

## INTRODUCTION

The 1992 Industry Commission's report on Water Resources and Wastewater Disposal and the 1993 National Competition Policy highlighted the need for pricing reform, institutional reform and ecologically and financially sustainable development. In implementing these reforms, the State Government has encouraged and assisted in the adoption of strategic planning approaches to the provision of water related services. It has introduced legislation requiring local governments to prepare corporate plans and implement accrual accounting and, where water services are provided; to produce strategic asset management plans for them.

All water service providers are now required to take a forward-looking and integrated planning approach to the provision of services. Service providers must now question the way they undertake their business and seek improvement. Achieving this with limited human and financial resources requires astute management and the implementation of strategic planning processes.

Developing and implementing a Total Management Plan (TMP) is a common-sense approach to planning and managing businesses, including water service businesses. It quantifies and assesses the condition of assets, prioritises expenditure, and identifies options for cost saving and improvement in ways that are ecologically and financially sustainable. It is compatible with State Government requirements such as corporate planning and accrual accounting, which are fundamental to achieving business efficiencies in a competitive environment.



For over a decade, TMPs have been a feature of local government operations and local governments have benefited from subsidies associated with the preparation of TMPs.

Properly implemented, a TMP will ensure integrated planning and management within each sphere of activity undertaken by a service provider. A TMP will allow management and operational personnel to develop common objectives and direct all efforts towards achieving set goals. Critical issues relating to population growth, ageing infrastructure, stress on the environment, public health, public consultation and limited resources can all be addressed in a logical manner using sound information.

A TMP helps service providers to address the provision of services in a logical and cohesive fashion. It focuses on short and long-term planning and efficiency improvements in operations, maintenance and development.

## QUEENSLAND'S URBAN WATER INDUSTRY

Water service providers in Queensland currently own or manage water and sewerage assets valued at over \$20 billion. They vary with respect to the type of organisation, the services provided, the value and condition of assets, the growth in demand for services, revenue levels and staffing levels and skills.

Generally, Queensland's water and sewerage schemes meet customer needs at a reasonable cost. However, in a complex operating environment, providing and operating infrastructure are not the only issues. Social, political and sustainability issues must also be addressed to operate schemes efficiently.

Queensland's population is growing rapidly and this growth is creating a demand for water-related services, an increasing use of limited resources, and placing a strain on the environment. Much of the existing infrastructure is ageing and will need renovation or replacement in the near future. With competing demands for financial resources it is essential that water services are provided, operated, maintained and replaced in a cost effective and sustainable manner.

Restraints on public sector borrowing mean that expenditure on water infrastructure must be tightly controlled. At the same time, the public expects local governments to improve, or at least maintain, service standards without increasing rates and charges.

Consequently, in this environment the important issues are:

- effective information, communication, planning and management;
- effective consultation on big projects;
- expectations of high service standards;
- environmental and health issues; and
- the move to a “user-pays” basis.



## TOTAL MANAGEMENT PLANNING

Planning represents a small percentage of the lifetime cost of a project but it is the part of the service provision process that provides the greatest opportunity for achieving efficiency improvements and lifecycle cost reductions.

The TMP concept was designed to improve the efficiency of service provision by providing guidance on infrastructure planning and management issues, and to encourage service providers to take an integrated approach to planning and management.

The TMP process applies strategic planning to infrastructure management and involves:

- evaluating the current situation (e.g. scheme performance, service levels, asset condition and financial position);
- setting quantifiable objectives for the next 5, 10, 20 years;
- assessing constraints and issues that may affect achievement of the objectives (e.g. financial or environmental constraints);
- assessing options available to achieve objectives;
- selecting the most cost-effective strategies or combination of strategies;
- reviewing performance against objectives and modifying strategies to achieve them; and
- updating the TMP at regular intervals.

A TMP allows expenditure to be prioritised, highlights opportunities for cost savings and guides the way to financially and ecologically sustainable development. Typically, a TMP provides;

- a plan for the future, with set goals and objectives and strategies for achieving them;
- details of long-term financial commitments, such as that for new capital works to meet growth and improved service levels, and asset replacement/renovation costs;
- strategies to address issues before they become problems, preventing unplanned rate increases or reductions in service levels;
- base information for corporate planning, accrual accounting, town planning, and statutory reporting arrangements; and
- formal policies to address key issues such as demand management and wastewater reuse.

Information obtained through developing a TMP can also meet statutory financial and performance reporting requirements. Inter-agency performance benchmarks based on such information will enable local governments, service providers and the State Government to identify areas for improvement.

A TMP is a hierarchy of documents, ranging from the broad summaries required for public communication and performance monitoring, through to the detailed policy and planning document needed for day-to-day operations.

