

Local Government Asset Management

Better Practice Guide

Local Government Victoria
2015

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Table of contents

Introduction	2
Asset management	2
Victorian context	2
Legislative framework	3
Available tools and support	4
About this guide	4
Part One Affordable, Sustainable Local Government Services	5
An integrated approach to asset management.....	5
Asset management principles	5
Governance and management arrangements	7
Council asset management policy, strategy and plan	7
Affordable and sustainable councils	8
Part Two Asset Management Planning and Implementation	10
Developing an asset management policy	10
Developing an asset management strategy	11
Developing an asset management plan	13
Glossary	17
References	21

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Introduction

Local Government Victoria (LGV) is pleased to release this Better Practice Guide on Local Government Asset Management.

The Guide has been prepared to provide greater currency to previously issued guidance material and reflects improved practices and tools that are now available to the asset management professional.

In the pursuit of better practice, LGV has sought to align its guidance with the Institute of Public Works Engineering Australasia (IPWEA) National Asset Management Strategy (NAMS). The IPWEA NAMS Framework is aligned with the International Standards Organisation (ISO) 55000 series of asset management standards and has been adopted by many local governments across Australia.

In Victoria, we encourage the pursuit of best practice asset management methodology. Therefore we have included links between our guidance material and the IPWEA Framework which represents one such model. This is not to suggest the IPWEA Framework is the only acceptable approach to asset management in Victoria. The preferred methodology remains at the discretion of individual councils but the IPWEA Framework provides an option that is considered better practice by LGV.

However, interoperability is the priority. We seek to align asset management practices and reporting to facilitate consistency in reporting, economies of scale where possible and the capacity to maximise investments in resources.

Asset management

Asset management is a systematic process to guide the planning, acquisition, operation and maintenance, renewal and disposal of assets. Its objective is to maximise asset service delivery potential and manage related risks and costs over their entire lives.

Infrastructure assets are fundamental to overall council service delivery and planning. Taking effective responsibility for asset planning requires a strong and informed council, management team and an engaged community. The long-lived nature of many assets and the need for their ongoing renewal means that planning must be based on an understanding of the full costs throughout

each asset's lifecycle, and address both short and long-term planning needs.

Key to effective asset management is the preparation of a high quality asset management policy and strategy, supported by Asset Management Plans that focus on value for money and support councils in engaging with communities to find a balance between service levels, risk and cost.

Victorian context

Across Australia, public sector agencies have been required to progressively implement accrual accounting principles which includes the recognition of all infrastructure assets. The natural extension to this has been the implementation of strategic asset management practices.

Across Victoria, councils have made a very significant commitment to responsible asset management. New systems have been developed, extensive training made available for the asset management professionals and most significantly all Victorian councils have now brought to account the value of all infrastructure assets. Unlike 20 years ago, Victorian councils now have sophisticated asset registers to accurately record every infrastructure asset for which the council is custodian on behalf of their community.

Victorian councils' infrastructure assets represent an investment, built up over many generations. Local governments across Victoria manage approximately \$73 billion of community assets and infrastructure. Councils spend over \$2 billion every year to maintain, renew or replace existing assets including buildings, parks and gardens, roads, bridges, land and drains.¹

Significant progress in asset management practices has been made and to measure the extent of improvement LGV introduced the Asset Management Performance Measures Survey (AMPM).

This survey provided data on the asset management performance of Victorian councils and found improvements in practices over time.

More recently, the National Asset Management Assessment Framework (NAMAF) was developed by professionals across the country

¹ Victorian Auditor-General's Office (2014), *Asset Management and Maintenance by Councils*.

under the guidance of the Australian Centre for Excellence in Local Government (ACELG). NAMAF is a methodology for assessing the maturity of a council's asset and financial planning, management and reporting practices. It consists of 11 key elements against which councils can self-assess their progress in implementing better practice asset and financial management and reporting processes. Since 2010 Victorian councils have self-assessed against the NAMAF.

The Victorian Auditor-General's 2014 report *Asset Management and Maintenance by Councils*, based on a sample of five representative Victorian councils, reported that progress towards better practice has been relatively slow. The report noted that the effectiveness of asset management was undermined by weaknesses with councils' asset management planning, implementation and information systems.²

Achieving a core level of maturity as measured against the NAMAF was to be a key priority for all councils.

LGV's response to this audit report and the deficiencies identified through the self assessment is the development of this revised guidance to asset management 'better practice.'

Achieving a core level of maturity is a realistic expectation and this guidance is to provide the support and direction that may be needed by some councils.

