is essentially the cost of renewal divided by the number of years of use of the asset. Councils can reduce their asset costs by revisiting the economic lives that they are currently using to determine day by day renewal. The asset standard reflected in Fig. 10C can only be sustained by serious increases in revenues and renewal spending. But different standards, not "lower" in the sense of inferior, but more appropriate and economically justified, could bring the renewal problem more within the control of council.

Box 10. A rural council with changing industry needs

In this council there has been a traditional reliance on agriculture, which is now in decline. Over the past 5-10 years it has been replaced by aquaculture. A significant proportion of South Australian oyster production now comes from this council area. The oyster industry supports a growing economy, 50-60 jobs and 20 traineeships and the council is very proud of this addition to its economy.

However, with the increased strength of their economy has come increased demand for housing, upgrade of the main street and for sealing roads, which it is not able to fund. Its revenues are facing long term decline because of reduction in its traditional country lands ratepayers. The new economy generates incomes, but not primarily for local government.

Rationalisation suggests reducing infrastructure services to areas that are no longer sustainable but there is a built-in bias towards preserving the status quo – even if it is no longer sustainable.

Opportunity:
Councils in similar situations of changing requirements would benefit by drawing up an Asset Management Strategy documenting their goals and opportunities. In particular, the development of a long-term road asset management strategy that planned the future of the lightly used roads and other assets could enable council to allocate its limited resources in the most beneficial manner. See Sections 11-14 in Part Two "Working Within"

If significant reduction in services is required because of economic changes, then it may becomes a state and/or a national issue and require external assistance. See Part Three "Working with Others".

10. Rural Councils

Data Quality

This raises the question of whether the model is 'right'. For example, are the assessments that have been made of asset values, condition, and economic life correct? There is no doubt that the quality of the information can be improved, indeed this is already happening. But the general picture illustrated in Fig. 10A is not inconsistent with anecdotal data from rural areas in South Australia as well as nationally.

It strongly suggests that renewal spending has not kept up with renewal requirements.

Asset Portfolios (Replacement Value)

Major asset groups (in terms of Replacement Value):

Roads and bridges	70%
Buildings	14%
Drainage	5%
Footpaths/bikeways	3%
Other	8%

Annual Costs

Roads and buildings clearly dominate rural asset portfolios. However in terms of average annual asset consumption (AAAC), the major cost items is roads:

Gravel 52%
Seal 30%

Roads Dominate Portfolios and Annual Costs

For rural councils, asset management is road management. Councils are aware that they spend more on roads than on other assets, but they may not be aware of how much more they should be spending, in proportionate terms, to sustain their current road stock.

Regional Assistance?

There could be a case to be made for increased grant funding for roads as part of a national network and this is discussed in Part 3. To present a cogent case requires asset management analysis that may be beyond the resources and expertise of rural councils.

Fig 10A

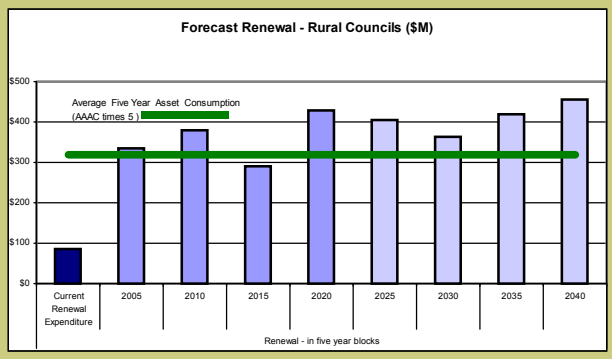


Fig 10B

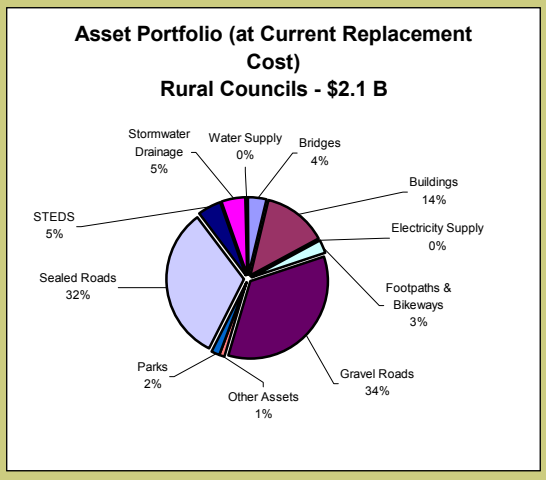
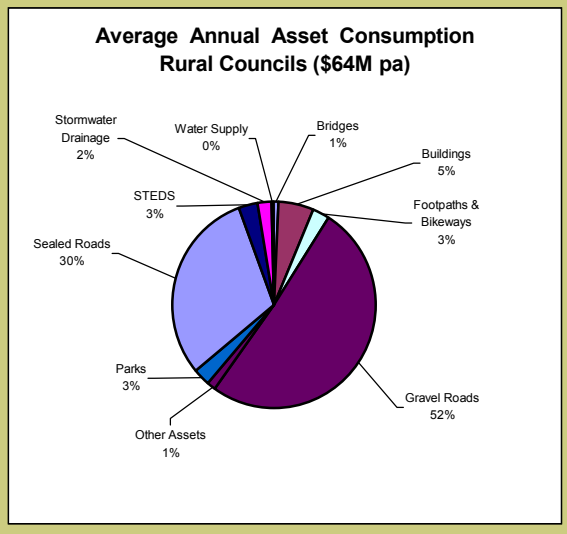


Fig 10C



Part Two:
Working Within Councils

Planning and Decision Making

11. Asset Management Strategy
12. Asset Management Plans – Intro
13. Asset Management Plans – Using
14. Asset Management Improvement Plans
15. Investing in Community Assets
16. A Corporate Approach
17. Using Renewal Projections
18. Data Analysis
19. Dispelling Data Myths
20. Projecting Revenues

11. Asset Management Strategy

"Well Begun is Half Done"

Mary Poppins

Absence of Asset Management Strategy

An Asset Management Strategy is a key element of integrated resource planning but few councils have council wide strategic asset plans and even fewer have an Asset Management Strategy This was revealed by the survey of council asset practices.

This one simple step – creating an Strategy – can be the difference between success and failure. Without a Strategy, prioritisation of asset activities, new works and maintenance, runs the risk of being ad hoc and without direction.

Councils should know, and document:

- what areas are going to be expanded,
- what will remain as they are
- what will be contracted

The Strategy also considers timing (what is urgent, what can wait) and where the funds are coming from. (See Box 11A – Example: Onkaparinga)

Change

The Strategy identifies areas of change (perhaps from the corporate strategy) and examines the general implications that this will have for assets.

Suppose that a new industry, say, oyster farming is being developed. The Asset Management Strategy will consider the asset impact. It might note that the new industry will use much of the infrastructure currently in existence but will also require extra facilities. It describes the general type of facilities required but *avoids prescribing exactly what and how the facilities are to be provided* . Options for achieving the desired outcomes will be analysed as part of the Asset Management Plan.

No Change

By default, most areas not mentioned as areas of growth are assumed to need no change. This ignores areas that need to be contracted. So it is important to establish what areas are worthy of being maintained at current service levels.

Box 11A: Onkaparinga's First Asset Management Strategy

When it was a newly amalgamated council with many demands on it, Onkaparinga adopted a condition-funding matrix to determine priorities for scarce council resources. Assets were classified into one of three broad priority categories.

Condition Categories

(1) "urgent attention" (because of potential for gain or avoidance of loss) – about 10% of portfolio
(2) "further investigation needed" – about 40%
(3) "fit for purpose" – about 50%

Assets were then ranged on a spectrum of asset funding scenarios, from those that were commercial and had the potential for a commercial return – which were given top priority for attention, to those that were publicly funded - which had the lowest. This priority ranking makes sense as a short tem measure for ensuring financial viability and generating the funds for tackling asset needs lower in the hierarchy. The strategic directions will change as a council develops.

Commercial (market return required)	Semi-Commercial (notional return required)	Corporatised (full user pays)	User Contributions	Publicly funded
Land Divisions	Golf Courses Caravan Parks Kiosks	Aquatic Centre Recreation Centres	Leased Community Facilities, Surf Life Saving Clubs, Community Halls, Country Fire Stations	Roads Reserves Toilets Libraries Offices Depots Community Centre Fountain

11. Asset Management Strategy

"He travels furthest who travels lightest"

Councils naturally have a desire to improve services for their community and, in general, to move forward. But holding on to assets and providing services that are no longer fulfil an important community need, slows down this forward movement by diverting funds to less essential uses.

Most council strategies focus only on areas for improvement, or, at a minimum, areas where the intent is to maintain service levels. Few regularly, and rigorously, clear out the 'deadwood'. Yet this one act, could be the saviour of councils with few resources and/or those facing imminent large-scale asset renewal. In categorising assets—'divest' is an appropriate category!

Make someone responsible for identifying change opportunities

If it is costing council more to maintain the asset/service than could be said to be the value of the community benefits being received, council – and the community - is losing money by retaining the asset. Identifying and dealing with these under-performing assets presents council with (as yet largely untapped) opportunities to control their future costs and outcomes. This applies to all assets – buildings, reserves, roads, and plant and equipment. This is the closest thing to 'free money' that councils can get through their own efforts – but is often missed because it seems to be not the responsibility of any one individual or group.

Identifying assets and services that are "not pulling their weight" requires a focus on service outcomes rather than assets and extensive and sensitive community consultation.

Iterative

The Asset Management Plan takes the general directions laid out in the Strategy and constructs a ten-year forward cash flow for the asset activities listed as priority one and two. This includes maintenance and renewal as well as new works. (Guidelines on how to construct a first 10 year plan will be found in Section 12) Plans and Strategies are iterative.

When the costs of managing a particular strategy have been considered against the likely future revenues it may be decided that changes will need to be made to either the Plan (the way that the strategies are being carried out) or to the Strategy itself.

Translating the ideas of the Asset Management Strategy into a Plan of Action is the task of the Asset Management Plan discussed in the next section.

Opportunity: To ensure that the asset portfolio supports the council's vision.

Box 11B. An Asset Management Strategy has two major sections:

The Present Situation.

A statement of the current size, condition, cost and forward renewal consequences of the existing asset portfolio (the type of information supplied in Section 5 in Part One). This provides the background context for decision making. Information can be drawn from condition studies, as well as analysis of past trends in maintenance and utilisation.

Future Possibilities.

Identification of future opportunities and directions. It is useful to provide a short reference list that covers council discussion papers or minutes on the various key topics. Information can be drawn from long range forecasts including renewal forecasts, demographic studies, studies of industry change, etc.

12. Asset Management Plans—Intro

"If you fail to plan, you plan to fail!"

Anonymous

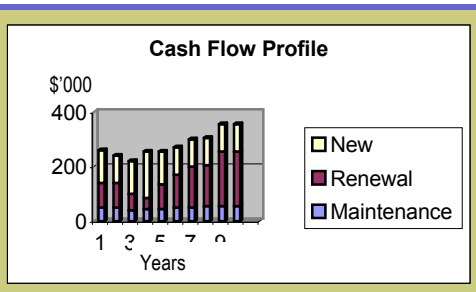
An Asset Management Plan takes the Asset Management Strategy— and 'makes it work'.

That is, if the Strategy indicates that developing the council area as a 'regional hub' is a priority one, then the plan should look at options for achieving this goal.

Some options will cost more than others but maybe do more. Some will have high capital costs; some may have high ongoing costs. Each option will probably interact with other assets and other projects, increasing or reducing the demand for them, and this should be revealed in the plans. It is quite proper to present several, optional, plans to council if there are a number of options to be considered. Only when council can see both the initial and the ongoing consequences of different options can it make a reasoned decision.

Box 12.

Elements of an Asset Management Plan



The final asset management plan has 4 major elements:

(1) A cash flow profile over 10 years showing maintenance, renewal and new works. It is useful if this cash profile is colour coded for the type of expenditure and the asset group involved, so that council can see at a glance an overview of what it is committing itself to.

(2) Reference to analysis carried out to justify individual projects, including risk and sensitivity analysis and a funding profile. (i.e. an 'audit trail')

(3) The likely consequences of deferring renewal and new works projects.

(4) A method of monitoring performance.

The 'capital works list' is simply a subset of the asset management plan. It covers the renewal and new capital works beginning in the current or next financial year.

How Far Ahead Should You Plan?

The choice is yours. In general, far enough to give you time to recognise a future problem, develop and test options, select and take action; not so far that the answers are pure guesswork. In practice, one year provides practically no planning time and is far too short, 30 years for councils is too "iffy" and therefore too long. New Zealand councils started with 3 years but have now happily worked with a 10 year planning horizon for a number of years. 10 years is more easily manageable if thought of as three, interlocking, plans; namely a one year plan, a 2-3 year plan and a 4-10 year plan with the nearer period plans being more detailed and more accurate.

The 1 Year Plan

This is easy; it is your current maintenance and capital works plans. It is helpful to separate the renewal works from works designed to expand services to new customers (expansion) and those works designed to improve the quality of services to existing customers (upgrading services), because their future consequences

12. Asset Management Plans—Intro

for maintenance, operations and renewal costs are different. (see table in next section).

The 2-3 Year Plan.
This plan lists the less critical activities identified by condition audit or maintenance supervisor for which council has decided to take action. (The most critical are in the one year plan.)

The 4-10 Year Plan.
This plan is less precise than either of the first two because it is not based on visual inspection or condition audits but on probabilities. It needs a modelling approach based on the expected lives of assets or asset components and an estimated age profile. This is what the renewal forecasts have done that are now available for councils on the study website. You can use this and modify it when better data comes to hand. This longer term plan is designed to identify problems in time to do something about them – not to be precise in when or where renewal will actually take place.

All of your modelled projections are examined for relevance using 'gut feel' and any other tools available to council, eg degradation curves, or history of past developments, with modification for changed usage patterns, traffic, geographical conditions, etc. For example, a low traffic road will not need replacing as frequently as a high traffic road of the same construction type, or one that is used as a school bus route. Even where you have pavement management systems, it is important to carry out actual inspections to verify.

Costs.
The costs in your 1 year plan have the level of accuracy normally given to a capital works and maintenance program. For 2-3 Plan, current costs are used and adjusted for anticipated inflation (the inflation factor used should be stated.) Costs for the 4-10 year plan are 'indicative estimates' only. You will revise them closer to time.

The purpose of a plan is to guide action. The next section looks at how the plan is used to guide asset management.

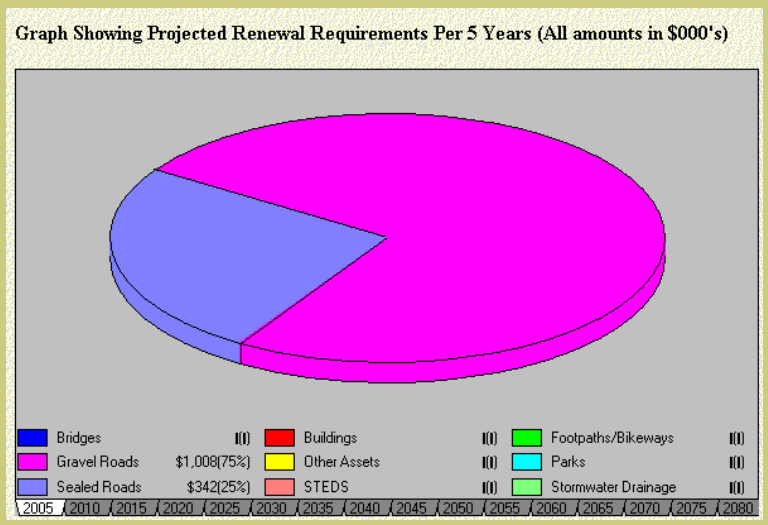
Opportunity: To anticipate future expenditures in time to plan how to tackle them.

Using the Website Data in Your Asset Management Planning.

Each of the three plans will include an element of renewal capital expenditure (along with proposed new spending and proposed maintenance). The renewal forecasts can be drawn from the information now available on the study website.

Renewal forecasts are available by asset category

Fig 12 Renewal—Roads



13. Asset Management Plans—Using

"A First Plan can simply be a documentation of what is currently done"

Benefits of "Doing it Yourself"

n New Zealand it was found that where asset management plans were prepared 'for' a council by an external consultant, they tended to sit on the shelf. The plans that were actually used were those where the staff had personally 'sweated blood'. This makes sense; the first thing that an asset management plan does is to tell staff what is currently happening to its assets; the second thing it does – and this is critically dependent on the first – is to show them how to change what is currently happening. This learning does not occur if the plan is 'bought in'.

Once the plan exists, staff can use it to justify capital works programs, monitor performance, and identify future problems in time to research solutions. An asset management plan can also be used to calculate 'infrastructure depreciation', the amount of resources required to sustain infrastructure on an ongoing basis. (A separate study currently being conducted by local government in South Australia is developing these infrastructure depreciation guidelines for council.)

Box 13. Justification of Programs

To justify a program of capital works it is necessary to demonstrate (a) that every item on the works list is 'value for money' for the ratepayer and (b) that the prioritisation and timing of the works is itself 'value for money'. For example, a road-widening project could be demonstrated to be 'value for money' – but is the time right?

Each item in the capital works program should have a clear audit trail, that is, it should be easily possible to trace that item back through the analysis and decision making related to it that resulted in its being on the capital works list. It should also be possible to see what the consequences will be if the projects are seriously (or slightly) deferred. These consequences will likely be both financial and technical affecting both costs and performance outcomes.

Today, when documents relating to analysis can easily be hyperlinked, there is no excuse not to have such an audit trail. The demonstration model of asset management planning on the Infrastructure Study Website will show how easy and effective this is.

Monitoring Performance

There is more to measuring the performance of a capital works project than simply checking to see whether it came in on time and on budget. From the ratepayers' perspective, a more important question is whether it achieved the objective that was intended for it.

For example, if a new tourism feature is installed, performance monitoring needs to check whether it has been effective in attracting extra tourism.

The asset management plan should state how this checking is to take place, that is, what

information is to be recorded, how and how often, what analysis is to be done, and how the final results are to be reported and when.

If a road has been sealed to prevent accidents, or flooding, or to reduce excessive ongoing maintenance, then there must be a way of monitoring whether the objective has been achieved. This is what is meant by accountability.

Monitoring is helped by separating capital into renewal, upgrade or expansion of services, as in the table above, as each has different implications for future expenditures.

Identifying Future Problems

This is the major role of the 4-10 year plan. Councils may also wish to make a note of large future expenditures that lie outside the 10 year period. The longer the planning time, the more options that there are available.

One of the advantages of the asset management plan is that it enables councils to manage their cash flows. If large renewal expenditures are coming up, councils may wish to 'clear the decks' by repaying loans now, thus freeing up borrowing capacity when the large future expenditures are due. (See Section 31— Debt Management).

Communication

A major use for asset management plans is to communicate.
With a 10 year forward plan, elected members are in a better position to appreciate their current position. The plans are essential when council wishes to work with partners, say a regional grouping, the private sector, or another level of government, for they become vital elements in the development of the regional or national plan.

Opportunity: To control your own destiny

Fig 13: Impact of Different Types of Capital Expenditure

Impact	Maintenance Impact	Operations Impact	Revenue Impact	Renewal Impact
Renewal	Decrease	May decrease	Nil	Nil
Upgrade	Increase	Increase or decrease	Nil	Increase
Expansion	Increase	Increase	Increase	Increase

14. Asset Management Improvement Plans

The price of good quality "fit for purpose" processes is eternal vigilence—and updating"

So many plans, so little time!

When councils first start to put together their Asset Management **Strategies** they usually find that a lot of the information they need is simply not available. For example, they may not have a good idea of what developments are taking place in council, or what changes are likely to impact on them. Or they may not know the condition of their assets, or even what are their core assets.

When moving on to the Asset Management **Plans** they may lack the framework necessary to ensure a good audit trail, they may also lack the measurement tools or analytical techniques to ensure sound decision-making. Or they may want to change the way they are structured for the purposes of asset management.

This is where the "Asset Management Improvement Plan" comes in. The Improvement Plan is designed to document activities for improving the asset management process. It will consider issues such as:

- **What information is needed**

1. The council may instigate a 'data audit' to discover what it has and where the gaps are. When the staff of one Victorian council did this recently they expected to find about 27 different sources of asset information—they found 407! Asset information systems have a tendency to proliferate and regular culling is necessary to ensure that resources are applied efficiently.

2. Many councils stay forever at "the starting gates" as far as asset management is concerned because they are forever changing their asset management systems. Since every system has different data requirements they find they are continually collecting—but never using! There is a solution to this problem and it is called "Data Warehousing" (see box 19)

3. Information may need to be especially gathered to determine the right actions in the Asset Management Plan. (See Box 14)

Box 14: Optimising Utilisation – Playford Council

Playford Council has commenced a major review of all of its 706 parcels of land and will ask residents to help with the process. The review will investigate the possibilities for changed land use and ways to get the best out of the land for the benefit of the community. The sites selected will be those which are in the Council's views "under performing" for the community in their current state. Possibilities for new uses include passive recreation, wetlands, aged care facilities, residential or a combination of uses. Under the new Local Government Act Council has until 2003 to review all the parcels to determine which ones are to be classified as reserve or community land.

14. Asset Management Improvement Plans

- **What skills and expertise are needed**

The site visits suggested that there was a great need for analysis and presentation of data so that it was useful for management.

- **What training for personnel-**

Sometimes the cheapest and most reliable way to collect data is to have it as a relatively costless "spinoff" from operational activities—but staff may need to be trained in consistent methods of recording.

- **What communication frameworks are desirable**

There needs to be a way of feeding asset information into the normal management processes—and ensuring feedback and ways of dealing with feedback.

- **What asset information systems are needed**

A "Top of the Line" asset information system is not necessarily the best. One council with an excellent pavement management system wanted a system of similar quality to manage its buildings. After considerable search it found one—but it was so costly for the relatively small building portfolio that the council owned that council decided against it. Now that council has no building management system at all! Commonsense would suggest that the quality of the system be scaled to the value of the assets to be managed. Better a simple, off the shelf model than nothing at all.

- **Whether any organisational structures need to be changed,**

For example, the appointment of an Asset Management co-ordinator or a cross functional team .

An Internal Document

Unlike the Strategy and the Plan which should be public documents, the Improvement Plan is a purely internal, process related, document. It is a mistake to put these process improvements in a public Asset Management Plan or Strategy as the danger is that the public will not recognise that asset management is there to provide user benefits and may see it as an "administrative make work scheme" which would be very detrimental to public support of asset management.

Fig 14 illustrates the relationships between the Strategy, the Plan and the Improvement Plan.

Investment in Community Infrastructure is a major part of both Strategy and Plan and is considered in the following section.

Opportunity:
To prioritise improvements to the asset management process

Fig 14. The Asset Managers "Suite of Strategies and Plans"

	Outcome
Asset Management Strategy (A key element of integrated resource planning)	a better understanding of how to align the asset portfolio so that it best meets the needs of the community both now and in the future. It provides the council's overall asset directions.
Asset Management Plan	a series of timed and costed actions to be undertaken with respect to assets, along with an audit trail relating those actions to the key directions resulting from the AMS and a method of monitoring the effectiveness of those actions.
Asset Management Improvement Plan	A program of actions designed to improve the ability of staff to produce and implement both the Asset Management Strategy and the Asset Management Plan.

15. Investing in Community Assets

"Our resources are stretched to the limit, so we encourage service clubs and community groups to develop and maintain parks and reserves. Sometimes we can provide some seed funds to get things going but often it is just advice on what is suitable."

Victorian Small Rural Shire

Make a portfolio judgement

Too often the acquisition of a new asset is considered in isolation of its impact on the rest of the portfolio.

A new, good quality road, can attract traffic from other roads in the area thus reducing the amount of routine maintenance and repair work that needs to be carried out on them, but it can also attract traffic away from local businesses. So the decision to invest must take a community asset portfolio perspective as well as the council owned asset portfolio perspective.

One of the ways in which new assets impact on the existing portfolio is in competition for limited maintenance dollars. If the new assets are more complex and 'maintenance hungry' assets this problem is compounded, the new assets can starve the portfolio of needed maintenance funds and accelerate the loss of community wealth.

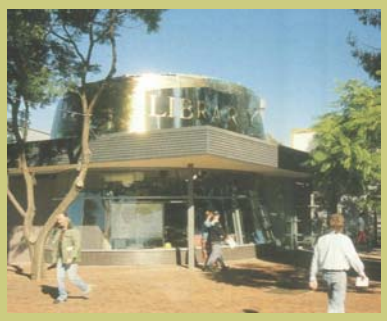
Part one of this report dealt with the ongoing renewal aspects of assets. Those councils whose roads are in bad repair, whose parks and gardens are overgrown and neglected, and where the paintwork on council facilities is peeling are examples of assets having been acquired past the capacity of the council to sustain. So the future costs of maintaining and renewing the asset – the "average annual asset consumption costs" – need to be taken into account in decision making.

Managing Mandatory Services

While management may be easier for those services which are optional rather than mandatory, even for mandatory services the following questions can, and should be, asked:

- Although the service must be provided, does the Council need to provide it directly, or could it be provided more efficiently by another party (a private contractor, say, or another council)?

Box 15A. Consider facilitating a service rather than providing an asset



Many services provided by council could be provided by others. For example, for libraries, swimming pools and other recreational facilities, can you use the services of, or co-operate with, the private sector or the local school? In some cases toll roads may be a possibility, although their use is limited in most council areas. Caravan parks, abattoirs, child-minding services, are more examples of services that could be provided by others. There are even non-council alternatives to the ubiquitous 'loo'. Initially, council may have invested in these services because there was no interest from others in their provision, but times change and councils need to review their investment policies on a regular basis.

Council may have invested because it wished to supply the services at a subsidised cost as part of its community development. Such development may also be possible by making a grant to another service provider (for example, some councils will support such bodies as the boy scouts or surf life saving clubs who provide services and facilities for the community.) With the development of the new competition policy, many of the services that council supplied at subsidised rates may now be required to charge full cost rates. In this case it is wise to review whether the original intentions of council in owning the property are still being met.

15. Investing in Community Assets

- Although the service must be provided, must it be provided now, or can it be deferred?
- Although the service must be provided, at what level must it be provided? Roads are a necessity for communities, but graded gravel, or seal? A class 1 road or a class 2? A road roughness count of 60 or 100?

A business case

Clearly for all services that compete with the private sector, the council would be expected to provide a full business case. But it is also valuable, perhaps even more so, when the benefits can only be defined in qualitative terms of greater benefits.

At a minimum the following questions should be asked

- What is the purpose of the acquisition?
- Who will pay (now and in the future)?
- Who will benefit?
- What is the standard of provision to be?
- How does this compare with other councils?
- What are the life cycle costs and how will they be met?

In making any investment decision, including re-investment (renewal) a corporate approach is essential. The next section discusses why.

Opportunity: To avoid wastage and improve outcomes through better asset acquisition

Box 15B: Apply Investment Criteria to Free Assets as Well

- **Consider the ongoing costs of 'free gifts'**

"We will provide the asset – all you have to do is to maintain it!" Sounds attractive? Beware! Over the lifetime of the asset the cost of "maintaining" may amount to 2-3 times or more than the initial acquisition cost. The result is that a "gift" of $1m ends up costing you $2-3m+. A free gift of this kind is really only a bargain if you would have considered the project so beneficial that you would have been prepared to provide the initial cost yourselves. Committing council to an expenditure of $2-3m to get a "free" gift of $1m not only makes little sense it can seriously damage council's longer term viability, particularly if the project is not one that generates its own income, or sufficient income to manage the future expenditure commitment. Accept enough of these 'free' gifts and you could be on your way to bankruptcy!

- **Some "free" gifts are imposed**

Some 'free' assets are hard to refuse because they are imposed by a higher level of government. Where several levels of government are co-beneficiaries of a project, careful analysis is necessary to allocate benefits – and thus costs.. All levels of Government need to be free to determine whether this project is a sufficiently high priority to warrant their involvement. The analysis should be carried out by a team with representation by all governmental levels involved. (See Section 43 and 44) This is an area where the expertise of the municipal association or local government department would be invaluable as individual councils are unlikely to have the knowledge, skills and training – or the individual clout – to present the Council's arguments at the State or Commonwealth level. (See Sections 42 and 44)

- **Other "free" gifts we impose on ourselves**

Councils sometimes find it difficult to avoid "bailing out" private companies that get into financial difficulties or simply are reluctant to pay for extensive renewal costs when they fall due. Councils naturally do not wish to see an existing service to the community discontinued, moreover the closure of any facility tends to have 'flow on' effects, if only on general confidence levels.

Safeguard Your Council

The best defence against unwanted, or inadvisable "free gifts" is an Asset Management Strategy and Asset Management Plan. If the new asset can be shown to worth displacing something already on the plan, it is a worthwhile acquisition, if not, it is time to leave it alone—or negotiate a better deal!

16. A Corporate Approach is Essential

"One of the biggest problems we've dealt with is getting managers and staff to realise that their area has no guarantee of resources on an ongoing basis. Resource allocation is assessed corporately and just because it is roads this year does not mean it will be roads next year".

Non-metro urban CEO
(similar feelings expressed by others.)

1. A Judgement Call

A corporate approach to asset management is essential because the asset management decision needs to be taken across all asset classes. When resources are tight and it is not possible to fund all good projects, the allocation of funds across council will be a judgement call based on greatest need or benefit to the community. It will take into account social and environmental benefits as well as straight financial benefits.

2. Constant Proportionate Budgets Will Not Meet the Need

It is always difficult to reduce funding to sections but that is what is going to be needed if council is to maximise its services by providing funding to sections based on their renewal needs rather than some common funding allocation such as last year's budget plus or minus a few percent. This is illustrated in Fig 16.

3. Impacts are Inter-Dependent

The third reason why a corporate approach is so important is that decisions made with respect to one asset group can have impacts – for both good or ill – on other assets or asset groups. Thus it is important to avoid the situation where a decision may be made with respect to new assets without considering the impact that this will have on future maintenance; or where a new tourist facility or economic development opportunity is promoted without considering the impact this will have on road usage and maintenance.

But not only do some asset actions create problems for other assets, but they may also provide the solution. Thus improved drainage and stormwater provision may lengthen the economic life of a council's roadways. Or improved roadways may increase the utilisation (and revenues) of council's tourist attractions.

How to Take A Corporate Approach

One council is addressing these interlinked asset issues through the mechanism of "cross functional groups". (See Appendix 6.)

Another council has appointed an Asset Management Co-Ordinator, whose role is purely analytical and strategic. Having no line responsibilities enables the officer to take an overview position and concentrate on communication – both between asset units and to elected members. (See Section 26 for a discussion of the role of the asset manager).

4. Planning Consistency

In larger councils where each group of assets may be under the control of a separate team,

16. A Corporate Approach is Essential

there may be several 'asset management plans', one for roads, one for bridges, one for facilities, one for parks, one for drains and stormwater, etc.

The only way that Council can ensure consistency is to exercise strong control over the Asset Management Strategy (See Section 11) and check to see that individual plans are consistent with it.

Even so, judgements will have to be made about priorities. For example, The roads team may work out its road priorities, but how does a priority 2, say, in roads, rank against a priority 1 or 3 in facilities or parks?

