

TOTAL MANAGEMENT PLANNING

A concept which encourages water service providers to:-

- *utilise best practice planning;*
- *achieve least cost outcomes; and*
- *achieve whole-of-business sustainable management*

TOTAL MANAGEMENT PLANNING

- A Brief Overview

Queensland Water Service Infrastructure

Extent:-

- Water-related infrastructure = \$20 billion.
- \$200 - \$400 million new infrastructure per year.
- Urban water-related services average of \$10,000 - \$15,000 per household per year.

Benefits:-

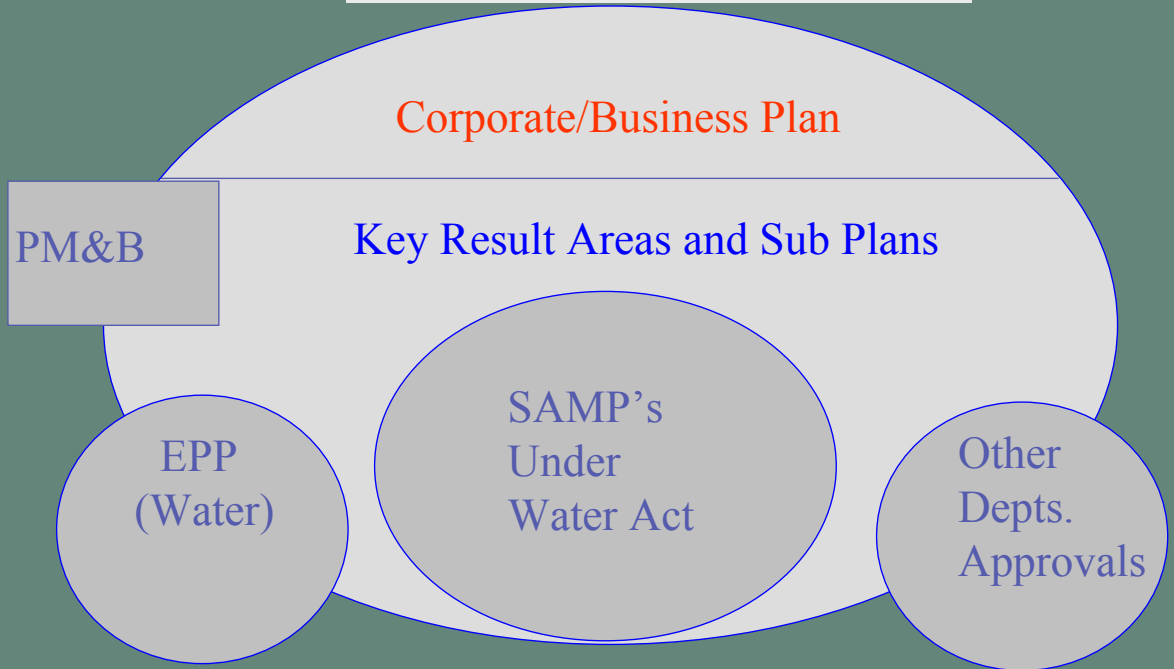
- Improved living conditions
- Regional and local economic development
- Minimisation of environmental degradation

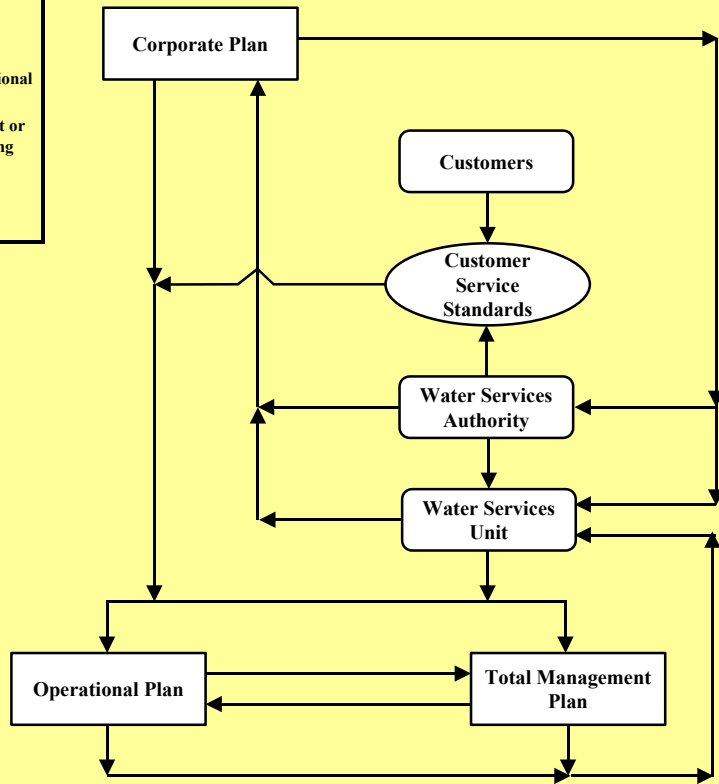
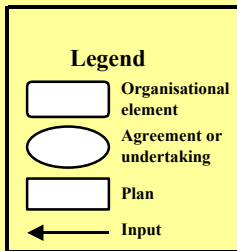
Queensland Water Service Providers