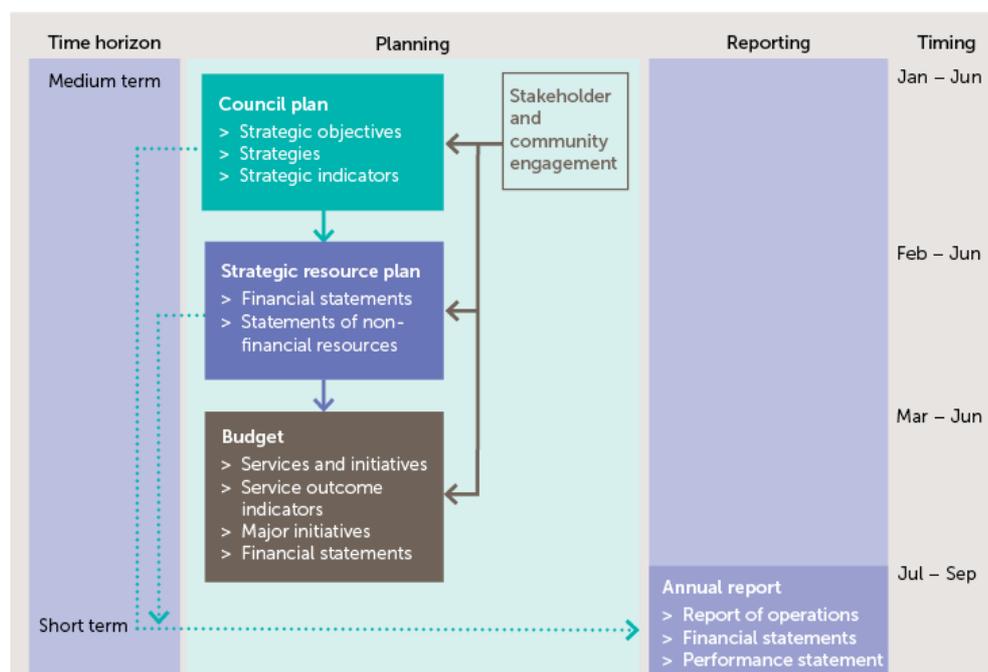
Legislative framework

In 2014 the Victorian government made a number of changes to the planning and accountability requirements for local government following the introduction of the *Local Government Amendment (Performance Reporting and Accountability) Act 2014* and the *Local Government (Planning and Reporting) Regulations 2014*. These changes were designed to strengthen and modernise the planning and accountability framework for Victorian councils.

Under the changes, councils must now take into account services and initiatives contained in any plan adopted by the council when preparing the Strategic Resource Plan (SRP).

This reinforces the need for councils to consider financial and non-financial resource implications in all plans they formally adopt. Alignment between Asset Management Plans and long-term financial plans is vital.

Figure 1 - Planning and Accountability Framework



² VAGO, op. cit.

Available tools and support

IPWEA produce a range of guidance and materials which are available to support councils in achieving better practice asset management. These include the International Infrastructure Management Manual (IIMM) and the Australian Infrastructure Financial Management Guidelines (AIFMG). IPWEA also has an online guided pathway for asset management planning ([NAMS.PLUS](#)) and a suite of asset management Practice Notes available from the [IPWEA Bookshop](#).

A key feature of the IPWEA methodology is the requirement for the development of multiple scenarios including one that balances the Long Term Financial Plan (LTFP) available financing projections with the agreed and affordable works program. This scenario must also have a corresponding risk management plan in line with the ISO 31000 Risk Management and Asset Management Plan aligned with the IIMM and ISO 55000 Asset Management series of standards that support a risk based decision making approach.

It is important to note that the option of using the IPWEA tools and guidance material does not limit councils who wish to use alternative, innovative or more sophisticated techniques.

About this guide

This guide includes content and links that LGV believe represent better practice in asset management. The guide is presented in two parts.

Part 1 provides guidance to Councillors and executive management for incorporating strategic asset management into corporate, financial and service planning activities.

This includes engaging the community in making trade-off decisions between levels of taxation, risk funding and achievable service levels now and into the future.

Capacity building and workforce planning to address skills gaps in asset management are also emphasised.

Part 2 provides detailed assistance for asset managers and staff in the preparation of their asset management policy, strategy and plans including implementation and evaluation of asset management processes and procedures in general. Practical assistance is provided and encouraged by accessing the [IPWEA NAMS.PLUS](#) resource kit.

Part One Affordable, Sustainable Local Government Services

An integrated approach to asset management

The council asset management policy and strategy integrate the council's financial and asset management practices with its corporate objectives and planning. It emphasises corporate responsibility and establishes a strategic approach and direction.

The approach involves:

- Engagement with community on the trade-off between cost, service levels, risks and social equity.
- Managing and communicating risk and affordable service targets.
- Developing long term plans for financial sustainability.
- Providing affordable service level objectives that include a balanced scenario taking into account performance, cost and risks.
- Integrating the effective management of assets with service planning.

The Asset Management Plan defines the services and service levels to be provided, how and when the services are to be provided and what funds are required to provide the services.

Asset management principles

The principles to guide asset management are:

- Transparent assumptions about service delivery needs should form the basis of asset management strategies.
- Asset management must be integrated with corporate, financial, business and budgetary planning.
- Decisions must be informed by and incorporate a life-cycle approach to asset management.
- Clear points of accountability and responsibility for assessment of each

assets condition, use and performance must be established.

- Long term sustainability of the council should guide all decisions.

1. Service delivery needs

Assets are acquired for their service delivery potential, and service delivery needs should form the basis of all asset management practices and decisions. Service delivery needs should be established and service levels defined in consultation with local community stakeholders, taking into account relevant demographic, social, economic, technical, budgetary and other considerations.

Such work enables councils to determine appropriate infrastructure to be provided and the level at which assets need to be maintained and also informs asset management practices of the particular infrastructure asset.

2. Integration of asset management with corporate planning

The *Local Government Act 1989* (the Act) requires councils to develop a strategic resource plan as part of the Council Plan. The Act was amended in 2014 to take into account services and initiatives contained in **any plan adopted** by the council. Such planning can only be done effectively if councils have sound Asset Management Planning in place, utilising a multi-disciplinary approach.

Asset management and associated activities requires a large proportion of financial and non-financial resources, particularly senior executive commitment.

When strategically driven asset management must fully integrate with council's corporate, financial, business, budgetary, operational, human resource, and information technology plans.

Strong leadership of asset management at the highest corporate level is critical to ensuring all parts of the organisation work together effectively in the pursuit of responsible asset management.