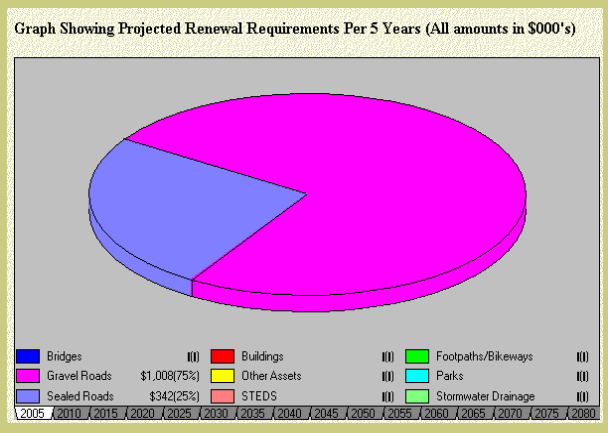
The key corporate tool for renewal is the Renewal Forecasts. How they can be used is discussed in the next section.

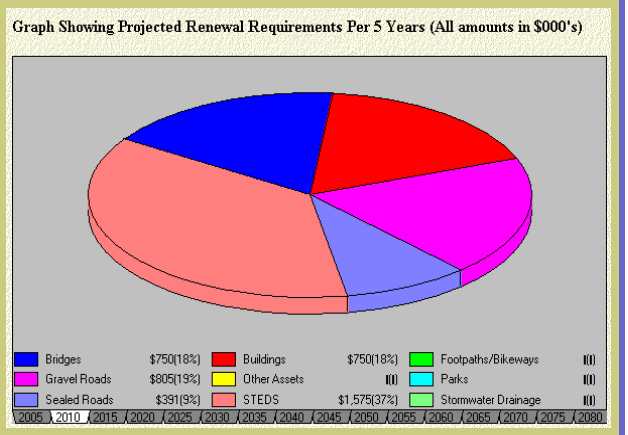
> **Opportunity**: Taking a "Corporate Approach" enables efficient trade-offs to be made across asset groups.

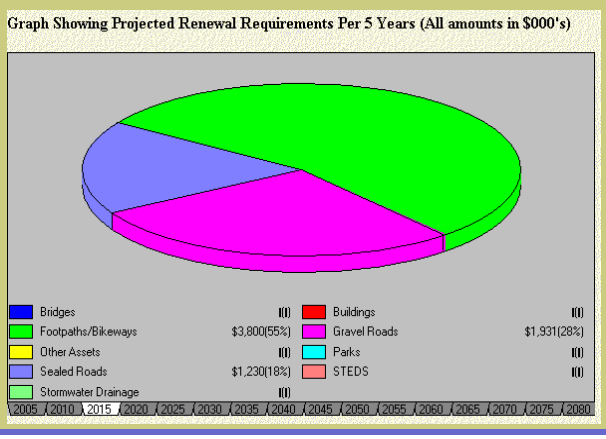
Fig 16 Large Shifts in Renewal Funding May Be Needed

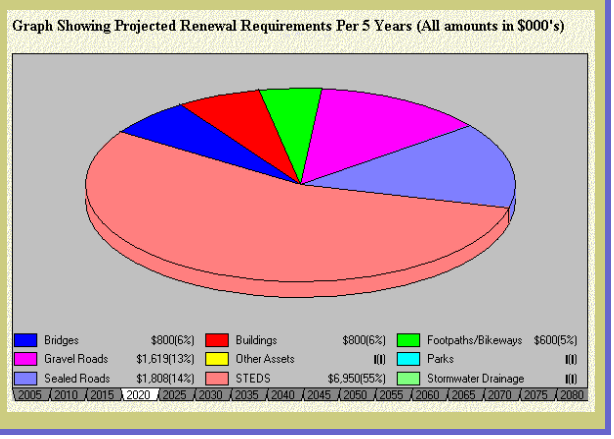
Using the Website Data in Your Asset Management Planning.
Understanding the level of resource shifts that will be necessary to manage future asset renewal

(pie charts showing proportion of asset renewal funds needed for each









17. Using the Renewal Forecasts

"A renewal forecast is meant to change—if it does not, nothing has been learnt!"

Default Assumptions

The asset renewal projections contained in this study are "default" projections. They indicate the size of the funding problem that would arise if nothing were done to change current asset levels, standards, utilisation, asset management practices, etc..

- The default assumptions used in this study are:
- That all existing assets will be renewed their 'time is up'.
- That they will be renewed with assets substantially the same as the assets already in existence – I.e. they will not be upgraded (or downgraded)
- That the economic lives will remain as in the original estimates and not change over the forecast period
- That the real cost of renewal will not change over the forecast period
- That maintenance and management practices will remain as they are now
- That technology will remain as it is now.

Changes hold the key to success

The default assumptions represent the status quo. Deliberate decisions will be required on the part of councils to change the default assumptions, but it is changes in these assumptions that will lead to improved outcomes.

In practice, it is likely that none of these assumptions will hold, or at least not hold completely. Indeed the very projections themselves and councils' reactions to them will provoke changes, this is how management improvement is achieved.

Box 17: Experimentation and Research Reduces Costs

Rural unsealed roads require much time and money to maintain when they have to be remetalled and regarded every 12 months or more frequently if the road is subject to high traffic volumes or adverse weather conditions.

Wellington City Council has come up with a money saving solution to this road problem using rotomillings. Rotomillings are a waste product created when the asphalt or chip seal is removed from the road using a rotating drum with steel teeth that grind the surface. It is a common practice for this waste material to be disposed of with other waste material at land fill sites, but WCC is using these rotomillings to remetal unsealed roads, saving on disposal costs and providing a longer wearing surface that reduces maintenance.

But first it had to overcome a technical problem. Rotomillings had been used on private driveways and farm tracks as an alternative to quarried metal but the surface segregated easily and was not waterproof. Chris Hodder, Roading Engineer, conducted a small trial on a low trafficked unsealed road using rotomillings treated with kerosene. He found that kerosene sprayed on the surface at 0.2 litres per square metre, had a softening effect on bitumen in the rotomillings by partially breaking down the binder. The kerosene then evaporated reasonably quickly leaving only a small residual amount in the surface and the bitumen rehardened creating a semi waterproof surface. After one year, the treated area had segregated slightly but was still tightly bound beneath the loose surface layer and it was considered that the road would continue in its current condition and not require any maintenance for at least another year.

The success of this small trial led to another, more extensive, trial on a road with higher traffic densities. Savings from the use of waste recycled rotomillings are estimated at 80 cents per square metre in laying costs and reduction in ongoing maintenance, plus $20 per cubic metre of rotomillings in saved disposal costs.

17. Using the Renewal Forecasts

Councils may decide to rationalise non-core assets; they may decide to change their maintenance and/or operating practices, or conditions of use, so that the assets' lives are extended. Where assets, particularly roads, are currently set at inappropriately high and costly levels, councils may decide to review their service levels to ensure cost effectiveness. Councils may investigate cheaper ways of managing renewal costs (see Box 17 opposite).

Adoption of any of these management practices will help councils avoid some of the increasing renewal costs projected in the models. Thus the models' projections are not prescriptive nor even, necessarily descriptive.

The message is that the projected results can be avoided by changing the assumptions! In this sense, the projections are not expected to "hold true". Were they to do so, it would mean that councils had ignored the opportunity to learn from the information provided.

The projections cannot be used directly to support an increased call for funds. Increased funding is not a solution until and unless councils' assumptions of economic life, renewal cost, age of asset, service level standard and maintenance practice can be shown to have been checked and to be demonstrably optimal for council and its ratepayers.

Certainly at this stage of data accuracy, the projections will help direct councils to the questions to be asked rather than provide direct answers.

Fig 16 on the previous page indicated that large swings in funding would be needed to cope with renewal in the particular large city council used in the example.

Fig 17 below looks at a typical asset renewal forecast and asks some of the questions that councils will need to ask themselves when using the renewal projections.

Opportunity: To foresee renewal problems BEFORE they become problems.

Fig 17 Forecast Reliability

Using the Website Data in Your Asset Management Planning.

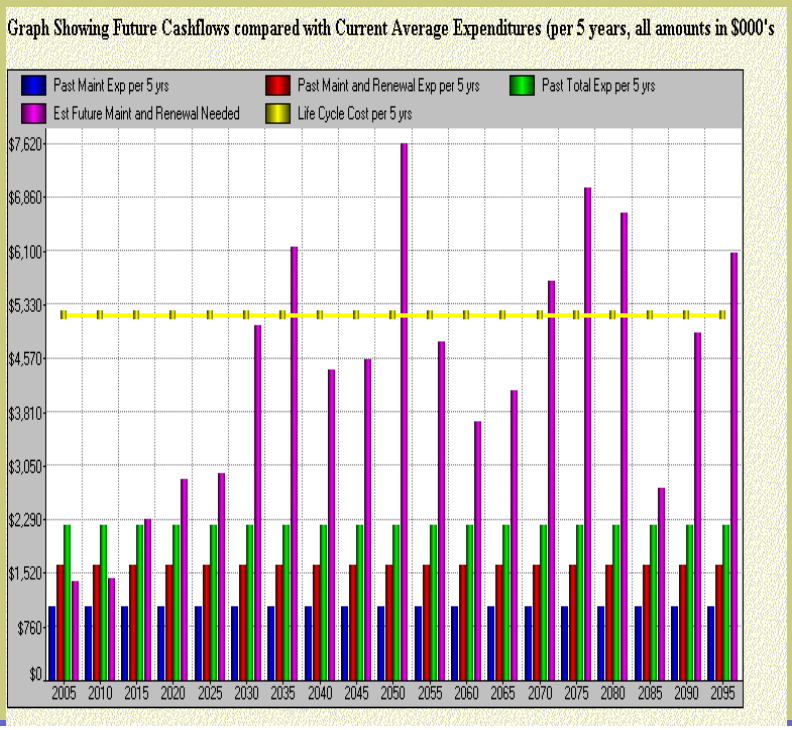
How accurate are the forecasts?

Is the picture the data is presenting reasonable in the light of your own knowledge?

If not, why not?

E.g.. Did you use the model's capacity to distribute economic lives for each category according to construction type or usage?

Or How reliable are your remaining economic life age profiles?



18. Data Analysis

Many still act as if 'eyeballing' data is enough—it hardly ever is.

Data Analysis

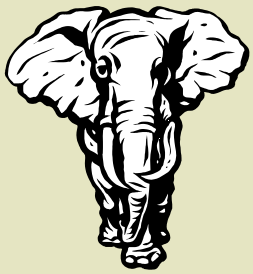
The renewal forecasts present a forward looking picture, but that picture does not tell the whole story; data by itself never can. What assumptions were made, what would happen if different assumptions were made? All data needs analysis; it needs to be organised in a meaningful fashion and related to other data in a way that throws light on the issues affecting council.

Box 18A: Don't Wait, Start Now 1.

It takes time to get a good run of historical data on which to do fine analysis. But one should not wait. Better some approximate data now than perfect data in 20 years time.

Consider the following story of a young native boy deep in the forest. He notices that ground is trembling and wonders what is causing it. He sees the small animals scurrying quickly away but wants more information before acting. He decides to climb a tree to see what is causing the increasing rumbling. At the top of the tree he is able to see clearly what the problem is – he is in the direct path of stampeding elephants.

He now has perfect information– but no time to do anything about it!



Don't let the elephants get you.

More Analysis Needed

The survey and site visits indicated that a great amount of effort is now being put into data collection. There was less evidence, however, that the data was being analysed. And if data is not analysed it is not being used, for the major purpose of data is to ask questions. The questions may be basic ones, such as checking the raw product of a PMS to see whether the proposed actions are valid. Or they may be more searching, such as the questioning illustrated in figures 16 and 17.

Not 'Precision' but 'Relevance'

Figures 16 and 17 illustrate two issues that arise from examination of data – one, the need for management to take account of the results in their budget allocations but two, the need for data analysis staff to ensure that the results are 'in the right ballpark'. Complete accuracy and precision is not possible and not required, but checks need to be carried out to see if the assumptions that have been fed into the model are reliable, and whether the data itself needs to be revisited to make the modelling relevant.

Analysis means Asking Questions

No data, and certainly not the data from these renewal projections, should be taken as 'the last word'. Instead, good data generates good questions – questions that set council on the right track. For example, in looking at the pie charts in Figures 16 and 17 an obvious question is

18. Data Analysis

"Could renewal be spread out over a longer time frame than that suggested by the model?'

Could, for example, the work on drainage renewal be extended out over ten years rather than five?

Could the buildings work be commenced earlier so that building renewals are addressed at more even rate over time? If this could be done, then the large financing swings to manage renewal could be partially removed.

Each of these options (and others) will require further examination to consider the impact on costs (capital, interest, maintenance) and the impact on risk management.

How cost sensitive are the timing assumptions?

What would be the effect in the market place of placing a very large demand on, say, drainage contractors for a relatively short period of time?

Would they have to "gear up" to meet the demand, and would they then be left at the end of the period with excess resources that they could not easily deploy on other work? If this is the case then the unit price to council will be higher.

If the council renewal program would have a sizeable effect on the locally available external workforce then it might pay to negotiate a reduced rate with the workforce for spreading the work over a greater timeframe – and then comparing the savings with the extra costs to the community of delayed renewal.

Can the local market cope?

Bringing in resources from further afield will normally cost more and not meet the councils' objectives of furthering employment for their own communities.

What programs are other local councils running? At the time of the Olympic Games in Sydney, bricklayers were very scarce in SA and very costly. This was one of the spin-offs of a large works program. Similarly when Parliament House was being built and ran somewhat behind time so that labour needed to be drawn from further afield, the unit labour costs increased considerably. Because councils are generally operating in much smaller markets, their projects do not have to be the size of Parliament House or the Olympics to have an impact.

Box 18B: Don't Wait, Start Now 2.

Analysis on small amounts of data is not as accurate as when using larger quantities of data, but there are good reasons for always running the analysis on data as soon as possible.

This is well illustrated by the analyst who was researching rainfall in the arid north of our state.

He had 14 rain gauging stations set up in isolated spots and wanted more. At this time, all measures were collected manually and the stations were very expensive to run. He was asked what he had discovered so far from the initial 14 and his response was that they had only been set up for 4 years and it was too soon to do any serious analysis. However, further funding was refused until some results were forthcoming so he ran his tests – and he found that 8 of his stations had been set around a natural basin and were so highly correlated that he could afford to take half of them and reposition them.

Because he did the tests, he was able to get the greater coverage he wanted, without any extra costs. The converse is that had he left it for the ten years that he considered a 'good run of data', many valuable resources would have been wasted. Moral: check your data early.

Opportunity : By planning and analysis, to be able to choose the greatest value-for-money option available.

19. Dispelling Data Myths

Data are just black marks on the page until analysed, understood, assimilated and acted upon

Dispelling The Three Great Data Myths

1. More data is not a sure route to more money

A common feeling often expressed by technical operators is that if only they had better data systems and could put forward a better business case, they would get more money: hence the focus on collecting more and more data and pushing the funding case. When the survey asks council staff what they want, they overwhelmingly say 'better data'. When asked what asset management improvement council has done in the past few years; the overwhelming response is in terms of improved data systems.

But, in general, there is no pot of gold at the end of the business case rainbow!

This is because council revenues show no sign of large increases in the foreseeable future – quite the reverse. Section 5 in part one showed that, overall, council revenues were increasing only slowly while for many councils there was no increase at all in real terms.

In this environment, more money for one section of council means less money available for another! Instead of investing resources in proving up the case for more money, the asset management task may better be achieved for finding ways of securing outcomes more effectively. The site visits showed that this is where councils' real needs lie.

Rural and Regional Funding

The exception to the 'no great increase in funds' argument may be in the possibility of securing more grant funding for rural and regional asset management. But as such funding proposals will be competing not only with other assets and services within council but with all assets and services everywhere, the need for demonstrating effective management of existing assets is even more essential. (See Part 3 "Working With Others")

Asset management is about spending better what is already available.

Box 19. Improving Fragmented Information with Data Warehousing

Far too many councils are always at the starting gates as far as asset management is concerned because they are forever in the 'data collection' stage as a result of constantly changing their asset information systems.

Burnside City Council wanted to develop its strategic plan for asset management but found itself with fragmented information of varying quality, all on different databases. As it stood, it was less than useful. This is a common situation that councils find themselves in. But Burnside did not make the mistake of investing in yet another system, and its resultant costly data collection. It used the technique of Data Warehousing, enabling it to bring together information from disparate sources into one database. For example, service requests have been drawn from Lotus Notes and compared with current condition on Oracle.

Staff trained in querying the system are able to continuously clean and improve their data as they go. After only 6 months of effort, Burnside's data is vastly improved lending itself to more informed, better asset decisions.

19. Dispelling Data Myths

2. Data detail is not needed for direction setting

The major need for councils is to determine where (and why) to allocate existing funds. These big decisions do not rest on refining detail; what they require is an appreciation of the overall context – an understanding of what the major issues are, the major trends, and major demand changes. Where are the major renewal needs (and why?); where are the major growth needs (and why?); what are the major opportunities from reducing or removing service needs that have become less valuable; and what are the options for dealing with these major trends?

There is a real need in all councils for trend and option analysis. This need requires skills and expertise that councils will need to develop.

3. Asset management requires more than just current asset data

For trend analysis, councils need to be able to see what they have been doing in the recent past – and what the outcomes have been. They need to be able to forecast what the demands may be on them in the future – and this requires much more than an understanding of assets, it requires an understanding of how assets are used.

- Can population growth be accommodated within existing facilities?
- Can service demands be accommodated within existing facilities?
- Can service be met in other ways, using fewer assets, or better, using no assets or other people's assets?

None of these questions can be answered from a knowledge of asset condition alone. And none of them require an in-depth knowledge of asset condition, an overview is sufficient. More important, is knowledge of how assets can be used to meet the service demands that will be made on them.

Collecting more and more asset detail while establishing the need for asset services is largely unaddressed is akin to sharpening one blade of the scissors while the other is not only blunt but hanging off by its hinge!

Major decisions do not require asset detail – **but they do require information about demand trends**.

Opportunity: To achieve better service delivery outcomes by focussing on direction rather than detail and examining trends.

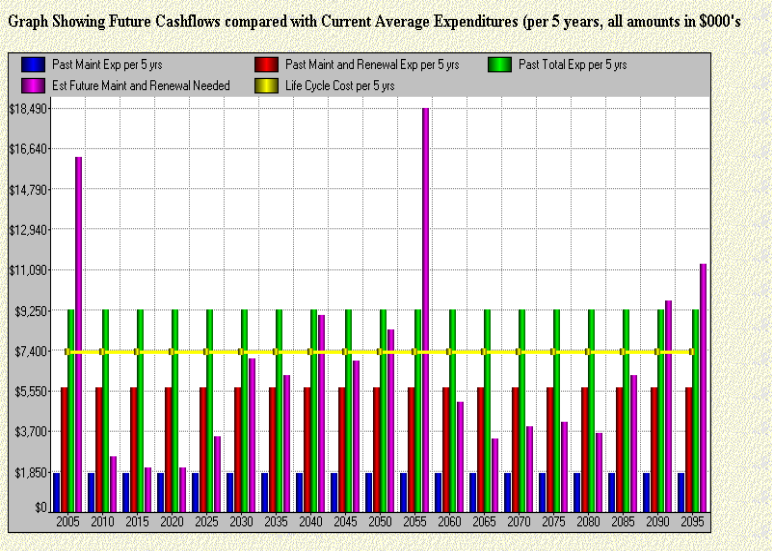
Fig 19 For Trend Analysis—Snapshots in Time

Using the Website Data in Your Asset Management Planning.

This database is live!

That means it is continually being updated and gives you current information.

To record your progress and develop trend data you will need to take regular snapshots in time and analyse the changes.



20. Projecting Revenues

"Income £1, Expenditure 19s and 6p; result happiness. Income £1, Expenditure 21s and 6p; result misery"

Charles Dickens

Matching Costs and Revenues

An essential part of planning is the matching of forward costs and revenues (See Section 6). Projected renewal costs for each council are now available on the study website. These need to be matched by estimates of projected revenues.

To do this, examine the pattern of your revenues in the past. (Your grants commission figures for 1994-5 to 1998-1999 have been placed on the website for you as an aid to this exercise.)

Box 20

Projecting your Rate Revenue

In projecting your rate revenue, you need to carefully consider three things – each of which, potentially, has a different impact on your rate revenue.

Changes in the valuation of assessments. You will receive a rate increase (or decrease) without any action if the rate in the dollar remains unchanged and there is an increase (or decrease) in the valuation of properties in your area.

Natural growth. Where land is subdivided there will normally be an increase in the number of assessments. You need to take account of the likely rate increase, even from an unchanged rate in the dollar from such activity. However, there will generally be an increase in expenditure to service those blocks, including the depreciation of any assets associated with the subdivision.

Inflation. Failure to take account of inflation will generally lead to a reduction in your capacity to provide services as costs increase in line with inflation. It is critical to maintain your revenue base to keep pace with inflation based cost increases.

Consider what has been changing – and what has not.

Rate Revenues

If your rate revenues have increased significantly over the period, ask yourself why? Is it the result of a once-off market value correction for household property values? Is the market still increasing in value? Is it inflation? Is it growth in properties? The Valuer_General includes important information in this regard when providing updated valuation data.

Has there been a significant change in the composition of ratepayers, say major farm amalgamation in the area, or a significant change in industry patterns? Ask yourself whether these are likely to continue or not. If so, will the rate of change be greater or less than that experienced in the recent past?

Consider the capacity of taxpayers to pay (e.g. are your rates higher or lower than similarly placed councils?) There may also be the capacity to raise levies on specific beneficiaries to conduct specific upgrades (e.g. to seal roads where there is an economic benefit to specific and identifiable users.)

If you raise separate or specific rates and charges to meet the costs of provision of certain services (e.g. STED schemes) there may be limitations on the use of these monies pro tem that you will have to take into account. Also are the revenues ongoing or are they time dated?

20. Projecting Revenues

Has, or is, the State or Federal Government proposed changes that may impact rate raising practices?

(Once you have made the above assessments, this information should be incorporated in your Asset Management Strategy, see Section 11.)

Grants

Over the aggregate of councils, grants have remained pretty flat, but this may not be the pattern that you are experiencing. If your grants have changed significantly in recent years, ask yourself why? Are the conditions continuing? You may find that it is not sufficient for conditions to remain as is, for the grants to increase. The only way to tell is to look at the individual factors involved.

Grants and subsidies are uncertain by nature. It is unwise to project special grants (eg the Federal Government's "Road to Recovery" Grants) beyond the currently announced timetables.

If grants and subsidies should be withdrawn or substantially reduced, do you have the capacity to provide the same level of services?

Fees and Charges

Are these increasing/decreasing/ remaining constant as a proportion of your revenues? Is there scope for more user pays activity in your council?

Financial Risk Management

Projecting Future Revenues requires taking into account any financial risks the council may be liable for, such as interest rate changes on investments.

Borrowings can help match costs and revenues (see Section 31).

An appreciation of future revenues helps a council to understand what level of services it can afford to supply to the community. The issue of service levels is addressed in the next section.

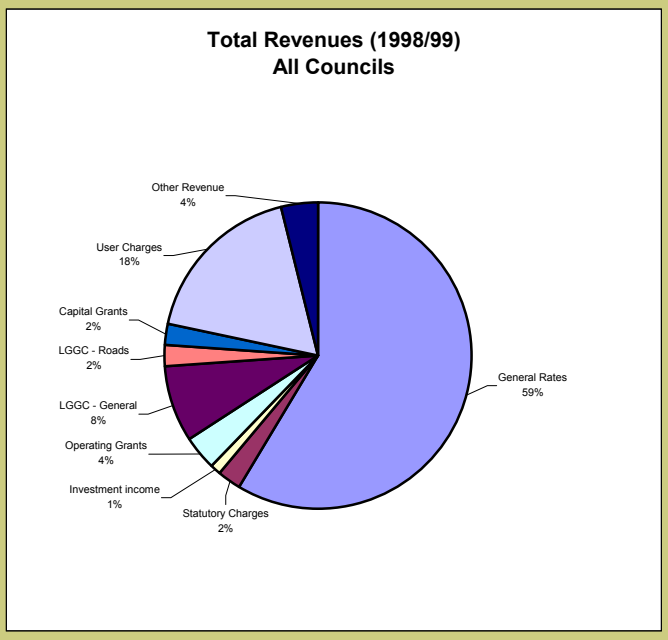
Opportunity: To provide guidance in funding asset growth and renewal

Fig 20

Using the Website Data in Your Asset Management Planning.

To match your forecast costs you will also wish to model projected revenues, analysing comparisons and relative changes over time.

You can produce your own revenue breakdowns similar to the state total opposite.



Part Two:
Working Within Councils

Service Levels, Outcomes, Perception and Performance

Organisation and Communications

Financial Integration

21. At Your Service

"We realise that our Council's prime reason for being is to meet the customer service needs of our community"

District Council of Mount Remarkable's Strategic Plan.

Services

Councils deliver a wide range of services that have evolved over many years. With the passing of time, the reasons for what is provided can be become vague and, as a result, councils run the risk of no longer providing what is relevant or appropriate.

Box 21A: How to Cost Services

What do services cost? Take libraries. There are obviously costs for librarians, technicians and assistants to staff the libraries. There are the on-costs of central administration and the operating costs of cleaning, lighting, security, etc. There are the costs of consumables such as paper for the photocopier, or daily newspapers, and then there are the 'assets' – the library stock of books, periodicals and other loan and reference items; the computers and software for the computers; and the library buildings themselves (or mobile van).

Cost of library services =
- Direct labour costs
- Indirect labour costs (super, HO admin, etc)
- Services and utilities (cleaning, lighting, water rates, security)
- **Capital related costs: -**
  - Maintenance of the assets used
  - Depreciation of the assets used (see Note 1)
  - Opportunity Cost or Interest Foregone (see Note 2)

Note:
1. If the asset has an expected life of 10 years, then the depreciation rate will be 10% and this is 10% of the full replacement cost.
2. Opportunity cost is the interest foregone by the council in holding its wealth in the form of the capital asset rather than as money in the bank. One could perform the thought exercise of selling the asset and investing the revenues. (All assets, even infrastructure assets, can be sold if there is an interested buyer.) However as the asset ages, its market price falls. This is reflected in the books of account as the depreciated value or "the written down replacement cost (WDRC)". If the opportunity cost is, say 7%, this is expressed as 7% of the written down replacement cost.

In New Zealand, where asset management plans have now been in use for 4-5 years, councils were advised, as a first step, simply to comprehensively document what was currently provided so that it could be either endorsed or challenged.

However, as the asset manager for Wanganui Council wrote, "as asset managers we tended to breathe a sigh of relief when we were told our service level can simply be a description of what we currently provide. We then often proceeded to write a woolly, technical description that told the customers very little about what they were actually paying for. At best it was justification of the budget and at worst, simply padding."

As a result, Wanganui worked out a set of simple rules for communicating service levels – in user terms. These are provided in Fig 21 as guidance for South Australian councils. Examples of how these rules were translated into service statements for 22 different services for Wanganui can be found in the "Further Resources" section of the study website.

The Result.

Wanganui reports that not all rules were strictly adhered to but at least it kept them on track.

"It was a constant challenge to refrain from listing various planning, administration and information management processes as services. Council's services were broken down to a list of 22 outputs and described.

21. At Your Service

The document has proved to be the most popular that Council has produced. Its format enables those interested in just a single service to be provided with information a single sheet of paper. We can cut the bureaucracy!

It has become very useful for asset managers to focus the service delivery process on the enhancement of service provided and turns the heat up on other processes that do not add value. It has causes us to repeatedly question *why* we are doing various things and *who is benefiting* from the activity. It also forms the basis for the monitoring of our performance and hopefully will lead to a more formal customer-supplier agreement in the future."

Once services have been identified councils need to determine the level at which they are to be provided—see next section on service levels.

Opportunity: To increase value and reduce cost by focussing on services most wanted.

Box 21B:
Wanganui's
Service Description Rules.

Rule 1. Services provided must described in terms of outputs, not inputs.

Comment: As an analogy, consider Bob purchasing a hamburger. What Bob is primarily interested in is the quantity, quality and price of the hamburger and how fast it is he can get it. He is probably not so interested in the maintenance plan for the cooking equipment. Likewise, as far as possible we should constrain ourselves to describe what is delivered and at what price, not all the layers of 'how'

Rule 2. Language as far as possible should be in layman's terms.

If we are to have a customer orientation then we must learn to articulate what we provide in their terms.

Rule 3. Each service should be limited to one page of text.

Mainstreet Wanganui

No one is interested in reading volumes.

Rule 4. Sufficient information should be included to enable anyone to judge the quality/price trade off.

Consumers have a right to know just what they are getting for their money and to be informed enough to keep the service provider accountable. There needs to be enough detail on standards included so that if the cost varies significantly then so does the service description.

Rule 5. Each service should be documented in a standardised format.

This is not only to ensure ease of reading but also to enable comparison between services, particularly in terms of value for money.

22. Service Levels

"It is all very well to ask us to do more with less, but ratepayers don't think there is a link between improved service standards and costs"

Identified Need

Expressing services in user terms and quantifying different levels of service in user terms were identified as two of the areas in which respondents to the survey were most in need of information.

As a result this report has looked at how to describe services in user terms (Section 21) and how to analyse and use service levels (this section).

Next Steps

Having taken the first step of simply describing current services and their costs, as described in the previous section, councils are ready to take, with their community, the next step of examining the range of service levels and determining what is really wanted.

For an Asset Management Strategy to assist a council in getting more service for less resources, an essential in today's world, the focus must be on service levels – *from the user's perspective.* But what does this mean?

Consider roads.

Normally service levels for roads would be defined in terms of roughness counts or other forms of road condition, such as cracking. But these are technical service levels, not user service levels.

What services do users want from roads?

- Access, speed, safety for motorists, ride comfort (if they are on them)
- Noise control and safety for pedestrians (if they are alongside them)
- Aesthetics and environmental safety could be important in some circumstances (e.g. landscaping of verges and control of grass growth to control bushfires)

Box 22: Using Service Levels

Once service levels have been defined from a user's perspective, we have a measure of the different levels of "outcomes" that council can provide. This can then be matched against the cost of providing each outcome.

However, sometimes, it will not be necessary to do the cost calculations for the outcomes alone can guide council. For example, council may feel that it should have a 'top of the range' road for its mainstreet – but when asked 'do you really want traffic to be able to do 100 kph in safety and comfort down your mainstreet'? the answer would probably be NO! And the same answer may be forthcoming for residential streets. (After all, why put in a road that can do 100 kph in comfort and then install traffic calming devices to keep the speeds down?) In this way, councils are able to select not the "top" standards, but the "appropriate" standard for the need.

22. Service Levels

Describing Service Levels

It is possible to think of a number of different service levels for each of these services. Take service levels for road speeds:

Level 1. 'capable of safe, comfortable, speeds up to 100 kph'
Level 2. 'capable of safe, comfortable, speeds up to 80 kph'
Level 3. 'capable of safe, comfortable, speeds up to 60 kph'

Important points to note:

1. This is clearly not the total of service levels that could be defined for safe, comfortable driving speeds. There is really an unlimited number of service levels, as many as the mind can devise.
2. Written this way, each service level implies that there are alternatives. Higher levels of service presumably come at a higher life cycle cost – if not, a lower level is not really an alternative.
3. The service levels relate to what the asset DOES, not what IS DONE to it, or even what condition it is in.
4. There are many different ways to achieve the service level. (See Figure 22). It is important not to confuse the means with the ends. Improving a roughness count is not a service itself, it is a means to providing a service (ie ride comfort)
5. Related to the above, there is no one way to achieve, or to vary, a service level.

