

**Guidelines for
Implementing Total Management Planning**

Performance Management

IMPLEMENTATION GUIDE

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TABLE OF CONTENTS

	Page No.
LIST OF ACRONYMS	4
1 PURPOSE	5
2 TMP requirements	5
3 THE PERFORMANCE MANAGEMENT PLAN	5
3.1 Introduction	5
3.2 Outcomes	5
3.3 Outputs	6
4 IMPLEMENTING A PERFORMANCE MANAGEMENT FRAMEWORK	6
4.1 Overview	6
4.2 Features of a performance management framework	6
4.3 Performance measures	6
4.4 Developing performance measures	7
5 CHARACTERISTICS OF GOOD PERFORMANCE MEASURES	8
5.1 Qualitative and quantitative performance measures	8
5.2 Achieving appropriate balance	8
5.3 Validity, reliability and accuracy of data	8
5.4 Numbers of measurables	9
5.5 Balancing cost against benefit	9
5.6 Consistency of use	9
6 SETTING PERFORMANCE TARGETS	9
6.1 Asset level targets	10
7 MONITORING PERFORMANCE	10
8 ASSESSING AND EVALUATING PERFORMANCE	11
8.1 The steps involved in performance assessment and evaluation	12
8.2 Performance assessment	12
8.3 Performance evaluation	13
9 PERFORMANCE REPORTING	13
10 IMPROVING PERFORMANCE	14
10.1 Developing improvement strategies	14
10.2 Reviewing the performance management system	15
REFERENCES AND FURTHER READING	16
APPENDIX A: CONTENT AND DEVELOPMENT LEVEL OF SUB-PLAN	17
APPENDIX B: ASSET MANAGEMENT PERFORMANCE OBJECTIVES	19
APPENDIX C: GLOSSARY OF PERFORMANCE TERMINOLOGY	20

LIST OF ACRONYMS

CSS	Customer Service Standard
NR&M	Department of Natural Resources and Mines
SAMP	Strategic Asset Management Plan
SWOT	strengths, weaknesses, opportunities, threats
TMP	Total Management Plan
WSAA	Water Services Association of Australia
WSP	Water Service Provider

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1 PURPOSE

This Implementation Guide is intended to provide detailed guidance for Water Service Provider (WSP) practitioners and their consultants on the processes involved in establishing and implementing a Performance Management framework. More directly, it will help WSPs prepare a Performance Management Plan as part of a Total Management Plan (TMP).

Acknowledgement

The TMP Performance Management framework has been adapted from the Queensland Government's Asset Management System (GAMS), which was the result of considerable research and investigation in Australia and overseas.

2 TMP requirements

Each WSP's TMP should include a Performance Management Plan. This should outline the methods used to collect data, and strategies to assess performance in service delivery, financial, asset, environmental and risk management.

The level of development (comprehensiveness) required of a WSP in documenting its TMP, in terms of the types of management mechanisms it should aim to have, will depend on the size of the WSP (in terms of replacement cost of its assets) and the relative quality of its services.

Appendix A summarises the indicative content and development level required for the Performance Management Plan.

3 THE PERFORMANCE MANAGEMENT PLAN

3.1 Introduction

Performance management is a fundamental component of any business management system. A Performance Management Plan provides a formal, regular, rigorous process for data collection, analysis and usage. Thus changes in effectiveness and efficiency can be measured, enabling comparison of performance over time and against that of other similar entities.

3.2 Outcomes

Performance management:

- provides a comprehensive picture of how the WSP is progressing towards achieving its performance goals;
- provides a mechanism for responding to emerging issues/cost pressures that may require remedial action;
- establishes a basis for service standard, resource and pricing negotiations between stakeholders;
- identifies potential to improve the cost effectiveness of services (through comparison with other organisations); and
- forms an integral part of the Total Management Plan (TMP) process, closely linked to service standards and asset, financial and environmental management.