3. Informed decision-making

Asset management decisions should be informed by evaluation of alternative means of service provision, full life cycle costing, and performance measurement and monitoring. Informed decision-making recognises the long-lived nature of infrastructure assets and the need to plan and budget for them on a full life cycle basis beginning with the identification of a service need and the means to meet that need. The phases of an asset's life cycle are:

- *acquire*, involving the specification of asset type and the timing, financing and means of procurement
- *operate and maintain*, requiring performance levels, operating and maintenance schedules to be specified
- *renew*, renewal schedules to be specified
- *dispose*, involving the specification of the intended method, costs and timing of disposal or retirement, including options such as transfer for alternative use, rental, sale and/or lease-back, and demolition.

Performance management is the other essential element of informed decision-making. It requires agreed performance indicators to be developed and applied throughout the asset life cycle. The cycle applies to all assets, although some may not be considered for disposal for cultural or heritage reasons.

The new Local Government Performance and Reporting Framework became mandatory for the 2014-15 planning and reporting period and includes indicators relevant to effective asset management.

An essential element of performance management is to clearly communicate scenarios for affordable service levels and corresponding risks and how these risks will be managed.

The Long Term Financial Plan determines the available funding scenarios and an assessment of affordability and social impact of these scenarios.

The Asset Management Plan can include aspirational scenarios such as what funds are needed to sustain current service levels, optimal life cycle cost scenarios or other service level targets. This multi scenario approach is a key element of the IPWEA's [NAMS.PLUS resource kit](#).

IPWEA NAMS.PLUS models 3 scenarios

Scenario 1 – What the audited financial asset register is indicating is needed to renew/replace assets plus planned upgrade/new assets identified from Council Plans.

Scenario 2 (Aspirational Service Levels) – What needs to be spent in the next 10 years to sustain current or agreed service levels plus planned upgrade/new assets/services from Council Plans.

Scenario 3 (Affordable Service Levels) – Is the balanced position and reflects what can be done to be financially sustainable with AM Plans aligned to the long-term financial plan.

The difference between Scenario 1 and 2 represents "what we can't do" by:

- highlighting any financing differences between the asset management and long-term financial plans
- identifying options to modify services
- reviewing service levels and costs with service and risk consequences.

This enables council to make informed decisions on the service levels to be provided, financing needs and acceptance of the service and risk consequences (Scenario 3).

<http://www.ipwea.org/namsplus>

4. Accountability and responsibility

To manage assets effectively, responsibility for their control must be defined and assigned.

This requires:

- Effectively linking responsibility for service provision with responsibility for asset management.
- Asset registers to be kept up-to-date and provide information that meets council and senior management decision-making requirements.
- Control, accountability, risk management and reporting requirements for assets established, clearly communicated, and implemented.
- Contribution to asset management to form part of performance management reviews.

5. Sustainability

Assets should be managed so that the benefits of the services supported are available for future generations. Intergenerational equity should be assured by requiring existing users to pay for their asset consumption, rather than leaving their costs to be borne by future generations.

Methods to promote sustainability include:

- Planning, maintenance and renewal to reflect current asset consumption.
- Evaluating all potential methods to meet service delivery demands, including non-asset solutions.
- Demand management strategies, such as user-pays charges where these are deemed appropriate.

Governance and management arrangements

Good corporate governance and appropriate management arrangements are necessary for effective asset management. Governance involves setting strategic directions and goals and effective consultation along with oversight to establish and refine policies and procedures and to determine and administer accountabilities.

Evidence of good corporate governance in asset management could include councils:

- Providing stewardship for infrastructure assets.
- Having an empowered asset management committee specifically charged with overseeing the delivery of the asset management strategy and plan.
- Basing policy decisions made by council on service, risk and cost levels after consultation with the community and service users.
- Nurturing strong and effective working relationships between the council and its senior managers, particularly the CEO.
- Communicating policy and objectives based on high quality professional advice from the CEO and senior council managers.
- Demonstrating appropriate asset management skills are available and deployed.

- Audit committee having responsibility for annual review of asset management performance management and infrastructure risk management plan.

Appropriate accountabilities are provided when:

- Mechanisms are in place and functioning to monitor performance of the council and operational managers and units under its control.
- Asset management performance is incorporated into individual performance management arrangements for the CEO and other managers.
- Appropriate decision-making and financial authority is delegated to the person responsible for each asset.
- Each asset is assigned to a competent manager who has overall responsibility to ensure that the asset operates and is maintained to meet the council's strategic objectives.
- Systems are in place for recording and reporting information about each asset-including but not limited to its value, condition, operating, maintenance and renewal costs and other relevant financial and non-financial information.
- Council audit committee has responsibility for monitoring compliance with delegated responsibilities and the asset management strategy as a whole.

Council asset management policy, strategy and plan

The critical starting point is for each council to create their individual asset management policy as an integral part of the Council Plan.

The council's own policy creates the rules for the preparation of their asset management strategy and plan/s. The scope of contents for these council approved documents includes:

Asset Management Policy

- Establishes the goals and objectives for asset management providing a platform for service delivery.
- Integrates long term asset and financial management with council's strategic objectives.

- Maximises value for money by adoption of life cycle costing, combined with disciplined performance measurement.
- Assigns accountability and responsibility for service delivery together with asset management.
- Promotes sustainability to protect the needs of future generations.

Asset Management Strategy

- Links and integrates council's plans and resources, indicating which services are to be delivered through which assets.
- Forecasts future service delivery needs and the capacity of assets to meet those, on a short, medium and long-term basis.
- Includes one scenario that balances the available funds from the Long Term Financial Plan with affordable service level targets and sets out a strategy to communicate the corresponding service levels and risks and how these will be managed to Council and the community.
- Identifies assets that are critical to the council's operations and outline risk management strategies for these assets.
- Includes specific actions required to improve the council's asset management capability and projected resource requirements and timeframes.
- establishes systems for asset performance measurement.