An asset may, and generally will, provide a number of services and each of these has to be examined in terms of appropriate service levels. For example, a wetlands provides a drainage service but it also provides a tourist attraction.

More information

More information can be found on constructing and using service levels in "Further Resources" on the study website.

Opportunity: To meet the community's real needs.

Defining service levels in outcome terms leaves it open to the asset manager to choose the most appropriate method of achieving the end result. For example, whatever the road speed desired, there are numerous ways of achieving safe, comfortable driving at that speed.:

- Road width (wider roads make for safer driving at speed)
- Road alignment (straighter roads are faster but too straight and inattention may lead to accidents)

Fig 22
The "how" of Service Levels

- Surface quality (roughness and potholes limit safe driving speeds)
- Substructure (ie pavement quality) -sounder roads are safer
- Signage (can increase safety by giving warning of danger spots)
- Traffic lights (can reduce congestion)
- Bridges and overpasses (can speed traffic flow)
- Etc

Road Safety Audits are not 're-design' exercises but they can suggest improvements to existing roads. Where the problem is more difficult, there is the Federal Government's 'blackspot' program.

23. User Perceptions

"Do you see what I see? Do you hear what I hear?"

Traditional Christmas carol

Serving the Community

The last two sections have looked at the issue of describing services and service levels in user terms.

This is not only necessary for communication, it is also necessary for performance improvement.

Box 23: The Comparative Assessment Technique

A new technique, developed in the UK, takes qualitative outcomes and transforms them into user defined and accepted gradings that can be measured, monitored, and tracked over time. Now there is a way to determine whether qualitative outcomes are improving, whether goals have been reached. - and, if not, *how far* we are away from the desired end-state (and how much it will cost to get there!)

It is called CAT– Comparative Assessment Technique, and it is based on the simple, but operationally powerful, idea that any qualitative output can be expressed in terms of its worst state, its best, and all possible states in between.

Being able to measure qualitative outcomes/outputs makes it possible to

- Track developments over time
- Compare outcomes with other organisations
- Relate activities to outcomes
- Relate *the cost of* activities to the *improvement* in outcomes

A list of all possible states is called a 'ladder'. Ladders can be used to measure

- The performance of a task
- The effectiveness (or result) of the task and
- What users think of the overall activity

Example of User Perceptions

It was just a torn scrap of very muddy t-shirt – "that's what I get when I put it under the tap", he would say, in no uncertain tones of disgust. The scraps of t shirt turned up every few months.

On investigation, it turned out that the water authority, to remove the build up of sediment that occurs in South Australian water, had a practice at the time of flushing the pipes. For a few hours the water would be like gravy. However the end result was that reasonably clear water would be available for the next several months.

Statistics can be deceptive

The authority's statistics told it that it was providing clear water 99.7% of the time and it considered that a good service. The fellow with the t-shirt, however, had a completely different view and anybody who happened to put through a load of white washing at the time of pipe flushing would consider the service a very poor one. Who was right?

Lessons to be learned

1. Perceptions count

There are several messages from this story for councils. One is that it is not what you do, but how it is perceived by the community, that counts.

2. Communication counts.

Another is that the water authority was not keeping the community 'in

23. User Perceptions

the loop'. Later, it began the practice of advising consumers when the pipe flushing would take place.

3. Taking a User Perspective Counts

Later still, it found ways to avoid flushing at all. It is interesting that it was only when the authority focussed on the service – from the user's perspective – did it realise that improvement was needed!

Measuring Perceptions

Until recently, the fact that perceptions were 'subjective' made them very difficult, if not impossible, to measure. A technique is now available that allows councils to rate how the community perceives a service and, unlike most rating devices, to measure and aggregate the different aspects of the service making the management of perceptions as real as the management of service outcomes. (See Box 23, Fig 23 and a detailed account in "Further Resources" on the study website).

Use in Councils

This technique is now being used by the Brisbane City Council to evaluate the perceptions that other sections of council have of its IT service. Asset managers could use it to estimate the effect that its asset management work is having on ratepayers' perceptions of the services they receive.
In general, community perceptions are more positive if:

- They understand the reasons for service disruptions or, if necessary, service downgrading.
- They are consulted about the changes and their ideas listened to.
- Council reports the problems it is facing and how it is overcoming them

See also
Section 28 "Community Consultation" and
Section 29 "Measuring and Forecasting Demand"

Pricing is a useful tool for understanding community demand. It is the subject of the next section.

Opportunity: To improve performance by managing community perceptions.

Fig 23: Example of a Comparative Assessment Technique Ladder

An example of a ***consequence ladder*** for Heating and Ventilation **in the context of Customer Perceptions** could therefore be as follows: -

1. Customers have refused to come to our offices because they are always too hot or too cold.
2. Customers are always complaining that our offices are always too hot or too cold.
3. Customers often complain that our offices are too hot or too cold.
4. We sometimes get complaints from customers that our offices are too hot or too cold.
5. We seldom get complaints from customers that our offices are too hot or too cold, but we suspect that they are being too polite to tell us and it may therefore be affecting business.
6. Customers never complain that our offices are too hot or cold, but we suspect that they are being too polite to tell us and it may therefore be affecting business.
7. Customers seem to be happy with the temperature of our buildings.
8. Customers sometimes remark that we always have our buildings at the correct temperature.
9. Customers often remark that we always have our buildings at the correct temperature.
10. We pride ourselves in operating our buildings at temperatures that improve our image with customers.
11. Our policy regarding the temperature of our buildings is seen by our customers as an important factor in their measurement of our image.
12. Other organisations use us as a benchmark for the contribution that control of temperature adds to our image as perceived by our customers.

More information in "Further Resources" on the study website.

24. Pricing as an Information Tool

"If its free, people always want more!"

What services does your community want?

This is often difficult to assess. You can call public meetings but generally only those who have a vested interest in the outcome will turn up. Or, if the service is one where the community benefits only indirectly, for example in the provision of tourist facilities such as caravan parks, maybe no one will turn up!

Box 24 Pricing as an Information and Rationalisation Tool

On examination a New Zealand Council discovered that 32% of the costs of maintaining sportsfields were incurred in getting them to a level appropriate for casual use such as walking or jogging. 68% of the costs were incurred by maintaining the fields to the standard required by the sporting Codes (soccer, rugby, cricket, etc)

The Council made a political decision that the Sporting Codes would bear roughly 20% of the total costs that they imposed. A system was introduced which saw the codes facing prices that signalled the cost of the preparation of pitches to different standards for each code.

The result of this was that the Codes moderated their demands for pitch preparation to such an extent that $180,000 was saved in the first year of the system.

The general issues of community consultation are dealt with in Section 28 "Community Consultation".

Pricing as a rationing device

Pricing is a technique that councils can use to determine how much value their community places on different services. If the council suspects that a service is not highly valued, it is useful to put a price on it. It does not have to be a 'full cost' price, even a small price can lead to serious rationalisation of demand by the community with considerable savings .(see box 24).

A reluctance to price

Not all services lend themselves to being priced and there may be good reasons why, when it is possible, that the council should choose not to use pricing techniques. For example, at the height of the wave of council outsourcing, a number of councils were considering the possibility of entirely outsourcing garbage collection, with not only the collection of garbage but also the collection of user fees from garbage collection being outsourced. This could have led to innovative pricing mechanisms that discouraged waste accumulation by households, which is particularly important where council tips are being overloaded and few replacement sites are available. However, most of the councils decided against such an action on the grounds that garbage collection was one of the few visible services that all ratepayers could see that they were getting for their rates.

24. Pricing as an Information Tool

Pricing and community equity

Where services are provided unequally – as is often the case when two (or more) councils have amalgamated and previously had very different spending and revenue policies – the use of pricing can be seen as being more self-evidently fair. Those who use, pay; those who do not, do not. When all ratepayers see themselves as contributing to the cost of service provision, they are inclined to demand a service, even if it is of marginal value to them, simply out of a sense of fair play.

Pricing as an Opportunity

Pricing can therefore be a useful tool for determining just what services the community *really* wants. It also has the extra benefit of enabling the service to be *facilitated* rather than provided. For example, recreation facilities such as swimming pools, recreation centres, and tennis courts can be provided by council, but they can also be provided by others – using 'other people's assets'!

In addition, pricing services provides income that can supplement other revenues.

Opportunity: To discover what the community *really* wants and values

Fig 24 What Can Be Priced

It is useful to separate the services provided by councils into the following three groupings:

Public goods: those goods and services provided to the community as a whole, whose benefits accrue to society as a whole and cannot be divided into saleable units. For example, good town planning. While charges may be made for planning permits and building inspections, the overall benefits of good town planning go beyond this and are available to all. Assets that provide essentially public good type services include: roads, road verges and pavements; bridges; stormwater drains; parks and gardens; open space land; and council buildings (when used for administrative purposes). Public goods do not lend themselves to any kind of pricing policy but may be subject to occasional revenue or reimbursements.

Community goods. These are those goods and service that the community consider desirable but no private producer has been induced to provide commercially. Assets that provide essentially community good type services include: sports stadiums; library, museums, art galleries; sporting grounds, ovals; pre-school, child care and maternal care centres; the Town Hall (when used for community functions); swimming pools and rubbish tips. Revenue from these assets may come from user fees, permits, licences. Prices are charged but do not cover the full cost. The ratepayer subsidises the user of these services

Private goods. Councils sometimes provide purely commercial goods and services. Examples include: commercial land and buildings; abattoirs, caravan parks; and cemeteries. For private goods the appropriate pricing is full rate of return. Indeed, under the new competition policy, councils are required to price this way.

Membership of the three categories is not clear cut. Assets and the services they provide may shade from one category to another. Understanding this provides councils with more options to manage their assets. For example regional roads can be defined where sealing would provide economic advantages to an identified clientele and they may be asked to contribute. Or, while cemeteries may normally be considered as pure private goods to be fully priced, 'heritage' cemeteries may provide a general community benefit and this may justify some price subsidy.

25. Performance Indicators

"We have been trying to improve performance and we think we have, in some areas, but we are not sure"

Box 25A: Performance and a Focus on Service

Newly amalgamated, this non metro urban council found itself with very little asset information. Like others in this situation it could have invested in data collection and an asset information system. But, instead, it chose to understand more about what the council had *in broad terms* and what the council wanted to do – *provide* or *facilitate the provision of* services. Once it had this broad understanding it was then able to (a) focus on those issues of most immediate relevance and (b) select and measure just those aspects that were of top importance. Rather than collect information on everything, the council was able to "focus on service"!

Why Measure and Monitor

Playing tennis without keeping score would not be much fun, and working to improve asset management practice also lacks stimulus if there is no way of measuring and demonstrating improvement.

But the most important uses of performance indicators are (1), as an 'early warning device' - to be able to detect where performance is lacking and corrections need to be made, in time to make them cost effectively; and (2) as a means of recognising good practice and performance, so that the lessons learnt may be extended.

There are certain rules that performance indicators need to follow if they are to be used to correct problems early or to recognise good practices. They need to be:

timely - annual reporting may be sufficient for very slowly changing conditions, but for most practices quarterly, monthly or more regular reporting will be necessary.

precise - if something is going wrong (or right!) it is necessary to know exactly what it is; too general a level of performance measurement will not provide enough information for correction or extension.

measurable!

(see examples in Fig 25B)

First seek to understand, then to improve, performance

Performance indicators are a combination of two things:

Performance measures

Performance targets

It is advisable to measure performance and understand the causes of variation for maybe several years before attempting to set performance targets. Much harm has been done by selecting and working to artificial targets. Setting a target for a debt to asset ratio, for instance, without understanding the implications for other performance is unwise. (See "Debt as an asset funding mechanism" Section 31)

One is Generally Not Enough

Because individual practices are so interdependent, it is very unwise to base actions on just one performance measure or indicator. For example, consider a "maintenance to asset ratio". What would constitute an improvement in this ratio – for it to increase or decrease? Many, who believe that maintenance is under-funded would say "up"; others who feel that much maintenance funding is wasted, might say "down". The point is, that we cannot tell – without looking at other indicators, such as asset condition, customer satisfaction, breakdown rates, renewal funding, etc. It may be that because assets have been recently renewed, that maintenance has been able to be beneficially reduced; on the other hand maintenance may be reduced causing required renewal to greatly expand.

Performance Requires Understanding and Analysis

Understanding performance requires considering a range of measures and *interpreting* them.

25. Performance Indicators

A medical diagnosis might take a single symptom such as a cough and diagnose leukemia, aids – or a simple, common cold. A similar range of interpretations is available for an asset management diagnosis. *The interpreter needs to have asset management skills and know what to look for.* Reductions in cleaning costs may show up in the need to repaint more often or in more customer complaints – or, it might be the result of better techniques.

See also "Benchmarking and Best Practice" , Section 30, and the Appendix 7 on Performance Indicators.

Opportunity: To know and demonstrate improvement.

Box 25B: Ensuring Your Performance Indicators are Measurable

The following performance indicators were chosen by one agency

1. Improved overall condition of council buildings
2. Extended replacement cycle
3. Better/More Relevant Reporting of Building Defects
4. Gradual Reductions in the Level of Urgent Minor Repair
5. Fewer complaints in respect of lack of maintenance.

At first glance, they look ok. ***But actually none of them are operational!*** **That is, none of them, without further work, are actually measurable, nor can they be monitored.**

Below are some of the questions that need to be asked to develop these areas into useful performance indicators.

1. Improved overall condition of council buildings

- How many different building "spaces" need to be defined, eg offices, toilet blocks, town hall reception facilities, etc. What services does council need to carry out in these spaces? And what characteristics of the buildings are important for the functioning of these services?
- Why are these characteristics of the buildings important? Which are the most important, and for what services? Which characteristics are (a) essential (b) desirable?
- What information do we have on these characteristics? Is it available in quantitative terms? ie is it measurable?

2. Extended replacement cycle

- What are the indications that an asset has reached the end of its replacement cycle?
- What can be done to extend the cycle? (change standards)? Can these be evaluated to make sure they are cost effective? If so, how?
- Does extending some parts of the building have an adverse effect on other parts? If so, what? Can we measure this?
- How is the replacement cycle currently measured? Is this measure satisfactory? What alternatives are there?

3. Better/More Relevant Reporting of Building Defects

- What defects should be reported? To whom? How often? With what response?
- What defects are currently reported?
- What is wrong with the current methods of reporting? How can it be corrected?
- How would we measure an improvement in relevant reporting?

4. Gradual Reductions in the Level of Urgent Minor Repair

- What is the distinction between minor and other repair? What is the criterion for defining a minor repair as "urgent"? Who determines?
- What are the field difficulties of determining whether a repair is (a) minor and (b) urgent?
- What are the current measures? How accurate would these be?
- What is an appropriate target level for urgent minor repair? Why? What is meant by gradual? Why should the reduction be gradual? How gradual should it be?

5. Fewer complaints in respect of lack of maintenance.

- How many complaints are currently received? From whom?
- What level of detail is kept on complaints?
- What are the major areas of complaint with respect to lack of maintenance? How do these match the important characteristics of buildings necessary for service as established above? How do the complaints match with the urgent minor repair items?

26. An Asset Manager?

"The Goal is Accountable Asset Management"

Does there have to be an "Asset Manager"?

No there doesn't, but there are advantages to having someone co-ordinate the various activities that come under the heading of asset management.

However if one person or unit takes the asset management role, he or she should be seen (and preferably named) an Asset Management Co-Ordinator, rather than an Asset Manager, to avoid other council officers thinking that asset management is not part of their role.

Asset management is a multi-disciplinary activity involving almost all of the key roles in council from planner to administrator, from finance to engineering, from operations to service managers and will only be truly effective if everyone takes responsibility.

In the survey, councils indicated that few had a designated "asset manager". In most cases, the CEO or the CFO took the role of asset management co-ordinator.

An Asset Management Group

Some of the larger councils had an asset management group that attended to maintenance and contract management .

Avoiding Silos—Cross Functional Groups

One council had set up Cross Functional Groups to operate outside departmental boundaries to develop organisational strategies for key areas. One of these areas was **Asset Management.** The Groups are essentially 'corporate think tanks' focusing on the strategic level, rather than the day to day operational level.

Cross Functional Groups:

- contribute to strategic planning for relevant areas;
- identify new projects and assist

Box 26A: Best Practice: Improving Proposals

Taking The Corporate View

When projects come before senior management for recommendation to Council, the proposals are normally prepared by the group promoting the project, thus if it is a road project it will have been prepared by the transport group, if it is a drainage project then by the drainage group, etc. This is appropriate as these groups are the most knowledgeable about these particular assets. But who is taking the corporate view?

The Electricity Trust of South Australia were commended by the Audit Commission for their innovative solution to ensuring that projects were in the corporate, as well as branch, interest. All project proposals from functional or client areas were independently examined by the corporate policy section. The Policy section investigated the benefits from a corporate viewpoint, noted the areas of overlap between one section and another (both positive and negative), examined the assumptions made (particularly assumptions about future demand growth), and considered the options presented to see if they were reasonably comprehensive and that the analysis had been correctly carried out.

In fact they did all of the things that it is normally assumed the Executive Panel will do in evaluating a proposal but which, in fact, busy senior managers seldom have time to do. Nor do senior managers necessary have all the specialist analytical skills.

This is a valuable role for the Asset Manager. Avoiding costly mistakes in asset acquisition is the most cost-beneficial application of asset management skills. A week of analysis can save council hundreds of thousands of dollars in wrong decisions.

26. An Asset Manager?

project completion;
- facilitate Strategic Impact Reviews;
- negotiate resources to address critical issues;
- research, discuss, recommend or report on current developments in the area of interest; and
- collaborate with relevant functional areas and contribute to the development of the project and/or capital sections of relevant Business Plans.

The Asset Management Cross Functional Group consists of staff members from the departments of Strategy and Policy, Organisation Services, Economic Development, Customer and Community Services, Environmental Services and, Asset and Infrastructure Services.

Further details on this approach will be found in Appendix 6.

Asset Management is NOT Data Management

In some councils, the "asset management unit" is responsible for collecting and recording asset information. Data reports are produced but usually no analysis of the information is involved. This is not asset management.

Asset Management is not Line Operations

In other councils, the "asset management unit" is responsible for operations and maintenance and for preparing budget applications, but has little or no strategic input.

These activities are not asset management, in the sense in which we have defined asset management, namely matching the asset portfolio to the needs of council. Having a unit called "asset management" can lead council to believe that the corporate and strategic needs of asset management are being met when they are not.

Here is a list of the "asset management activities" that need to be done.
- Prepare and update the AMS for council approval
- Collect data and analyse it in preparation for the asset management plans, providing documented justification for capital projects (both new and renewal)
- Ensure that the plan is implemented (either in-house or through contract)
- Track and monitor **performance** and report back to council

See also "Checklist" in Section 38

Opportunity: to make someone or some group accountable for asset management across council

Box 26 B: Best Practice: Monitoring Performance

Make an individual responsible for each asset project

BP Steel won an international best practice award for its performance monitoring of projects.

One element of their approach can easily be adopted by councils.

Each major project (renewal, acquisition or modification) has to be 'sponsored' by a senior service manager who argues its case before the executive panel pointing out the benefits to be achieved by the project *and taking responsibility for seeing that the agency gets those benefits!* Six months after the implementation date the senior manager is asked to set a time to present the post implementation results to executive panel. If more time is needed, he/she is granted it and the extension of time recorded. At the post implementation meeting, the senior manager has to say whether the benefits that were promised are being achieved, *and if not, what he/she has done to correct the matter.* Once any corrections have been made, that same senior manager reports to his co-managers on the lessons that have been learned.

The whole process of post implementation review (from keeping track of the proposal and its promised benefits, to arranging the reporting back and ensuring the dissemination to others of the lessons learned – and, if necessary, making changes to the council's formal asset management processes) would be a valuable role for the Asset Manager.

27. AM Strategy Starts at the Top

"Elected members determine and guide the Asset Management Strategy; their understanding and interest in strategic analysis is therefore critical"

An Example

A number of councils have adopted deliberate programs to closely involve elected members in understanding the strategic isues facing the community. This is an example from one of them.

When Onkaparinga faced the problem common to newly amalgamated councils of bringing information together, it decided to work for a strategic understanding rather than to dive straight into major information systems construction.

Box 27A: Full Involvement

"Hey, I reckon I have a combination for you that will work! That community centre that we have on the hill is used by an over-50s group but really accessibility is not good for them. We have an under-utilised facility lower down on the flat that would suit them far better with a small amount of modification. Then we could move the scouts group onto the hill, which they would enjoy, and free up a building for sale."

The call was from one of the City of Onkaparinga's councillors. The asset manager said that he gets at least one call a week from councillors with cost effective asset suggestions. They are well aware that "Asset Management is getting the level, quality, maintenance and usage of assets right to deliver the council's goals."

Each council member was interviewed individually. Councillor and staff member met informally and went over the plans and documentation for that ward. Invariably councillors would give staff more information, tell them about assets they didn't know of, their condition, and their potential. Then a workshop was run for councillors addressing :

- The difference between wants and needs
- The Council's core business and what should be funded, owned, purchased and/or provided
- Council's service delivery priorities and its roles and responsibilities
- When it is critical or important to hold assets for this purpose… and when is it not.

Councillors were shown pictures of assets (council's and other's) providing similar services. It helped to make the point that there was more than one way to do things.

They were shown examples where the council funded and owned, but another body provided the services; examples where council did everything and examples where the community received these services without any intervention by council at all. There were examples of just about every combination of funder/owner/purchaser/provider. It went a long way to overcoming the tendency to want to 'do everything' 'own everything' and 'control everything'.

27. AM Strategy Starts at the Top

Councillors are now challenging the 'Status Quo' asking themselves:

- What are Council's service delivery roles and responsibilities? and
- Can the demand in other ways without the need for asset additions?

Community forums

Onkaparinga Council runs community forums on various topics, in which asset aspects are addressed. What they have been at pains to do in all of these meetings is to make it clear that 'there is always another way' "This helps to overcome inertia. Traditional ways of doing things, such as immediately engaging architects to develop a detailed brief for a new facility before looking at all the options, are gradually being phased out."

Councillors form Asset Management Group

There is now an asset management group within Council itself to guide the development of the City's asset management plans. To help structure their planning, councillors first decided on their general priorities for action. (See Box 11A for illustration of the choices made and Sections 11-13 in Part 2 for more information on strategy and planning.)

Whatever method is used to involve councillors it must include the provision of the 'big picture' of asset holdings, costs and future renewal as well as options for managing the situation.

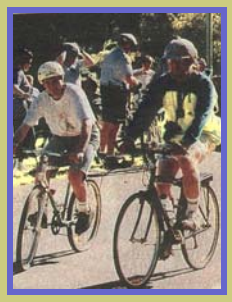
Opportunity: To enable councillors to use their knowledge and commitment to develop and improve the quality of council's asset management strategy.

Box 27B:
Asset Management Strategy

Asset management strategy is a key element of integrated resource planning, a subset of Strategic Planning for council.

Many councils are now promoting this integration to their communities, recognising that it is not new assets, but improved services that matter.

Here are some excerpts from Mitcham Council's community newsletter where "Quality Infrastructure" is a major part of its Strategic Management Plan, showing some good examples of simple overview statements of asset management strategy for public communication.



Roads
Two years ago, a formal analysis of the road network determined the optimum level of recurrent maintenance expenditure to preserve a significant part of the network from major deterioration. This resulted in a recurrent budget for road maintenance surfacing and repairs plus the provision of $150,000 per annum to a reserve fund for the reconstruction of roads that are in a poor state.

Bridges
… A recent condition assessment reveals that 14 of Council's 17 bridges require programmed replacement. Council is establishing a fund for this program, with the Devonshire Bridge construction taking place in the first year and the Cashel Street and Sturt Avenue bridges being designed for replacement in later years.

Footpaths
.. The review (of footpaths) concluded that to reduce immediate and future maintenance liabilities and to overcome a backlog of poor condition bitumen footpaths, the footpath replacement program should be accelerated. ….

28. Community Consultation

"Community Consultation is two way."

When is Consultation Needed?

When should a road be replaced? Where should a new park be located? What trees should be planted in the streetscape? What service standards should apply to the Council's assets?

Questions such as these have a technical edge but, more importantly, the answers are incomplete if they do not take account of the human dimension.

Box 28A: Finding Out What Consumers Want

Dean Taylor, Asset Manager, Wanganui District Council, New Zealand, conducted a series of meetings in rural locations in order to determine what users wanted from Wanganui's rural roads. The results were extremely instructive and led to the development of new analytical tools.

Analysis of the written responses after the meeting showed that the road sections of most concern to users DID NOT MATCH the road sections that would have been programmed for priority attention by using traditional road board standards. That meant that the work the Council was doing was NOT the highest priority work in the *eyes of the customer*s.

The road standards recommended a number of roads be widened. NOT ONE of the top three of the road widening recommendations were considered as too narrow by the users – although narrow roads were a problem for them in other areas. Given funding limitations, the council funds would have been exhausted before they got round to the roads of main interest to users! (More details see "Further Resources" on the study website.

Sometimes this is obvious – if the road is no longer used by drivers, it is not required! But what if the reason the road is no longer used is because it is so badly maintained that it is dangerous to drive on. It can be risky to make assumptions about the needs and wants of the community, especially when it is so easy to ask what those needs and wants are. With limited resources it would certainly be unwise to create an asset that no-one wanted to use! Involving the community in the process of short, medium and long term planning can provide councils with important information that will ensure that assets are acquired and maintained to meet the community's needs.

What is Community Consultation?

Community consultation is often 'one way' – providing written information, or briefings and public meetings – but it is more beneficial when 'two way' – actively seeking the views of the community through surveys, the use of focus groups, involving the community in the decision making process.

Whatever method, or methods, are employed it is essential that the method adds value to the decision making process. This can be readily achieved by the means of a few simple 'rules'.

- Consult early – there is little point in 'consulting' when the decision has already been made.
- Explain why the consultation is taking place and what it is expected to achieve – e.g. obtain an understanding of the community's preferred option among several competing options.

28. Community Consultation

- Explain the constraints on potential solutions – e.g. funding, timing, engineering standards, legislation.
- Outline the assumptions that underlie the decision making process – e.g. number of expected users, service standards, involvement of neighbouring councils.
- Be ready to listen with an open mind (and make sure all participants in the process do the same) – don't let preconceptions on a 'preferred' solution close off other potential solutions that may better meet the needs of the community.

When to use Consultation

It is clearly not possible, or useful, to use community consultation for every decision that needs to be taken. However, part of the reforms that the public sector are currently undergoing is a focus on community consultation. This is reinforced by the requirement for community consultation, in a number of instances, in the Local Government Act 1999.

In terms of asset management there are at least four instances when community consultation will be useful. They are:

- ***Strategic Planning*** – In setting the long term direction of the council

- ***Setting and Changing Service Standards*** – Community consultation can provide useful information on what the community expects.

- ***Major Projects*** – Where major projects are contemplated there can be extensive impact on the community, both positive and negative. Community consultation can help ensure community needs are met and assist in minimising any negative aspects of the project.

- ***Multiple Choices/ Solutions*** – Assessing and ranking the benefits of different solutions is often difficult. The perspectives obtained from community consultation can assist in making the decision more focused on the needs of the community.

Opportunity: To use the knowledge and goodwill of the community to improve quality of service

Box 28B: Community Consultation Happens Every Day

A ratepayer rang the local council to say that one of the street lights had just died. "Thank you" said the receptionist, "We will deal with your complaint as soon as we can". The caller hesitated and said "I wasn't complaining, I just thought you would like to know".

This example was raised at local government asset management workshop in New Zealand. During the subsequent discussion someone suggested the receptionist should have used the word "feedback". Others however recognised that this could be rather patronising because it sounded as if the council had actually done something worthy of having information fed back.

The best suggestion came from a council that had trained its receptionists to answer "Thank you for this information. Please be patient, we want to provide you the best service possible but since the major storm last week we have had over 100 call-outs so it may take us a day or so." The council officer who supplied this information said that their council believed that information should go both ways. He added that, whenever they gave a sound reason for a slight delay, they could actually go a week without attending to the issue, if necessary, without losing customer support.!

Networking sessions like these help NZ councils focus on service delivery.

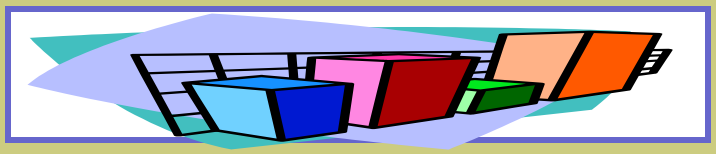
29. Managing and Forecasting Demand

"Expectations are increasing faster than our budgets can cope!"

Understanding and Forecasting Community Demand

Asset information systems only hold data on assets, their level and condition their value and the rate at which they are ageing or becoming obsolete. They do not hold data on what services the community wants now or may want in the future, they do not give any information on the rate of growth of populations, or on social and environmental standards, or changes in the nature of the community (eg through urban renewal).

Box 29A: Forecasting and Managing Demand



Councils already project and analyse demographic data to forecast population growth and change and they take into account changes in industry and tourism, as well as social and environmental standards.

But growth in service demand need not translate into a similar growth in asset demand.

Use of Management Demand techniques can lead to greater utilisation of existing assets, shift in peaks, and rationalisation of demand with resultant cost savings.

See Box 29B for examples of ways of managing demand

Demand analysis

Asset managers need to know where the customers are and what they want. They also have to know where they *were*, and what they *no longer want*. If they only concentrate on the first of these then assets get added to suit new needs – but they don't get subtracted when needs have passed. Because infrastructure assets have a long life, it is not sufficient to think only of today, foreseeable changes need also to be taken into account.

Demand forecasting

However, while it is sensible to build into the Asset Management Strategy those changes that can be reasonably predicted, it is a mistake to 'plan for the unknown'. In the UK, under the general rubric of 'flexibility' schools were built with extra high ceilings in case they may, at some future stage, be needed for something that required the extra height, and they were built with walls that could be removed to convert two rooms into one. Not only did this increase the construction cost, the extra ceiling height added enormously to the heating bills in the cold English winters and, with the normal process of staff changes, eventually no-one was left in the school who even knew that the walls could be removed. A study later showed that less than 2% of the buildings had need to take advantage of the 'flexibility' built in!

Good service demand forecasting is talent unrelated to asset management proper but without it, asset management is only half-done. Forecasts of renewal need to be modified by any demand changes that this analysis of future demand throws up.

29. Managing and Forecasting Demand

Demand management

Demand management means using persuasion to affect the demand for services and the assets that support them. 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. But demand management is not only about demand reduction. Where council has an under-utilised asset that cannot easily be disposed of, it may choose to encourage greater use of the asset using the same techniques of community education and pricing. By doing this, the community gets more service but at a low marginal cost.

Councils are making some use of user-pays pricing systems but could do more. (ref Section 21) User-pays does not necessarily mean 'pay for use' which requires being able to exclude non-payers from the asset services. It can also include levies: where one section of the community gets a large share of the total benefits from a proposed asset or asset upgrade, it can be asked to pay a share of the costs. This may apply to retailers in tourist areas who would benefit from higher quality road access or extra toilet facilities to encourage people into and to stay in the area. It may also apply to the situation described in box 9 where a change in production in a former agricultural area towards the growing of dust sensitive crops like vegetables and flowers has brought about demands on council to upgrade the roads.