WSP CATEGORY	FUNCTION	NUMBER
Local Governments	Wholesale, Retail, Urban	125 (650 schemes)
Urban WS Authorities & Joint Local Governments	Wholesale, Urban	6
ATSI Community Councils	Wholesale, Retail, Urban	31
SunWater (GOC)	Wholesale, Irrigation	1 (34 schemes)
Rural Water Supply Authorities	Irrigation, Retail Stock/Domestic	50

TMP Links

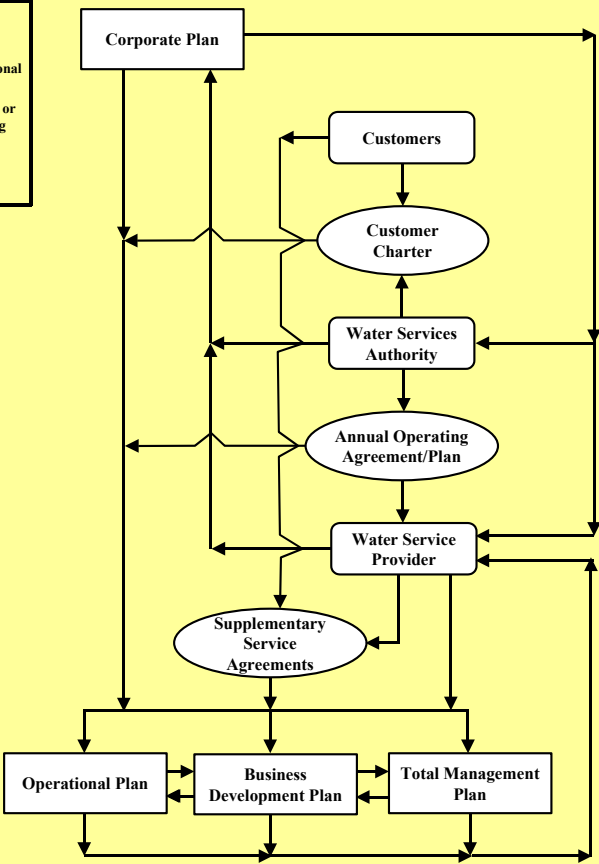
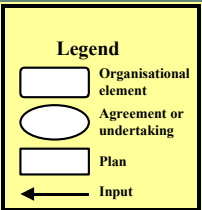
Water Service Provider TMP





The Relationship between the TMP and other Corporate Plans for Small WSP

The Relationship between the TMP and other Corporate Plans for Large WSP



Why a TMP ?

Need for an overall, coordinated approach to ensure: -

- **Sustainable essential services;**
- **Best practice to plan, design and build;**
- **Least-cost outcomes for the community.**

→Outcomes - Subsidy and Service

EVOLUTION OF GOVERNMENT INVOLVEMENT

Design

pre 1982 – Approval of planning, design, acceptance of tenders and inspection of construction

Planning

1982 to 1994 – Planning Reports and audit of construction

Management

1994 to 2001 – Planning Reports and TMP

History of TMP

- **Asset Management Guidelines developed -1989/91**
- **TMP Planning Guidelines developed 1990-1993**
- **TMP Manual published - 1994**
- **DCILGPS Subsidy to develop TMPs - 1994/95**
- **Approved TMPs for full subsidy since 1996/7**
- **TMP Guidelines are now being revised & updated**
- **TMP Guidelines complement *Water Act 2000*.**