## REVISED TMP GUIDELINES

The Department of Natural Resources and Mines has recently produced a set of guidelines titled *Guidelines for Implementing Total Management Planning*. These extensively revise earlier guidelines and reflect current Australian and overseas water industry policies and practices. During the revision process, extensive consultation was undertaken with local governments, service providers, consulting engineers, managers, financial specialists and town planners, representing the all facets of the Queensland water service industry.

The Guidelines explain the concept of a TMP and outline the relationship between a TMP and other planning processes. They outline how an appropriate and practical TMP can be developed to address key result areas.

The detailed inputs required to address the respective key result areas include:

### ***Service Standards***

Service Standards Plan

### ***Financial Management***

Financial Management Plan

### ***Asset Management***

Water Demand Management Plan

Water Loss Management Plan

Infrastructure Plan

Asset Procurement Plan

Asset Evaluation and Renewal Plan

Operations Management Plan

Maintenance Management Plan

Sewer Infiltration/Inflow Management Plan

Water Source Management Plan

Energy Management Plan

Drinking Water Quality Management Plan

### ***Environmental Sustainability***

Environmental Management Plan

Effluent Management Plan

Sludge Management Plan

Trade Waste Management Plan

### ***Risk Management***

Risk management plan



### ***Performance Management***

Performance Management Plan

Information Management Plan

### ***\*Organisation Management and Development***

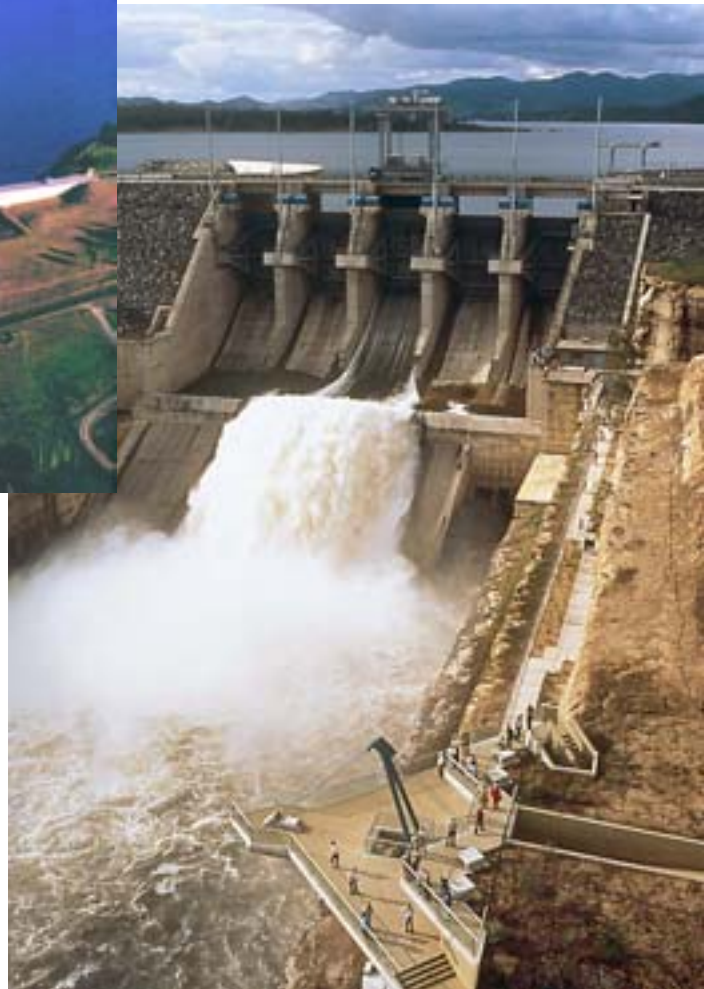
Human Resource Management Plan

Industrial Relations Management Plan

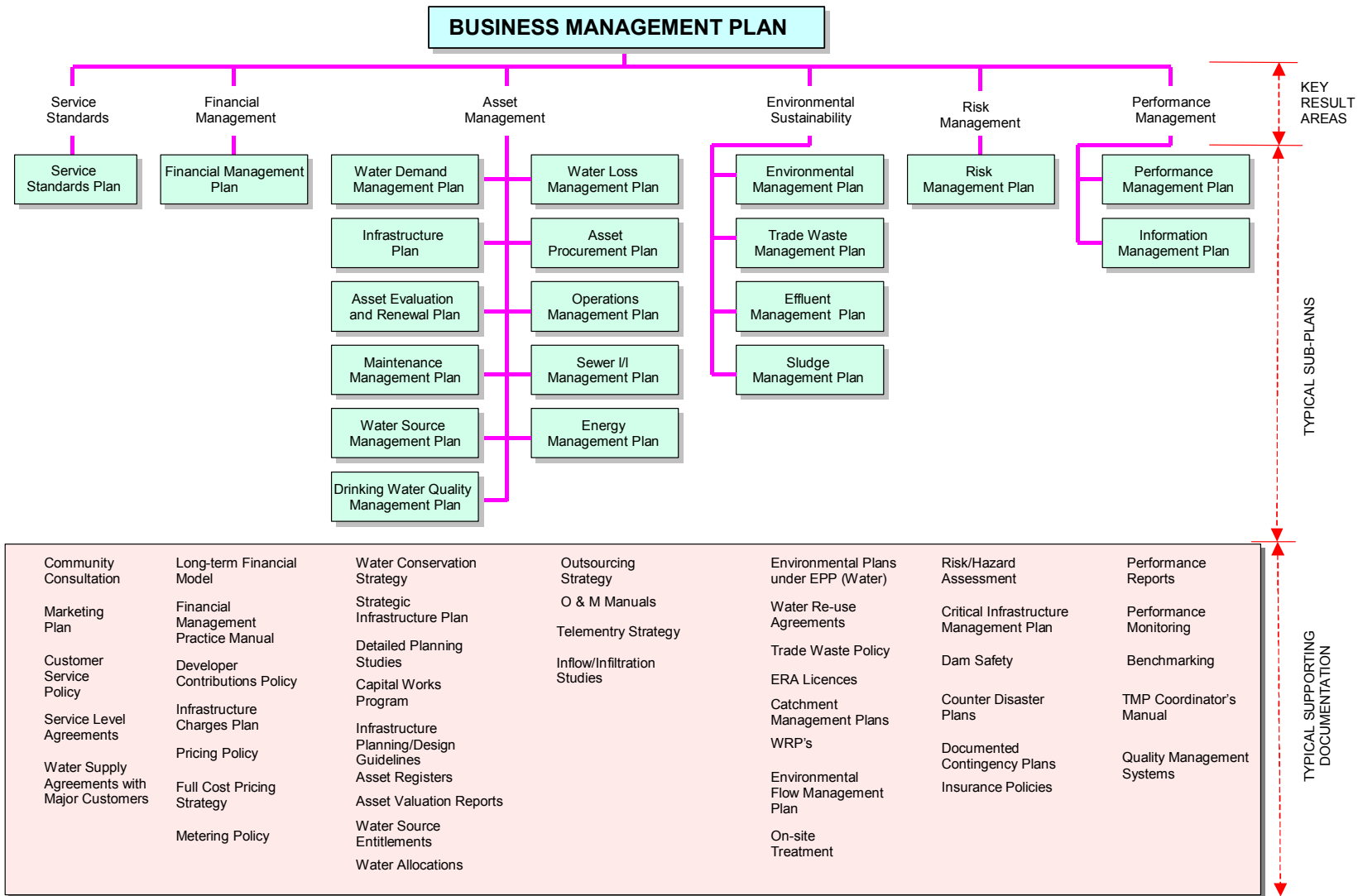
Workplace Health and Safety Management Plan

Organisation Development Plan

\* Note: This key result area is not specifically addressed in the TMP Guidelines. However, the TMP framework acknowledges the existence and role of these activities in planning and management of water related services.