Opportunity: To increase service VALUE, rather than services per se—and in doing so, reduce asset costs for the community

Box 29B:

Demand Management also Means Resisting Demands in the Community Interest.

1. Ask "Who Benefits?"

A council was facing serious periodic flooding which resulted in road closures and high costs of restoration. A wetlands was proposed to control water run-off. A number of council members saw that it also had benefits as a tourist attraction and became enthusiastic. Two sites were considered, Site B was better for tourism but would have serious diminished capability in flood prevention. For flood control Site A was a far better site. Which site should be chosen?

The beneficiaries of the wetlands as a tourist attraction were mainly non-ratepayers and that part of the community that benefits directly from tourism but their gains would have to be considered small as the wetlands was unlikely to be a major tourism attraction bringing many people in from other places. The beneficiaries from flood control were, directly, those ratepayers using and affected by the road closures and flooding, but indirectly, ALL ratepayers would have benefited through the reduction in the regular costs of restoration - monies that could now be put to other uses.

2. Ask "What is Displaced?"

A council, having been exposed to asset management principles, was well aware of the costs that the community would incur if it succumbed to the demands of a small group to take on an old, non-listed, building for 'heritage reasons'. Still, they found it difficult to resist because at that stage they did not have a well-developed asset management strategy and asset management plan. With these, it could have demonstrated that acceptance of the community's demands would have meant displacing other important and beneficial activities.

30. Benchmarking and Best Practice

"We jumped into benchmarking only to find that we should have put our efforts into understanding our own processes first"

BP New Zealand

Benchmarking and Best Practice

This study had its genesis in the desire of councils to benchmark and improve their asset performance.

However councils had not gone very far before they discovered that the way in which they recorded data was very different from each other – for example, there are over 27 different computerised financial systems in use throughout 68 councils . Any comparisons they might make would be unlikely to be valid.

Box 30 Good Benchmarking Starts at Home

These questions can be asked of others or yourself
(But like BP New Zealand, it pays to understand your own assets and asset processes before trying to understanding others)

Why do you select that life for that asset class?

What do you do to get assets to last that long
(or, conversely, what is causing them to be replaced at such (relatively) short intervals)?

Why do you use those particular asset sub-sets?

What level of maintenance do you apply to this type of asset?

What standard of service are you aiming at?

For what class of customers? Why?

The initial idea was to compare data rather than processes – unit costs for maintaining a length of gravel or sealed road, for example. But this was fraught with difficulty, not only because of the different computer systems used which recorded information in different ways, but also because cost data varies for reasons other than performance efficiency.

Now a new benchmarking tool

Through its website, this infrastructure asset management study has created a new benchmarking tool. It is only as good as the data that has been entered by councils but it has the capacity to get better since the databases are up-datable. For the first time, data has been collected from councils according to a common organising principle – namely the need to forecast future asset renewal and to calculate the average annual asset consumption cost, the amount that tells a council how much it needs to provide to sustain its asset stock into the future.

What is "Best Practice"?

Best Practice is hard to define, since what works well for one council may not work for another. Best Practice must always be defined in terms of the goals that each council sets for itself. What is best in a growth situation may not be best when a council is in decline and so on. For this reason the website database allows councils to select their own most relevant groups for comparison. However, there are some general principles that apply no matter what. One of them is

30. Benchmarking and Best Practice

"Maintenance First" which is discussed in Section 3. Another is the need to match future costs and revenues. Throughout this report, these good general principles have been outlined.

Natural variation

One of the major determinants of unit cost is economic life – that period of time between the renewal of a major element, such as road seal and the next. Economic life can vary for reasons of climate, terrain, usage, soil type, construction method and maintenance processes, to name a few. Some can be controlled by council and some cannot. The study website shows the economic life distribution for all councils or for chosen subsets.

Recording Economic Life

This study has also originated a new, best practice, method of recording economic life that has recognised that, even within one council, economic life will vary according to the factors mentioned above. So that a council may have, say, 30% of its roads with a life of 30 years, 45% with a life of 50 years, and 25% with a life of 60 years.

Some councils were able to utilise this tool the first time around, but many will use it on subsequent updating rounds as they understand more about their asset portfolios.

Benchmarking Economic Life

It also recognised that, for many councils, the life of assets are still largely a matter of guesswork. The study thus also originated a new recording method by which councils report when they replace or renew an asset, its estimated age and the reason for replacement. This information is entered into a national database which has the capability of matching like entries to derive average economic lives for different assets and circumstances. This information set will grow as councils contribute to it and it will help councils derive appropriate lives for their own assets.

The economic life of an asset is closely related to the standard at which the asset is desired to operate. Consequently one of the means by which councils may control their future asset renewal expenditures is to choose a different operating standard. So it is to be expected that economic life, and thus unit costs, will change as councils manage their asset stocks more closely.

More Information

Further information on benchmarking and best practice more generally will be found in the Appendices.

Opportunity: To use the differences revealed by comparisons to ask useful questions about one's own practices.

Fig. 30 Renewal Profile - Recent Asset Reconstruction Data

Asset Category	Reason for Renewal	Other reason for renewal	Percentage of Asset	Total Economic Life (yrs)	Order of Accuracy

31. Debt Management

"There are peaks and troughs in asset renewal. Using debt to fund the peaks and using the troughs to pay off the debt is a sound strategy."

Funding Asset Acquisition and Renewal

The financing of public works by raising debentures or other means of borrowing has been a tool of various governments for hundreds of years. Borrowings are a useful mechanism for spreading the cost of assets over the time frame that those assets are used to provide services to ratepayers, thus ensuring to a large extent that the ratepayers who benefit from the assets pay for their consumption.

Box 31A: Counter-cyclical financial management with debt and infrastructure depreciation

The South Australian Local Government Finance Group is currently examining the benefits of applying infrastructure depreciation tools to help councils manage their coming increases in renewal. In essence, this method of depreciation measures the cost of the wearing out that is occurring in infrastructure assets by the cost of rectification – as forecast by a well constructed and justified asset management plan. Depreciation is then calculated as an annuity over the renewal needed over a specified forward period that is long enough to avoid untoward fluctuations but short enough to contain sound forecasts and not mere guesswork. Ten years is a practical period for councils.

A major characteristic of this form of depreciation is that it is higher when assets are aged and lower when new. This is the exact reverse of the pattern of repayments and interest which are higher when the asset is new and lower when aged.

A combination of the two could help councils manage the financial aspects of renewal. For more information on infrastructure depreciation, see the "Further Resources" section of the website.

The Debt Debate

Debates about the level of debt, or indeed, debt itself, can become mired in both social and political posturing. The reality is that debt is neither intrinsically 'good' or 'bad'.

Debt ratios (e.g. debt: income; debt: assets) are useful as a means of tracking a council's borrowing capability, but it is a mistake to focus on achieving any given ratio independent of the objectives and situation of council. Sometimes it is advisable to increase the ratio, sometimes to decrease it. This is the art of debt management.

Debt Management and Asset Management

Debt management and asset management are closely linked together, for the following reasons:

- The acquisition, maintenance and renewal of council assets place significant calls on council financial resources;
- Most of the infrastructure that councils are responsible for has been built in the second half of the twentieth century and a period of intensive asset replacement is looming;
- Compared with other levels of government in Australia,

31. Debt Management

local government has relatively low levels of debt with most of that debt relating to asset acquisition and renewal; and

- The potential for much of the looming asset renewal to be undertaken using debt.

Debt Management as an Asset Management Tool

It is critical that the level of a council's debt is monitored and managed on a regular basis if the council is to maintain the capacity to use debt to fund asset acquisition and renewal.

1. Although there is no specific restriction on the ability of a council to borrow, there is a practical limit beyond which the commitment to interest rate and principal payments will seriously effect the capacity of the council to fund its asset base.

2. There are peaks and troughs in asset renewal. Using debt to fund the peaks and using the troughs to pay off the debt is a good strategy to adopt.

3. Short lived assets, such as plant and equipment, are replaced on a regular basis. The initial purchase of such assets may be through the use of borrowings. However, the use of borrowings to fund their regular replacement simply adds the interest cost to council operations and should be discouraged.

4. Careful consideration needs to be given to the 'mix' or structure of a council's debt portfolio. If all of the debt is in long-term, fixed interest rate loans the ability of the council to respond to changing interest rates will be limited, as will the ability of the council to reduce its debt level at a reasonable cost when there is less call on council funds. Debt should be a mixture of short and long term, fixed and variable interest rates to maintain flexibility in managing debt and thus managing the capacity to maintain the asset base of a council.

Opportunity for councils to manage the future increase in funding required for asset renewal by freeing up borrowing capacity.

Box 31B: Corporate Credit Rating

In New Zealand, many councils are looking to improve their corporate credit ratings, seeking help from the private sector to train them in appropriate debt management. Standard and Poors, one of the major rating agencies gives criteria for ratings as follows:

Economy (demographics, growth)
Systems/Administration (structure, legal structure)
Budget Performance and Flexibility – revenue flexibility and expenditure flexibility (councils don't have much, user pays is limited)
Finance (assets, debt, contingencies)

Benefits from using corporate credit ratings include:

Improved borrowing terms (Treasury estimates that councils pay .3% over the bb(base bond) rate because they use the local banks that they know and they are then captive markets and cannot shop around)
Ability to tap a wider source of finance
Financial discipline

The downside of corporate credit ratings is that the normal fee is $33,000+ GST. Although Standard and Poors say that they would offer a volume discount if many councils took up the offer.
Convenient access to finance through the Local Government Finance Authority makes this largely irrelevant for SA Councils.

Part Three:
Working With Others

32. Collaboration

Collaboration = Co-operation with more active involvement and commitment.

Joint solutions to joint problems

Part Two looked at a range of issues affecting councils which led to actions that councils could take unilaterally.

Not all problems can be solved by councils acting on their own. The problem may be too difficult (major urban decline, for example); or too extensive (the condition of rural roads); or simply too complex (too many others with an interest, and a say, in the outcome). It is also true that some problems that may be tackled unilaterally can be better tackled in co-operation. All of these circumstances are opportunities for working with others in collaboration.

The four sections in Part 3 look briefly at the issues for councils as they work collaboratively with each other and with others levels of government and the private sector, to solve problems affecting today's communities.

Benefits of Collaboration

- Alternative solutions that provide greater value for money
- Cost effectiveness
- Opportunity for jointly increasing resources
    - By way of grants for regional development
    - By way of private sector involvement

Requirements of Collaboration

The problems may have arisen in various ways, but successful solutions have four common elements, namely

- Clear and well understood objectives
- Credibility in negotiations
- The ability to communicate
- The ability to take the wider view

The first three are satisfied if councils have well developed Asset Management Strategies (these set out their desired outcomes) and similarly well developed Asset Management Plans (these cost the current methods designed for the achievement of those outcomes).

Box 32A A Difficult Call for Council

Tourism is an international market. To be competitive and attractive for investment and attract international operators sets up demands for increased levels of service. Recreation centers and higher level facilities are rarely self funding in the long term (that is prices rarely cover maintenance and capital renewal, let alone a return on capital) and place a further drain on limited revenues if these facilities are not part of **regional and national asset management plans.** Private operators may build these facilities as part of the development, but quickly hand over the facility to council when they start to lose money. Council inherits a financial and political liability. Closing these facilities down is difficult once the level of service has been established.

32. Collaboration

The fourth requires seeing the situation from the perspective of the other fellow. This is where the strategy document is so important. If councils only have plans (sets of goals to be achieved) and do not have a statement of their broad objectives (for which these goals are but one way of achieving) they may only see 'their' way and be blocked from seeing other ways of gaining benefit. This is well illustrated in the Section 33.

Making collaboration work

Collaboration requires that all joint projects be seen to be genuinely win-win propositions by all participants. Suspicions that some individual councils or groups are gaining disproportionately from the joint project will often be sufficient to derail it. Genuine collaboration requires trust and respect. Both of these are assisted by good quality information and analysis and a commitment to transparent and accountable processes.

Regional asset management plans are advocated for this purpose. A regional asset management plan will follow the same lines as individual council asset management plans but will cover only the group objectives and goals. It will be up to the councils involved to ensure that their own plans are consistent with those which they agree together for the group.

'Regional' asset management plans can, and should, also be developed for any joint enterprise, whether with the state or federal government or with the private sector. It is a method of communication and monitoring of results.

Assessing whether a deal is a 'good deal'

Councils may argue that previous collaboration, whether it was passive in the sense that councils accepted rather than initiated it, or whether councils were actively engaged, has not turned out well for them. They may instance infrastructure standards for developers that have been kept low to promote state government directions for 'affordable housing' but which are now resulting in high renewal costs for council; or they may be concerned about amenity levels that they cannot afford to support. They may be concerned that facilities initially provided by others (other levels of government or the private sector) are falling on them for continued support and renewal. (see Box 32A)

The answer lies in doing the cash flow analysis for a sufficient period of time to determine the impacts on council costs and revenues after implementation of the project. Had this been done in the past, different cost and revenue structures may have been adopted which would have avoided some of the problems that councils now face. (see Box 32B)

Asset Management Strategies and Plans

Looking ahead, doing the cash flow analysis, considering all of the options, weighing up the costs and benefits – these are the key to good results from collaboration, and they are all encompassed within the production of sound asset management strategies and asset management plans.

Box 32B: Doing the Cash Flow Analysis

Developer designed built suburbs in the 1970s and 1980s has resulted in very attractive, leafy, suburbs with many parks and recreational areas, lots of intensively planted verges and many public gardens. But insufficient thought was given by councils at the time to the long-term cost and revenue consequences for council after the last plot was sold and developer responsibility for maintenance ended. Where agreements with the state government and/or private sector allow for a period of maintenance by others, the cash flow analysis must be taken out beyond that period if council is to have a good idea of its own commitments. This may mean doing a 20 year forecast rather than the standard 10 yr period suggested in Section 12.

Opportunity: To achieve solutions that would normally be beyond council's capacity in expertise and/or funding.

33. A Wider View

Know what you want —but be open on how you get there.

The Wider View

It was argued in the previous section that collaboration requires participants to take a wider view; they need to see beyond their needs to the needs of their partners.

Consider the situation illustrated in box 33A, the case of the mass limits review. The policy objective was to reduce the transport costs to market for primary produce. Was this a policy objective that councils could 'buy into'? Of course! It was definitely in the interests of councils that their major rate-paying base, primary industry, thrived under the new market conditions. How do goods get to market? In trucks; trucks that use local roads. So, how would asset management have helped councils in this situation?

Box 33A: The Mass Limits Review – An opportunity missed

Free trade is a national objective and to survive in a world of free trade, Australia has to reduce its cost of transporting its goods to market. This was the context of the "Mass Limits" review in 2000. The trucking industry argued that costs could be reduced if the mass limits on local roads were increased and this argument was supported by the Commonwealth and by the farm lobby.

Local Government, not a party to the development of the policy objectives, argued against them: an increase in mass limits would ruin local roads, they said, and greatly add to the cost of maintaining them. If the mass limits were to be increased then councils would need much more resources.

In the event, local government was ignored. The mass limits were increased. A small concession was made in respect of bridges that could not carry the increased loads.

What alternative was there? See text on this page.

Another Route

By working in collaboration, councils could have helped the trucking industry to choose an efficient route, one that minimised the time taken to get goods to market. Where this route traversed sections of road that their asset managers could show were not capable of managing the higher mass limits, they could have worked co-operatively with the Commonwealth and the Trucking industry to upgrade selected roads to improve the service. This would also have had the effect of keeping truck traffic off other road segments. The extra costs of upgrade could have been offset against the savings that would be made by the faster, more efficient, route, thus the councils would have had leverage to gain greater funding – by increasing value! This is a more positive approach than claiming large (mostly unspecified) damages.

After the event, when councils were left with very few extra resources to cope with the increased mass limits, they were asked what effect the increase would have on their roads. Answers varied from "I don't know" to "Really major damage" to "Probably have no effect at all".

Information adds value and credibility to negotiations.

Without information on condition, costs and consequences, councils had little to bring to the table. Their bargaining power would thus have been slight, even if they had chosen to abandon the adversarial position and work co-operatively. But if they were armed with asset management information, they could

33. A Wider View

have achieved a much more satisfactory outcome for themselves. Not only would they have been able to develop the most cost-effective route for all parties, but they would have had increased respect and thus bargaining ability.

Importance of Clear Objectives

Collaboration requires information and general agreement by all of the group's objectives.

Often the objectives are not clear or not clearly stated. In these circumstances each member of the group could be, inadvertently or otherwise, undermining the others.

Consider the process for developing regional road projects where, within each region, the Mayors and CEOs jointly agree to list of projects.

Suppose that one council recommends a road upgrading should be on the region's priority list. (It has in mind that the road upgrading would enable grain trucks to move more quickly through the region). The other councils agree with the project (but they have in mind improved tourist prospects). With joint agreement the project goes ahead. But grain trucks on the new faster road are slowed down by the extra tourist traffic.

Had the objectives been more clearly understood, a more effective solution for all councils might have been more by-pass lanes!

Opportunity rather than Conflict

Taking a wider view helps councils to see opportunities for collaboration where previously there may only have been seen the possibility of conflict. The next section looks at two opportunities for collaboration that could not only save councils money but actually attract extra funding.

Opportunity: New solutions to old problems

Box 33B:

I think I know your toilet blocks better than you do!

In 1996, Barry Maloney of Maloney's Field Services, was shortlisted for his entry by this title in the first Australian and New Zealand Asset Management Competitions. He realised that as he and his valuers went around councils valuing their assets they were, as part of the process, assessing condition. It occurred to him that if councils were to tell him how they would like condition described, his team could do a 'first cut' condition assessment on all assets for very little extra effort than the valuation would have taken without it. Working with his council clients, Maloney's valuers were trained in how to record condition information in a form that was useful for council engineers.

An example of a win-win private sector–council collaboration that provided income to the valuers and cost effective information for council.

34. New Funding Opportunities

"Some issues go beyond borders—and so do the solutions"

Identifying Joint Opportunities

The essence of collaboration is the existence of a joint opportunity.

Councils need to prepare themselves to recognise such an opportunity and identify the scope for joint efforts. This revolves around understanding the nature of council's assets.

Councils have two types of assets:

those that serve purely local needs and local communities and

those that, *in addition,* serve wider regional or national needs:

- Local impact assets
- Regional impact assets,

Both may attract external funding but for very different reasons.

Traditional Grant Funding

The purpose of current grants funding is to "equalise" the opportunities available to all citizens of Australia, wherever they happen to live. The objective is to ensure a basic minimum standard of living for all. Current grants funding applies primarily to local impact assets.

A new source of funding?

Regional impact roads, however, are targeted under the "Roads to Recovery" grants. With these grants, "Councils are urged and encouraged to cooperate to enable larger projects to be implemented on key interregional road links. Councils are also encouraged to work with the States and Territories to ensure a coordinated approach to the development of regional roads and the scope for leveraging each other's projects." (Roads to Recovery Program announcement)

Box 34A: Road trains

Road trains are not a new concept.

What is new is that the goods need to be transported at costs that make them internationally competitive.

Local government is custodian of a large proportion of the transport network necessary to maintain international competitiveness in the international marketplace.

The change needed is to have regional asset management plans in place to manage the portions of the integrated transport network managed by the three levels of government.

The opportunity is not so much more funds as more integrated asset management planning between the three levels of government.

34. New Funding Opportunities

Local roads are seen as forming part of a wider 'rural road network'.

New justification

In order to ensure that monies were quickly made available to rural areas, the new grants were allocated according to the existing grant funding formula.

Indications are that if the "Roads to Recovery" grants should be extended beyond their current 4 year term, more rigorous, and regional, justification will be required, demonstrating efficient resource use.

Effectiveness and Efficiency in Resource Use

The Butcher report (the report on rural road funding that emanated from the Moree Rural Roads Congress in May 2000) recommended that future funding be based on sound asset management principles with needs well supported by justification.

This report was accepted in principle by high level representatives of both sides of politics, the national roads authorities and representatives of all State local government authorities as well as representatives from rural councils at the follow up to the Moree Congress held at Mildura, May 2001.

The Butcher report recommends the use of Regional Asset Management Plans and the recommendations of the Mildura Congress noted the key role of asset management in developing the case for ongoing funding and identified as its first two priorities: (1) Obtain standardised solid data on the benefits and costs of local road expenditure by councils, and (2) Demonstrate the effective use of investment in local roads infrastructure.

Economic Development and Roads of Economic Significance

There is also scope for councils, working in regional groupings to co-operate with the private sector and the federal government to develop "roads of economic significance" (see box)

The major requirement for regional co-operation is that councils clearly understand which assets serve purely local needs and which assets also serve regional needs.

Regional groupings will only wish to take responsibility for assets when all members of the group can clearly recognize the regional nature of the asset, so this needs to be clearly documented.

As the issue at the heart of regional co-operation is cost sharing, as well as the maximization of group benefits, so councils will also need to identify the local benefits that regional assets serve. It would be sensible to make this a clear element of Council's Asset Management Plan, along the lines indicated in Section 21 on Service Delivery, including the costing of services as illustrated in "At Your Service" included in "Further Resources" which may be found on the study website.

Opportunity: to provide more cost effective solutions through regional co-operation.

Box 34B: Roads of Economic Significance

Where a new road or a road upgrading would result in financial benefit to an identified user or group of users, there is an opportunity for collaboration with the users. Contributions by the private sector, as they are an income earning expense should be an income tax deduction. At present the taxation department is reluctant to allow private sector contributions the tax concession that is logically theirs. In other areas, such as scientific research, the federal government has been keen to target resources where they will most benefit industry and there is considerable potential here for more funding from both the private sector and the federal government if a good case was made. This is an area where regional collaboration, together with support from local government associations , could greatly ease the demands on councils for developmental purposes.

35. Regional Asset Management Plans

"Regional Co-Operation Requires Taking a Wider View"

Regional Co-Operation

As discussed in the previous section, co-operation between councils is being urged under the new "Roads to Recovery" grants.

Roads are, however, not the only asset subject to development on a regional basis. There are already regional groups developing regional waste management, regional sporting or cultural facilities, regional tourist facilities, etc.

Opportunity for External Funding

The importance of Regional impact assets, is that since they provide external benefits, they have the capacity to attract external funding.

Brings a Shared Accountability and a Shared Responsibility

To benefit from external funding, councils must accept that they have a *shared* accountability and a *shared* responsibility for their assets with all other funding providers.

Communicating and understanding this shared accountability and responsibility requires the development of regional asset management plans.

Regional Asset Management Plans

The object of regional asset management plans is to develop a group prioritisation that maximises the *regional* benefits rather than the *local* benefits of given regional funding levels.

To achieve this objective will require some adjustment and trade-off within a council's own asset management plan.

Box 35: A Declining Urban Council

Mining in the early 1900s led to a boom in this area in the 1960s, but the area is now in decline as the private sector scales down its activities. Population has fallen about one third from its peak levels. There is some though possibly limited potential for tourism and the council is trying to stimulate this through fishing and marina development.

Council is now facing several simultaneous problems. Private clubs are amalgamating and council is absorbing the recreational facilities in an attempt to retain the amenities for its ratepayers. This is adding costs at a time of declining revenues and at a time, also, when the 1960s developed infrastructure is needing renewal.

Opportunity
Some problems are beyond the capacity of councils to address. Where this is the case they need to work with others in the region or the state to develop a viable solution. A sound asset management strategy and asset management plan is a great help to communication with others. See Sections 11-14 on developing an Asset Management Strategy and Plan

35. Regional Asset Management

Regional Plans require Well Developed Council Plans

Unless a council has a well developed plan that it can use as a base source document in regional negotiations, it will not be in a position to assess the benefits of regional development for its own council and to determine what trade-offs it needs, or should, make.

The need for each region to have its own Asset Management Plan which it is prepared to adjust in the light of regional opportunities is even more essential when it is recognised that different regional groupings may be formed around different assets.

There are a number of basic services for which regional asset management plans will be of benefit, for example:

Transport
(roads, transport hubs, rail, bridges)

Environment
(Parks and Recreation)

Catchment Management
(drainage and flooding)
There are a number of catchment management boards already operating on wider water quality issue and there could be a need to incorporate council drainage and flooding issues.

Social and community development
(for which assets are mostly buildings)

The provision and management of regional infrastructure, by councils, has a significant effect on the broad range of industries who need the infrastructure to provide services in the region.

Different regions for different activities

Regions may be different for different infrastructure related services. For example, the region for Catchment Management will be determined by geographical and geological features of the terrain, the region for Transport will be determined by existing and proposed transport linkages, the region for utilities will be determined the structure of the electricity and water networks, and so on.

Consistency Between Plans

Getting consistency between the plans is essential. For example, communities will not greatly benefit from improved transport if the roads constructed for this purpose cause increased drainage and flooding problems.

Consistency at the broad strategic level may seem a rather difficult task since the detailed implications of specific actions in support of strategic directions will seldom be known until the actions themselves are developed.

Consistency is needed at the Project Level

The answer to achieving consistency, therefore, lies not in the broad programs but in the evaluation of individual projects.

Regional Asset Management Plans follow the same format as Council Asset Management Plans.

Standardised Asset Management Planning Helpful in Regional Co-Operation

If councils adopt a consistent and standardised form of asset management plan, communication between them will be easier.

A simple 'one page' reporting format at the project level is being developed that can support both the Council's own Asset Management Plans and the Regional Asset Management Plans— for further information see the study website.

Although this section has concentrated on co-operation with other councils, the principles also apply to co-operation with other levels of government and the private sector.

Basic Requirements are:

1. A well developed council asset management plan and indications of council's future strategic directions (its strategy)

2. Identification of local and regional impact assets (including those assets where the region impacts on them)

Opportunity: To create a communication tool for use within regions and with other levels of government.

Part Four:
The Way Forward

The Next Steps

36. Local Government Sector

The next steps

The infrastructure study, and this report, is the result of local government initiative and co-operation. There is much that the local government sector can do by way of continued leadership and co-operation and the next steps that may be taken are contained in this section.

There is also much that is being done and can be done by individual councils to improve their understanding and implementation of asset management and the next steps that councils may and should take are covered in the next two sections.

Asset Management Implementation Group

1. That the Steering Committee arrange for the setting up of an **Asset Management Implementation Group**
   - To receive the report and consider implementation of its recommendations
   - To take custody of and maintain the database

(Local Government has taken the initiative with the current study and the LGA with its links to all councils could be a natural vehicle for fostering asset management improvement and further development . However the Grants Commission hasbeen extremely active in the promotion of more strategic asset management and the Australian Bureau of Statistics have an active interest in the activities of local government and both of these would have the expertise to manage the database and ensure its wider application. Given the importance and magnitude of the task, a combined responsibility may be the most appropriate way forward.)

2. That, in deciding the **composition of the Asset Management Implementation Group**, consideration also be given to links between councils and state government, councils and national government, and councils and regional groupings.

(The Implementation Group could become an important force for asset management development in local government and links with bodies outside councils would help establish the regional aspects of asset management.)

3. That **the database be maintained, updated and validated.** The nature of the updating should be under the guidance of the Implementation Group. There is a need to track improvement in information about assets; improvement in determining economic life, asset rationalisation and other steps to secure an appropriate asset base for each council.

4. That the Implementation Group **avoids the use of "standardised" performance indicators** because of the immensely variable nature of council requirements but encourage councils to monitor and track their own performance.

Asset Management Guidance

5. That, as guidance for councils in developing their Asset Management Strategies and Asset Management Plans, that **two councils (a small council and a larger one) be chosen as pilot studies** and their progress, together with difficulties discovered and overcome, be reported on a regular bi-monthly basis to all councils.

(This would develop into a step by step implementation program, illustrated by the actual problems found as councils work through the procedures illustrated in the study report.)

6. That, together with reporting on the two pilot studies, **all councils be encouraged to report their success and difficulties overcome, as part of a common database of case studies.**

36. Local Government Sector

(It would be expected that many councils would wish to make an immediate start on asset management improvement whilst others may be content to wait, or need to wait upon information from the pilot studies. The innovative councils could greatly add to the store of information for guidance.)

Regional Development

7. That **regions that have already developed a level of co-operation be asked to document their procedures for use on the database.** This should include, amongst other things:
   - How councils have identified assets that are for purely local use and those that have wider regional impacts
   - How the regions have come to agreement on what assets are regional assets
   - Procedures for joint discussions and developments

8. **That two regions be selected from those who have already developed co-operative links to trial and refine a template for a Regional Asset Management Plan,** similar to a Council Asset Management Plan.

Asset Management Encouragement

9. That the Local Government Association take the initiative in encouraging better asset management planning by creating **Awards for the Best Asset Management Strategy and Asset Management Plan.**

(*Formal acknowledgement of excellence was a key factor in the improvement of Public Sector Corporate Plans in the late 1980s.)*

Asset Management Training and Awareness

10. That the Asset Management Implementation Group **facilitate skill training for asset managers in both technical and financial aspects of asset management,** and monitor the effectiveness and continuing need for training.

11. That, in addition to general skill training, the Asset Management Implementation Group should **facilitate special workshops on the practical aspects of putting together asset management strategies and asset management plans.**

12. That consideration be given to **special presentations for elected members.** This could take the form of
    - Formal presentations as part of normal council meetings, or
    - A special presentation for elected members on a regional basis, or
    - A video presentation
    - Or a combination of the above

Asset Management Research and Development

13. That, under the auspices of the LGA, **asset management issues affecting all councils be researched,** developed and the results promoted. The Asset Management Implementation Group could identify appropriate issues.

(*Similar to the work of the LGA in researching and developing the benefits of, and guidelines for, infrastructure depreciation (Condition Based Depreciation)*)

Asset Management Support

14. That the **LGA provides analytical support to councils**, particularly small councils, if requested, when they are negotiating with other levels of government or the private sector.

(Councils may not have the necessary expertise or experience to establish a 'level playing field' in negotiations)

City of Port Adelaide Enfield Civic Precinct and Visitor Information Centre, courtesy of LGFA Financial Services

37. Councils

The Strategic Planning Process

15. That all Councils prepare an **Asset Management Strategy** in sufficient detail to provide sound guidance in the preparation of Asset Management Plans.

16. That the **Asset Management Strategy overview** that sets out directions and priorities should form part of the publicly reported Strategic Management Plan.

(The Asset Management Strategy will contain background data justifying the Strategy but it is not necessary that this be made public since the Strategy itself would be subject to questioning by ratepayers and the background data could be made available if needed.)

17. That, together with the Asset Management Strategy Overview, councils should also provide - in the annual statement which is legislated as part of the Strategic Planning Process -

- **A renewal profile** covering the next 20 years, and
- **Relate this profile to the level of recorded depreciation**, and
- **Explain how renewal is to be provided for** and dealt with (e.g. by creation of asset reserves, borrowing, re-assessment of need, improvement of information base, etc.)

18. That each council should also report on progress in achieving the goals outlined in the Asset Management Strategy Overview in its annual report.

(*A public reporting requirement emphasises the strategic nature of asset management and recognises that the community is the ultimate evaluator of performance.)*

Understanding the Market

19. That each council should **assess customer benefits and conduct market analysis regularly** as part of its strategic asset management preparation.