Asset Management Plan/s

- Encompasses all the assets under council's control.
- Connects the investment of community wealth in assets with service outcomes.
- Plans a scenario that manages assets to provide affordable levels of service within financial/resource/risk constraints.
- Identifies and communicates risks associated with affordable service levels and how these risks will be managed.
- Plans additional scenarios that manage assets to provide optimal life cycle costs to inform the asset management strategy and Long Term Financial Plan.
- For each scenario, presents cash flow forecasts for acquisition, operating, maintenance, renewal/upgrade and where relevant, disposal.

- Establishes the targets and measures that will be used for delivering service outcomes and show value for money.

Timeframe

The asset management strategy and supporting plan/s will require three different but interlocking planning periods:

- rolling 10-20 year forecast, linked to the Council Plan and a minimum 10-year Long Term Financial Plan
- four years to guide asset decisions flowing from the Strategic Resource Plan
- an Annual Plan detailing the actions to be implemented in the Annual Budget.

All of which are to be reviewed and updated on an annual basis.

Affordable and sustainable councils

To cope with the challenges of change, councils need above all to be in the strongest possible financial position.

Achieving financial sustainability requires properly developed long term financial plans supported by robust financial management strategies.

The financial management strategies employed by councils to balance available funding with ongoing expenditures are one of the most important elements of asset management and the long term planning process.

The financial sustainability evaluation of a local government is undertaken with reference to a properly developed and complete Long-Term Financial Plan. The Long Term Financial Plan should:

- be based on the achievement of projected performance against carefully developed financial sustainability targets
- fully accommodate in quantum and timing all expenditures as included in the Asset Management Plans for the council's infrastructure assets

- include a sensitivity analysis highlighting key factors or assumptions most likely to impact on achievement of a plan's financial targets.

Financial sustainability evaluations of councils are based on the use of agreed ratios that seek to identify whether the infrastructure assets of the council are being maintained (renewals emphasis) whilst the council remains financially viable in the long term (operating surplus emphasis) and retains financial capacity to manage risks and unexpected events.

The expected outcome from sound asset management and Long Term Financial Plans is:

- financially sustainable councils
- an understanding of the options, risks and consequences associated with the ongoing management of large-scale infrastructure
- a basis for engagement with the community on financing options, service levels, priorities and associated trade-offs.

Financing Options

Managing large-scale infrastructure brings associated challenges with financing the often substantial and periodic outlays required. Options available to councils include:

- rating levels and distribution
- strategic use of debt
- appropriate user fees and charges.

Demonstrating affordable and sustainable local government services

Sample council case study

Since 2011, sample council prepared asset and risk management plans using the international resource system NAMSPLUS. The Asset Management Plans align with the International Infrastructure Management Manual and ISO 55000. The Risk Management Plan aligns with ISO 31000.

The asset management strategy that was in place in 2012 connected the Asset and Risk Management Plans and set out a 10 year strategy to engage with the community to achieve a balanced trade-off between service levels, risks and what the community was prepared to pay.

The council decided to take a 10 year strategic approach and communicate what a 10 year sustainable plan that managed risk looks like by using scenarios that balanced revenues, service levels and risk.

The customer satisfaction survey in 2014 indicated high levels of community satisfaction and was better than previous years despite the clear communication over a two year period that current service levels could not be maintained without increasing revenues.

In a two year period, council transformed from "financially unsustainable with a large renewal gap" to a council with a 10 year plan for financial sustainability. The aspirational service scenario remains to support councils advocacy program for better external funding.

Part Two Asset Management Planning and Implementation

Developing an asset management policy

Part One of this guide provides the policy framework for local government asset management. It provides high-level guidance to assist councils to develop their own asset management policy.

To develop an asset management policy an integrated and multidisciplinary approach is recommended highlighting 'principles' including:

- ensuring service delivery needs form the basis of asset management
- informed decision-making, incorporating a life-cycle approach to asset management
- sustainability, providing for present needs while sustaining resources for future generations.

The asset management policy is a mechanism for elected Councillors and executive management to signal their commitment and priorities for asset management programs. The policy provides a clear direction for asset management and defines the key principles that underpin asset management for a council.

Every council is exposed to considerable political, managerial and financial risks due to its scale of investment in infrastructure assets. A council is better able to manage these risks and obtain better value for money in the delivery of services to the community by applying a strategic approach to asset management.

The benefits of a strategic approach to establishing the asset management policy, together with the asset management strategy and Asset Management Plans, include:

- better allocation of limited council resources
- improved alignment of assets with services and community expectations
- reduced demand for new council assets through better integration of service planning and asset planning

- more effective use and maintenance of existing council assets
- improved processes and accountability for capital and recurrent works
- use of non-asset solutions to meet service demand
- increased use of sustainable development solutions.

[IPWEA online guided pathway for asset management planning](http://www.ipwea.org/namsplus)

(<http://www.ipwea.org/namsplus>) outlines the typical contents of a responsible asset management policy.

The asset management policy will typically have a life of four years.

Sample content for the policy

- organisational context and importance of asset management
- organisation's vision and goals for asset management
- asset management responsibilities and relationships
- broad time frames and deadlines
- integration of asset management into the organisation's business processes
- audit and review procedures.

At the strategic level, the service delivery objectives and requirements of the asset management policy are set out in the Council Plan. At the operational level, they are converted by the Asset Management Plans into specific actions involving both asset and non-asset alternatives. This delivery of the Asset Management Plans is combined with ongoing monitoring to verify their implementation in accordance with the parameters set by the asset management policy and strategy.