TMP Today

- **TMP Manual (1994) - 2 volume document (process-based).**
- **Subsidy link to TMP - an incentive**
- **After December 2000 - reduced subsidy if no TMP in place.**

Development of Guidelines – Current Methodology

**Consultation with Local Government and rural
service providers (TMP Workshop - November 1999)**

Updated TMP guidelines being developed by NR&M

**NR&M to finalise TMP guidelines - 2001 (After
consultation with relevant stakeholders)**

The Aim of the Updated TMP Guidelines

- For different types of Water Service Providers
- More outcome oriented, less prescriptive and easier to read
- More aligned with corporate objectives
- Provide methodologies for best practice and least-cost planning processes
- Complementary to the *Water Act 2000*
- Integrated with other State Agency requirements (e.g. EPA)

Challenges in Developing TMP Guidelines

- **Diversity of Water Service Providers**
- **Dispersed**
- **Autonomous**
- **Organisational sophistication, resources and skills**



Getting the balance 'right'

TOTAL MANAGEMENT PLANNING

- Role in the Water Industry

What benefit is a TMP to me?

- A tool to plan impact of future works
- A process to report to Council on future issues
- A document for Council to use for funding, customer issues, future planning
- A methodology for managing revenue, expenditure, investment
- A confidence that unforeseen problems won't arise
- A process for ensuring certain actions and outcomes are achieved

Benefits to the Council

- Delivery of corporate outcomes
- Show customers/ratepayers that Councils have strategies to manage their water systems
- Meets Councils regulatory and legislative requirements
- Development of a business plan that confidently links future infrastructure to budgets and charges

Benefits to the Water Unit of Council

- Demonstrates the Unit's importance in terms of assets and service delivery
- Shows the Unit is operating efficiently
- Demonstrates the Unit is meeting any charter or agreement with Council
- Shows that the Unit has planned for all necessary water infrastructure
- Justifies the Unit's requirements and plans in terms of budget and resources

Benefits to the State Government

- Demonstrates the infrastructure providing an essential service to the community is sustainable
- Provides information on financial requirements
- Highlights community needs for the future

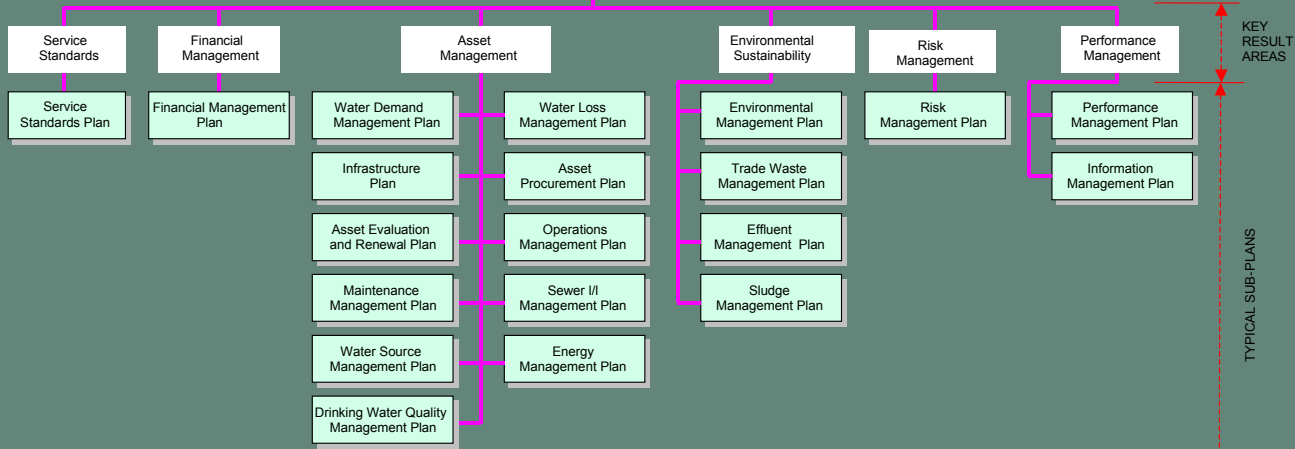
TOTAL MANAGEMENT PLANNING

- Structure

Basic TMP Structure

Level	Element	Main Target Readership
1	Business Management Plan (Overview)	Elected representatives; executive management; regulators
2	Operational sub-plans, including action plans	Operational management; regulators
3	Supporting documentation, including procedure manuals, reports, etc	Operational supervisors; technical staff