20. That councils should pay particular attention to **measuring trends and indicators f**or strategic asset management. Examples are:

- Economic life and variables that could extend or shorten it within the council's environment
- Trends that are likely to influence infrastructure demands
- Trends affecting costs and revenue cashflows

37. Councils

Understanding the Implications of the Asset Portfolio

21. That all councils should **distinguish in their asset management planning documents, capital expenditure** which is for the purpose of

- Renewing existing services
- Upgrading existing services
- Expanding existing services

Each of these capital expenditure types has very different implications for future maintenance, operations, renewal and risk profiles.

22. That councils improve the quality of their renewal forecasts by re-assessing economic lives and by taking advantage of the web database facility to record the economic lives of subsets of asset groups that may have lives different from the modal life.

23. That councils compare their renewal spending with near term projections and the long term average (the average annual asset cost) and develop a policy for capital spending that gives due weight to asset renewal

24. That councils identify which assets serve only local needs and which assets provide, in addition, for wider community needs, as this asset categorization is important for regional co-operation and development of regional funding opportunities.

See also the checklist in the following section.

City of Port Adelaide Enfield Civic Precinct and Visitor Information Centre, courtesy of LGFA Financial Services

38. AM in Action—Checklist

"Real Asset Management is a Spirit of Inquiry"

Asset Management in Action

Firstly, it must be done.

Secondly, it must be **integrated.** There is no role for asset management as an independent, stand-alone process (see box "Asset Management is not a God").

Thirdly, if everybody from the elected members to the CEO and senior management and other staff is not taking the broad principles of asset management into account in their day to day decision making, then it's not happening.

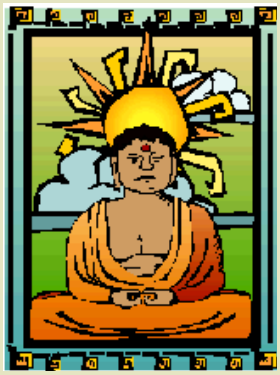
Having an Asset Management Strategy or an Asset Management Plan does not constitute asset management. Asset management is really a matter of attitude, an attitude of constant inquiry. "What should we be doing to our asset stock to best achieve the council's objectives?"

In many cases, this could mean removing assets that are no longer 'pulling their weight', to free up scope for other things. It may mean seeing if there are ways of providing service that require less assets, or no assets at all. Or it may mean modifying an asset or renewing an ageing asst or acquiring a new one.

This spirit of inquiry has to be ongoing. Asset management is not a "project" in the sense that it has a beginning and an end. There is no end. But the benefits are ongoing too. Improve an asset management practice today and the savings occur this year – and next year, and the year after.

What does this mean in practice? See the checklist opposite.

Box 38A: "Asset Management is not a God!"



There is a danger that Asset Management is coming to be regarded as a God, an immense golden Buddha at whose feet tributes are placed; tributes like asset management information systems, asset registers, asset valuations, condition assessments, etc.

This non-thinking, compliance, approach to asset management is its greatest threat. It is fuelled by governments that seek to impose 'efficiency and effectiveness' on agencies by mandating asset management processes rather than focusing on agency outcomes and performance, and by professional organisations who see the provision of such 'tributes' to be effective means of employment for their membership, regardless of their value for the managing organisation.

Strategic Asset Managers takes as their starting point that all asset management has only one purpose—to assist the managing organisation to achieve its organisational goals. If it doesn't do this, even worse if it acts against these goals by diverting resources, it is NOT GOOD asset management. Helping councils recognise what IS GOOD asset management, and how to do the appropriate amount of it, has been the aim of this report.

38. AM in Action—Checklist

Box 38B: Instilling A spirit of inquiry

"What should we be doing to and with our assets to best achieve council's goals?"

A Checklist

Direction

- Does the documented vision / mission / management objectives seek to improve asset management performance by ensuring a link between the management plan objectives, maintenance levels and the asset stock retained. How do these sustainable levels of service compare with current levels of service?

Understanding

- For material assets or assets with significant risk potential, does Council have a knowledge about the asset stock under its control:
    - What are the assets?
    - What condition are they in?
    - Which assets will we replace and when and at what cost?
    - What is the risk profile of each asset (or asset class for non material assets)

Service Levels

- Is there a recommended policy strategy to match sustainable service levels with actual funding? Can Council produce statutory reports and annual reports to the community using existing systems and processes and do financial and management reports provide and true and consistent picture about the short medium and long term position of Council.

- Can Council going determine and specify a "satisfactory" level of service? (What is the role of community/customer input)? What levels of service are sustainable and necessary to provide the quality of life set out in the management plan.

- Is Council able to determine the capital and maintenance cash flows associated with this "satisfactory" level of service to determine whether the level specified is sustainable? Over what period of time should the cash flow be run and why? What are the financial liabilities associated with preserving current levels of service over the next one, three, five, ten, and 50+ years?

- This requires the generation of cash flows associated with service provision and associated asset requirements. How do these financial liabilities compare with current assessments of revenue potential?

Continued over the page

38. AM in Action—Checklist

Checklist (continued)

Maintenance

- Is there a recommended maintenance and renewal strategy for each asset or asset category (just in time, breakdown, scheduled, condition, service level) to enable the lowest life cycle maintenance costs?

Organisation

- Does Council regularly review its organisational and management structures to best support and provide the services and projected changes to future asset maintenance / expansion / upgrade / disposal programs.

Service Delivery

- Does Council regularly review the method of delivering infrastructure based services so that the community gets the best possible value for money? What are the key elements that need to be included in service level agreements to ensure that the specified levels of service are achieved?

- Can council measure the actual service quality, timeliness and value being delivered and identify, measure and improve performance?

Evaluation

- Are asset upgrades and additions subject to strategic asset evaluation techniques such as service strategies, economic appraisal, and examination of non-asset solutions, life cycle costing, and energy management and performance measurement.

Knowledge

- Do all people involved with service delivery (operational and policy) understand the relationship between assets and services.

Decision Support Systems

- Are our asset decision support systems (software data and people) maintained at the appropriate level of sophistication and cost to be able to achieve the above objectives?

A Wealth of Opportunities

Appendices

Contents

The attached Paper was part of the briefing material provide to potential project consultants.

STUDY INTO THE LONG-TERM MANAGEMENT OF SOUTH AUSTRALIAN LOCAL GOVERNMENT INFRASTRUCTURE

PROJECT BRIEF

INTRODUCTION

The Metropolitan Chief Executive Officers Association has received in principle funding approval from the Local Government Research and Development (TER) Scheme to undertake a study into the long term capacity of Councils to fund the acquisition, replacement and disposal of infrastructure assets. Expressions of Interest to undertake the project have been sought and a shortlist of five consultants selected to submit a full tender proposal. It should be noted that commissioning of the project is still subject to the funding being approved by the Research and Development Scheme. It is hoped that this will be finalised before tenders close.

BACKGROUND

The introduction of Australian Accounting Standard AAS 27 'Financial Reporting for Local Government' in the early 1990's has been the catalyst for the recognition of infrastructure assets in the local government sector. To meet the requirements of AAS 27, Councils are having to value existing infrastructure assets such as roads, stormwater drainage systems and community facilities. This asset recognition process has highlighted a number of issues regarding the long term management of infrastructure assets, including:

- infrastructure asset valuation practices are in the early stage of development and vary widely between Councils;
- current spending on maintenance is not keeping pace with the depreciation of infrastructure assets;
- traditional depreciation methodologies do not seem appropriate for infrastructure assets;
- capital investment planning often lacks the degree of rigour required for large, long term expenditure; and
- many Councils are concerned about their capacity to fund the investment necessary to maintain and refurbish their infrastructure assets.

At the same time Councils are taking a more holistic approach to their roles as local governments and are focusing on sustainability (economic, environmental and social) of communities as a key policy driver. Strategic planning and priority setting are now crucial tools for Councils. The acquisition, maintenance, replacement and disposal of infrastructure assets occurs in that broader context.

In some respects a paradigm shift is required to ensure that the right assets are provided in the right place at the right time, whether the assets are provided by the Council or some other party.

Additional background material is provided in the following documents, which were provided with the Expression of Interest Brief:

- "Asset Management - The Current State of Play in Australia and Overseas"; and
- "South Australian Local Government – Overview of Existing Infrastructure".

OBJECTIVE OF THE PROJECT

The principal objective of the project is to provide the knowledge and context to enable and facilitate all South Australian councils to achieve a service delivery outcomes focus on asset management through:

- leadership;
- a corporate focus on asset management;
- focusing on solutions, not problems;
- strategies that are not confined to council boundaries; and
- communications, technology and technology transfer (getting SA councils tapped into the wider asset management network).

In achieving the principal objective there are a number of sub-objectives to be considered. These sub-objectives, which broadly encompass three issues - data issues, education / networking / supporting / human resource issues and communications and technology issues, are:

- To identify the extent, age and value (both on a current replacement cost and a written down current replacement cost basis) of infrastructure assets in South Australian Councils. This will involve developing an understanding of the mix of infrastructure assets and all other assets, as well as an understanding of operating and maintenance costs.
- To identify current asset management practices in South Australian Councils with respect to technical and financial databases, asset management tools, strategic asset management practices and any other relevant asset management information. In particular, to collect 'good practice' stories from Councils practising good asset management, for dissemination to all Councils.
- To validate the data collected from Councils through the development of a suitable survey instrument which cross-checks, as far as possible, information provided, site visits to every Council and by analysis of the data provided. (Note: It is unlikely that the data provided will be completely accurate. However, data deficiencies must be explained and methods of improving the data suggested.)
- To provide asset management advice to councils, as far as possible, during briefing sessions and site visits.

- To provide each Council with an appreciation of the importance of maintaining databases as part of implementing an asset management system, including the resource requirements;
- To suggest state, regional and local strategies to improve asset management practices in South Australian Councils, in consultation with Councils.
- To provide a future renewal profile of the infrastructure assets of South Australian Councils.
- To identify strategies and solutions, to assist councils, both individually and in regional groupings, to maintain and renew their assets .
- To provide a comprehensive report on the findings of the study (including a suitable bibliography), in both hard copy and electronic form (Microsoft Word).
- To provide (in Microsoft Word and Excel):
  - Aggregate (state wide and regional) analysis and modelling of the data collected;
  - Individual Council analysis and modelling of the data collected – every Council should receive its own data back in a format suitable for modelling asset management practices.

STUDY DELIVERABLES AND OUTCOMES

The study would be done in a collaborative manner, with local government being a partner in both developing the survey material and in shaping the outcomes of the study. There would be a strong emphasis on 'assisting' Councils to improve their asset management practices, through the provision of advice and modelling, on an individual, regional and state-wide basis.

The deliverables will be:

- A data survey instrument that is capable of being used for an annual data collection;
- A data survey of each council, including a site visit to every Council;
- Collection and dissemination of 'good practice' stories;
- Aggregate and regional data analysis and modelling;
- Individual Council data analysis and modelling;
- A comprehensive report on asset management practices with recommendations for improvements and the identification of Councils 'in need'.
- Technology transfer on the LGA website, with the ability to update the data on an annual basis, i.e. an active website linked to the database.

The outcomes will be:

- A State strategic picture;
- An identification of resource issues, including any intellectual capital gap;
- Individual Council picture and modelling;
- Skills and Information Transfer:
  - Improve strategic focus
  - Provision of information on asset management practices
  - Provision of information on asset management services and software
- The potential to develop regional strategies to assist councils to:
  - Facilitate regional planning of the road network and other key infrastructure assets;
  - Enhance regional economic development
  - Enhance regional tourism

PROJECT APPROACHES AND TIMELINES

The Local Government Association of South Australia (LGA), in conjunction with the Metropolitan Chief Executive Officers Association, will facilitate the project. In particular, the LGA will:

- Provide contact details for all South Australian Councils;
- Facilitate regional briefings of all councils by organising appropriate venues and monitoring prospective Council attendance;
- In conjunction with the Metropolitan Chief Executive Officers Association and other local government representatives, provide a Steering Committee for the project;
- Facilitate the establishment of Reference Groups for the project;
- Facilitate the selection of pilot councils; and
- Ensure, as far as possible, that all Councils understand the importance of the project and participate in the study.

A suggested approach to the project is detailed below. However, tenderers are free to suggest an alternative approach or approaches that meets the objectives of the project. Consultation with the industry on a state, regional and individual council basis and regular meetings with the Steering Committee will be an integral part of the study.

Timing	*Action*
Week 1	Initial Steering Committee meeting. LGA communicate project information to all Councils. Establish Reference Groups for Transport Assets, Buildings and Recreation / Culture Assets.
Week 2	Reference Groups meet. Initial development of Survey Instrument.
Weeks 3 & 4	Complete development of survey instrument, including piloting with up to six councils.
Week 5	Briefing of all councils and issue of survey instrument. (Note: Briefings to take place in Adelaide, the Riverland, The South-East, the Mid-North and the Far West)
Weeks 7-10	Councils complete survey data. Consultants provide telephone assistance to Councils
Weeks 11-14	Every council visited and completed survey instrument collected.
Weeks 15-18	Analysis of data provided by Councils.
Week 19	Discussion of preliminary findings with Steering Committee and Reference Groups.
Weeks 20-24	Initial draft of report completed. Modelling of aggregate data completed.
Week 25	Steering Committee meet to consider draft report.
Weeks 26-27	Final draft of report completed. Individual council modelling completed.
Week 28	Steering Committee review final draft of report. Report and all modelling completed and delivered.

SELECTION CRITERIA

Selection of the successful tender will be based on the following criteria:

- Experience of the proposed consultants in undertaking similar work;
- Knowledge of modern asset management issues;
- Knowledge of the environment within which local government operates;
- The proposed strategies to achieve the objectives of the study;
- The ability of the consultants to work with a diverse range of people;
- The capacity of the consultants to provide innovative solutions to problems;
- The consultant's communication skills, and;
- Cost.

SUBMISSION OF TENDERS

Tenderers should include the following information in their proposals:

- Their understanding of the task
- A proposed methodology and approach to the project, including project stages and project outputs
- Details of the persons who will undertake the project
- A project timeline
- The proposed fee to undertake the work, including disbursements for travel and accommodation, and a payment schedule
- Any additional information in support of the proposal.

Enquiries relating to this brief and the project generally should be directed to Trevor Waite on:

Mobile: 0412 50 80 90
Fax: (08) 8370 5249 or
Email: waitecs@camtech.net.au

Tenders must be submitted to reach:

Ms Jane Gascoigne
C/- South Australian Local Government Grants Commission
Level 1, Riverside Centre
North Terrace
ADELAIDE SA 5000

by no later **than 5 pm on Thursday18 November 1999**.

Eight printed copies (including one unbound copy) and one electronic copy of submissions are required. The electronic copy must be in either Word or Rich Text Format and may be provided on diskette or by email to *gascoigne.jane@saugov.sa.gov.au*

The attached Paper was part of the briefing material provide to potential project consultants.

ASSET MANAGEMENT – THE CURRENT STATE OF PLAY IN AUSTRALIA AND OVERSEAS

Introduction: The Five Stages of Asset Management

Asset management is developing along much the same lines in most countries but they are at different stages.

In **Stage 1 - "Construction"** - there is an emphasis on the construction of new assets with the management of existing assets being a low priority if thought of at all. This stage is dominated by the suppliers to the construction industry.

Stage 2 - **"Maintenance"** - generally begins when capital ceases to be easily available. Driving the change are the former suppliers to the construction industry looking for alternative work. Demands for maintenance and renewal dominate. This stage is dominated by technicians and suppliers to the maintenance industry.

Stage 3 - **"Information"** - begins when, with tightening budgets and increasing demands, agencies start to demand cost justification before allocating money to maintenance. This generates the need for asset registers, valuation, information collection and data systems. This stage is dominated by suppliers to the information industry. In Australia and New Zealand, this stage was fuelled by demands from the accounting profession for more information for accountability and the introduction of accrual accounting. (The implementation of accrual accounting, however, – which had been debated in accounting circles for 15 years or more – was, itself, spurred on by the need to recognise assets for better management.)

Stage 4 - **"Procedures"** - begins with the recognition that information by itself is not sufficient. There needs to be sensible processes in place that allow agencies to make business decisions based on the information available, be it good or poor. This stage is dominated by the policy makers, central agencies, and consulting firms producing manuals and guidelines.

Stage 5 - **"Outcomes"** - is the most recent stage. It begins when agencies start to focus on the purpose for the asset information and management procedures. In this stage the emphasis changes to service delivery outcomes and agencies start to question why they should own assets and to rethink what is core. Key issues are the determination of appropriate service levels (and their costs) and the 'facilitation' rather than the provision of services. Asset management becomes more holistic. In this stage, asset managers play a key role in corporate decision making and CEO's take an active and leading role.

Stages can, and do, overlap. Countries can be characterised by where the majority of agencies are, and where the leading edge is. In general, Asia and the developing countries are in Stage 1 (there was a brief flirtation with Stage 2 during the peak of the Asian currency crisis but it was not lasting). Europe is mostly Stage 2. North America

and the United Kingdom are mostly Stage 2 moving into Stage 3. Australia and New Zealand are generally Stage 3/4 but some leading agencies are moving into Stage 5.

While countries, and individual agencies, tend to move through these stages in this order, there is no reason why, with greater awareness and guidance, that they cannot pass through with greater speed towards Stage 5, or even skip certain stages altogether.

United Kingdom

The cost of assets Local Government in the UK is probably further ahead in asset management than in any other country outside of Australia and New Zealand. It has started to revalue its assets, adopting market values or depreciated replacement values. The absence of total replacement values has limited the scope for forward renewal planning and the asset values are not yet considered very robust having been mostly been carried out in-house, but it is a start. So far revaluation has not been applied to infrastructure assets.

Capital charging has been in place for over 3 years now although, largely because of the question marks over valuation, little pressure has been put on councils to use capital charging as an asset efficiency incentive. The capital charge is somewhat variable. For example in Lewisham Council, one of the early innovators, capital charges apply to all assets, land, buildings and equipment. The charge is "depreciation plus 6% notional interest" For infrastructure and community assets (still valued at historic cost) the charge is "depreciation and 8.625% notional interest". However in most cases the valuers have indicated that buildings have an indeterminable life of over 20 years, so no depreciation is charged. There is debate over whether the capital charge should be applied to the portion of assets funded by the lotteries scheme (a national government grant scheme).

Asset information A survey by the Royal Institution of Chartered Surveyors(RICS) in 1998 reported that nearly all local councils now have some form of property register in place, with 77% having computerised systems.

About two thirds of those surveyed claimed that the introduction of asset registers had led to a significant effect on property asset management - of between 60-100% (although how this was calculated was not stated). Others indicated that the asset registers had been introduced as part of, or had led to, a reorganisation of the property department. For about a quarter it had led to a rationalisation of charges for expenditure of capital and payments on maintenance, repair, energy, cleansing, insurance and other such outgoings. A third said it had led to the introduction of strategic, as distinct from day to day asset management.

Almost 90% said the reorganisation of property management had led to additional expenditure, half of it on IT. Contracting out has also led to a demand for information

systems that can help manage the contracts and information systems developed in the UK have been based around this requirement, eg "Confirm".

Asset Management Processes The Local Government Research Unit of the Department of Environment, Transport and the Regions is currently completing a major study looking at, inter alia, property data held, organisational responsibilities, performance indicators, capital programming and the use made of asset rents by local authority property units. The final report is due out at the end of September. Already, there is a greater thrust toward the use of asset management plans and their use by local authorities for education is now mandatory.

At the national level in the UK The major thrust of asset management in the national authorities has been in lobbying for more money for maintenance and renewal of ageing assets but there are now signs of a more strategic view. Railtrack (the owner of the track and many of the rail stations in the UK) is taking a decisive move forward in terms of asset management by reviewing all of its current capital program *in terms of its benefits and outcomes.* In some cases this has led to cancellation of half the capital upgrade program.

North America

In the USA and Canada, the major thrust now appears to be towards the construction of powerful data-acquisition and analysis capabilities via GIS. I suspect that this is partly a reaction to the large, and only vaguely substantiated, backlog maintenance claims that have dominated public works in the USA for the last 20 years or so. "A Ticking Time Bomb", "Crumbling Academe" and other books documenting the level of backlog maintenance in Universities first surfaced in the late 1980s. They continue to be produced. But large ambit claims have not produced the funding required.

The databases have a technical bias, necessary since the USA still values assets in historic costs. Only recently (ie within the last year or so) have there been any moves to current valuations and as decisions are still to be made by the accounting bodies, general application would appear to be some way off.

In 1998 the American Public Works Association constituted a task force to look into the application of asset management in the USA and Canada. The issues identified were (a) asset management was a new concept and little understood; (b) little information was available; (c) new technology was now available; (d) budget priorities made it more important; (e) because government did not use the accrual accounting methods which were standard in the private sector, benefits were hard to identify and (f) government agencies did not depreciate their assets.

In general the APWA report treats asset management as "a methodology to efficiently and equitably allocate resources amongst valid and competing goals and objectives" – thus as an investment tool rather than a management tool. This is "because individual systems like Pavement Management Systems allow managers to quite adequately manage each class of asset and do not need to be replaced." Asset management is thus still being seen as a technical issue in North America and this is consistent with the thrust to GIS and asset management systems. In fact asset management and asset management systems are almost synonomous in the USA and Canada.

The National Research Council of Canada is leading a consortia of councils in a self-funded research and development program. Individual councils, including Montreal City, are paying $50,000 a year for 2 years to develop a data collection and analysis project. The project is also designed as a clearinghouse for asset management for municipal infrastructure.

However, in both the USA and Canada there are also legal and financial drivers for asset management. The main legal issue concerns legislating the use of the concept or to tie asset management in with a jurisdiction's eligibility to receive federal or state grants. In Australia, the asset management concept was tied in with AAS27 [for local government]… In the U.S.A. the Government Sector Accounting Board is preparing a Financial Reporting Model and one of the alternatives "Maintenance / Preservation with Notes Disclosures" might require a legal commitment to preserve assets.

New Zealand

Outcomes focus New Zealand has, in many ways, led Australia in the push towards asset management in councils. 3-4 years ago it was made mandatory for councils to prepare long term (10 year) financial forecasts of revenue and expenditures. To make this possible all councils had to have an asset management plan. The form or structure of the plan was not mandated and "a thousand flowers bloomed". From this has come a consensus of what a good asset management plan looks like and it is increasingly moving away from either a technical or a financial focus towards an outcome focus. Service delivery plans and the determination of appropriate service levels – and their costing, is the current thrust in New Zealand. A number of councils now produce asset management plans telling ratepayers what services they will provide, at what level, how they will monitor this level, and what it costs per unit of service or per ratepayer.

Privatisation Councils in New Zealand have been hiving off as much as they can into self-contained and self-managed LATES (local authority trading enterprises). Questions of governance, appropriate valuation, dividend policies, etc., are to the fore. In the latest phase of this movement to 'arms length' management of trading enterprises, a number of the early formed LATES have now been sold to the private sector. This includes

water utilities and research and consultancy arms of government. The Manakau consultancy (the research and consultancy arm of Manakau City Council, a part of central Auckland) has been successful into moving into the Victorian and New South Wales markets winning many tenders.

The latest move is to outsource the management of the roading corridor. Initially the Treasury was interested only in charging for road use. When this proved too difficult, it was decided to contract it out to the private sector on the understanding that they (the private sector) would be able to think of appropriate pricing mechanisms. In the process this has thrown up many questions about the value of roads to the community and the nature of unpriced benefits.

New Zealand has accrual accounting throughout local government and all assets have been valued. The Audit Office in New Zealand allows councils to choose their own method of depreciation, either traditional straight line depreciation over an assumed life span, or a condition based depreciation approach using their asset management plans. Recently however the Accounting Board has mandated the use of traditional depreciation for external reporting purposes. This has had the effect of greatly increasing council rates, and since more is being received than is required, or ever will be required, for future renewal, the money is being used to increase the asset base. The Audit Office is concerned about this trend and asset managers in New Zealand are also concerned at the implications of the accounting ruling which seems to have taken no account of management requirements. This is still an area of debate and could be for some time to come.

An interesting and recent innovation in New Zealand has been the use of publicly available asset management plans to ensure good performance on the part of major utilities. New Zealand follows a 'light handed regulation policy', in effect, almost no regulation at all. Even the recent Auckland energy crisis, at the peak of which the CBD was blacked out for several days and areas of Auckland were without energy for several weeks, has not been sufficient to have the Government adopt more stringent regulation. It has, however, prompted the mandated use of publically available asset management plans so that the general public and businesses dependent on utility reliability can see what is being done (or not being done) to ensure that reliability.

Other International

While pockets of good asset management may be occuring, there has been no concerted thrust to the development of asset management on a large scale by governments in other parts of the world. However, recent interest has been shown in asset management, particularly in its ability to contribute to "sustainable urban futures". The World Bank has initiated a study into the potential of asset management to contribute to urban sustainability in developing countries and it is focussing on local government; the

East Asian Regional Organisation for Planning and Housing held a congress in the Philippines on "Asset Management for Urban Sustainability" in November 1997; and the Sarawak Development Institute held a two day workshop on "Asset Management for Urban Sustainability" in June this year. In Malaysia, an entire suburb is now being designed 'on asset management principles' and in Manila, asset management principles are being used to design a major urban renewal project. The focus in all of these instances is in the holistic integration of design, construction, maintenance, utilisation and 'people friendliness'.

Australia

IMEA The Institution of Municipal Engineers has produced a national asset management manual for local government engineers and this is being progressively updated to take into account more of the financial issues. All states have, either through the IMEA, or independently, now taken steps to provide some asset management training for local councils.

The National Asset Management Survey prepared by the IMEA drew 318 responses from 707 councils throughout Australia in late November 1997.

Some of the key points of the Survey findings included:

- 58% of people primarily responsible for asset management have not undertaken any formal study of asset management systems and operations.
- Progress with the development and implementation of asset management systems and operations is varied with a majority of respondees indicating that an information system is in place (66%), that data collection is complete (59%) and that an asset management plan and program has been developed (50%).
- However 82% of councils have not got a complete asset management system in place, 60% have not established a committee and 60% have not completed condition assessment or agreed level of service.
- Almost two thirds of respondees are familiar with the National Asset Management Manual and 87% would be interested in an updated version of NAMM.
- More than half of the respondees felt that the following issues required more detailed explanation or would be of most interest to their organisation: condition and depreciation of assets (59%), developing total asset management plans (54%), a uniform approach to asset valuation (53%) and valuation and depreciation (50%).
- 87.75% of respondees gave the development of asset management benchmarking standards a medium to high priority.
- The next highest priority issue was the development of generic AM presentation material for use by Councils. (80%)

(In interpreting these figures, it should be borne in mind that the councils that responded to the survey are likely to be those that are most advanced in asset management.)

Also, at the national level, the ALGA has been working on information sharing with respect to management of local roads.

Queensland A study commissioned by the Local Government Association of Queensland sought to identify accounting issues facing councils in that state. Of the 18 accounting issues, 12 were related to assets:

1. Initial valuation of assets
2. Level of debt and capital structures
3. Depreciation expense to fund future capital works and loan redemption
4. Constrained works reserve
5. Internal charging
6. Infrastructure assets recognition and valuation
7. Costs to maintain assets which are specifically excluded from the balance sheet
8. Depreciation – renewals annuities / condition based depreciation for pricing purposes and possibly also for accounting and reporting
9. Contributed assets
10. Full cost pricing
11. Recognition of the cost of capital
12. Financing and economic measures

Community Service Obligations and Taxation Issues raised more asset related issues.

Victoria The only major study, to date, to be undertaken into asset management at a state level in Australia is the Victorian Department of Infrastructure's "Facing the Renewal Challenge". This study was undertaken to determine whether councils would be able, on the basis of their current rate revenues and other income, to support the renewal of their infrastructure assets when this fell due. At the time the study was started, councils did not know when they would reach the peak of their renewal spending. The study showed that many councils were already at the stage where they would need to increase revenue collection in order to manage near term renewal. Most of these councils were still spending large amounts on new assets. This showed that overall, Victorian Councils had *less than 10 years* before renewal costs doubled - if they did not take steps to rationalise assets or change their maintenance and management practices. Overall, local councils assets were considered to be consumed at the rate of about 2% per annum. The study looked only at the renewal of assets already in existence but it observed that assets currently being acquired, or to be acquired at some future date, would also add to renewal costs. Moreover as the most long lasting infrastructure tends to be the first to be acquired, these new assets could have shorter lives and thus renewal consequences sooner than expected 'on average'. This study led to an increase in interest in Victorian councils in the use of condition based depreciation

developed from asset management plans that provide good planning information for the ongoing management of assets as well as financial planning information.

South Australia Some councils are still in Stage 2, focusing on maintenance, including contracting out, but without good information systems to support performance specification and appraisal. However many councils are still trying to make sense of all the data they collected when they set up their asset registers for AAS27. They are in Stage 3. They have a wealth of data but little information because they have not yet come to an understanding of the critical importance of strategic asset management in strategic planning. There has certainly been acquisition of technology and complex asset software, including GIS systems, but there is a question mark over whether this has led to the achievement of the strategic objectives of councils. It is important to recognise that there must be suitable technical and financial information about assets, but that the information must be useful to decision-making otherwise it is an investment in form and not function.

Some councils have moved past the data collection stage and are trying to use the data to develop information, such as forward asset replacement plan, to feed into broad strategic planning processes and provide information to elected members, staff and community which can be used to prioritise asset management decisions. These councils are in Stage 4.

A few councils are looking at the facilitation of services to the community rather than their provision and are focussing on holistic integration. This is Stage 5.

Indicative of the movement towards managing for outcomes in South Australia and the design of methodologies to support costing and planning for outcomes, is the work of the South Australian Local Government Association Financial Advisory Committee. This Committee has received funding from the Local Government Research and Development Scheme to undertake research into the depreciation of local government infrastructure assets, and the relationship of depreciation to the general principles of effective infrastructure asset management.

Among the major asset management issues affecting local councils in South Australia is the growing realisation that councils do not have sufficient skills within their organisation to understand some of the more complex asset management issues and there there is a need for training in this area and for mentoring in strategic asset management. There is an unmet training need that could be taken up by the industry. Typical of the sort of topic that needs more exploration is the issue of valuation of assets. AAS27 does not require valuation by expert valuers, simply a value that the auditor can put some reliance on., In many cases this is readily achievable by council staff, using the deprival framework and current unit costs of acquisition or construction.

The attached Paper was part of the briefing material provide to potential project consultants.

SOUTH AUSTRALIAN LOCAL GOVERNMENT –

OVERVIEW OF EXISTING INFRASTRUCTURE

Value of Existing Infrastructure

Valuation data about existing infrastructure is taken from information available from the Australian Bureau of Statistics (ABS)[1]. The data used is the latest available at the time of preparing this report and is current to June 30, 1998. It is important to understand that the data available from the ABS is based upon data provided by each council. As such, the data is subject to a number of assumptions. These assumptions are:

1. The valuation of an asset is based on the current replacement cost of the asset, where current replacement cost reflects the cost to replace the asset with the same or a similar asset in today's prices. Unless the assets have been revalued it is likely that the current replacement cost will reflect 1993 and 1994 construction costs as most assets were brought to account, on a current replacement cost basis, in that time period.
2. An appropriate depreciation methodology has been used to derive the written down current replacement cost of an asset. There is the potential for a wide range of economic lives to be used by councils in calculating depreciation, in some cases justified by different environmental and construction conditions. However, some variation in economic lives is because of an incorrect interpretation of the 'economic life' concept.[2]
3. The data includes information about all infrastructure assets. Where assets have either been incorrectly included or excluded there is the potential to overstate or understate asset values.
4. The data is based on the audited financial statements of councils and it is assumed that the audits have been properly carried out.