Performance measurement links the strategic and operational levels to assist council to determine if it is achieving its desired outcomes in the most effective manner. Through the use of evaluation and reporting, performance measurement raises the council

awareness of the responsibilities, opportunities and risks inherent in asset management.

Developing an asset management strategy

The asset management strategy is a key element of the Planning and Accountability Framework and should be approved and adopted by council.

The asset management strategy coordinates activities of an organisation to realise value from assets in the delivery of its outcomes or objectives and involves balance of costs, risks and benefits - over time.

The strategy therefore provides a better understanding of how to align the asset portfolio so that it best meets the service delivery needs of the local community, both now and in the future, to enable the council's asset management policy to be achieved.

Sample content for the strategy

- a description of the current status of councils asset management practices
- specific actions to be undertaken to improve or enhance the council's asset management capability, including resource requirements and timeframes
- specific actions to be undertaken to achieve the council's strategic objectives.

The following describes key elements that need to be present in an asset management strategy.

1. What is our current situation?

The first step in developing an asset management strategy is to get a clear understanding of the current situation of the council's assets and their management. How are the assets performing? Do they meet the current and forecast future needs of the council and its community? Is the funding base for operation, maintenance and renewal appropriate and affordable? What is the state of the procedures, systems and training?

These questions need to be answered from a strategic perspective – they are 'big picture' questions. Typical elements of the current situation assessment are:

- the financial status of the assets

- life cycle costs and indicators
- remaining and useful life assessment using condition, function and capacity/utilisation indicators
- the risk profile of current asset stock;
- asset management structure and responsibilities
- financial and asset management core competencies
- user satisfaction with service provision
- strategy outlook.

The starting point for scenarios for the future is to clearly communicate the current costs, service levels and risks that result from the cumulative impact of past decisions. The current financial capacity to change service levels and manage risks is an essential element in an asset management strategy.

An asset management strategy does not necessarily need detailed information about all assets but the underlying evidence for service level and risk projections must be transparent so that effective governance decisions can then be taken.

The asset management strategy must take into account the underlying maturity and reliability of evidence and decide on whether the benefit / cost / risk of improving asset management information is value for money to the community.

2. Where do we want to be?

The council's asset management strategy must fit with the goals and objectives of its Council Plan. That is the clear starting point.

The asset management strategy also supports the asset management and long-term financial plan financing scenarios and must clearly describe affordable service levels and risks under each scenario and how risks will be managed.

Central to the process are forecasting the service delivery needs and the capacity to meet them on a short, medium and long-term basis.

The answer to the question 'Where do we want to be?' lies in the outcomes wanted, and what the community is prepared to pay for whilst managing risk. The key outcome is the provision of services responsive to the community's needs within available resources. This outcome sets the framework for strategic

planning and it also identifies the strategic considerations to be met.

It also requires an understanding of what 'good' or 'best practice' asset management is, in order to determine where the council wants to be and the areas where it believes it should focus its attention.

Typical elements of future considerations include:

- changing demographics
- changing technology
- changing environment
- variable operating, maintenance and capital costs
- increases or decreases in revenues.

3. How will we get there?

A comparison between the current situation and the proposed future will highlight where strategies will need to be developed to acquire, upgrade, renew or dispose assets for changing service provision needs, in accordance with economic, social and environmental considerations.

The asset management strategy will embark on identifying a path to addressing the gaps between where it needs to be and the current position. The gap analysis should include:

- results of any risk assessment undertaken to identify asset improvement needs
- details of the benefits and costs of addressing the gaps
- realistic timeframes for addressing the gaps
- identification of the priority actions to achieve the council's strategic goals and its asset management policy.

The gap analysis will then form the basis of an improvement plan and be converted into action through the Asset Management Plans.

4. Ensure continuous improvement

Asset management actions may range from data collection processes (e.g. condition grading of high criticality assets) through to process change (e.g. developing a capital works decision making framework).

Careful consideration of the value that can be obtained by improving asset management data, processes and systems is required before 'jumping in'.

As an example, many organisations have embarked on expensive data collection programmes, only to realise the data is not well targeted at what is required and/or the processes and resources are not in place to manage and use the data.

The International Infrastructure Management Manual suggests that improvement tasks can be grouped under the following headings³ in an Improvement Plan.

- Asset Management Preparation/Corporate Overview
- Asset Management Process Improvement
- Asset Management information system improvements
- Asset Management data improvements
- Organisational/People Issues
- Asset Management Commercial Tactics.

Each task will need to be prioritised by the asset management team balancing organisational objectives, risk and cost. These tasks are allocated to a responsible person accountable for ensuring delivery within the target date and budget listed in the improvement plan.

It is recommended the improvement tasks be monitored on an annual basis ensuring progress is reported to the executive management team and/ council.

The improvement program should be consistent with the National Asset Management Assessment Framework in the IPWEA format, preferably using the ISO 55001 maturity assessment format.

³ IPWEA, International Infrastructure Management Manual, p. 4.69.

Developing an asset management plan

Asset Management Plans are long term plans that outline the asset activities for each service.

The International Infrastructure Management Manual defines an Asset Management Plan as: "...a written representation of the intended asset management programs for one or more infrastructure networks based on the controlling organisation's understanding of customer requirements, existing and projected networks, and asset conditions and performance"⁴. In some ways, the Asset Management Plan can be considered as the business case for the long term expenditure forecasts.

Councils may choose to have a single plan that encompasses all the assets under its control, or it may have a series of plans for each asset class or asset group (e.g. roads, buildings).

The important aspect is to provide a scenario that can deliver affordable levels of service targets within Long Term Financial Plan scenarios whilst managing and communicating risk.