BUSINESS MANAGEMENT PLAN



Community Consultation	Long-term Financial Model	Water Conservation Strategy	Outsourcing Strategy	Environmental Plans under EPP (Water)	Risk/Hazard Assessment	Performance Reports
Marketing Plan	Financial Management Practice Manual	Strategic Infrastructure Plan	O & M Manuals	Water Re-use Agreements	Critical Infrastructure Management Plan	Performance Monitoring
Customer Service Policy	Developer Contributions Policy	Detailed Planning Studies	Telemetry Strategy	Trade Waste Policy	Dam Safety	Benchmarking
Service Level Agreements	Infrastructure Charges Plan	Capital Works Program	Inflow/Infiltration Studies	ERA Licences	Counter Disaster Plans	TMP Coordinator's Manual
Water Supply Agreements with Major Customers	Pricing Policy	Infrastructure Planning/Design Guidelines		Catchment Management Plans	Documented Contingency Plans	Quality Management Systems
	Full Cost Pricing Strategy	Asset Registers		WRP's	Insurance Policies	
	Metering Policy	Asset Valuation Reports		Environmental Flow Management Plan		
		Water Source Entitlements		On-site Treatment		
		Water Allocations				

TYPICAL SUPPORTING DOCUMENTATION

Key Result Areas

Key Result Area	Typical Issues Covered
Service Standards	Customer charters/guarantees, customer interaction, community consultation, drinking water guidelines
Financial Management	Financial modelling, commercial objectives, tariff structures
Asset Management	Full asset lifecycle from infrastructure planning to asset rehabilitation/disposal including demand management
Environmental Sustainability	Environmental compliance, environmental management systems, effluent quality, effluent reuse, sludge management, trade waste management
Risk Management	Risk assessment, minimising risk exposure, risk monitoring
Performance Management	Performance monitoring and compliance, quality management, information management
Organisational Management and Development	Organisational culture, change management, staff development, industrial relations

Guideline Structure

- **user friendly**
- **easily understood by range of target audiences**
- **outcome focussed but expresses State Government requirements**
- **flexibility to accommodate WSP processes**
- **readily updateable**

Features of Guidelines

- **TMP guideline**
 - **Concept**
 - **TMP Development Guide**
 - **Overview**
 - **Implementation Guides**
- **Different Development Levels**
- **Prioritisation Methodology**

Content Guideline - 1 Page

- **Issues Covered**
- **Purpose**
- **Policies that May be Required**
- **Other TMP Elements Intimately Linked to Sub-Plan**
- **External Issues Contributing to Current Operating Environment**
- **What Issues Need to be Considered in Summarising Status of Current Operations**
- **What Should be the Strategic Basis of the Plan**
- **Suggested Performance Measures**
- **Supporting Documentation**

Further Reading

Sub-Plan:	Water Demand Management Plan	
Issues Covered in Sub-Plan	<ul style="list-style-type: none"> • Supply metering; • Water pricing; • Customer education; • Water-efficient hardware; 	<ul style="list-style-type: none"> • Irrigation efficiency; • Water restrictions (consumption regulation); • Supply reduction.
Purpose of Plan	<ul style="list-style-type: none"> • To provide an overview of the WSP's current water demand management practices. • To outline the WSP's future objectives and initiatives in managing water demand. 	
What Policies may be Required	<ul style="list-style-type: none"> • Pricing; • Customer metering; • Water use restrictions; 	<ul style="list-style-type: none"> • Effluent reuse; • Trade waste minimisation; • Infrastructure service standards (re supply rates and pressures)
What Other Total Management Plan Elements are Linked Intimately to this Sub-Plan	<ul style="list-style-type: none"> • Infrastructure Service Standards Plan – considers supply-side service parameters (eg supply rates and pressures) which influence demands. • Financial Management Plan – considers implications of consumption-based pricing and falling demands. • Infrastructure Planning Overview – takes account of deferring future headworks consequent on falling demands. • Unaccounted-for Water Plan – provides for water audits which utilise demand data, and may incorporate common strategy(ies), eg pressure reduction. 	
What External Issues Contributing to the Current Operating Environment Need to be Considered	<ul style="list-style-type: none"> • New developments in Government WaterWise program. • Local Government Act requirements for two-part tariffs for certain urban supplies. • Increasing encouragement of WSPs by governments to develop formal demand management programs, with some offering financial assistance on preparation and/or implementation. • Progressive implementation of COAG pricing principles for irrigation water pricing. • Requirements of EPP (water) for preparation of local government environmental plans on water conservation by June 2002. (This sub-plan and the Water Loss Management Plan should jointly be formulated so as also to meet these requirements.) • Consumption data from other WSPs for benchmarking current demands. • Efficiency improvements in irrigation practices. • Advances in efficiency of water appliances, irrigation equipment and other hardware. 	
What Issues Need to be Considered in Summarising the Status of Current Operations	<ul style="list-style-type: none"> • Scope of WSP's demand management program. • Progress on environmental plan for water conservation under EPP (water), for local government WSPs. • Status of customer education programs, eg, WaterWise. • Extent of customer metering. • Water consumption trends and benchmarking results. • Current and planned pricing practices, and effects on consumption trends. • Promoting of water-efficient hardware, improved irrigation practices, trade waste minimisation recycling and reuse, etc. 	