For the purposes of this paper infrastructure assets include roads, bridges, footpaths, drainage, buildings and aquatic facilities. Infrastructure assets may be defined as:

'Composite assets' which are generally a network or system and which experience periodic renewal which extends their life indefinitely. They comprise a number of components and subcomponents which are capable of being replaced individually to continue to provide a functioning network or system.

The composite nature of infrastructure assets is readily seen: roads include components such as earthworks, a base, a sub-base, a surface covering, kerb and

[1] The Australian Bureau of Statistics (ABS) collects information on a wide range of local government activity in South Australia. In addition to its statutory collections to meet the needs of the Australian Government for information about the public sector, and where it fits in the broad economic framework, the ABS also collects information on behalf of the South Australian Local Government Grants Commission to satisfy the Commission's need for data assist in the calculation of the distribution of Federal Assistance Grants to local councils.

[2] The asset life to be used in calculating the depreciated replacement cost of an asset should be the **economic life** of the asset (the life from initial construction to an economic renewal of the asset) as opposed to **engineering life** (a much shorter design life attributed by engineers) or the **physical life** (the time by which the service potential of the asset is totally consumed or the asset fails).

drainage treatments, traffic management devices such as roundabouts and road furniture such as signs and street lighting; buildings include external and internal walls, power and lighting wiring and fittings, lifts, air-conditioning systems, security systems and plumbing. A building is a system of inter-linked and inter-connected components and sub-components, all of which are necessary to give the functionality the building provides to its users. A road is part of a network of differing types of roads which facilitate the ready movement of many types of vehicles from place to place.

Without detailed research, there is no evidence to suggest whether or not councils have been consistent in categorising infrastructure assets. For example, consider council drainage systems, such as earth drains and pondage. It is possible that the value of such assets is either a) included in the value of land; or b) included in the value of land and shown separately as drainage assets; or c) not included at all. Potentially, other assets may similarly be mis-categorised, double-counted or excluded. However, the ABS data does provide a broad picture of the existing infrastructure asset base which can be refined by further research and data-gathering.

The attached table provides an overview of each councils broad infrastructure position. The summary information shows that total infrastructure assets owned by local governments have a current replacement cost of $5.9 billion and a written down current cost of $4.8 billion. Using an average asset consumption rate of 2% (the average from the Victorian Local Government Infrastructure Study) South Australian councils are consuming their assets at the rate of $118 million per year, which equates to 25.3% of current rate revenues. Total capital expenditure by councils in 1997/98 was $204 million, but the proportion of that spent on infrastructure assets, including asset renewal, is currently unknown. In the Victorian Study, actual maintenance expenditure was equivalent to approximately another 1% of infrastructure asset value, which brings the total of average asset consumption and maintenance for infrastructure assets to about 37% of rate revenues.

The table also shows that the percentage of written down current replacement cost (WDCRC) to current replacement cost (CRC) averages 81.2%. (Note: This figure is overstated, because a number of councils have not provided a figure for depreciation) This tends to suggest that either the asset base is relatively young or it is very well-maintained. Anecdotal evidence would suggest otherwise. On the other hand, if the WDCRC has been derived from an economic life that is conservative, which anecdotal evidence suggests will be the case, the assets may very well be in good condition, and the financial problems associated with replacing large segments of infrastructure may be well in the future. However, it is also possible that some assets have been maintained to a higher standard than necessary, impacting current budgets.

One interesting point of difference between the Victorian situation and South Australia is the per household allocation of infrastructure assets. Victoria is approximately $13,000 per household, South Australia is approximately $18,300. This is significant because it demonstrates that South Australian ratepayers have a greater call on their rate resources to sustain the current level of infrastructure. Why the difference? There are two main reasons – one, Victoria is a more compact state, with greater population densities than South Australia, and enjoys economies of scale in relation to asset usage; and, two, the amalgamation of Victorian councils included a significant asset rationalisation program.

Funding Issues for Asset Management

Asset management competes with all other programs and functions of local government for funding, so there are some general funding pressures that apply equally to all local government activities in South Australia. These include:

- Constraints on increasing the taxation base, whether perceptual (potential ability of community to pay) or real (recent two year freeze on rate increases);
- Restriction to a single taxation base – property rates;
- Declining grants, in real terms, i.e. the increase in grant funds is not keeping place with inflation;
- The general community belief that councils should 'do more with less';
- The increasing cost of accountability with issues such as community consultation, improved planning processes, National Competition Policy currently on the agenda;
- The increasing cost of administration with issues such as employing more skilled staff, the implementation of a new tax regime (GST) and the implementation of a new Local Government Act;
- Local government picking up the tab in some cases where the State and Federal governments vacate areas of operation – this has been the case most noticeably in the area of 'community services' where twenty years ago most councils would have been spending close to zero and now many councils spend substantial proportions of their budget in this area; and
- A greater focus, and therefore cost, in areas of the environment and sustainability.

In the area of asset management there are also significant pressures in funding all that needs to be done. The pressures arise from:

1. The continuation, in many cases, of a culture of asset creation;
2. The cost of maintaining this growing asset base;
3. The realisation that a significant increase in expenditure is needed as assets constructed in the post-war migration boom become due for renewal;
4. Competition between short-lived and long-lived assets for funds for both maintenance and renewal – while the value of short-lived asset holdings is

much lower than infrastructure assets, they are replaced more regularly and place more immediate needs on council budgets;

5. Urban infill and other planning approaches putting greater pressure on existing assets that do not have the capacity to cope, e.g. drainage systems, creating the need for early intervention to upgrade assets; and
6. The need for improved data collection / analysis and appropriate systems to provide better information for strategic asset management and future planning.

The recognition that there are enormous pressures on council budgets to provide a wide range of services has given rise to consideration of other ways of funding the supply and maintenance of infrastructure assets, although there is little evidence of the use of some of these methods in South Australia. Four specific methods are:

1. Ensuring that developers are totally responsible for completing the construction of the infrastructure they are required to create in respect of subdivisions, with no residual construction required by the council.
2. Ensuring that infrastructure created by others (e.g. developers) is constructed, and maintained until handover, to appropriate standards, under reasonable supervision, to minimise future maintenance and renewal costs from inadequate construction and maintenance standards.
3. The imposition of user charges where it is possible to do so, e.g. toll roads and bridges to finance the repayment of construction costs.
4. The use of BOO (build, own, operate), where the private sector builds, owns and operates infrastructure assets that the community requires, with the resultant revenue stream from user charges accruing to the private sector company. A variant of this is the BOOT system, where the 'T' stands for transfer of the asset, at some future point in time, to the local government. It is now being considered more appropriate to leave the asset, and its consequent maintenance and renewal costs in the hands of the private sector 'forever' to avoid any costs associated with the asset coming back to the local government.

Additionally, many councils are becoming more discriminating in the commitment they give to building assets. There is now more emphasis on building multi-purpose facilities that allow for a number of groups or activities to use the same facility, at different times. There is generally some slight increase in cost in building the facility to allow for a number of purposes, but the savings from not building several facilities is significant. Similarly, existing low use facilities can be transformed into multi-purpose facilities as lease and rental agreements allow. Not only do these practices save construction funds, they allow the maintenance of the facilities to be spread over a number of groups, reducing the call on council funds for recurrent expenditure. There is an unexplored potential to work with State and Commonwealth agencies to increase the use of their under-utilised facilities by community groups, thereby reducing construction costs further and spreading

recurrent costs across a wider group. This potential exists for both current and proposed State and Commonwealth facilities.

From the data above, average consumption of each councils asset base is approximately 25% of rate revenue. Clearly, renewal expenditure is not at that level. The reason for this is that councils are currently renewing the smaller asset stock that was theirs forty to sixty years ago. What then should be done about current consumers of assets 'paying their way'? Should depreciation be funded, driving up the rate in the dollar significantly, to provide funds for future renewal? This is a simplistic solution, one which will create large amounts of money in council bank accounts, and the experience around the world of governments of all complexions who have 'surpluses' is that the temptation to spend the funds on current projects is too great and new assets get purchased, exacerbating the problem for future generations. Funding for future asset renewal should be based on sound and defensible asset management plans which look at least ten years into the future and identify peaks and troughs in funding requirements that can be properly planned for through appropriate funding strategies.

Issues of Current and Future Asset Management Practice in SA Local Government

Corporate Asset Management

There has been an increasing emphasis on improving asset management practice in local government. To some extent, the drive for improvement has come from engineering and finance staff, wrestling with valuation and depreciation issues in relation to AAS27. However, there is now compelling evidence that Chief Executive Officers have become the drivers for change. They recognise that asset management is not simply the role of engineers and accountants but an important corporate, and community, activity. It is an activity that relies on engineering and financial information, but one that must link with all the other strategic planning issues and that management as a whole has a joint responsibility to manage assets efficiently and effectively. The community also has a strong say in the standard of service that should be provided and councils have a responsibility to meet those needs with appropriate asset and non-asset solutions that are affordable and useful.

Understanding Asset Management Through Capital Expenditure Categorisation

One of the most interesting areas of current asset management practice has been the recognition that correct classification of capital expenditure improves the understanding of asset management issues.

There are three distinct capital expenditure categories:

> *Renewal* - where the purpose of the capital spending is to retain an existing service.

Upgrade - where the purpose of the capital spending is to increase the quality of services provided to existing ratepayers or to provide entirely new services.

Expansion - where the purpose of the capital spending is to extend services to newly developing areas of Council where there are new ratepayers.

Councils that do not make this distinction are at a great disadvantage in future planning for asset maintenance and renewal. All capital expenditure is not alike and it is a mistake to treat it so. For example:

Renewal Capital usually results in a *reduction* in maintenance since it is replacing an older, usually more maintenance intensive, asset with a newer, efficient one. But expenditure on renewal is *not matched by any natural increase in revenues.*

*Upgrade Capital***,** i.e., capital spent on *upgrading services* is similar to renewal in that it is generally *not matched with an increase in revenues* (unless, of course, it is providing a service subject to a user pays charge) but unlike renewal it will generally *increase the total maintenance requirements* because it is increasing the total asset base.

Expansion Capital increases the total asset base *and increases maintenance expenditures* but it is associated with an *increase in rate revenues from new ratepayers. (Note: Some expansion capital which will affect future renewal will not show up in the capital expenditures of Councils because it has been funded by developer contributions.)*

Capital spent on additional assets, "growth" (upgrade and expansion) increases both maintenance and the average annual level of asset consumption. That is, growth increases the cost of sustaining the asset base. Renewal does not, and, in fact, decreases it in the short term. As a rough rule of thumb, given the average economic life found in the Victorian Infrastructure Study, the average annual consumption costs increase by about 2% of every capital dollar spent on growth. Whereas the capital growth is a "once off" cost, the extra asset consumption is added to costs *every year.* The same is true of maintenance. On average, every dollar of capital spent will also add about 2% to the annual maintenance budget.

In most cases new capital (upgrade and expansion) will also be associated with increased operating, security, and cleaning costs, whereas renewal capital will not.

Unless capital is properly distinguished, future recurrent and renewal planning is very much a hit and miss affair.

Likely Impact of Capital Expenditures on Maintenance, Operations, Revenue and Renewal

Capital/ Impact	*Maintenance Impact*	*Operations Impact*	*Revenue Impact*	*Renewal Impact*
Renewal	Decrease	May decrease	Nil	Nil
Upgrade	Increase	Increase / Decrease	Nil	Increase
Expansion	Increase	Increase	Increase	Increase

Note: "Operations" refers to the impact on the recurrent budget apart from maintenance expenditure, e.g. fuel, lighting etc.

Assets in Revenue Earning Roles

The drive for efficiency and effectiveness has increased the awareness of the role some assets play in earning revenue. There has been a culture of ensuring that the operating (recurrent) costs of such assets is met from revenues, but the capital costs have been conveniently forgotten. This is changing. There is now greater awareness that supposedly revenue-earning assets must earn sufficient revenues to cover the full cost of using the asset. (The implementation of National Competition Policy has also been a driver in this regard.)

This increased awareness of the need for a return (or at least a zero impact on the council's budget) has led to the consideration of:

- Price increases for the goods or services supplied by the asset;
- Leasing or renting out the asset to a community group or a private operator; or
- Selling the business and the asset.

Other Issues

There is a range of other asset management issues that are more in the future for South Australian councils (although one or two of the methods may be used by a small number of councils), but which are part of the asset management scene in other jurisdictions. They include:

- Demand Management – controlling the demand for services, rather than being controlled by the demand through forecasting future demand; reducing demand by administrative means (weight and length limits on roads and bridges); user pays; pursuing non-asset solutions to demand. All these actions can reduce maintenance and renewal costs, by extending the life of existing assets.

- Life Cycle Costing – the adoption of life cycle costing methodologies to optimise maintenance and intervention levels for assets to get the most cost-effective use of the asset. (Note: This needs to be done with the corporate management team setting the service standards, in consultation with elected members and the community – it is not purely an engineering or financial exercise!)
- Risk Analysis – Identifying critical assets, assessing the risk of failure and adopting an appropriate course of action to mitigate risks. This has the added benefit of ensuring that non-critical assets are given a lower priority for maintenance and renewal, with the potential to save costs or at least spend money on appropriate assets.
- Capital Evaluation Processes – The introduction of rigour to the analysis of capital expenditure requests. This may take the form of requiring a clear demonstration of costs and benefits before decisions are made to expend funds. It may also be a rigorous process to analyse and decide on competing solutions to service needs.

Council	*Estimated Resident Population*	**Infrastructure**			**Buildings**			**TOTAL**			*Per Capita*	*WDCRC as % CRC*
		WDCRC *($000's)*	**Acc Dep.** *($000's)*	**CRC** *($000's)*	**WDCRC** *($000's)*	**Acc Dep.** *($000's)*	**CRC** *($000's)*	**WDCRC** *($000's)*	**Acc Dep.** *($000's)*	**CRC** *($000's)*		
Adelaide	12,922	139,648	13,204	152,852	222,972	118,170	341,142	362,620	131,374	493,994	$ 38,229	73.4%
Adelaide Hills	38,586	95,285	15,855	111,140	14,091	527	14,618	109,376	16,382	125,758	$ 3,259	87.0%
Alexandrina	16,860	37,323	6,641	43,964	11,354	1,104	12,458	48,677	7,745	56,422	$ 3,347	86.3%
Barunga West	2,483	10,905	670	11,575	3,705	45	3,750	14,610	715	15,325	$ 6,172	95.3%
Berri Barmera	11,484	12,746	380	13,126	18,041	-	18,041	30,787	380	31,167	$ 2,714	98.8%
Burnside	40,738	102,090	9,247	111,337	22,081	2,256	24,337	124,171	11,503	135,674	$ 3,330	91.5%
Campbelltown	46,174	97,711	19,738	117,449	7,217	719	7,936	104,928	20,457	125,385	$ 2,715	83.7%
Ceduna	3,502	14,670	1,092	15,762	2,950	91	3,041	17,620	1,183	18,803	$ 5,369	93.7%
Charles Sturt	103,012	256,827	5,808	262,635	31,610	1,328	32,938	288,437	7,136	295,573	$ 2,869	97.6%
Clare &Gilbert Valleys	8,201	22,618	2,523	25,141	7,697	558	8,255	30,315	3,081	33,396	$ 4,072	90.8%
Cleve	1,895	16,041	775	16,816	1,363	84	1,447	17,404	859	18,263	$ 9,637	95.3%
Coober Pedy	2,637	10,910	4,246	15,156	1,067	318	1,385	11,977	4,564	16,541	$ 6,273	72.4%
Coorong	6,099	6,019	736	6,755	3,724	168	3,892	9,743	904	10,647	$ 1,746	91.5%
Copper Coast	10,540	25,391	2,784	28,175	10,190	541	10,731	35,581	3,325	38,906	$ 3,691	91.5%
Elliston	1,226	4,590	722	5,312	972	71	1,043	5,562	793	6,355	$ 5,184	87.5%
Flinders Ranges	1,875	7,764	795	8,559	4,119	88	4,207	11,883	883	12,766	$ 6,809	93.1%
Franklin Harbour	1,209	3,762	649	4,411	699	54	753	4,461	703	5,164	$ 4,271	86.4%
Gawler	17,622	28,557	10,932	39,489	5,915	519	6,434	34,472	11,451	45,923	$ 2,606	75.1%
Goyder Regional	4,500	23,438	5,119	28,557	7,160	138	7,298	30,598	5,257	35,855	$ 7,968	85.3%
Grant	8,042	31,339	15,624	46,963	4,837	694	5,531	36,176	16,318	52,494	$ 6,527	68.9%
Holdfast Bay	32,668	68,460	4,719	73,179	29,495	3,192	32,687	97,955	7,911	105,866	$ 3,241	92.5%
Kangaroo Island	4,373	9,989	866	10,855	2,984	-	2,984	12,973	866	13,839	$ 3,165	93.7%

Kapunda and Light	9,911	19,994	1,409	21,403	8,211	299	8,510	28,205	1,708	29,913	$ 3,018	94.3%
Karoonda-East Murray	1,340	10,118	550	10,668	713	61	774	10,831	611	11,442	$ 8,539	94.7%
Kimba	1,245	4,273	-	4,273	2,376	-	2,376	6,649	-	6,649	$ 5,341	100.0%
Lacepede	2,416	14,537	20,738	35,275	2,088	181	2,269	16,625	20,919	37,544	$ 15,540	44.3%
Le Hunte	1,552	6,779	115	6,894	3,385	297	3,682	10,164	412	10,576	$ 6,814	96.1%
Lower Eyre Peninsula	4,087	15,386	1,802	17,188	1,986	75	2,061	17,372	1,877	19,249	$ 4,710	90.2%
Loxton Waikerie	12,466	36,773	2,757	39,530	12,861	1,276	14,137	49,634	4,033	53,667	$ 4,305	92.5%
Mallala	7,190	10,689	19,050	29,739	3,815	3,913	7,728	14,504	22,963	37,467	$ 5,211	38.7%
Marion	77,547	147,787	57,897	205,684	24,740	4,124	28,864	172,527	62,021	234,548	$ 3,025	73.6%
Mid-Murray	8,157	26,143	2,206	28,349	7,419	385	7,804	33,562	2,591	36,153	$ 4,432	92.8%
Mitcham	61,533	188,452	36,648	225,100	21,632	15,433	37,065	210,084	52,081	262,165	$ 4,261	80.1%
Mount Barker	22,080	87,660	7,507	95,167	10,696	980	11,676	98,356	8,487	106,843	$ 4,839	92.1%
Mount Gambier (C)	23,055	27,909	12,189	40,098	22,008	1,708	23,716	49,917	13,897	63,814	$ 2,768	78.2%
Mount Remarkable	3,107	16,640	2,095	18,735	5,918	-	5,918	22,558	2,095	24,653	$ 7,935	91.5%
Murray Bridge	16,664	37,505	1,953	39,458	10,708	625	11,333	48,213	2,578	50,791	$ 3,048	94.9%
Naracoorte & Lucindale	8,094	45,539	15,383	60,922	5,090	387	5,477	50,629	15,770	66,399	$ 8,203	76.2%
Northern Areas	4,861	20,095	26,508	46,603	6,543	299	6,842	26,638	26,807	53,445	$ 10,995	49.8%
Norwood, Payneham, St. Peters	34,033	54,340	2,799	57,139	21,656	754	22,410	75,996	3,553	79,549	$ 2,337	95.5%
Onkaparinga City	146,367	274,879	88,902	363,781	58,197	4,924	63,121	333,076	93,826	426,902	$ 2,917	78.0%
Orroroo / Carrieton	1,115	19,900	58	19,958	2,044	103	2,147	21,944	161	22,105	$ 19,825	99.3%
Peterborough (DC)	2,193	5,216	1,881	7,097	2,467	218	2,685	7,683	2,099	9,782	$ 4,461	78.5%
Playford	66,455	173,656	65,866	239,522	23,761	2,721	26,482	197,417	68,587	266,004	$ 4,003	74.2%
Port Adelaide - Enfield	101,225	244,783	11,406	256,189	49,407	16,689	66,096	294,190	28,095	322,285	$ 3,184	91.3%
Port Augusta	13,995	22,613	1,395	24,008	20,598	796	21,394	43,211	2,191	45,402	$ 3,244	95.2%
Port Lincoln	13,006	26,058	2,077	28,135	13,017	978	13,995	39,075	3,055	42,130	$ 3,239	92.7%

Port Pirie Regional	18,094	40,491	2,340	42,831	14,666	696	15,362	55,157	3,036	58,193	$ 3,216	94.8%
Prospect	19,125	55,221	1,453	56,674	8,979	573	9,552	64,200	2,026	66,226	$ 3,463	96.9%
Renmark Paringa	9,757	14,887	455	15,342	5,668	408	6,076	20,555	863	21,418	$ 2,195	96.0%
Robe	1,333	8,527	4,364	12,891	1,513	73	1,586	10,040	4,437	14,477	$ 10,860	69.4%
Roxby Downs	3,446	15,800	-	15,800	4,584	-	4,584	20,384	-	20,384	$ 5,915	100.0%
Salisbury	112,344	310,429	106,752	417,181	24,838	18,289	43,127	335,267	125,041	460,308	$ 4,097	72.8%
Southern Mallee	2,319	12,542	521	13,063	3,187	-	3,187	15,729	521	16,250	$ 7,007	96.8%
Streaky Bay	1,930	11,982	220	12,202	2,979	131	3,110	14,961	351	15,312	$ 7,934	97.7%
Tatiara	7,062	40,590	8,337	48,927	7,320	568	7,888	47,910	8,905	56,815	$ 8,045	84.3%
Tea Tree Gully	96,972	187,173	56,809	243,982	22,557	4,162	26,719	209,730	60,971	270,701	$ 2,792	77.5%
The Barossa	18,738	50,126	16,765	66,891	11,727	123	11,850	61,853	16,888	78,741	$ 4,202	78.6%
Tumby Bay	2,662	5,627	786	6,413	3,440	161	3,601	9,067	947	10,014	$ 3,762	90.5%
Unley	36,997	89,654	4,626	94,280	13,153	1,903	15,056	102,807	6,529	109,336	$ 2,955	94.0%
Victor Harbor	9,903	24,428	9,218	33,646	5,490	517	6,007	29,918	9,735	39,653	$ 4,004	75.4%
Wakefield Regional	6,651	6,205	390	6,595	2,250	108	2,358	8,455	498	8,953	$ 1,346	94.4%
Walkerville	6,995	17,208	1,107	18,315	3,869	261	4,130	21,077	1,368	22,445	$ 3,209	93.9%
Wattle Range	12,774	52,590	-	52,590	15,249	786	16,035	67,839	786	68,625	$ 5,372	98.9%
West Torrens	51,850	213,801	107,696	321,497	22,862	21,802	44,664	236,663	129,498	366,161	$ 7,062	64.6%
Whyalla	23,980	43,173	6,618	49,791	13,037	1,031	14,068	56,210	7,649	63,859	$ 2,663	88.0%
Yankalilla	3,839	20,596	1,459	22,055	1,211	156	1,367	21,807	1,615	23,422	$ 6,101	93.1%
Yorke Peninsula	11,728	65,473	25,435	90,908	14,838	10,443	25,281	80,311	35,878	116,189	$ 9,907	69.1%
	1,478,841	3,850,330	861,667	4,711,997	958,996	250,082	1,209,078	4,809,326	1,111,749	5,921,075	$ 3,186	81.2%
Total Households	323,040									Per Household	$ 18,329	
Total Rateable Properties	720,831									Per Rateable Property	$ 8,214	

The Survey Instrument used to gather data from every South Australian Council is included on the following pages.

SA Infrastructure Study **Cover Sheet**

Council:

Contact Officer: Telephone:

Facsimile:

Email:

Council
Class
State
CouncilState
Region_ID
Old_Number
New_Number
Data_Year

SA Infrastructure Study	Form 1	Asset Management - Corporate Overview
Respondee Name, Phone and Email or Fax		
1.MOST Important Management Issue		
2. Objectives		
2.1. Does council have council wide objectives for assets?		
What are they		For Other Type in <50 words
3. Asset Management Strategy and Review Periods		
3.1. Does council have a corporate wide asset management strategy?		
3.2. If yes, what is the primary strategy focus?		Other
Questions at Corporate Level		
4. Capital Projects		
4.1 Is there a systematic, council wide appraisal process for **evaluating** capital projects		If yes, brief description (eg software package.)
4.2 Is there a systematic, council wide appraisal process for **prioritising** capital projects		If yes, brief description (eg software package.)
5. Organisation, Integration/Silos		
5.1 Is there a corporate asset manager or asset management coordinator.		
5.2 Who is responsible for coordinating asset management issues		
6. Council understanding and awareness of asset management		
6.1 Is there an asset management committee at councillor level		
6.2.1 Which asset management issues are routinely communicated to Councillors		
6.2.1		
6.2.2		
6.2.3		
6.2.4		
6.2.5		6.2.6 Other
6.3 Have you undertaken any formal or informal programme of understanding of asset management issues with Councillors		
6.4 If yes can you describe in 50 words or less		
6.5 Other Comments		

SA Infrastructure Study	Form 2	Asset Management - Transport Assets

T7	**Most Important Management Issues**		If other issue than in the list type in here	
T8	**Objectives**			
T8.1	Are there council wide objectives for transport?			
T8.2	If yes,what are they?			
T9	**Determination of Service Levels**			
T9.1	How to you define a service?			
T9.2	For those advanced councils using outcome measures,how do you describe service levels?			
T9.3	For services defined by inputs, how do you describe service levels?		Other	
T9.4	What is done to explain service levels to the		Other	
T9.5	What is done to help the community understand the nature and cost of different service levels			
T9.6	What information gathering techniques are used		Other	
T9.7	How do you identify your target market / relevant stakeholders			
T9.8	How have you evaluated responses			
T9.9	How have you incorporated responses in your actions or planning			
T9.10	What feedback do you provide to your community after community consultation			
T9.11	Do you conduct customer satisfaction surveys			
T9.12	Example of customer satisfaction linked to service level analysis			
T9.13	Are front line customer service staff trained to handle customer feedback on assets			
T9.14	What information would you like to have about determining service levels			
T10	**Asset Management Plans and Review Periods**			
T10.1	Does council have a corporate wide asset management plan for Transport?			
T10.2	10.2 If yes, what does the plan include			
T11	**Asset Condition Analysis**			
T11.1	What method of condition assessment is used			
T11.2	How often is asset condition usually reviewed?			
T11.3	When was the last condition assessment conducted			
T12	**Asset Information**			
	What Proportion of assets (% value) is….			
T12.1	Above Acceptable			
T12.2	Acceptable			
T12.3	Below Acceptable			
T12.4	TOTAL (100%)	0%		
T12.5	What Computer system do you use for **technical/engineering** management			
T12.6	What Computer system do you use for **financial** management			
T13	**Performance Measurement**			
T13.1	How is the performance of the asset category measured?			
T13.2	What use is made of performance measurement?			
T14	**Research and Innovation**			
T14.1	What research has your council conducted into asset management issues?			
T14.2	Discussion papers, references that may be useful to other councils.			
T14.3	What new developments in asset management practice has your council adopted in the past few years?			
T14.4	If yes, contact name and email address for more information			

SA Infrastructure Study	Form 3	Asset Management - Building/Structure Assets

B7	**Most Important Management Issues**		If other issue than in the list type in here	
B8	**Objectives**			
B8.1	Are there council wide objectives for Buildings?			
B8.2	If yes,what are they?			
B9	**Determination of Service Levels**			
B9.1	How to you define a service?			
B9.2	For those advanced councils using outcome measures,how do you describe service levels?			
B9.3	For services defined by inputs, how do you describe service levels?		Other	
B9.4	What is done to explain service levels to the		Other	
B9.5	What is done to help the community understand the nature and cost of different service levels			
B9.6	What information gathering techniques are used		Other	
B9.7	How do you identify your target market / relevant stakeholders			
B9.8	How have you evaluated responses			
B9.9	How have you incorporated responses in your actions or planning			
B9.10	What feedback do you provide to your community after community consultation			
B9.11	Do you conduct customer satisfaction surveys			
B9.12	Example of customer satisfaction linked to service level analysis			
B9.13	Are front line customer service staff trained to handle customer feedback on assets			
B9.14	What information would you like to have about determining service levels			
B10	**Asset Management Plans and Review Periods**			
B10.1	Does council have a corporate wide asset management plan for Buildings?			
B10.2	If yes, what does the plan include			
B11	**Asset Condition Analysis**			
B11.1	What method of condition assessment is used			
B11.2	How often is asset condition usually reviewed?			
B11.3	When was the last condition assessment conducted			
B12	**Asset Information**			
	What Proportion of assets (% value) is….			
B12.1	Above Acceptable			
B12.2	Acceptable			
B12.3	Below Acceptable			
B12.4	TOTAL (100%)	0%		
B12.5	What Computer system do you use for **technical/engineering** management			
B12.6	What Computer system do you use for **financial** management			
B13	**Performance Measurement**			
B13.1	How is the performance of the asset category measured?			
B13.2	What use is made of performance measurement?			
B14	**Research and Innovation**			
B14.1	What research has your council conducted into asset management issues?			
B14.2	Discussion papers, references that may be useful to other councils.			
B14.3	What new developments in asset management practice has your council adopted in the past few years?			
B14.4	If yes, contact name and email address for more information			

SA Infrastructure Study	Form 4	Asset Management - Parks Assets

P7	**Most Important Management Issues**		If other issue than in the list type in here	
P8	**Objectives**			
P8.1	Are there council wide objectives for Parks and Recreation?			
P8.2	If yes,what are they?			
P9	**Determination of Service Levels**			
P9.1	How to you define a service?			
P9.2	For those advanced councils using outcome measures,how do you describe service levels?			
P9.3	For services defined by inputs, how do you describe service levels?		Other	
P9.4	What is done to explain service levels to the		Other	
P9.5	What is done to help the community understand the nature and cost of different service levels			
P9.6	What information gathering techniques are used		Other	
P9.7	How do you identify your target market / relevant stakeholders			
P9.8	How have you evaluated responses			
P9.9	How have you incorporated responses in your actions or planning			
P9.10	What feedback do you provide to your community after community consultation			
P9.11	Do you conduct customer satisfaction surveys			
P9.12	Example of customer satisfaction linked to service level analysis			
P9.13	Are front line customer service staff trained to handle customer feedback on assets			
P9.14	What information would you like to have about determining service levels			
P10	**Asset Management Plans and Review Periods**			
P10.1	Does council have a corporate wide asset management plan for Parks and Recreation?			
P10.2	If yes, what does the plan include			
P11	**Asset Condition Analysis**			
P11.1	What method of condition assessment is used			
P11.2	How often is asset condition usually reviewed?			
P11.3	When was the last condition assessment conducted			
P12	**Asset Information**			
	What Proportion of assets (% value) is….			
P12.1	Above Acceptable			
P12.2	Acceptable			
P12.3	Below Acceptable			
P12.4	TOTAL (100%)	0%		
P12.5	What Computer system do you use for **technical/engineering** management			
P12.6	What Computer system do you use for **financial** management			
P13	**Performance Measurement**			
P13.1	How is the performance of the asset category measured?			
P13.2	What use is made of performance measurement?			
P14	**Research and Innovation**			
P14.1	What research has your council conducted into asset management issues?			
P14.2	Discussion papers, references that may be useful to other councils.			
P14.3	What new developments in asset management practice has your council adopted in the past few years?			
P14.4	If yes, contact name and email address for more information			

SA Infrastructure Study	Form 5	Asset Management - Stormwater Drainage Assets

D7	**Most Important Management Issues**		If other issue than in the list type in here	
D8	**Objectives**			
D8.1	Are there council wide objectives for Stormwater Drainage?			
D8.2	If yes,what are they?			
D9	**Determination of Service Levels**			
D9.1	How to you define a service?			
D9.2	For those advanced councils using outcome measures,how do you describe service levels?			
D9.3	For services defined by inputs, how do you describe service levels?		Other	
D9.4	What is done to explain service levels to the		Other	
D9.5	What is done to help the community understand the nature and cost of different service levels			
D9.6	What information gathering techniques are used		Other	
D9.7	How do you identify your target market / relevant stakeholders			
D9.8	How have you evaluated responses			
D9.9	How have you incorporated responses in your actions or planning			
D9.10	What feedback do you provide to your community after community consultation			
D9.11	Do you conduct customer satisfaction surveys			
D9.12	Example of customer satisfaction linked to service level analysis			
D9.13	Are front line customer service staff trained to handle customer feedback on assets			
D9.14	What information would you like to have about determining service levels			
D10	**Asset Management Plans and Review Periods**			
D10.1	Does council have a corporate wide asset management plan for Stormwater Drainage?			
D10.2	If yes, what does the plan include			
D11	**Asset Condition Analysis**			
D11.1	What method of condition assessment is used			
D11.2	How often is asset condition usually reviewed?			
D11.3	When was the last condition assessment conducted			
D12	**Asset Information**			
	What Proportion of assets (% value) is….			
D12.1	Above Acceptable			
D12.2	Acceptable			
D12.3	Below Acceptable			
D12.4	TOTAL (100%)	0%		
D12.5	What Computer system do you use for **technical/engineering** management			
D12.6	What Computer system do you use for **financial** management			
D13	**Performance Measurement**			
D13.1	How is the performance of the asset category measured?			
D13.2	What use is made of performance measurement?			
D14	**Research and Innovation**			
D14.1	What research has your council conducted into asset management issues?			
D14.2	Discussion papers, references that may be useful to other councils.			
D14.3	What new developments in asset management practice has your council adopted in the past few years?			
D14.4	If yes, contact name and email address for more information			

SA Infrastructure Study — Form 6 — Remaining Life - Sealed Roads

1. Remaining Life Distribution (RLD)

Distribution (RLD) (in years)	Earthworks $ CRC	Sealed Roads: Pavement $ CRC	Sealed Roads: Surface $ CRC	Sealed Roads: Kerb&Gutter $ CRC
0-5				
6-10				
11-15				
16-20				
21-25				
26-30				
31-35				
36-40				
41-45				
46-50				
51-55				
56-60				
61-65				
66-70				
71-75				
76-80				
81-85				
86-90				
91-95				
95-100				
>100				
Total CRC	-	-	-	-
			Total CRC Sealed Roads	-

For assistance in completing this form please refer to the following pages in the instruction manual:

Surface Types - by %

	Hotmix
	Spray Seal
	Other
0%	

Basis for Remaining Life Calculation

Is 'Earthworks' included in 'Pavement'? If yes, what is CRC?