3.3 Outputs

Outputs from a performance management process include:

- performance monitoring and benchmarking reports in the Infrastructure Plan Overview (TMP sub-plan);
- a suite of strategic/detailed planning reports; and
- an infrastructure investment program — revised, re-prioritised and updated annually.

4 IMPLEMENTING A PERFORMANCE MANAGEMENT FRAMEWORK

4.1 Overview

A performance management framework will make it possible for WSPs to address:

- desired outcomes and objectives;
- the performance model;
- establishing performance measures;
- setting performance targets;
- monitoring performance;
- performance assessment and evaluation;
- statutory performance reporting requirements; and
- performance improvement.

This Guide provides a quality framework for performance management capable of consistent implementation by all service providers. At this stage it defines only the minimum number of generic performance measures for performance assessment and reporting.

Service providers should review their performance management requirements and use this Guide to develop their own asset management measures as appropriate.

4.2 Features of a performance management framework

The performance management framework identifies a number of key objectives for operational and managerial responsibility within the organisation. These are listed in Appendix B.

The Performance Management Framework has the following features:

- The measurement, evaluation and reporting of performance starts at the asset level.
- Asset performance is summarised to a whole-of-service level.
- All planning performance is assessed and reported.
- Asset program performance for investment, management and renewal or disposal is assessed and reported.
- Asset performance for investment and management-in-use is assessed, taking into consideration:
 - physical performance;
 - functional performance; and
 - financial performance.
- Performance of the asset management system is also assessed, and improvement strategies included in the strategic planning process.
- An organisation's performance focus is on the improvement strategies developed and implemented by its individual services.

4.3 Performance measures

Performance measures are tools developed by organisations to measure work performed and results achieved against a given objective. Performance measures should focus on the performance of assets and asset programs (i.e. for investment, operations, maintenance and disposal).

The performance measures should:

- identify the success or otherwise of the asset or asset program performance;
- align with the key objectives of effectiveness, efficiency and compliance;
- be used to assess whether objectives are achieved;
- be able to be monitored ;
- provide the necessary information asset and whole-of-business reporting; and
- be reviewed as part of the planning process to ensure relevance and practicality.

The *Water Act 2000* requires WSPs to set levels of service through a Strategic Asset Management Plan (SAMP) and a Customer Service Standard (CSS) and monitor/measure their performance against those levels of service for key service outcome categories. Performance measures, typical and those required in a SAMP and CSS are detailed in the TMP Service Standards Implementation Guide. The reporting requirements for a SAMP and CSS are outlined in the regulator's guidelines for preparing Strategic Asset Management Plans and Customer Service Standards.

4.4 Developing performance measures

To develop performance measures, the underlying logic of asset programs should be analysed. The suggested approach (detailed below) is to identify the key areas and issues within an asset management program, particularly in relation to outputs.

Setting the scene

Before starting to develop performance measures it is good practice to:

- assess the environment within which the asset management program operates; and
- involve asset management staff and other stakeholders in decisions on the outputs to be measured and the performance information to be collected.

This is particularly important if asset management staff are concerned that the links between asset program inputs and outputs are not sufficiently within their control. It also promotes acceptance of responsibility for outputs of the program.

Understanding the objectives

The key objectives of the WSP's corporate (or business) plan need to be understood, and the outputs of the asset management program should be aligned to them.

Understanding the asset management process

It is important to understand the links between inputs, the process and outputs in any asset program. This analysis is best undertaken in consultation with the major stakeholders so that a shared understanding of the program is developed.

The asset and the asset program outputs should be assessed for effectiveness, efficiency and compliance. When deciding on the appropriate method for measuring performance information, asset managers should consider:

- the level of detail that should be measured;
- the length of time it takes for the program outputs to be achieved;
- the degree to which external factors may influence the achievement of the outputs;
- the possibility of unanticipated program outputs; and
- the extent to which program managers should be held responsible for achievement of results.

When assessing asset effectiveness for investment and management-in-use the following characteristics are to be addressed:

- physical performance;
- functional performance; and
- financial performance.