<p>What should be the Strategic Basis of the Plan</p>	<p>The strategic elements forming the basis of the plan should include:</p> <ul style="list-style-type: none"> ◆ goal for asset management ◆ objective(s) for water demand management ◆ adopted KPIs ◆ management strategies and performance targets. <p>The management strategies developed will be based on the identified key strategic issues and SWOT findings, including risk assessment, in respect of water demand management, and on the required TMP development level.</p> <p>Many WSPs are likely to require strategies for enhancing their customer educational and promotional programs; optimising water-pricing policies in terms of water demand and projected revenue; and minimising consumption on all WSP-owned properties.</p> <p>The strategies should be supported by detailed action plans that would cover up to a 3-year period.</p>
<p>Suggested Performance Measures</p>	<p>Outcome: Infrastructure investment cost (new works): base year cost ratio</p> <p>Output: Average water demand/customer Maximum day: average day demand ratio Peak hour: average day demand ratio</p>
<p>Supporting Documentation</p>	<p>These will depend on the WSP, but typically would include:</p> <ul style="list-style-type: none"> ◆ current WaterWise (or similar) water conservation program; ◆ strategic demand management reports; and ◆ water consumption analysis/benchmarking reports.

Development Level

- **Levels 1 - 3** **Based mainly on current cost of infrastructure and number of connections**