If the word FALSE appears below it means that your total CRC for sealed roads, as calculated, does not agree with the stated accounting record value. Why?

TRUE

2. Economic Life

Median EL			
% assets achieving			
EL - Other 1			
% assets achieving			
EL - Other 2			
% assets achieving			
EL - Other 3			
% assets achieving			
	0%	0%	0%

3. Financials

(As at June 30, 1999)

Current Replacement Cost (CRC)

Written Down CRC

Estimated 1999/2000 Depreciation Charge

Expenditure	1997-98 Actual	1998-99 Actual	1999-00 Budget	2000-01 Forecast	2001-02 Forecast
Maintenance					
Capital - Renewal					
Capital - Expansion					
Capital - Upgrade					
Total Expenditure	-	-	-	-	-
Contributed Assets					

4. Estimated Financials

Note: Use these fields only if you believe the 5-year expenditure data is not typical.

5-year Average	% Trend Increase/(decrease)
-	

5. Other Roads Expenditure

Annualised

% Trend - Increase/(decrease)

Note: Any other asset within the road reserve not included in another RLD (Forms 2 to 12). For example, street signs, streetscaping, LATM's, other road furniture, undergrounding power lines

SA Infrastructure Study — Form 7 — Remaining Life - Gravel Roads

1. Remaining Life Distribution (RLD) (in years)

	Gravel Roads Earthworks $ CRC	Road $ CRC
0-5		
6-10		
11-15		
16-20		
21-25		
26-30		
31-35		
36-40		
41-45		
46-50		
51-55		
56-60		
61-65		
66-70		
71-75		
76-80		
81-85		
86-90		
91-95		
95-100		
>100		
Total CRC	-	-
Total Gravel Roads		TRUE

For assistance in completing this form please refer to the following pages in the instruction manual:

Basis for Remaining Life Calculation

Is 'Earthworks' included in 'Pavement'? If yes, CRC?

If the word FALSE appears below it means that your total CRC for gravel roads, as calculated, does not agree with the stated accounting record value. Why?

2. Economic Life

Median EL	
% assets achieving	
EL - Other 1	
% assets achieving	
EL - Other 2	
% assets achieving	
EL - Other 3	
% assets achieving	
	0%

3. Financials (As at June 30, 1999)

Current Replacement Cost (CRC)

Written Down CRC

Estimated 1999/2000 Depreciation Charge

Expenditure	1997-98 Actual	1998-99 Actual	1999-00 Budget	2000-01 Forecast	2001-02 Forecast
Maintenance					
Capital - Renewal					
Capital - Expansion					
Capital - Upgrade					
Total Expenditure	-	-	-	-	-

4. Estimated Financials

Note: Use these fields only if you believe the 5-year expenditure data is not typical.

	5-year Average	% Trend Increase/(decrease)
Maintenance		
Capital - Renewal		
Capital - Expansion		
Capital - Upgrade		
Total Expenditure	-	

SA Infrastructure Study — Form 8 — Remaining Life - Road Bridges

1. Remaining Life Distribution (RLD) (in years)

	Bridges	
	Timber $ CRC	Concrete/Composite $ CRC
0-5		
6-10		
11-15		
16-20		
21-25		
26-30		
31-35		
36-40		
41-45		
46-50		
51-55		
56-60		
61-65		
66-70		
71-75		
76-80		
81-85		
86-90		
91-95		
95-100		
>100		
Total CRC	-	-

TRUE

For assistance in completing this form please refer to the following pages in the instruction manual:

Basis for Remaining Life Calculation

If the word FALSE appears below it means that your total CRC for road bridges, as calculated, does not agree with the stated accounting record value. Why?

2. Economic Life

Median EL		
% assets achieving		
EL - Other 1		
% assets achieving		
EL - Other 2		
% assets achieving		
EL - Other 3		
% assets achieving		
	0%	0%

3. Financials

(As at June 30, 1999)

Current Replacement Cost (CRC)

Written Down CRC

Estimated 1999/2000 Depreciation Charge

Expenditure	1997-98 Actual	1998-99 Actual	1999-00 Budget	2000-01 Forecast	2001-02 Forecast
Maintenance					
Capital - Renewal					
Capital - Expansion					
Capital - Upgrade					
Total Expenditure	-	-	-	-	-

4. Estimated Financials

Note: Use these fields only if you believe the 5-year expenditure data is not typical.

5-year Average	% Trend Increase/(decrease)
-	

SA Infrastructure Study — Form 9 — Remaining Life - Footpaths/Bikeways

1. Remaining Life Distribution (RLD)

(in years)	Footpaths/Bikeways Concrete $ CRC	Bitumen $ CRC	Brick/Block $ CRC	Other $ CRC
0-5				
6-10				
11-15				
16-20				
21-25				
26-30				
31-35				
36-40				
41-45				
46-50				
51-55				
56-60				
61-65				
66-70				
71-75				
76-80				
81-85				
86-90				
91-95				
95-100				
>100				
Total CRC	-	-	-	-

For assistance in completing this form please refer to the following pages in the instruction manual:

Basis for Remaining Life Calculation

If the word FALSE appears below it means that your total CRC for footpaths/bikeways, as calculated, does not agree with the stated accounting record value. Why?

TRUE

2. Economic Life

	Concrete	Bitumen	Brick/Block	Other
Median EL				
% assets achieving				
EL - Other 1				
% assets achieving				
EL - Other 2				
% assets achieving				
EL - Other 3				
% assets achieving				
	0%	0%	0%	0%

3. Financials

(As at June 30, 1999)

Current Replacement Cost (CRC)

Written Down CRC

Estimated 1999/2000 Depreciation Charge

Expenditure	1997-98 Actual	1998-99 Actual	1999-00 Budget	2000-01 Forecast	2001-02 Forecast
Maintenance					
Capital - Renewal					
Capital - Expansion					
Capital - Upgrade					
Total Expenditure	-	-	-	-	-

4. Estimated Financials

Note: Use these fields only if you believe the 5-year expenditure data is not typical.

5-year Average	% Trend Increase/(decrease)
-	

SA Infrastructure Study — Form 10 — Remaining Life - Stormwater Drainage

1. Remaining Life Distribution (RLD)

(in years)	Stormwater Drainage Pipes/Pits $ CRC	Channels $ CRC	Other $ CRC
0-5			
6-10			
11-15			
16-20			
21-25			
26-30			
31-35			
36-40			
41-45			
46-50			
51-55			
56-60			
61-65			
66-70			
71-75			
76-80			
81-85			
86-90			
91-95			
95-100			
>100			
Total CRC	-	-	-

For assistance in completing this form please refer to the following pages in the instruction manual:

1. Remaining Life Distribution (RLD)	Page 8
2. Economic Life	Page 8
3. Financials	Page 8
4. Estimated Financials	Page 8

Basis for Remaining Life Calculation

If the word FALSE appears below it means that your total CRC for stormwater drainage, as calculated, does not agree with the stated accounting record value. Why?

TRUE

2. Economic Life

Median EL			
% assets achieving			
EL - Other 1			
% assets achieving			
EL - Other 2			
% assets achieving			
EL - Other 3			
% assets achieving			
	0%	0%	0%

3. Financials

(As at June 30, 1999)

Current Replacement Cost (CRC)

Written Down CRC

Estimated 1999/2000 Depreciation Charge

Expenditure	1997-98 Actual	1998-99 Actual	1999-00 Budget	2000-01 Forecast	2001-02 Forecast
Maintenance					
Capital - Renewal					
Capital - Expansion					
Capital - Upgrade					
Total Expenditure	-	-	-	-	-

4. Estimated Financials

Note: Use these fields only if you believe the 5-year expenditure data is not typical.

5-year Average	% Trend Increase/(decrease)
-	

SA Infrastructure Study — Form 11 — Remaining Life - Buildings/Structures

1. Remaining Life Distribution (RLD) (in years)

	Buildings & Structures $ CRC	AquaticCentres Pools $ CRC	Land Improvement $ CRC
0-5			
6-10			
11-15			
16-20			
21-25			
26-30			
31-35			
36-40			
41-45			
46-50			
51-55			
56-60			
61-65			
66-70			
71-75			
76-80			
81-85			
86-90			
91-95			
95-100			
>100			
Total CRC	-	-	-

TRUE

For assistance in completing this form please refer to the following pages in the instruction manual:

Structures include grandstands, scoreboards and hard surface outside sporting facilities (tennis courts etc.).

Land Improvement includes carparks, parking bays and information signage.

Basis for Remaining Life Calculation

If the word FALSE appears below it means that your total CRC for buildings/structures, as calculated, does not agree with the stated accounting record value. Why?

2. Economic Life

Median EL			
% assets achieving			
EL - Other 1			
% assets achieving			
EL - Other 2			
% assets achieving			
EL - Other 3			
% assets achieving			
	0%	0%	0%

3. Financials

(As at June 30, 1999)

Current Replacement Cost (CRC)

Written Down CRC

Estimated 1999/2000 Depreciation Charge

Expenditure	1997-98 Actual	1998-99 Actual	1999-00 Budget	2000-01 Forecast	2001-02 Forecast
Maintenance					
Capital - Renewal					
Capital - Expansion					
Capital - Upgrade					
Total Expenditure	-	-	-	-	-
Revenue					
Acquatic Centres/Pools					

4. Estimated Financials

Note: Use these fields only if you believe the 5-year expenditure data is not typical.

5-year Average	% Trend Increase/(decrease)
-	

SA Infrastructure Study — Form 12 — Remaining Life - Parks

1. Remaining Life Distribution (RLD) (in years)

	Parks/Ovals $ CRC	Foreshore $ CRC
0-5		
6-10		
11-15		
16-20		
21-25		
26-30		
31-35		
36-40		
41-45		
46-50		
51-55		
56-60		
61-65		
66-70		
71-75		
76-80		
81-85		
86-90		
91-95		
95-100		
>100		
Total CRC	-	-

TRUE

If the word FALSE appears below it means that your total CRC for parks, as calculated does not agree with the stated accounting record value. Why?

For assistance in completing this form please refer to the following pages in the instruction manual:

Do not include land and tree values

Parks/Ovals includes irrigation & bores, lighting, fencing, non stormwater drainage wetlands and playground equipment.
Foreshore includes river and lake frontage equipment/infrastructure.

Basis for Remaining Life Calculation

2. Economic Life

Median EL		
% assets achieving		
EL - Other 1		
% assets achieving		
EL - Other 2		
% assets achieving		
EL - Other 3		
% assets achieving		
	0%	0%

3. Financials

(As at June 30, 1999)

Current Replacement Cost (CRC)

Written Down CRC

Estimated 1999/2000 Depreciation Charge

Expenditure	1997-98 Actual	1998-99 Actual	1999-00 Budget	2000-01 Forecast	2001-02 Forecast
Maintenance					
Capital - Renewal					
Capital - Expansion					
Capital - Upgrade					
Total Expenditure	-	-	-	-	-

4. Estimated Financials

Note: Use these fields only if you believe the 5-year expenditure data is not typical.

5-year Average	% Trend Increase/(decrease)
-	

6. Other Parks Expenditure

Annualised expenditure

Operational Maintenance

SA Infrastructure Study — Form 13 — Remaining Life - STEDS

1. Remaining Life Distribution (RLD) (in years)

	STEDS Pumping $ CRC	STEDS Reticulation $ CRC	STEDS Treatment $ CRC
0-5			
6-10			
11-15			
16-20			
21-25			
26-30			
31-35			
36-40			
41-45			
46-50			
51-55			
56-60			
61-65			
66-70			
71-75			
76-80			
81-85			
86-90			
91-95			
95-100			
>100			
Total CRC	-	-	-

TRUE

For assistance in completing this form please refer to the following pages in the instruction manual:

Pumping = Pump stations, pumps and rising mains

Reticulation = reticulation pipes.

Treatment = treatment plants, lagoons.

Basis for Remaining Life Calculation

If the word FALSE appears below it means that your total CRC for STEDS, as calculated, does not agree with the stated accounting record value. Why?

2. Economic Life

	Pumping	Reticulation	Treatment
Median EL			
% assets achieving			
EL - Other 1			
% assets achieving			
EL - Other 2			
% assets achieving			
EL - Other 3			
% assets achieving			
	0%	0%	0%

3. Financials

(As at June 30, 1999)

Current Replacement Cost (CRC)

Written Down CRC

Estimated 1999/2000 Depreciation Charge

Expenditure	1997-98 Actual	1998-99 Actual	1999-00 Budget	2000-01 Forecast	2001-02 Forecast
Maintenance					
Capital - Renewal					
Capital - Expansion					
Capital - Upgrade					
Total Expenditure	-	-	-	-	-
Revenue					

4. Estimated Financials

Note: Use these fields only if you believe the 5-year expenditure data is not typical.

5-year Average	% Trend Increase/(decrease)
-	

SA Infrastructure Study — Form 14 — Remaining Life - Water Supply

1. Remaining Life Distribution (RLD) (in years)

	Water Supply Pumping $ CRC	Water Supply Reticulation $ CRC
0-5		
6-10		
11-15		
16-20		
21-25		
26-30		
31-35		
36-40		
41-45		
46-50		
51-55		
56-60		
61-65		
66-70		
71-75		
76-80		
81-85		
86-90		
91-95		
95-100		
>100		
Total CRC	-	-

For assistance in completing this form please refer to the following pages in the instruction manual:

Basis for Remaining Life Calculation

If the word FALSE appears below it means that your total CRC for water supply, as calculated, does not agree with the stated accounting record value. Why?

TRUE

2. Economic Life

Median EL		
% assets achieving		
EL - Other 1		
% assets achieving		
EL - Other 2		
% assets achieving		
EL - Other 3		
% assets achieving		
	0%	0%

3. Financials

(As at June 30, 1999)

Current Replacement Cost (CRC)

Written Down CRC

Estimated 1999/2000 Depreciation Charge

Expenditure	1997-98 Actual	1998-99 Actual	1999-00 Budget	2000-01 Forecast	2001-02 Forecast
Maintenance					
Capital - Renewal					
Capital - Expansion					
Capital - Upgrade					
Total Expenditure	-	-	-	-	-
Revenue					

4. Estimated Financials

Note: Use these fields only if you believe the 5-year expenditure data is not typical.

5-year Average	% Trend Increase/(decrease)
-	

SA Infrastructure Study — Form 15 — Remaining Life - Electricity Supply

1. Remaining Life Distribution (RLD) (in years)

	Electricity Supply Generation $ CRC	Distribution $ CRC
0-5		
6-10		
11-15		
16-20		
21-25		
26-30		
31-35		
36-40		
41-45		
46-50		
51-55		
56-60		
61-65		
66-70		
71-75		
76-80		
81-85		
86-90		
91-95		
95-100		
>100		
Total CRC	-	-

For assistance in completing this form please refer to the following pages in the instruction manual:

1. Remaining Life Distribution (RLD)	Page 8
2. Economic Life	Page 8
3. Financials	Page 8
4. Estimated Financials	Page 8

Basis for Remaining Life Calculation

If the word FALSE appears below it means that your total CRC for electricity supply, as calculated, does not agree with the stated accounting record value. Why?

TRUE

2. Economic Life

Median EL		
% assets achieving		
EL - Other 1		
% assets achieving		
EL - Other 2		
% assets achieving		
EL - Other 3		
% assets achieving		
	0%	0%

3. Financials

(As at June 30, 1999)

Current Replacement Cost (CRC)

Written Down CRC

Estimated 1999/2000 Depreciation Charge

Expenditure	1997-98 Actual	1998-99 Actual	1999-00 Budget	2000-01 Forecast	2001-02 Forecast
Maintenance					
Capital - Renewal					
Capital - Expansion					
Capital - Upgrade					
Total Expenditure	-	-	-	-	-
Revenue					

4. Estimated Financials

Note: Use these fields only if you believe the 5-year expenditure data is not typical.

5-year Average	% Trend Increase/(decrease)
-	

SA Infrastructure Study — Form 16 — Remaining Life - Other Infrastructure

1. Remaining Life Distribution (RLD)

(in years) (in years)	Aerodromes $ CRC	Waste Management $ CRC	CLER $ CRC
0-5			
6-10			
11-15			
16-20			
21-25			
26-30			
31-35			
36-40			
41-45			
46-50			
51-55			
56-60			
61-65			
66-70			
71-75			
76-80			
81-85			
86-90			
91-95			
95-100			
>100			
Total CRC	-	-	-

TRUE

For assistance in completing this form please refer to the following pages in the instruction manual:

Waste Management includes bins, skips, polution control and other tip assets (excluding buildings).
Aerodrome excludes buildings.

Basis for Remaining Life Calculation

If the word FALSE appears below it means that your total CRC for other infrastructure, as calculated, does not agree with the stated accounting record value. Why?

2. Economic Life

	Aerodromes	Waste Management	CLER
Median EL			
% assets achieving			
EL - Other 1			
% assets achieving			
EL - Other 2			
% assets achieving			
EL - Other 3			
% assets achieving			
	0%	0%	0%

3. Financials

(As at June 30, 1999)

Current Replacement Cost (CRC)

Written Down CRC

Estimated 1999/2000 Depreciation Charge

Expenditure	1997-98 Actual	1998-99 Actual	1999-00 Budget	2000-01 Forecast	2001-02 Forecast
Maintenance					
Capital - Renewal					
Capital - Expansion					
Capital - Upgrade					
Total Expenditure	-	-	-	-	-
Revenue					
Aerodromes					

4. Estimated Financials

Note: Use these fields only if you believe the 5-year expenditure data is not typical.

5-year Average	% Trend Increase/(decrease)
-	

SA Infrastructure Study		Form 17		Renewal Profile - Recent Asset Reconstruction Data		
Sample	Asset Category	Reason for Renewal	Other reason for renewal	Percentage of Asset	Total Economic Life (yrs)	Order of Accuracy
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						

Steering Committee

The Study was managed by a Steering Committee on behalf of the Metropolitan CEOs' Association. The composition of the Steering Committee was representative of the local government industry in South Australia. The members were:

Rodney Donne, Burnside (Chair)	Metropolitan CEO's Association
Jeff Tate, Onkaparinga	Metropolitan CEO's Association
Frank Brennan, Wattle Range	Non-metropolitan CEO
Stuart Mathews	Local Government Association
Ray Pincombe	Local Government Management Association
Peter Vlatko	Local Government Management Association
Cleve Coyle	SA LG Financial Management Group
Bill Ross	SA LG Financial Management Group
Geoff Hatwell	Institute of Public Works Engineers Australia
Jane Gascoigne	SA LG Grants Commission
John Wright	Office of Local Government

Trevor Waite of Trevor Waite Consulting provided executive services to the Steering Committee.

Reference Groups

Initially, two reference groups were set up to assist the Consultants to develop the survey instrument. The two groups were a Transport Reference Group and an Other Assets Reference Group. In the end, there was such commonality of membership that the two groups met as one. The Joint membership was:

Gary Baker	Port Adelaide Enfield
David Bernard	Playford
Frank Brennan	Wattle Range
Mark Buckerfield	Salisbury
Jane Gascoigne	SA LG Grants Commission
Geoff Hatwell	Onkaparinga
Bill Kaak	Alexandrina
Stan Robb	Holdfast Bay
Jamie Roodenrys	Unley
David Zilm	Prospect

Introduction

The methodology to undertake this study was intended to ensure that the data collected:

- Was sufficient to provide the necessary information to meet the objectives of the study;
- Imposed the least burden on councils to provide;
- Was as accurate as could be expected, without requiring significant new data collection by councils; and
- Was collected and made available to councils by electronic means.

Steering Committee

The project Steering Committee provided guidance and direction to the project. It met several times to review and approve the various steps proposed to implement the project.

Reference Groups

Two Reference Groups were established, with membership drawn from a representative range of South Australian councils. One reference group provided guidance in the area of transport assets (roads, bridges, footpaths) with the second reference group providing guidance about other assets.

The Reference Groups, along with the Steering Committee, played a key role in:

- determining the level of information that should be collected from councils;
- shaping the form of the survey instrument;
- suggesting the format of data presentation.

Pilot Councils

The survey instrument was pilot tested with a number of councils. Every pilot council raised issues to be highlighted/explained at the regional briefings. The model methodology was endorsed by engineering/financial representatives met at each council and suggestions were made for further fine tuning. All pilot councils indicated they would be able to complete survey, although they reported that some councils would have better data than others and that those with minimal data would have to use more judgment in completing the survey instrument.

Regional Briefings

The survey instrument was released to councils at a series of regional briefings. These briefings were conducted in:

- Adelaide;
- Berri;
- Clare;
- Penola; and
- Wudinna.

The regional briefings provided the opportunity to inform councils of the nature and purpose of the study and enabled them ask questions related to the study.

Site Visits

Every council was visited. Initially the aim of the visits was to collect the survey information, along with some supplementary information. In most instances, however, the visits were a vehicle for councils to receive further assistance in completing the survey instrument. The survey form was usually forwarded by electronic means at a later date.

Telephone and Email Follow-up

The regional briefings and site visits were followed up by telephone and email contact to:

- resolve questions and queries;
- ensure that all councils participated in the survey; and
- validate the data and fill in missing information.

Data Quality

Much of the effort went into getting a survey form from every council. Even though most councils were asked to provide additional information on their data, few councils responded to this request and there was insufficient time to follow up the missing (or less understood) information.

Some of the queries that needed resolution related to information that appeared to be inconsistent. The lack of resolution of those queries detracts from the quality of the data provided by councils. In the case of four councils, the data supplied was supplemented by information from the Local Government Grants Commission, with some arbitrary assignment of asset age to the respective assets.

Overall, the data supplied by councils was, in many cases, the best estimate of the staff who completed the survey form. This reflects the fact that few councils have comprehensive asset registers of databases to support their asset management activities.

Public Goods, Private Goods, and Those in Between

Public bodies provide goods and services which fall into both categories of public and private goods.

In general terms, public goods are defined as those for which it is not possible to exclude other users. For instance, street lighting is generally provided not for the consumption of an individual but for the benefit of all people who live or move through an area and consumption by one person does not preclude consumption by another, nor does it affect the cost of providing the good or service.

Private goods are the reverse of public goods. That is, they are goods and services which confer private property rights on the person who acquires them. The provision of power to a private home for lighting within that property is clearly a private good.

There are many goods which fall in between - quasi public goods. For example, the provision of a waste collection service. Some local authorities include the cost of the service in their property tax levied on owners, while others levy a separate charge. These two approaches may reflect different views of the same service as both a public good and a private good. There are clearly elements of both. Prevention of disease by removing waste is a public good, and there is also a private benefit for the householder in having the waste removed.

Advantages of User Charges

There are three main advantages argued in respect of user charges - allocative efficiency, equity, and new revenue.

1. *Allocative efficiency* because the charge is a direct link between the provision of the service and the demand for the service. Demand for a good or service is demonstrated through the willingness of potential consumers to pay for it. Consumers are able to make an immediate connection between costs and benefits and costs are more tangible and visible than allocations from other sources of public revenue.

2. *Equity* issues in user-pays are a double edged sword and probably the most controversial aspect of them. Equity is about the 'benefit principle' where, in simple terms, those who use a service pay for it and those who don't use it don't pay. People who do not contribute to public revenue in other ways are forced to pay for services or goods consumed.

3. *New Revenue* With growing demands for services and strong resistance to raising taxes, consumer contributions are one of a limited number of alternatives that governments can turn to.

Constraints and Issues

There are some obvious constraints in applying consumer contributions to goods and services provided by public bodies.

1. Charges are bounded by political parameters. We are all very aware of public and media sensitivity to new or increased charges. There often seems to be a perception that new or increased charges are a non-legitimate move to gain additional revenue without an increase in service or a reduction in taxes.

There are three important messages about political parameters.

- They are real!
- They will take precedence over more pure methods of determining which services should be charged for.
- A sensitive approach is required to the range of views likely to be presented.

2. There are technical and administrative constraints. These include:
   - lack of training or expertise in costing methods ;
   - problems and costs associated with collection;
   - resistance within the agencies involved; and
   - the need for sound cost information when developing pricing structures.

3. There are legal constraints. There will be occasions when legislation prohibits charging for a service. Limits may also be imposed through non-legislative means – e.g. properties held in trust by public bodies which prohibit charging. There may also be legal considerations in determining the basis or level of charging.

Developing a 'User Pays' System – Supporting the Decision

There is a growing trend for more of the services that local government supplies to be provided on a 'fee for service' basis rather than a 'free service' basis. User pays is not a new concept. There are a range of facilities provided by local government for which a fee is charged - tip fees, swimming centres, caravan parks, water and sewerage services and many others.

There is a need to establish appropriate systems to assist both politicians and administrators in making decisions about how a user pays system should operate; how public goods (or private goods produced by the public sector) should be priced and the impact of pricing on consumption of the goods.

Elements of the System

The elements of the 'system' are:

a) decision-making - a formal process, which involves the other elements, and within which the administrative and political arms of the organisation make their decisions. This system will involve an analysis of the data and information produced by the other elements, a consideration of political aims and administrative capacities, perhaps consultation with people who might be affected by the decision and the explicit decision.

b) legal framework - local government is a creature of state government and operates under an act of each state or territory parliament. In addition, there is usually other legislation that limits or enhances the powers of local government. The introduction of competition principles to government in Australia and the increasing commercialisation of government services expose local government to the application of the Trade Practices Act. Legal considerations need careful consideration.

b) costing - the process of gathering information about the costs to the organisation of providing the particular good or service and reporting those costs, including comments on the appropriateness of the costing methodology. There are various costing methodologies that can be

used, which it is not in the scope of this brief paper to pursue, but which are well covered in various texts on costing.

c) pricing - the decision of which price, or prices, to charge should be supported by information on the likely affect on both demand and those economically dis-advantaged. Consideration will also be given to whether to charge a market price, sell below cost make a profit or some other basis for pricing. Prices, or access to the good or service, or those who are economically disadvantaged will also need to be considered.

d) impact - once the pricing decision has been made it will be important to monitor the effect of the decision on the consumers and the consumption of the product. Sales levels, effect on the economically dis-advantaged, effect on the business community and a range of other information should be gathered.

e) review - the assessment of how well the objectives of the pricing decision and any political considerations of the decision to charge a consumer contribution were achieved. It is also important to have a review process to assess the any unintended consequences of the decision.

The decision-making system encompasses each of the other elements, although parts of the impact and review processes need to stand outside the decision-making process and put that process 'under the microscope'.

Typical Information Needs of Each Element

Legal Framework
Does the Local Government Act empower the council to carry out the activity or service?
Is there any other state (or territory) legislation that relates to the activity or service?
Does the legislation impose any constraints on service delivery?
Does the legislation impose any constraints on pricing?
Will there be a need for special legislation to facilitate the charging of fees?
Are there any trade practices considerations?
Are there implications under National Competition Policy legislation?

Costing
What are the direct costs of the good or service?
What are the indirect costs?
Are there any maintenance costs to consider?
Are there any capital costs?
How will the use of assets be included in the price?
Are there any warranty costs?
Will there be any new costs if a consumer contribution cost is charged?
What are the costs that should be assessed in the pricing of the good or service?

Pricing
What is the market price?
Are there any community service obligations to consider?
What pricing structure should be adopted for children, pensioners, other needy groups?
Should a profit be made?
Are there equity issues to consider?

Decision-making
What is(are) the objective(s) of providing the good or services?
Is there demand for the good or service?
Should the demand be satisfied by the public sector?
Are there any other businesses (or public sector entities) who supply the good or service?
What other alternatives are there to meet the demand?
Is this a monopoly situation for government and what does this mean for the price - equity issues?
How should the community service obligations be met? priced?
What will be the impact on the community of the decision?

Impact
Has there been a change in usage patterns?
Is it the change that was looked for?
Are the economically disadvantaged better or worse off?
Has there been a change in consumer expectations?
Has there been any effect on the private sector - adverse or beneficial?
Has there been any change in service delivery?

Review
Have the data on which the decision was based stood the test of time?
Has the outcome of the decision been congruent with the original assumptions?
Was the decision to charge a consumer contribution right?
Was the price right?
Were the arrangements for the economically disadvantaged satisfactory?
What improvements can be made?

The following attachments provide an illustrative example, courtesy of the City of Onkaparinga, Of the use of a cross functional group in asset management.