Determining the performance measures

The following questions will help asset managers to determine the appropriate performance measures and assess their relevance and validity:

- Will the measures assess performance of the asset and/or program?
- Will the measures provide ongoing monitoring and evaluation information?
- What happens if the information is inappropriate?
- Can the performance measures identify performance trends?
- Can the performance measures be used for comparison with similar organisations?

5 CHARACTERISTICS OF GOOD PERFORMANCE MEASURES

The information in this section was taken from the Australian National Audit Office publication *Better Practice Principles For Performance Information*. Additional reference information is also available from this document.

The characteristics of good performance measures include the following:

- They are qualitative or quantitative as appropriate.
- They achieve appropriate balance.
- Data is valid, reliable and accurate.
- They include an appropriate number of measurables.
- Cost is balanced against benefit.
- They are repeatable for consistent use.

These characteristics are further discussed in the following sections.

5.1 Qualitative and quantitative performance measures

Performance measures may be quantitative (numerical value) or qualitative (descriptive). Often it is only through qualitative performance measures that the objectives and strategies can be directly linked and cause/effect (impact) relationships demonstrated.

5.2 Achieving appropriate balance

All performance measures should be considered together to assess the overall performance of the program. If only one aspect of an asset management program's performance is measured, it is likely that this is what asset managers will focus on. As a result, overall program performance could deteriorate. Performance measures should be balanced to facilitate:

- management and accountability; and
- analysis and improvement of all factors that influence outputs.

Each performance measure should provide a different perspective on program performance. It is important that the elements of a set of performance measures are selected because they measure something that is significant and useful, not just because they are easy to measure.

5.3 Validity, reliability and accuracy of data

Any performance measure used should be of a high quality. Therefore, it should be:

- valid, in that it actually measures the characteristic it purports to measure;
- reliable (i.e. given set conditions, the information collected will not vary significantly); and
- accurate and timely.

Where necessary, expert statistical advice may be sought to ensure that the information collection techniques are appropriate. It is important to ensure that the information is not biased.

5.4 Numbers of measurables

There is no ‘ideal’ number of performance measures. The emphasis should be on balance, quality, usefulness and timeliness. A small set of key performance measures is likely to be more manageable and consequently more useful.

It is important not to collect large volumes of performance data that are not strategic or timely, or are simply too hard to interpret and manage. However, it may be necessary for people at different management levels, or in different geographical areas, to have measures on different aspects of performance.

5.5 Balancing cost against benefit

The cost/benefit of collecting key data items or improving existing data collections is an important consideration. The benefits of collecting additional or more accurate measures need to outweigh the costs of collecting, storing and using the information. It is useful to consider:

- the risk that the investment in information collection may not produce long-term benefits;
- the possibility that policy or program changes may result in performance information becoming inadequate or irrelevant;
- the risk that poor data collection processes may render the resulting performance information unreliable and unusable; and
- the relative collection costs for individual items of performance information.

5.6 Consistency of use

An important aspect of performance measures is that they be used consistently to determine what trends exist (e.g. whether performance is improving over time).

6 SETTING PERFORMANCE TARGETS

Targets specify the desired level of performance, and often involve some improvement on the existing level of performance. Asset managers should set the performance targets during the planning process, when they specify the required level of performance for each of the asset life cycle activities.

Managers should set achievable targets that focus on overall asset performance and program performance rather than on the achievement of individual targets. Targets should:

- relate to overall program performance, or the components of that performance;
- encourage improved performance;
- be required for each measure, with at least one target;
- be able to be monitored and measured;
- make it possible to identify and resolve problems readily;
- be achievable and yet challenging;
- provide benchmarks for continuous improvement; and
- be reviewed as part of the planning process to ensure relevance and practicality.

Performance targets should have the following characteristics:

- They should focus on outcomes achieved rather than action taken. Measuring whether programs are succeeding is more important than knowing how much activity is taking place.
- They should focus on outcomes that can be influenced by the asset managers without themselves becoming individual targets.