With a 10 to 20 year outlook, elected members of council then have the evidence to make trade-off decisions between service objectives, revenues, appropriate levels of debt and risks whilst ensuring value for money.

Sample content for the plan

- information outlining the service provided, what it costs, the issues and risks, and next steps
- list of 10 year planned works and financial forecasts
- identification of key/critical assets, top-down condition and performance description, future demand forecasts and supporting Asset Management processes
- prioritised improvement plan.

The following describes key elements that need to be present in an Asset Management Plan.

⁴ IPWEA, IIMM p. 4.14

1. Executive Summary

It is useful if the executive summary is a brief stand-alone document aimed at a non-technical reader that provides an overview of the levels of service, growth forecasts, key asset management issues, significant works programs and financial forecasts.

2. Introduction (why we need a Plan)

This section provides background to the content of the Asset Management Plan including the dimensions and replacement value of assets covered by the Asset Management Plan. Provision is made to record the council's structure for service delivery of services from infrastructure including its goals and objectives of asset management. Reference is also made to the extent of community consultation processes.

3. Define the service levels (what we provide)

This section allows for the communication of any customer satisfaction survey results by identifying what is important and how satisfied users of the service are.

It is important legislative requirements are identified and recorded thereby recognising what it is we have to do.

An Asset Management Plan should define the affordable level of service for any given financing scenario.

Service levels are defined in the International Infrastructure Management Manual as '...defined service quality for an activity or service area (for example, the Road Network) against which service performance may be measured'.

Service levels offered should be determined through community and/or customer consultation. Service levels relate to, for example:

- physical condition (quality)
- quantity
- safety
- capacity or utilisation
- function or fitness for purpose
- aesthetics
- reliability
- responsiveness

- environmental acceptability
- costs.

The impact of changes in demand over time on the service level offered should be regularly established and accounted for to provide a clear understanding of cost implications across the whole life cycle of a higher or lower service quality.

Service levels are defined in two performance measures, community and technical levels of service. Community levels of service measure how the community receives the service and whether the organisation is providing community value.

Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that the organisation undertakes to best achieve the desired community outcomes and demonstrate effective organisational performance.

4. Future Demand (planning for the future)

This asset management activity involves projecting demand for the service over the life of the Asset Management Plan or the life of the asset. 'Demand' is a measure of how much customers consume the services provided by the assets.

Drivers of expected changes may include population change, demographic change, technical changes, economic factors and government policies, etc. These drivers may impact on services and any required activities to accommodate demand generally require capital upgrade/expansion/new expenditure. Therefore it is necessary demand for new services be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand.

Demand management practices include non-asset solutions, insuring against risks and managing failures.

5. Lifecycle Management Plan (how we provide the service)

The Lifecycle Management Plan details how the organisation plans to manage and operate the assets at the agreed levels of service while optimising life cycle costs.

Background data includes data and information on:

- physical identification – quantity, location, construction materials, year built (or estimate to closest five (5)-year time block), condition, capacity, performance, estimate of remaining life
- asset valuations – current replacement cost, depreciable amount, written down current replacement cost and annual depreciation expense
- links with service and performance levels.

Every council is exposed to considerable political, managerial and financial risks due to their scale of investment in infrastructure assets. The type of risk events that might impact on assets include:

- natural events, for example, bushfires
- external impacts, for example, power supply failures
- operational and physical failure risks.

A council is better able to manage these risks, sustain business continuity and obtain better value for money in the delivery of services to the community by applying a strategic approach to asset management. An Asset Management Plan should incorporate strategy for the management of risk associated with the assets involved. The strategies should be consistent with the overall risk policy of council. The *International Standard for Risk Management (AS/NZS ISO 31000:2009 Risk Management)* is a useful guide.

The Lifecycle Management Plan should include:

- Routine Operations and Maintenance Plan (how we look after existing assets)
- Renewal Plan (what assets we need to renew/replace)
- Creation/Acquisition/Upgrade Plan (what new assets we need)
- Disposal Plan (what assets are surplus to our needs).

6. Financial Summary (what it will cost and how we will pay for it)

An Asset Management Plan should include financial estimates and cash-flow forecasts in relation to the assets for at least the ensuing 10 to 20 years. The forecasts should include all life-cycle costs and cover both maintenance and capital expenditures.

Assumptions underlying the financial forecasts are to be made explicit and the degree of

confidence placed in them should be made transparent. These forecasts assist the preparation of the annual budget and the four+ year strategic resource plan. Where financial information about critical assets is subject to uncertainty, sensitivity analysis should be undertaken.

Estimated costs must:

- provide clear links to the Council Plan
- be based on known and evidence based unit asset costs
- be logically and clearly compiled, with clear audit trails
- be updated regularly
- be recorded in present day (real) costs and cash flows
- use real discount rates consistent with investment analysis guidelines
- be assimilated into financial recording systems.

The financial statements and projections should identify the affordable/balanced position with the Long Term Financial Plan and articulate how service levels and risk will be managed.

Asset values will increase as additional assets are added to the asset stock from construction and acquisition by council and from assets constructed by land developers and others and donated to council. It is important valuation forecasts are developed for:

- asset values
- depreciation expense
- depreciated replacement costs.

An Asset Management Plan should include information about likely changes to service potential and should:

- List all assumptions and provisos under which it is prepared.
- Indicate the degree of confidence of the reliability of the data underpinning the information presented, for example, accuracy of asset inventory, accuracy of data on condition of assets, accuracy of asset performance data and/or demand/growth forecasts.
- Integrate the remaining useful lives with the adopted [Long Term Financial Plan and Strategic Resource Plan](#) that sets out when

assets will be renewed to meet affordable service level and risk targets.