# Structure of a Typical Total Management Plan



## **THE IMPLEMENTATION PROCESS**

Implementing a TMP process requires some commitment and an initial investment of time and energy if it is to give long-term benefits. It must also be accepted as a useful tool rather than an abstract idea or an imposed reporting arrangement of limited practical value.

The way in which a TMP is developed and implemented will depend on the size and location of an organisation's operational area and the population growth rate within it. An organisation with a small operational area containing a static population may need to consider all the issues included in a TMP, but will not need to carry out the same amount of work to address that issue. Indeed, based on the needs analysis and cost benefit considerations, some issues may require only a minimal amount of work if they are not relevant for that organisation. An organisation with a large operational area containing a rapidly growing population may need to consider far more extensive investigations and planning to address each issue.

Many local government service providers have TMPs in place and future activities will only involve upgrading. Other service providers may have already developed elements of a TMP, such as planning reports and financial plans. In such instances, TMP implementation will involve consolidating strategic planning, formalising and updating documentation and practices, and integrating these to produce documents providing clear directions and measurable targets.

## **TMP – THE BENEFITS**

Most local governments have benefited financially by implementing a TMP through efficiency improvements and subsidies. Benefits already evident include:

- improvement in infrastructure information systems;
- longer-term financial planning;
- greater emphasis on infrastructure maintenance management;
- quantification of service standards and performance monitoring; and
- formal policies in key areas.