- They need to be used consistently, so that results can be analysed and compared over time and across programs.
- Simplicity should be as highly valued as reliability. Complex approaches are expensive and often involve a high level of expertise.
- Qualitative as well as quantitative information should be considered. Rarely do numbers tell the whole story. Qualitative information on performance may be equally important.

These are several possible approaches to setting performance targets for the assets and their programs:

- **frontier practice** — to achieve projected performance, based on leading edge technology, where there is no benchmark;
- **best practice** through benchmarking;
- **management decisions** — calculated decisions, given resource and staffing limitations based on previous levels of performance;
- **standards** — external standards;
- **benchmark performance** — comparison with other state/national/international water industry organisations;
- **current performance** (i.e. keep the status quo); and/or
- current performance plus a percentage increase to achieve incremental improvement.

6.1 Asset level targets

The setting and/or recording of asset level performance targets will occur at different life cycle stages of asset management to suit the asset planning process being undertaken, as follows.

Strategic planning

A Planning Improvement Program is the part of the asset strategic plan where the performance measures and targets required to assess and evaluate the performance of the planning processes are recorded. Review of performance targets follows the monitoring, evaluation and improvement of planning performance.

Investment

Setting investment performance targets involves setting asset investment performance measures and targets, after analysing and selecting the preferred option. For each new major asset, investment measures and targets are established during the preparation of the asset investment proposal. The Asset Investment Plan identifies the performance target for each new major asset and investment program.

Operations

Setting asset performance targets involves setting asset operations performance measures and targets. This follows identifying the required asset and the requirement to measure its performance.

Maintenance

Setting performance measures and targets involves setting asset maintenance performance measures and targets for both asset performance and program performance.

Renewal/replacement

The Asset Disposal Plan identifies and sets the performance measures and targets for the asset renewal/replacement program.

7 MONITORING PERFORMANCE

Monitoring performance is integral to the performance management processes and typically involves:

- setting up procedures and assigning resources to measure performance over time;
- monitoring performance;

- verifying that targets and supporting standards can be measured and are relevant; and
- reviewing the cost-effectiveness of the monitoring process.

Business management information systems should support the performance monitoring process. These systems should have a comprehensive structure, and be linked to the financial management system and the asset register. This will allow service providers to:

- monitor performance of assets by type, scheme or facility;
- analyse and evaluate the effectiveness and cost efficiency of programs;
- report and advise on program performance to elected members or directors; and
- evaluate performance and implement strategies to improve performance.

Typical information in the business management information systems should include:

- performance against planned targets; and/or
- performance against benchmarks and standards; and/or
- checklists, customer surveys, and other means of gathering information; and
- planned targets and actual performance.

8 ASSESSING AND EVALUATING PERFORMANCE

Asset managers should continuously assess and evaluate the performance both of the assets and of the whole service, to verify that:

- the asset programs support the organisation's service delivery program;
- improvement strategies will address differences between the planned and actual performance;
- the planning processes applied in the asset programs are valid and effective, and provide value for money;
- the stated targets are achieved and used as the basis for the current planning period;
- the asset programs achieve their budget objectives; and
- the asset programs comply with relevant policies and customer service agreements.

The assessment and evaluation should enable asset managers to:

- identify any deviation from the plan;
- understand the cause of the deviation;
- identify minimum acceptable performance levels;
- identify and establish benchmarks for acceptable performance levels; and
- develop strategies to solve the problem.

8.1 The steps involved in performance assessment and evaluation

Review performance

The performance framework and performance measures should be comprehensively analysed. This includes reviewing current performance and any significant problems identified by customers. The aim is to:

- develop a comprehensive understanding of current performance; and
- identify and document the areas of non-performance.

Identify issues

The issues for detailed analysis should be identified and classified into inputs, process and outputs issues, and any other asset management system components. These issues should be selected on the basis of being:

- major areas of non-performance; and
- minor areas of non-performance.

Analyse issues

In the context of the asset management system, a standard process analysis methodology should be used to:

- gather relevant data;
- analyse the data for signals, trends and variations;
- identify and describe the problem;
- define the boundaries; and
- identify key participants.