- On the basis of the preceding assumptions and confidence of underlying data, provide a level of precision, or confidence, on the forecasts of renewal and maintenance expenditure for the asset.

7. Outline an improvement program

All Asset Management Plans should outline options and recommendations for necessary actions to improve procedures, systems, training, data, commercial tactics, etc. These options should consider:

- maturity against each practice area
- observations about current maturity
- the implications of current maturity levels and associated risks
- recommendations for improvement.

Notwithstanding all of the above the AM Plan should:

1. Be prepared by competent persons

As for the preparation of the asset management policy and strategy, an integrated and multidisciplinary approach is recommended for the preparation of an Asset Management Plan.

The person who has primary responsibility for the performance of a specific asset should ideally contribute to the Asset Management Plan. Where necessary, technical and financial support must be provided by council. The use of a multidisciplinary asset management team has proven to be a successful approach.

The process should be peer reviewed and/or prepared/facilitated in conjunction with a competent person or organisation experienced in the issues under consideration.

2. Have clear linkages to other council strategic documents

Elected representatives should provide oversight of the Asset Management Plans and they should be approved and adopted by council.

This approval includes consideration of the improvement, sustaining and contingent actions of the plans. The Asset Management Plan(s) should have a connection with the Planning and Accountability Framework documents.

An Asset Management Plan's improvement actions need to include the medium to longer-

term management actions to achieve appropriate sustainability in services valued by the community. Actions may include enhanced demand management and community consultation, asset rationalising and changed internal management processes and decision-making prioritisation.

Elected representatives should seriously strive to ensure council works hard to facilitate access to assets for the community and not just continue to provide assets for service based on a historic rationale. The challenges to be faced by council require strategic and paced governance control by elected representatives.

3. Be regularly reviewed

An Asset Management Plan is not a static document and will be significantly revised in the light of experience gained and lessons learnt by council. The improvement program will likewise evolve and become more refined, and value-adding consistent with management and community understanding and the 'buy-in' generated by council. An early plan may have a low degree of confidence; that confidence, however, builds as council moves from the initial reviews to becoming more informed and experienced in asset management planning.

Strategic oversight by a member of the corporate team should see the plans evolve and be revised to improve reliability.

The review of plans should be considered an ongoing 'continuous improvement' activity initially and should be nurtured until such time that it is fully integrated into the routine operation of council at all levels.

Plans should be reviewed and updated annually and changes in the Council Plan that affect levels of service should be directly reflected in the Asset Management Plans and the budget.

The LGV Asset Management Performance Measures project has developed a methodology to enable councils to measure improvement in managing their infrastructure assets. It also measures how effectively the local government sector as a whole is managing its infrastructure assets and that there is continuous improvement in the way that is done.

Glossary

Act

The *Local Government Act 1989*

Annual report

A report of the activities of the previous financial year and contains a report of operations, audited financial statements and an audited performance statement

Asset

A resource controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity. Infrastructure assets are a sub-class of property, plant and equipment which are non-current assets with a life greater than 12 months and enable services to be provided.

Asset category

Sub-group of assets within a class hierarchy for financial reporting and management purposes.

Asset class

A group of assets having a similar nature or function in the operations of an entity, and which, for purposes of disclosure, is shown as a single item without supplementary disclosure.

Asset performance monitoring

The process of continuous or periodic inspection, assessment, measurement and interpretation of condition, function and capacity/utilisation data to indicate the performance of a specific asset so as to determine the need for some preventative or remedial action.

IPWEA's NAMS.PLUS Asset Management recommends performance monitoring and reporting data be collected and held or be capable of conversion into a 1 – 5 scale.

Condition data

The condition of the physical infrastructure that allows it to meet the intended service level. Where condition data is available, it can assist in estimating remaining useful life as input into the capital renewal projections.

Function data

The ability of the physical infrastructure to meet program delivery needs.

It measures appropriateness of the asset to meet the designated service hierarchy. Function data typically informs demand management, upgrade, expansion and/or disposal strategies.

Capacity data

The ability of the physical infrastructure to meet service delivery needs.

It measures the appropriateness of asset usage for the designated service hierarchy. Capacity data typically informs demand management, upgrade, expansion and/or disposal strategies.

Asset hierarchy

A framework for segmenting an asset base into appropriate classifications. The asset hierarchy can be based on asset function or asset type or a combination of the two.

Asset management (AM)

The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost effective manner.

Budget

A plan setting out the services and initiatives to be funded for the financial year and how they will contribute to achieving the strategic objectives specified in the Council Plan

Capital expenditure

Relatively large (material) expenditure, which has benefits, expected to last for more than 12 months. Capital expenditure includes renewal, new, expansion and upgrade. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital Asset expansion expenditure

Expenditure that extends the capacity of an existing asset to provide benefits, at the same standard as is currently enjoyed by existing beneficiaries, to a new group of users. It is discretionary expenditure, which increases future operations and maintenance costs, because it increases the organisation's asset base, but may be associated with additional revenue from the new user group, e.g. extending a drainage or road network, the provision of an oval or park in a new suburb for new residents.

Capital Asset renewal expenditure

Expenditure on an existing asset or on replacing an existing asset, which returns the service capability of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components or sub-components of the asset being renewed. As it reinstates existing service potential, it generally has no impact on revenue, but may reduce future operations and maintenance expenditure if completed at the optimum time, e.g. resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval.

Capital Asset upgrade expenditure

Expenditure which enhances an existing asset to provide a higher level of service.