OUR REASON FOR BEING

Late in 1999, the City of Onkaparinga established three Cross Functional Groups as key components of a new organisation structure. The establishment of the Cross Functional Groups supported the basic principles underlying the new structure including: improved corporate communication, an emphasis on strategic planning and clear and visible leadership and a shared vision.

The Cross Functional Groups are considered important components of the organisation's structure because they:

- involve more staff in decision making;
- help train future leaders/managers;
- broaden input to the Senior Management Team (SMT) by including Chairs of the Cross Functional Groups in a Strategic Advisory Group (SAG: SMT plus Chairs);
- break down department 'silo' mentality and increase cross organisational communication; and
- support corporate values.

The Cross Functional Groups operate outside departmental boundaries to develop organisational strategies for key areas including Human Resources, Asset Management and Information Technology**. They are essentially 'corporate think tanks' focusing on the strategic level, rather than the day to day operational level.**

Asset Management Cross Functional Group

Kerry Hallett (Chair)	Strategy and Policy
Geoff Hatwell	Organisational Development
Peta Stump	Strategy and Policy
Andrew Smith	Leisure Services
Ann Gibbons	Environmental Management
Craig James	Field Services North
Fleur Collins	Community Development
Jeremy Turner	Development Services
Kirk Richardson	Field Services Coastal
Tracy Koop	Financial services
Paul Rothenberg	Asset & Infra Planning
Phil Parkman	Purchasing
Dean Mathews	Infrastructure Support Services
Brian Hales	GM Economic Development

Cross Functional Groups:

- **contribute to strategic planning for relevant areas;**
- **identify new projects and assist project completion;**
- **facilitate Strategic Impact Reviews;**
- **negotiate resources to address critical issues;**
- **research, discuss, recommend or report on current developments in the area of interest; and**
- **collaborate with relevant functional areas and contribute to the development of the project and/or capital sections of relevant Business Plans.**

OUR DRIVING FORCE

The City of Onkaparinga has recognised the necessity to manage community assets on behalf of current and future generations and to prepare for increased competition (*Creating Our Future*). Accordingly, the corporation's policy in relation to asset management involves a pro-active approach of comprehensively assessing City wide assets to ensure that investment decisions and the way Council manages its assets and delivers its services are

more strategic, innovative, accountable and cost effective. (*Physical Asset Management Policy*)

OUR ROLE

The Asset Management Cross Functional Group consists of staff members from the departments of Strategy and Policy, Organisation Services, Economic Development, Customer and Community Services, Environmental Services and, Asset and Infrastructure Services. The Group has been established to:

- develop and recommend strategies for corporate asset management which address the balance between needs and resources;
- ensure that appropriate information, policy and procedures are in place to enable integrated participation in sound decision making; and to
- monitor the progress of asset management processes throughout the organisation against strategic, corporate and financial directions. (*Asset Management Specific Terms of Reference*)

OUR BUSINESS

The City of Onkaparinga has defined assets as "including any resource of social, environmental or economic value over which Council has stewardship. These include, but are not limited to land, buildings, infrastructure (roads, stormwater drainage, footpaths etc), plant and equipment, and items of cultural heritage or geographic significance." (*Physical Asset Management Policy*)

OUR FOCUS

Initially, the Asset Management Cross Functional Group intends to focus on **land**, **building** and **infrastructure** assets as these are of major significance in determining Council's community wealth. This will enable the group to develop and test a strategic management approach on a manageable group of assets, in the first instance. (It is also consistent with the intent of the Physical Asset Management Policy.)

OUR RESPONS-IBILITIES

The Asset Management Cross Functional Group is responsible to SAG for the task of developing an Asset Management Strategy.

The Asset Management Cross Functional Group will have responsibility for developing, recommending and advising on sound life cycle asset management practices and systems for the organisation. The group will play a major coordinating role for the needs analysis associated with preparing the Asset Management Strategy.

The Asset Management Cross Functional Group recognises that expert advice will need to be purchased by the organisation in order to undertake various stages and/or tasks associated with preparing an Asset Management Strategy.

The Asset Management Cross Functional Group will report regularly to SAG and seek endorsement of the program and recommendations.

OUR KEY OBJECTIVE

The key objective of the Asset Management Cross Functional Group is:

To develop, recommend and advise on the implementation of an Asset Management Strategy, including the acquisition of the necessary training, expertise and resources required to develop the culture and the way in which the organisation manages its assets.

ASSET MANAGE-MENT PRINCIPLES

The core principles underpinning asset management as identified in the *Physical Asset Management Policy* include:

- Council's primary role is to ensure that the community has access to an appropriate range of facilities and services, delivered through the physical assets within the City.
- Council's role is to protect, and realise opportunities from, the community's investment in assets, ensuring the greatest return through the best use of capital investments, on-going maintenance and operational funding.
- The benefits to the community from quality physical asset management include better service delivery, optimising the utilisation of assets, returns on investment and creating opportunities to facilitate new activities.
- The effectiveness of providing and maintaining physical assets within the City is enhanced through involvement by other stakeholders, solely or in partnership with Council.
- Council represents its local community and will ensure that resources are delivered equitably, accessibly and are cognisant of current and future community needs.
- Council is accountable to the community it serves and will only enter into commercial activities if there is a recognised community benefit and risks are manageable.
- The interdependence of all aspects of economic, social, cultural, and environmental issues, as contained within the concept of ecologically sustainable development, is fundamental to Council's approach to physical asset management.

OUR ACTION PLAN

The Asset Management Cross Functional Group has identified and commenced implementation of the following action plan for determining a strategy for advanced asset management.

Step 1: **Articulate our role, business, focus and responsibilities. (Completed)**

Step 2: **Articulate our key objective. (Completed)**

Step 3: **Identify/affirm the core principles that will underpin strategic asset management. (Completed)**

Step 4: **Undertake orientation training in relation to advanced asset management.**

Step 5: **Analyse our external and internal environment eg external/internal strengths, weaknesses, opportunities and threats (SWOT) in relation to asset management.**

Step 6: **Identify strategic issues.**

Step 7: **Articulate goals and express them as outcomes eg linked to key issues, measurable and sorted into key result areas.**

Step 8: **Identify key strategies for achieving identified outcomes.**

Step 9: **Identify specific tasks or things that need to be done so that strategies will be achieved.**

Step 10: **Identify resources needed to successfully complete tasks as well as identify time-lines and**

WHERE TO NEXT

The above process will lead to the development of a second stage action plan which will look similar to the example below:

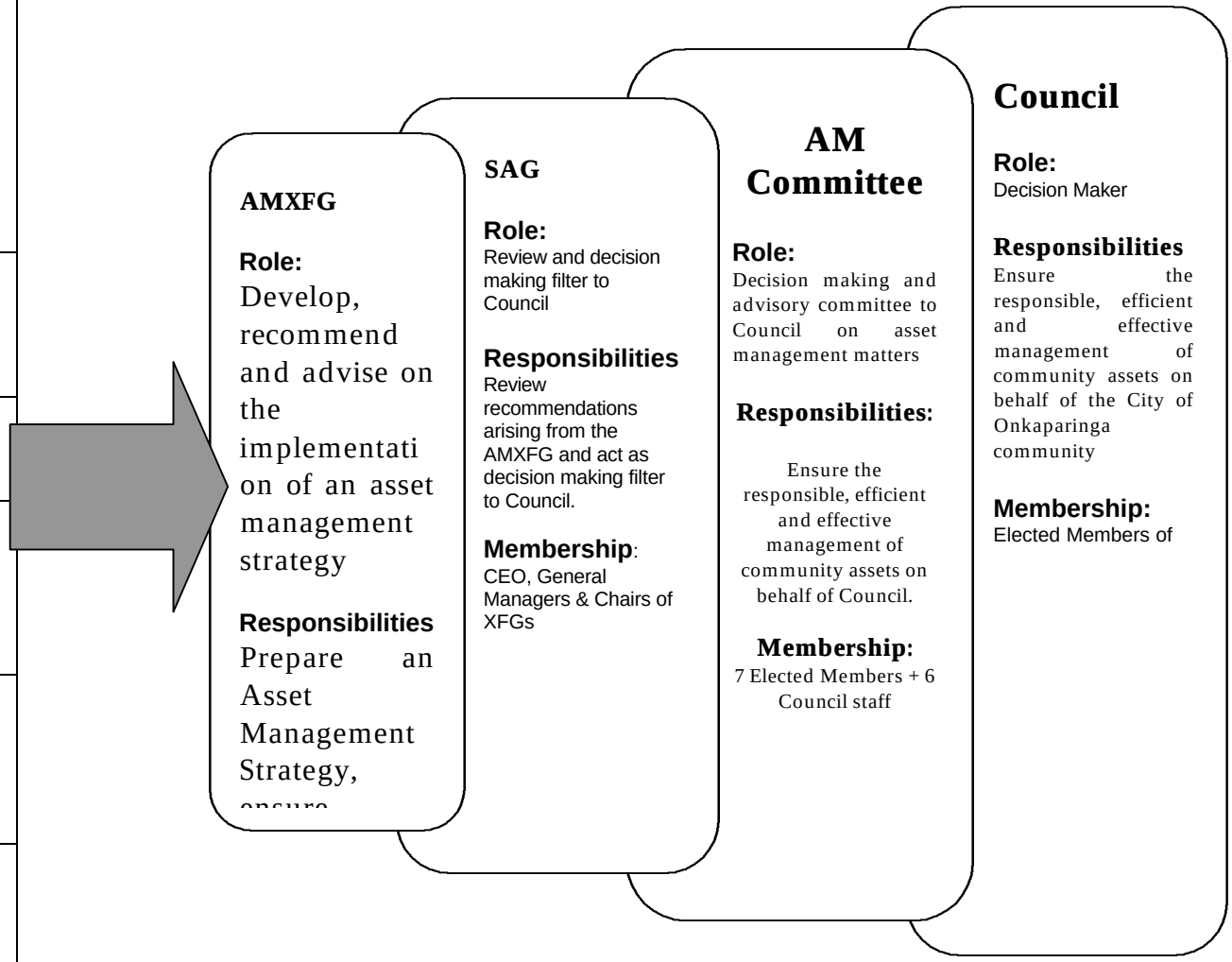
Outcome**:……**

Issue	Strategy	Action	Time/Resp	Resources	Performance Measure
1.					
2.					

City of Onkaparinga

Asset Management Roles & Responsibilites

Department	Role	Responsibility
Organisation Services	Finance, HR management, Organisational Development, Governance, Information Management Purchasing	Statutory financial reporting, HR, Internal Communication, Business Planning, Continuous Improvement/Benchmark- ing, Contracts & Tendering, IT, Records, Risk Management, Procurement, Security, Fleet Management, and Caretaker Role
Economic Development	Economic Development & Asset Management	Asset & Infrastructure Planning, Asset & Infrastructure Support Services, Asset Information Management, Asset Maintenance Planning, Economic Development and Projects
Strategy and Policy	Strategic Planning and Policy	Policy, Area Planning, Environmental Planning and Strategic Planning
Customer and Community Services	Community Support, Community Development and Leisure Services	Needs Identification, Asset Management, Asset Planning, Service Assessment, Neighbourhood Centres, DDA Strategy
Asset and Infrastructure	Construction & Maintenance of infrastructure assets	Construct and maintain infrastructure assets, waste collection, depot maintenance, plant & equipment maintenance, stores, contract & project management, customer service and continuous improvement.
Environmental Services	Environmental health, immunisation, regulatory and development services	Development assessment and compliance, environmental health and enforcement, immunisation and protection of Council's environmental assets



Performance measures can be as simple as comparing actual expenditure with budgeted expenditure or as complex as an extensive set of productivity performance measures that aim to measure the quality of outputs. It is important to compare the costs of undertaking performance measurement with the likely benefits that such measurement will bring. Sometimes the benefits are difficult to quantify or appear to be too far into the future to be reliably measured. However, it is generally agreed that performance measurement provides a "barometer" of performance and can assist Councils to monitor and improve performance, focus on goals, and to meet legislative requirements.

Each Council needs to decide for itself what performance measures it will impose. However, it is important to note that:

- Performance measures are different for different levels of the organisation – usually they are broader at the corporate or strategic level than they are at the service level;
- Performance measures must add value to the assessment of achievement;
- Performance measures must:
  - Be simple
  - Be understandable
  - Be capable of being collected (preferably as an integral part of the activity being measured)
  - Measure
    - Input
    - Output
    - Outcomes - Efficiency
      - Effectiveness
  - Be quantifiable (a ratio, a percentage, a number)
  - Focus on
    - Customer service
    - Efficiency
    - Quality
  - Address areas of concern of
    - Your customers
    - Your workgroup
    - Management
    - The Council
  - Be linked to a standard
  - Be reportable
  - Be controllable – i.e. able to be affected by management in some way, either directly or indirectly
  - Be regularly reviewed to ensure that they continue to measure and add value to the assessment of performance.

Some words of warning about performance measurement!

- They need to be developed and 'owned' by the person or group being measured;
- They should be part of the personal performance appraisal process to gain management and staff commitment; and
- They are not an end in themselves – the numbers are not important, it is what they 'indicate' that is important.

Introduction

Despite most, if not all, citizens having an aversion to paying tax, the reality is that without taxation governments would be unable to provide the wide range of services that citizens have come to rely on. Local government rates are a tax and need to be constructed and applied in a manner consistent with well-developed principles of taxation.

Taxation Principles

There are three main principles to consider:

1. *Equity* The concept that a tax will be fair to the taxpayer and that each taxpayer will be fairly taxed relative to other taxpayers.
2. *The benefit principle* has its basis in the concept that 'he who pays benefits, he who benefits pays'. This is not to suggest that the benefit must be equivalent to the tax paid. The tax paid by an individual taxpayer is not a 'fee for service'. However, to some extent, every action of a local government affects the amenity of life of individual taxpayers.
3. *Ability to pay* There is only a certain amount of income that a taxpayer can be expected to sacrifice (afford to pay) and government should minimise the impact of taxation on individuals.

Local Government Taxation

The capacity of local government to raise taxation revenues is restricted because it only has a single tax base – property taxes. Although property tax is limited in its application and is largely unable to take account of individual taxpayers circumstances, it is a relatively simple and efficient tax.

In setting a taxation policy councils need to consider:

- What revenues they need to raise to provide services the community needs and the maintenance of the asset base of the council;
- The capacity of the community to pay rates and the impact of taxation on local businesses;
- The legal framework within which they can raise taxation – the Local Government Act 1999;
- The impact of rates on the economically disadvantaged;
- What services will not be provided from rates;
- Whether user charges are more appropriate than rates for the provision of certain services;
- The long-term financial viability of the council; and
- Retaining flexibility in taxation policies.

Further Reading

It is not the purpose of this report to dictate taxation policy to councils, merely to suggest and reinforce the need for councils to develop sound rating policies, consistent with the need to secure revenues that will promote financial viability and the maintenance of the asset base of the council.

A fuller discussion of the issues relating to local government rating can be found on the Local Government Association's website lga.net in the following documents:

- Local Government Rating – A Consultation Paper; and
- Developing a Council Rating Policy.

The attached paper was presented as part of an Asset Management Course, sponsored by the Institute of Public Works Engineers Australia.

It is included as a reference source.

HOW TO DRIVE ASSET MANAGEMENT FROM A FINANCIAL PERSPECTIVE

David Hope, BA(Acc), MBA, FCPA, AIMM
Principal Consultant, Skilmar Systems Pty. Ltd.

Abstract

The major role of the finance function in any organisation is to provide an information service to decision-makers and decision-shapers. Timely, accurate and understandable information underpins good decisions, whether the information be financial, technical, service related or of any other nature. This paper discusses:

- Understanding the needs of the customers (decision–makers and–shapers) – what information is needed.
- The crucial nature of timely information – when the information is needed.
- Developing an appropriate financial information framework – how the information will be delivered.
- Helping the customers to understand and use the financial information – working as a team.
- Financial information to facilitate short and long term asset management – the information context.
- Using external financial information – what we can learn from others.

Keywords and Concepts

Analytical information, acquisition, asset management, disposal, external reporting, maintenance, operational information, predictive information, relevance, team work, time needs.

Introduction

Public and private sector organisations control an immense array of assets worth hundreds of billions of dollars and requiring hundreds of millions of dollars a year to operate and maintain. From the complex and expensive assets such as jet aeroplanes and capital ships used in major businesses and public sector organisations to the humble lathe used in a one-person business. The contribution those assets make to the economy of Australia and the achievement of its social and economic objectives is immense. The more efficiently and effectively those assets can be acquired and used, the more likely it is that the social and economic objectives will be achieved.

Sound asset management is a corporate responsibility. It is not simply the province of technocrats. Assets are acquired and deployed to achieve organisational objectives and it is the collective responsibility of many people in the organisation to ensure that the assets perform effectively. Information about asset performance comes from a number of sources. A major set of information is financial information and this paper discusses how financial information and the finance function can contribute significantly to effective asset management.

Understanding the needs of the decision-makers – what information is needed.

The asset management process is to a large extent governed by the cyclical nature of asset acquisition, maintenance and disposal. There is a continuing need for financial information related to the performance of similar activities over a long period of time. The traditional role of accountants in keeping the score and analysing, quantifying and explaining the results is extremely useful in this environment. Combined with the more modern role of financial adviser, the accountant can be a valuable resource to the management team in making sound strategic decisions in the asset management process.

The needs of the management team for financial information can be grouped into three categories – *predictive, analytical and operational*. This is not to suggest that there is a simple, linear need for information. Each of the information needs may require satisfaction in the same time frame, but in relation to different assets and decisions.

Predictive – information about the future and its impact on adopting likely courses of action. Typically, this information includes:

- Exchange rate movements;
- Interest rate movements;
- The mood of capital raising markets and institutions;
- The intent of other organisations to raise capital;
- Cash flow and revenue projections;
- Market opportunities;
- Product growth / decline;
- Changing tastes / mores / needs;
- General economic trends.

Analytical – information about the costs and benefits of competing asset solutions to meet the organisation's objectives. This includes:

- Pricing information;
- Financing options;
- Cash flows;
- Return on investment;
- Feasibility studies;
- Cost / benefit analysis;

- Modelling;
- 'What if' analysis.

Operational – information about the performance of existing assets. This includes:

- Costing information -
  - ➢ Acquisition;
  - ➢ Operation;
  - ➢ Maintenance;
  - ➢ Disposal.
- Actual, budget and variance analysis –
  - ➢ Costs;
  - ➢ Cash flows;
  - ➢ Projections.

The importance of timely financial information – when the information is needed.

It may seem trite to say that information is needed when it is needed but it is an important concept. The providers of financial information must meet the time needs of their customers. Failure to meet the time frames is failure to deliver the quality of service needed. Sometimes the time frame will be urgent and sometimes it will be routine. Understanding the time frames of the users and meeting them is a crucial skill. A skill that significantly contributes to organisational objectives for prompt decision making.

Often the determinant of how quickly or regularly financial information may be required relates to the specific purpose for which the information is needed. If the information is being used to formulate long range plans it might not be so time critical as the need for a new calculation of costs when interest rates change the day before the board meeting scheduled to make a decision on a major asset acquisition!

The need for timely information is constant. It is what constitutes "timely" that changes. Timely may mean 'hourly', 'daily', 'weekly', 'monthly' or some other time frame. The closer the need for a decision, the shorter the time frame for information.

Developing an appropriate financial information framework – how the information will be delivered.

Delivering financial information that is timely is worthless if the information is not in an appropriate format or readily accessible to decision makers. There are three basic options for providing financial information:

- Printed form – hard copy;
- Computer-based – mainframe or PC; and

- Linked to the asset management system.

Printed Form – printed reports, regular or ad-hoc. These reports can be textual, tabular or graphic or a mixture of those styles. Graphics are particularly useful for conveying a mass of complex information simply, but care must be taken to ensure that important detail is not lost. The addition of text to graphs or tables to highlight specific points or to explain variations from budget or expectations. The major drawback of printed reports is that the information tends to be out of date to a greater or lesser extent, depending on the reporting period.

Computer-based – generally, an interactive method of providing financial information. More modern financial systems provide users with the capacity to create their own reports, link the financial information to the most current data and provide the ability to generate graphs and tables. Reporting formats (and the access screens to the data) can be pre-set or created on an ad-hoc basis. The main benefit from using interactive computer reporting is access to the latest information. The downside is the need for computer-literacy in users.

Linked to the asset management system – fields in the asset management system can be set aside to provide either links to the financial system or actually hold the same information that the financial system holds. Often, one of the difficulties with the financial data stored in asset management systems is that it is generally out of date and in need of reconciliation with the financial system. Using un-reconciled or out of date data has the potential to lead to decisions based on incorrect data. Linking the asset management system and the financial system to maintain data currency avoids this possibility. There is a cost to providing such a level of integration, but in organisations with extensive asset holdings the cost will generally be less than the benefits.

No matter what system is adopted for the delivery of financial information it is important that the information provided is understandable and user-friendly. Financial information needs to be presented:

- *Simply* – it should not be a sea of numbers, such that understanding is diminished not enhanced. A hierarchy of reporting, with the top level highly summarised data through a series of levels to the lowest data level, is the most appropriate format. Different staff will have different needs and those needs should be incorporated into the hierarchy. Modern financial systems provide users with the opportunity to "drill-down" from summarised data to the detail necessary for an individual manager to manage and make decisions. Such facilities should be tailored to suit each manager. Let the users manage the detail they need.

- *Using names and text, not numbers* – while an elegant job-numbering system, which incorporates a wealth of information into the job number might gladden an accountant's heart, it may have little or no meaning to a user. Use the power of the system to substitute text for numbers in reports.

- Graphi*cally, where possible* – use the power of graphs to quickly summarise detailed information. A well-constructed graph can provide the user with highly understandable information very quickly.

- *Relevant* – not every manager needs every report the system is capable of producing. Make sure that there is a need for a report before it is produced. Talk to the users and find out what they want or need. Do this on a regular basis, indicating what they can have so that they have the opportunity to ensure they are maximising the satisfaction of their information needs.

Helping the customers to understand and use the financial information – working as a team.

Most organisations have a corporate management team, however it might be named. The role of this team is to provide for the broad strategic direction of the organisation and to ensure that each area of operation is considered in this process. The team usually comprises the senior managers, including the chief financial officer, of the organisation. The chief financial officer has a significant role to play in providing financial and strategic advice.

This sort of teamwork needs to be replicated throughout the organisation. In some organisations each manager is assigned a person from the finance area to act as a liaison officer and to assist the manager to understand the financial data provided.

The replicated team approach is preferable to the silo approach. Organisations using the silo approach have a series of specialist groups within the organisation who do not communicate with each other particularly well. The word 'silo' becomes an acronym for - Support Innumerable Lost Opportunities – as ideas are contained within the silos and remain undeveloped. Contrast this with the project or replicated team approach, where multi-disciplinary teams explore options and ideas and lateral thinking is the norm rather than the exception. Asset technicians can talk to accountants about current replacement costs, residual or scrap values, economic lives and condition assessment and suddenly depreciation has the potential to become something meaningful rather than an accounting interpretation. Organisational needs are tempered by the realities that each of the team can contribute to the situation. Accountants can start to understand what is done with accounting information and start to think of ways too improve it, make it more relevant and make it more timely.

Financial information to facilitate short and long term asset management – the information context.

The information needs of the manager faced with the catastrophic failure of an existing asset which is still in use are very different from the manager who is preparing an update to the long range asset replacement program. The immediate replacement of an existing asset needs to know a range of financial information which includes:

- The loss from not replacing the asset;
- The cost of replacement;
- The cost of disposing of the existing asset;
- The cost of placing the new asset into service;
- The scrap value of the existing asset;
- The availability of funds for the replacement.

Those information needs will be replaced by medium term information needs when the asset is placed into service, which include:

- Operating costs;
- Maintenance costs;
- Cost of downtime.

The manager preparing the long term asset replacement plan is considering a different set of financial information, such as:

- Future cash and borrowing requirements;
- Cost of extending asset lives;
- Residual values of expired assets;
- Possible cost of new assets;
- Quantifying increased benefits from improved assets.

From the above it is readily seen that there is a set of financial information required by managers and it is often the time context that determines what information is needed. There is no one set of financial information that meets all needs. In the same way there

is no single cost which applies to all situations – the potential cost will become more well-known the closer the decision is to being made.

It is worth mentioning that there is some confusion about the financial information provided by accountants. The financial information needs of managers within an organisation are met by accountants who provide management reports – those reports that focus on the needs of the managers. Accountants, and the organisations they work for, are also required to provide information for external reporting purposes in accordance with Australian Accounting Standards. Those standards are generally prescriptive about the nature and format of the information to be provided to general purpose users of financial reports. The accounting standards are designed to elicit a broad range of financial information about an organisation's financial performance and standing and present this information in a manner which is understandable by people who have no power to command specific purpose financial reports. This leads to the adoption of concepts relating to assets such as depreciation and asset revaluation, which may be quite divergent from the information needs of asset managers.

Using external financial information – what we can learn from others.

Asset managers, and those involved in asset management decisions, have financial information needs that may not be able to be met from the information available within the organisation. These needs may be met from outside sources.

Benchmarking – benchmarking is a process designed to find out what other organisations are doing that is better than your own organisation and to provide clues on how you can emulate or better that performance. In the public sector, benchmarking is largely non-threatening as there is not usually a competitive environment in place. Benchmarking is not so easy to achieve in the private sector but it is possible to find partners who can see mutual benefits.

Industry Associations – industry associations often have a significant database of information about industry performance. This can include information about asset prices, maintenance costs, asset performance and second-hand values.

Manufacturer's databases – manufacturers of large machinery and equipment often have information about expected and actual operating and maintenance costs. They can also advise on the impact of differing maintenance regimes on production and maintenance costs.

Typically, the following information can be sourced externally, to complement internal information:

- Purchasing costs;
- Maintenance costs;
- Residual or scrap values;
- Economic lives;
- Financing costs;
- Broad economic information.

Conclusion

The key to driving asset management from a financial perspective is to ensure that the financial information needs of asset managers and decision makers are consistently met with timely, relevant and understandable financial information.

Key questions for public sector organizations are:

- Are we receiving the best value for expenditures of public funds?
- How can we improve service delivery without increasing expenditures?
- How can we cut costs without adversely affecting service delivery?

One of the most effective tools for answering those questions is the search for best practice. The US General Accounting Office[3] describes best practice as "… processes, practices and systems identified in public and private organizations … performed exceptionally well and … widely recognized as improving an organization's performance and efficiency in specific areas."

The key elements of best practice are:

- A systematic analysis of service delivery;
- Improving the understanding of performance measurement processes;
- Determining the concept of "effective service";
- Improving communication between organizations who deliver like services or who have like processes; and
- Linking with, and improving the understanding of, other management tools.

Adopting the search for best practice provides other opportunities for improving public sector administration generally through:

- The potential for involving citizens in defining and assessing public sector performance;
- Through partnerships with other organizations, extending and enhancing the skill base of staff and elected members;
- Deepening and widening the knowledge base of performance measurement processes; and
- Creating links with high performing public and private organisations.

[3] US General Accounting Office (1995), *Best Practices Methodology: A New Approach for Improving Government Operations,* Washington, DC.

Introduction

Benchmarking is the practice of measuring performance and practices in key areas of the organisation; comparing and contrasting the performance and practices with identified well-performing organisation's and determining where sustainable improvements can be made within your Council. Importantly, the comparison is not made across all facets of operations, but only for those services that are key to the Council or those identified as under-performing.

In the context of sound asset management, benchmarking is useful for:

- Assessing performance and practices in asset construction and acquisition;
- Assessing cost and quality in maintenance operations;
- Assessing 'best practice' in utilising assets in revenue producing situations; and
- Assessing performance in meeting service standards.

The Benchmarking Process

There are eight steps in the benchmarking process. The steps, and typical actions/questions are:

1. *Identify which service or Council area to benchmark.*
   What services/processes are strategically significant?
   What services/processes are under-performing?
   Where are costs greater than expected?
   Which areas have high levels of customer dissatisfaction?
   In which area would improvements have the most impact or benefit?

   Hint: Don't try to change too much at once – you need to keep running your business and you need to ensure you don't overload the capacity of your staff to analyse performance and adopt change.

2. *Create a benchmarking team.*
   Who is currently involved in delivering the service?
   Who has the capacity for analysis and vision?
   Ensure that every team member is trained in the methodologies that lead to successful benchmarking – process analysis, customer surveys, critical thinking.

   Hint: Ensure the team is both representative and balanced. It may be appropriate to include elected members and community representatives.

3. *Explore and map current performance and practice.*
   What are the inputs to the process?
   What are the steps in the process?
   What are the outputs of the process?
   What are the outcomes of the process?
   What is the level of customer satisfaction/dissatisfaction?
   What needs improving – cost, quality, response time, job satisfaction, customer satisfaction?
   How does performance compare with – industry standards, 'best practice'?

   Hint: Where the initial assessment reveals little scope for improvement, cease the exercise immediately and move on top the next target.

4. *Identify benchmarking partners and establish a relationship.*
   Who are providing similar services – another council, the private sector?
   Who is willing to be a partner? (i.e. – what's in it for them?)
   What information is needed for comparison?

Hint: Managing the inter-personal relationships and the sensitivity of process are keys to success. Ensure that the council benchmarking team understand this.

5. *Compare and contrast the two approaches.*
Visit the benchmarking partner and review their processes and practices.
What are the differences between the two organisation's?
Are they material?
What contributes to best practice?
What can be – improved, eliminated, reduced, simplified?
Are there delays which can be avoided?
Are there opportunities to save on materials, staff costs, process time?

Hint: Focus on critical activities and the major areas of difference!

6. *Identify 'best practice'*.
What activities add most to customer value and satisfaction?
What changes can be made readily?
What will work best in your organisational context?

Hint: Don't try and change everything – focus on those changes that will bring the most benefit for the least effort.

7. *Develop and implement improved processes and practices.*
Craft a careful plan for change, identifying the benefits and the costs and selling the value of the improvements.
Obtain any necessary approvals for change.
Involve the entire work group and associated staff, elected members, community groups in the change process?

Hint: Training first, then changes!!

8. *Monitor implementation, including re-benchmarking.*
Are the changes working?
Are the proposed benefits being achieved?
Has customer satisfaction improved?
Has the industry moved on?

The *Local Government Act 1999* - Sections 48, 99, 124, 125, 207 and 231 - requires:

- Where major asset acquisition or construction is contemplated the preparation and consideration of a report on the prudential aspects of the project. The prudential aspects include –
  - the relationship between the project and the Council's strategic management plans;
  - the level of consultation with the local community, including contact with persons who may be affected by the project and the representations that have been made by them, and the means by which the community can influence or contribute to the project or its outcomes;
  - if the project is intended to produce revenue, revenue projections and potential financial risks;
  - the recurrent and whole-of-life costs associated with the project including any costs arising out of proposed financial arrangements;
  - the financial viability of the project, and the short and longer term estimated net effect of the project on the financial position of the Council;
- The Council to include, in developing its contracts and tenders policy, a policy on the sale and disposal of assets;
- The CEO to ensure that assets are properly managed and maintained;
- The maintenance of accounting records of assets;
- The adoption of an internal control policy which safeguards assets; and
- The creation and maintenance of registers of community land and roads.

The *Local Government (Financial Management) Regulations 1999* - Regulations 5 and 9 - require:

- Reporting on assets in the Council's financial statements; and
- All material non-current assets to be revalued in accordance with Australian Accounting Standards, with land and infrastructure assets being revalued every five years.