The Risk Management Implementation Guide will be useful here.

Analyse causes

In the context of the asset management system, the issues should be analysed to find causes, by considering:

- policies and service standards relevant to the issue or problem;
- motivators of behaviours;
- inappropriate processes;
- technologies being applied/required; and
- level of management.

Cause-and-effect diagrams should be drawn up. It is necessary to consider the impacts of causes in isolation and how they interact with each other to affect performance.

The following sections, providing information on performance assessment and performance evaluation, were developed from material from the Australian National Audit Office's publication *Better Practice Principles For Performance Information*. This publication also provides access to additional reference material.

8.2 Performance assessment

Performance assessment is an important step in understanding the extent of performance achievement. It is based on comparisons using a range of targets, benchmarks, standards and milestones.

Targets

Targets express quantifiable performance levels, or changes of level, to be attained in future, rather than a minimum level of performance.

Benchmarking

Benchmarking involves:

- searching for best practice;
- comparing best practice with existing practice; and
- introducing best practice.

Benchmarking can concentrate on comparing:

- the same activity between different parts of the same organisation;
- the same activity in other organisations that deliver a similar service; or
- similar processes with other organisations which may have different services or processes.

Performance information is used to compare and evaluate practices within and between organisations.

Standards

Standards are predefined levels of excellence or performance specifications. They can be set for any aspect of an organisation or program. Standards are set to define the expected level of performance. Progress in delivering the service can be measured against the standard.

Milestones

Milestones help asset managers determine whether a program or activity is:

- heading in the right direction; and/or
- making the most efficient use of resources.

They mark the achievement of critical stages of program implementation. Milestones are particularly important for large and/or complex WSP activities.

8.3 Performance evaluation

Evaluation is the systematic, objective assessment of the effectiveness, efficiency and compliance of a service or part of a service. Performance evaluation should be part of the asset management performance program, to ensure that the asset investment, operations and maintenance and renewal/replacement programs are evaluated.

The continued evaluation of the asset programs will lead to an improved understanding of the program's performance and its link with:

- the organisation's service delivery requirements;
- asset life cycle planning; and
- management service strategies with the investment providers, such as energy performance contracting and greenhouse gas reduction.

Service performance evaluations can lead to improved service delivery outcomes, assist decision-making, and help account for service performance. However, evaluations need good performance information so that they can focus on key issues.

Evaluations can be particularly useful to examine an service provider's asset management system. Data needs for program evaluations should be planned in advance; otherwise data collection can be very expensive.

9 PERFORMANCE REPORTING

Reporting on asset management performance should be in accordance with government and service provider policy requirements.

Performance reporting is an essential step in the management of asset and service performance, because it provides information:

- on the performance of the assets and the approved asset programs;
- on the physical, functional and financial performance of the asset;
- on the achievement of the planned program objectives, targets and budgets;
- that allows asset level performance information to be evaluated at the asset and service delivery level; and
- for meeting the statutory reporting requirements under the *Water Act 2000*.

Internal performance reporting

Internal performance reporting should:

- be in accordance with the service provider's reporting requirements;
- be comprehensive and structured to the asset management information system; and
- allow the asset manager to take timely action to improve the asset's performance, avoid potential difficulties and resolve problems.

The information in the following section on external reporting of program performance was taken from the Australian National Audit Office's publication *Better Practice Principles For Performance Information*. Additional reference information is also available from this document.

External performance reporting

External performance reporting should:

- relate performance to objectives;
- make it clear whether or not the service delivery strategies have met their performance targets, and the reasons for any significant variations from the expected performance;
- be balanced (i.e. cover effectiveness in terms of key objectives and outputs, and cover performance in terms of efficiency and compliance);
- provide an honest coverage of successes and failures;
- explain the significance of the results reported, including through comparisons (e.g. over time, or against standards) and with reference to external factors affecting the results;
- draw on both quantitative and qualitative information;
- provide details of trends (and expected trends), problems and progress against specific initiatives; and
- be in accordance with the statutory reporting requirements under the *Water Act 2000*.