Upgrade expenditure is discretionary and often does not result in additional revenue unless direct user charges apply. It will increase operations and maintenance expenditure in the future because of the increase in the organisation's asset base, e.g. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility.

Capital New asset expenditure

Expenditure which creates a new asset providing a new service/output that does not currently exist. As it increases service potential it may impact revenue and will increase future operations and maintenance expenditure.

Core asset management

Asset management which relies primarily on the use of an asset register, maintenance management systems, job resource management, inventory control, condition assessment, simple risk assessment and defined levels of service, in order to establish alternative treatment options and long-term cash flow predictions. Priorities are usually established on the basis of financial return gained by carrying out the work (rather than detailed risk analysis and optimised decision-making).

Cost of an asset

The amount of cash or cash equivalents paid or the fair value of the consideration given to acquire an asset at the time of its acquisition or construction, including any costs necessary to place the asset into service. This includes one-off design and project management costs.

Council Plan

A plan setting out the medium-term strategic objectives, strategies, strategic indicators and resources reflecting vision and aspirations of the community for the next four years

Critical assets

Assets for which the financial, business or service level consequences of failure are sufficiently severe to justify proactive inspection and rehabilitation. Critical assets have a lower threshold for action than non-critical assets.

Current replacement cost (CRC)

The cost the entity would incur to acquire the asset on the reporting date. The cost is measured by reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business or the minimum it would cost, to replace the existing asset with a technologically modern equivalent new asset (not a second hand one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.

Deferred maintenance

The shortfall in rehabilitation work undertaken relative to that required to maintain the service potential of an asset.

Depreciable amount

The cost of an asset, or other amount substituted for its cost, less its residual value.

Depreciated replacement cost (DRC)

The current replacement cost (CRC) of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset.

Depreciation / amortisation

The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.

Infrastructure assets

Physical assets that contribute to meeting the needs of organisations or the need for access to major economic and social facilities and services, e.g. roads, drainage, footpaths and cycleways. These are typically large, interconnected networks or portfolios of composite assets. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally the components and hence the assets have long lives. They are fixed in place and are often have no separate market value.

Indicator

A qualitative or quantitative measure of a service or activity used to compare actual performance against a standard or other target. Performance indicators commonly relate to statutory limits, safety, responsiveness, cost, comfort, asset performance, reliability, efficiency, environmental protection and customer satisfaction.

Level of service

The defined service quality for a particular service/activity against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental impact, acceptability and cost.

Maintenance

All actions necessary for retaining an asset as near as practicable to an appropriate service

condition, including regular ongoing day-to-day work necessary to keep assets operating, e.g. road patching but excluding rehabilitation or renewal. It is operating expenditure required to ensure that the asset reaches its expected useful life.

Planned maintenance

Repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown criteria/experience, prioritising scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

Reactive maintenance

Unplanned repair work that is carried out in response to service requests and management/ supervisory directions.

Specific maintenance

Maintenance work to repair components or replace sub-components that need to be identified as a specific maintenance item in the maintenance budget.

Unplanned maintenance

Corrective work required in the short-term to restore an asset to working condition so it can continue to deliver the required service or to maintain its level of security and integrity.

Maintenance expenditure Recurrent expenditure, which is periodically or regularly required as part of the anticipated schedule of works required to ensure that the asset achieves its useful life and provides the required level of service. It is expenditure, which was anticipated in determining the asset's useful life.

Operations

Regular activities to provide services such as public health, safety and amenity, e.g. street sweeping, grass mowing and street lighting.

Operating expenditure

Recurrent expenditure, which is continuously required to provide a service. In common use the term typically includes, e.g. power, fuel, staff, plant equipment, on-costs and overheads but excludes maintenance and depreciation. Maintenance and depreciation is

on the other hand included in operating expenses.

Operating expense

The gross outflow of economic benefits, being cash and non-cash items, during the period arising in the course of ordinary activities of an entity when those outflows result in decreases in equity, other than decreases relating to distributions to equity participants.

Operating expenses

Recurrent expenses continuously required to provide a service, including power, fuel, staff, plant equipment, maintenance, depreciation, on-costs and overheads.

Remaining useful life

The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining useful life is useful life.

Residual value

The estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.

Risk management

The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.

Specific Maintenance

Replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, replacement of air conditioning equipment, etc. This work generally falls below the capital/ maintenance threshold and needs to be identified in a specific maintenance budget allocation.

Strategic Resource Plan *

A plan of the financial and non-financial resources for at least the next four years required to achieve the strategic objectives in the Council Plan.

Useful life

Either:

(a) The period over which an asset is expected to be available for use by an entity, or

(b) The number of production or similar units expected to be obtained from the asset by the entity.

It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the Council.

Source:

IPWEA 2012, *Australian Infrastructure Financial Management GUIDELINES*, Version 1.3, 2012 - Glossary

Additional and modified glossary items shown *

References

AS/NZS ISO 31000:2009 Risk Management – Principles and guidelines, Standards Australia, Sydney, Australia.

IPWEA, 2008, *NAMS.PLUS Asset Management*, Institute of Public Works Engineering Australia, Sydney, <http://www.ipwea.org/namsplus/>.

IPWEA, 2009, *Australian Infrastructure Financial Management Guidelines*, Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/AIFMG.

IPWEA, 2011, *International Infrastructure Management Manual*, Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM.

IPWEA, 2012, *Long-Term Financial Planning Practice Note 6*, Institute of Public Works Engineering Australia, Sydney <http://www.ipwea.org/LTFP>.

ISO, 2014, ISO 55000:2014, Asset management – Overview, principles and terminology, International Organisation for Standardization, Geneva, http://www.iso.org/iso/catalogue_detail?csnumber=55088