



National Office

A Nationally Consistent Approach to Asset Management Planning¹

IPWEA NAMS.AU Policy 2

POLICY

IPWEA NAMS.AU supports the application of a nationally consistent framework for infrastructure asset management planning in the interests of greater efficiency and optimum use of resources in the asset management task.

To achieve that goal, NAMS.AU encourages all entities with responsibility for managing service delivery from infrastructure assets to adopt the structure and framework for asset management planning in accordance with the International Infrastructure Management Manual (refer Appendix A, IIMM, 2006). The IIMM is widely recognised internationally as the world reference on asset management.

The level of asset management (AM) sophistication adopted (core versus advanced AM planning) needs to reflect the strategic business objectives of the organisation as well as meeting legal requirements, community needs and available resources.

The degree of complexity of AM will differ according to an organisation's corporate needs. For some organisations or asset types the sophistication of AM planning may not need to progress beyond a core approach.

It is essential that long term asset and financial plans are not produced for mere compliance with legislation, but to form an essential part of management of an organisation. AM plans should be effectively integrated with an organisations strategic planning.

BACKGROUND

The Australian economy is underpinned by a vast infrastructure of roads and other transport systems, water supply, waste water disposal, solid waste disposal, energy, telecommunications, recreational networks, flood protection and drainage, community and cultural facilities. This infrastructure supports the very fabric of our modern living.

Infrastructure represents a major investment which has been built up progressively over the last 100 years or longer. This is reason enough for applying the best management skills to ensure that it continues to provide sustainable and economic service.

The goal of infrastructure AM is to meet a required level of service, in the most cost effective manner, through the management of assets for present and future customers.

The key elements of infrastructure AM are:

- taking a “whole of life” asset lifecycle approach
- developing cost-effective management strategies for the long-term
- providing a defined level of service and monitoring performance
- understanding and meeting the impact of growth through demand management and infrastructure investment
- managing risks associated with asset failures
- sustainable use of physical and financial resources
- continuous improvement in AM practices.

A formal approach to the management of infrastructure assets is essential in order to provide services in the most cost-effective manner, and to demonstrate this to our communities.

ALIGNING OBJECTIVES: CORPORATE, ASSET MANAGEMENT & OPERATIONAL

Delivering the right outcomes from the AM planning process is critical to the success of the organisation in meeting its strategic goals. Success in AM requires that the following issues be addressed at the beginning:

- broad identification of corporate need focused on achieving the organisations strategic plan
- understanding the risks relevant to the development and implementation of AM policy and strategies
- establishing clear corporate AM policy, strategy, goals and objectives
- gaining corporate authorisation of the AM policy and commitment at all levels to improve AM.

Tactical plans like the AM plan will need to identify strategic outcomes that the plan specifically supports and focus AM plan performance measures on monitoring their achievement.

The key elements of an approach for ensuring AM plans are effectively integrated with strategic planning include:

1. Providing a robust process and corporate strategic plan to which the AM framework is linked.
2. Developing and implementing a “whole of organisation” approach in establishing a performance development process to complement and support both the strategic plans and the AM plans.
3. Ensuring the process of strategic monitoring and review provides flexibility to advance changes identified in the AM plans into the strategic plan.

LINKING TO LONG TERM FINANCIAL PLAN

The purpose of the Long Term Financial Plan (LTFP) is to express in *financial* terms the activities that the organisation proposes to undertake over the medium to long term (notionally at least ten years) to achieve its stated objectives. This builds on the purpose of the AM plan which expresses in *physical* terms the same objectives.

A LTFP is an essential guide for future action as it requires the organisation to think beyond an annual budget cycle to consider the longer term impact of revenue and expenditure projections.

Some State Governments have introduced or are considering legislation requiring Local Government to develop and maintain LTFPs based on sound infrastructure AM plans. These LTFPs should cover a forward planning horizon of at least ten years and the AM plans on which they are based should desirably cover a twenty year period.