10 IMPROVING PERFORMANCE

Performance improvement is a fundamental component of a service provider's asset management system. Performance improvement involves:

- identifying strengths and weaknesses in the asset programs and management systems; and
- developing strategies to improve the system so that it delivers more effective and efficient asset management.

Improvement strategies will impact on all resources that are inputs to the asset management process. These include human resources, business information systems and financial resources. The gains from continuous improvement are essential to maximise value for service.

10.1 Developing improvement strategies

Developing strategies to improve performance may include revising performance measures, and involve:

- generating potential solutions;
- evaluating possibilities;
- identifying barriers;

- developing implementation strategies;
- developing improvement milestones;
- approving performance solutions; and
- implementing solutions.

10.2 Reviewing the performance management system

Setting up a performance management system will allow regular monitoring and review of the improvement strategies and targeted performance milestones.

Outcomes:

- measured impact of performance improvement solutions; and
- analysis of deviations from the performance management plan.

Standardisation:

- Define and document the new standardised process/procedure.
- Develop compliance standards.
- Monitor results of the new process.

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References and further reading

Australian Drinking Water Guidelines, National Health and Medical Research Council; Agricultural and Resource Management Council of Australia and New Zealand, Canberra, 1996.

The Australian Urban Water Industry – WSAA Facts (Major Utilities), Water Services Association of Australia (Annual), 1996 -.

Australian Water Quality Guidelines for Fresh and Marine Waters, Australian and New Zealand Environment and Conservation Council, Canberra, November 1992

Better Practice Guide: Performance Information Principles, Australian National Audit Office, Canberra 1996.

Getting Started — A Consultation Guide for Queensland Local Governments, Local Government Association of Queensland, Brisbane, 1996.

Total Management Planning – Urban Water-related Services: Planning Issues, Department of Primary Industries (Water Resources), Brisbane, 1994.

Guidelines on the Development of Customer Charters (Consultation draft), Queensland Government, October 1997.

The 1998/1999 Australian Irrigation Water Provider Benchmarking Report/ANCID, Australian National Committee on Irrigation and Drainage, Tatula, Victoria, February, 2000.

Performance Measurement Reports — Non-Major Urban Water Utilities, Australian Water Association (Annual).

Water Utilities Queensland Reports, Department of Natural Resources (Annual).

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APPENDIX A: Content and development level of sub-plan

TABLE A1: Indicative sub-plan content

Sub-plan features	Performance Management Plan content
Issues covered in sub-plan	<ul style="list-style-type: none"> Community consultation in setting standards and monitoring performance. Adopted business performance measures and targets. Performance monitoring and assessment. Performance evaluation and reporting. Business and service performance improvement strategies.
Purpose of plan	<ul style="list-style-type: none"> To provide an overview of the WSP's current performance. To outline the WSP's future objectives and strategies for managing and improving business and service performance.
Policies that may be required	<ul style="list-style-type: none"> Customer interaction. Community consultation. Definition of performance targets. Monitoring and reporting of performance levels.
Other Total Management Plan sub-plans that are intimately linked to this sub-plan	<ul style="list-style-type: none"> Service Standards: a legislative requirement (<i>Water Act 2000</i>) to meet agreed service standards. Organisation Development and Management Plan: objectives depend on performance management. Financial Management Plan: identifies costs and savings in managing or improving performance. Operations Management Plan: staff/customer interaction. Maintenance Management Plan: maintaining infrastructure service standards. Information Management Plan: ensures adequate information flow in managing business and service performance. Environmental Sustainability Plan: ensuring service performance does not adversely impact on the community and environment. Risk Management Plan: risk management program is predicated on achieving and maintaining adopted performance targets.
External issues contributing to the current operating environment that need to be considered	<ul style="list-style-type: none"> Increased community expectations on service reliability. Commercialisation, necessitating efficient performance. New benchmarking/reporting obligations, which involve defining and monitoring service standards. <i>Water Act 2000</i>, requiring WSPs to define service standards for customer interaction and infrastructure performance.
Issues that need to be considered in summarising the status of current operations	<ul style="list-style-type: none"> Extent of accountability documentation (e.g. defined performance targets; service agreements; customer charter/guarantee). Customer consultation and response protocols on setting performance targets. Extent of monitoring, benchmarking and reporting actual business performance. Extent of customer satisfaction surveys. Broad SWOT analysis of relevant operations.
Strategic basis of the plan	<p>The strategic elements forming the basis of the plan should include:</p> <ul style="list-style-type: none"> goals for business and service performance; objective(s) for performance management; adopted performance targets; and organisation and service delivery management strategies. <p>The management strategies developed will be based on the identified key strategic issues and SWOT findings, including risk assessment, in respect of managing performance, and on the required TMP development level.</p> <p>WSPs are likely to require strategies for setting performance targets, establishing a performance monitoring and benchmarking program and performance assessment.</p> <p>The strategies should be supported by detailed action plans covering a period of up to 3 years.</p>