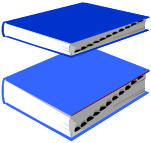
TMP is the application of sound management practices to infrastructure planning and management. Traditional engineering knowledge has been extended with techniques from other disciplines to provide a practical, common sense methodology for addressing water infrastructure planning and management issues.

Features of note include:

- TMP integrates policy development with planning and management issues;
- process uses a multi-disciplinary approach;
- TMP provides a framework that can be tailored to suit the needs of local governments and individual service providers, and the principles can be applied to all types of infrastructure;
- TMP recognises and utilises expertise and information that exists in an organisation;
- implementation of a TMP assists the micro-economic reform process;
- TMP information facilitates an overview of activities to ensure State and local government resources are used effectively; and
- TMP is a process of continual improvement, enabling local governments and others to provide high quality, cost-effective services to meet increasing community demands.

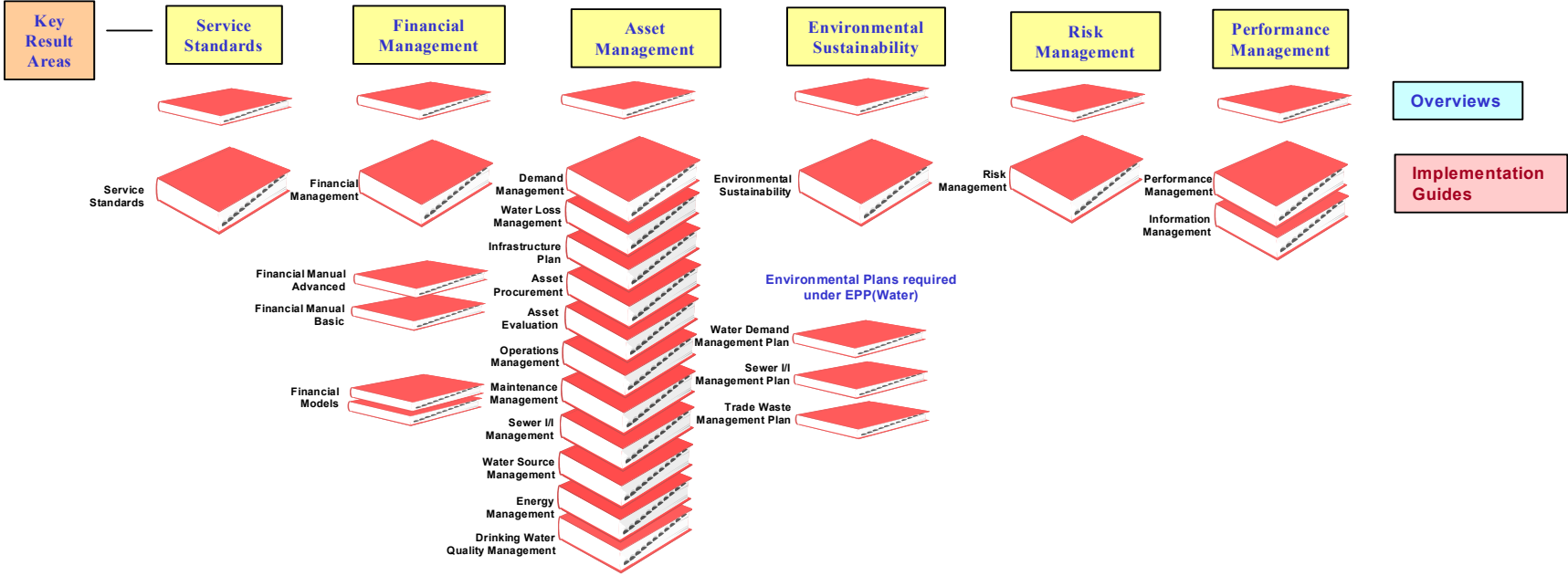
TMP focuses on the better planning and management of community services in a way that compliments national and international management trends and meets demands for increased efficiency and competitiveness.

# Structure of the Guideline for Implementing Total Management Planning



Total Management Planning Concept

Total Management Planning Development Guide



## Detailed Manuals, Guidelines and supporting Documentation

Guidelines for Planning & Design of Urban Water Supply Schemes  
 Guidelines for Planning & Design of Sewerage Schemes Vol 1 & 2  
 Guidelines for Drinking Water Quality Monitoring and Sampling

Interim Guidelines for Reuse or Disposal of Reclaimed Wastewater  
 Model Trade Waste Policy  
 Sewage Effluent Generation, Disposal & Reuse in Queensland

Guidelines for Performance Monitoring