Such legislation should not be prescriptive as to how these plans are to be prepared but should require local government to demonstrate to their communities and other stakeholders, that they are financially sustainable in the long term, through appropriate annual reporting and performance indicators. It is essential that long term asset and financial plans are not produced for mere compliance with legislation, but to form an essential part of management of an organisation. (Refer IPWEA NAMS.AU Policy 1).

MINIMUM LEVELS OF ASSET MANAGEMENT PRACTICE

The level of AM sophistication adopted (core versus advanced AM planning) needs to reflect the strategic business objectives of the organisation as well as meeting legal requirements, community needs and available resources.

At a minimum level, a **'core' AM plan** will define current levels of service and document existing processes to manage assets. An **'advanced' AM plan** will apply risk and optimisation processes to all areas of AM and be able to demonstrate that alternative levels of service have been considered and discussed with customers.

The corporate AM direction should be reviewed regularly so that it remains relevant to the changing business environment of the organisation.

The degree of complexity of AM will differ according to an organisation's corporate needs. Typically organisations will start at a core level (focusing on current practices) and develop to a more advanced level identifying strategies to reduce lifecycle costs through improved practices and new technology. Deciding on the level at which the organisation is aiming is a key strategic decision to be made.

CORE ASSET MANAGEMENT

The recommended minimum approach for core AM is to:

- take a "whole of life" asset lifecycle approach
- develop core AM plans based on:
 - best available current information and random condition/performance sampling
 - simple risk assessment to identify critical assets

- existing levels of service (service level reviews come later)
- contrasting existing management strategies with opportunities for improvement.
- prioritise capital works using simple ranking criteria (subjective points scoring or simple cost benefit analysis to evaluate options)
- calculate long-term (10 years) cash flow predictions for asset maintenance, rehabilitation and replacement, based on local knowledge of assets and options for meeting current levels of service
- provide financial and critical service performance measures against which trends and AM plan implementation and improvement can be monitored.

There is merit in quickly developing an AM plan which initially meets the minimum legislative and accounting requirements, rather than waiting until more information becomes available or improved systems and processes are in place.

The first version of an AM plan may be brief and simple, addressing each section of the plan only to the extent possible, given the data, systems and processes immediately available to the organisation. Important inclusions in such plans should be statements on:

- assumptions made in preparing the plan and consequent level of certainty
- the intended program for progressively improving the AM plan

After the development of the initial AM plan, AM will evolve in a continuous cycle of review and improvement so the quality of outputs matches the changing business needs of an organisation.

For some organisations or asset types the sophistication of AM planning may not need to progress beyond a core approach. Selecting the appropriate asset management level for an organisation will depend on a number of factors, including:

- the costs and benefits to the organisation
- legislative requirements
- the size, condition and complexity of the assets
- the risk associated with failures
- the skills and resources available to the organisation
- customer expectations.

ASSET MANAGEMENT PLAN STRUCTURE

A recommended structure for an AM plan is provided as Appendix A in the *International Infrastructure Management Manual* (IPWEA, 2006).

This AM plan structure in the IIMM is jointly published by the Institute of Public Works Engineering Australia (IPWEA) and the NAMS Group New Zealand. It is widely recognised nationally and internationally as the benchmark framework for asset management planning.

CONCLUSION

The successful implementation of AM requires a concerted and coordinated effort across all sections of an organisation. Strategies relating to coordinating AM activity within an organisation include:

- Establish a strong coordination structure with clear responsibilities and support from top management level.
- Ensure the required resources are available to implement the AM program

Lack of resources is a common reason for AM improvement programs to fail. Making sufficient resources available and getting the right balance of internal buy-in and external support are important success factors.

Training programs are needed to ensure staff are able to develop effective AM plans and are confident in making the required organisational / process changes. Good communication and education will help to get the AM program supported throughout the organisation.

For further information:

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¹ Reference: International Infrastructure Management Manual, IPWEA 2006