Sub-plan features	Performance Management Plan content
Suggested performance measures	Outcome and output: The performance measures for this sub-plan are the sum of all sub-plan performance measures.
Supporting documentation	These will depend on the WSP, but typically would include: <ul style="list-style-type: none"> published service standards; customer charter/guarantee; performance monitoring/benchmarking reports; and business process audit reports.

TABLE A2: Required sub-plan development level

Development level ¹	Target management mechanisms of Performance Management Plan
3	For each of: Water: bulk supply, treatment and reticulation Sewerage: collection systems and treatment and effluent disposal/recycling <ul style="list-style-type: none"> Performance Management system in place. Adopted performance measures and targets. Performance measured, assessed and reported annually. Performance improvement system in place.
2	For each water scheme and sewerage scheme: <ul style="list-style-type: none"> Performance Management system in place. Adopted performance measures and targets. Performance measured, assessed and reported annually. Performance improvement system in place.
1	For water service and sewerage services: <ul style="list-style-type: none"> Performance Management system in place. Adopted performance measures and targets. Performance measured, assessed and reported annually. Performance improvement system in place.

¹Defined in Section 4.2 of TMP Development Guide.

APPENDIX B: Asset management performance objectives

Level	Key objectives
Asset strategic planning	<p><i>Effectiveness</i> To develop strategic plans that contain realistic targets and ensure assets support service delivery.</p>
	<p><i>Efficiency</i> To ensure strategic asset planning occurs within budget and applies best practice processes, decision support tools and information systems.</p>
	<p><i>Compliance</i> To ensure asset strategic planning takes into account relevant policy and legislation.</p>
Asset investment	<p><i>Effectiveness</i> To ensure asset investment provides the required level of service in accordance with the approved specifications and the principles of sustainable development.</p>
	<p><i>Efficiency</i> To ensure asset investment occurs within agreed budget and utilises best practice processes, decision support tools and information systems.</p>
	<p><i>Compliance</i> To ensure asset investment is carried out in accordance with policy and legislation, following clear lines of accountability.</p>
Asset operations and maintenance	<p><i>Effectiveness</i> To manage assets so as to provide the required level of service in line with the principles of sustainable development.</p>
	<p><i>Efficiency</i> To manage assets within budget and in accordance with best practice processes, decision support tools and information systems.</p>
	<p><i>Compliance</i> To manage assets in accordance with policy and legislation, following clear lines of accountability.</p>
Asset renewal or replacement	<p><i>Effectiveness</i> To renew or replace assets so as to sustain the required level of service in line with the principles of sustainable development.</p>
	<p><i>Efficiency</i> To renew or replace assets in accordance with best practice processes, decision support tools and information systems and achieve budget targets.</p>
	<p><i>Compliance</i> To renew or replace assets in accordance with policy and legislation, following clear lines of accountability.</p>

APPENDIX C: Glossary of performance terminology

To provide a consistent understanding of terms and definitions, this glossary has been extracted from the Australian National Audit Office's publication *Better Practice Principles For Performance Information*. Additional reference information is also available from this document.

Benchmarking

A process by which an organisation seeks to determine and introduce best practice. Benchmarks can operate as standards or targets for performance levels by using comparisons with products, services, practices and processes with similar programs either within the organisation or with another organisation or country. When used to assess asset program performance, benchmarks usually operate as challenging or best practice standards.

Client measures

Performance information that relates to the level of client service. This may be determined by undertaking a survey of client opinions and/or by measuring aspects of the client's processes, such as the time to respond to clients seeking assistance. Client measures may also be indicative of process efficiency.

Effectiveness

The extent to which program outputs are achieving program and project objectives. The effectiveness of an asset program should be distinguished from the adequacy of the administration of the program or project, which concerns efficiency.

Efficiency

Relates to minimising program inputs for a given level of program outputs (or the extent to which program outputs are maximised for the given level of inputs). Efficiency is concerned with the processes (activities/strategies/operations) by which the program is delivered and which produce the outputs of the program. Efficiency is a relative rather than an absolute concept. It is not possible to say that a program is 'efficient'. Rather, it can only be stated that a program is more (or less) efficient than, say, it was at this time last year or a comparable program.

Inputs

Resources, human and other, used to produce program outputs.

Objectives

Concise, realistic, outcome-oriented statements of what the program, sub-program or other element of the program aims to achieve. Objectives must be stated in a way that clearly communicates what is to be achieved and measured.

Outcome

All the impacts or consequences of the program beyond its direct outputs. Outcomes are often delayed or long term and they may be intended or unanticipated. Outcomes should be distinguished from outputs. For example, the output of a training program may be a skills training course, while the (desired) outcome is employment.

As specific outcomes may result from multiple factors, causal relationships between a program and outcomes must be demonstrated before they can be claimed as program outcomes.

Output

The products or services that are produced and delivered by a program. Output and throughput measures (for example, the number of courses run, number of cases processed) are often more readily identifiable than outcomes and may provide useful background information about the program. Generally, they will not by themselves be useful measures of objectives.

Performance information

Evidence about performance that is collected and used systematically. Effective performance information should allow judgments to be made on the extent to which program activities are achieving the desired results.

Performance indicators

Indicators provide a guide on performance where causal links are not obvious and the changes in performance are difficult to measure directly.

Performance measures

Provide a more precise measure of performance than indicators. They relate to outputs and are used when there is a direct causal link between an action and an easily measurable change in performance.

Program

Programs are an approved and funded group of activities that contribute to a common strategic objective. Programs are usually further divided into sub-programs and components. The arrangement of these constituent parts is called a program structure.

A program consists of several elements:

- objectives in terms of intended outcomes in relation to identified needs
- resources, strategies, activities and processes
- management and accountability arrangements
- performance information.

A program should be capable of being described in terms of these various elements and in terms of relationships amongst the elements.

Quality

Quality relates to the characteristics by which an organisation, product or delivery is judged by customers or stakeholders. In its broadest sense it incorporates assessment of outputs, processes and outcomes and takes into consideration the relevant objectives and resources. Assessment of quality involves information gathered from key interests (citizens, direct and indirect consumers, staff, professionals and government) to identify differences between the expectations and experience of users.

Standards

Pre-defined levels of excellence or performance specifications that can be set on various aspects of an organisation, including inputs, processes, outputs or objectives. Progress in delivering the service can be measured against the standard. Standards can relate to quality and objectives of a service or to aspects of service delivery and can be set at different levels (eg. national/local, minimal/ challenging).

Strategies

Groupings of activities used to achieve an objective (eg. a strategy to raise awareness of an issue can encompass activities like publishing pamphlets, creating networks, holding conferences and meetings).

Targets

Quantifiable performance levels or changes in level to be attained at a specified future date. By enabling a direct judgment of performance, targets can clarify and simplify the process of performance monitoring.

Superseded – for information only