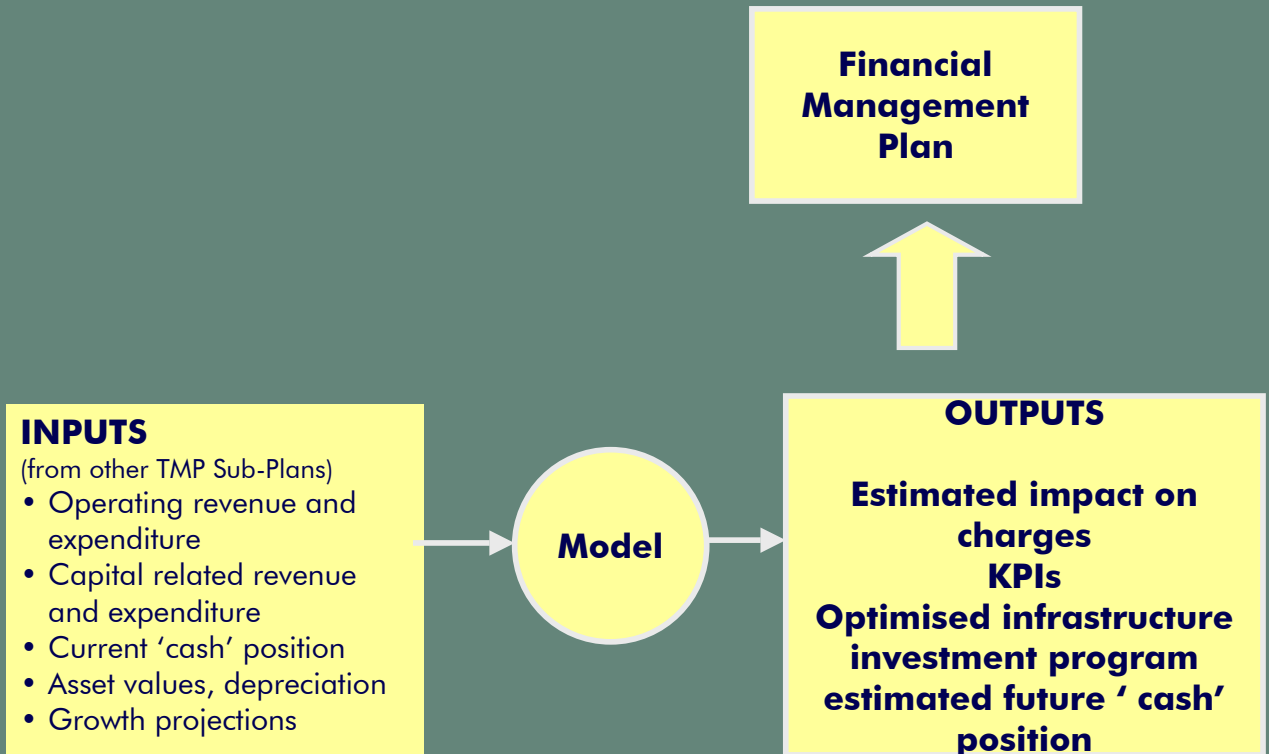
Prioritisation of Strategies/Actions

- **Suggested methodology based on assessment of benefits/risks**

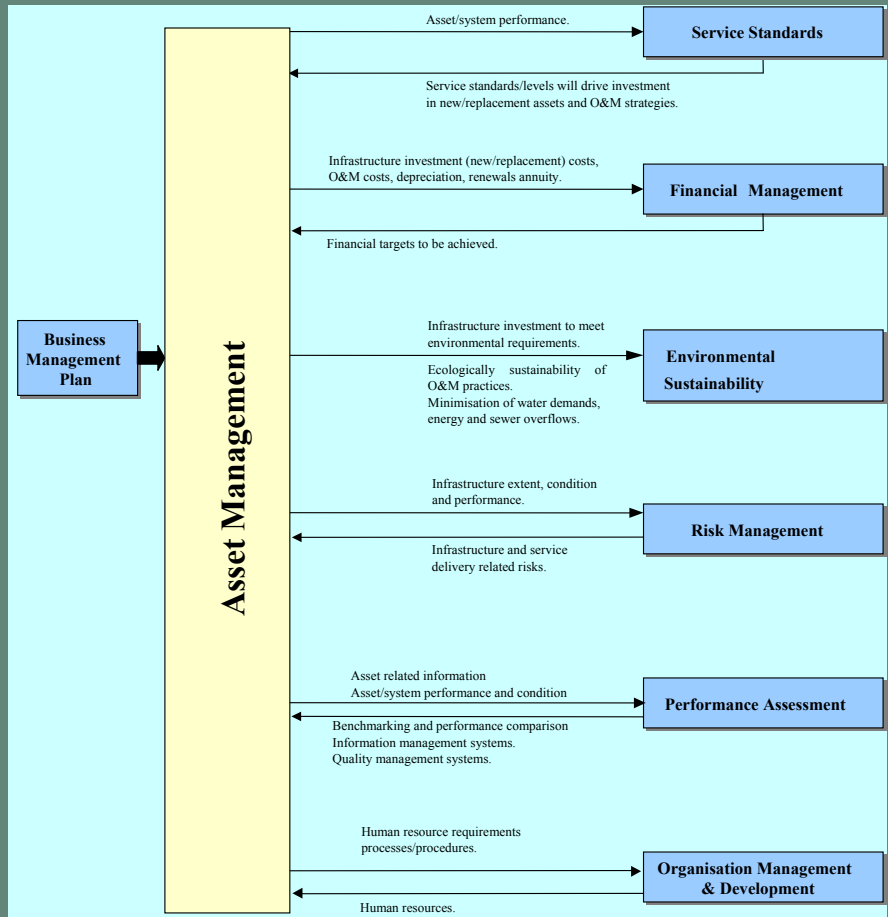
Key Result Areas

- **Service Standards**
- **Financial Management**
- **Asset Management**
- **Environmental Sustainability**
- **Risk Management**
- **Performance Management**

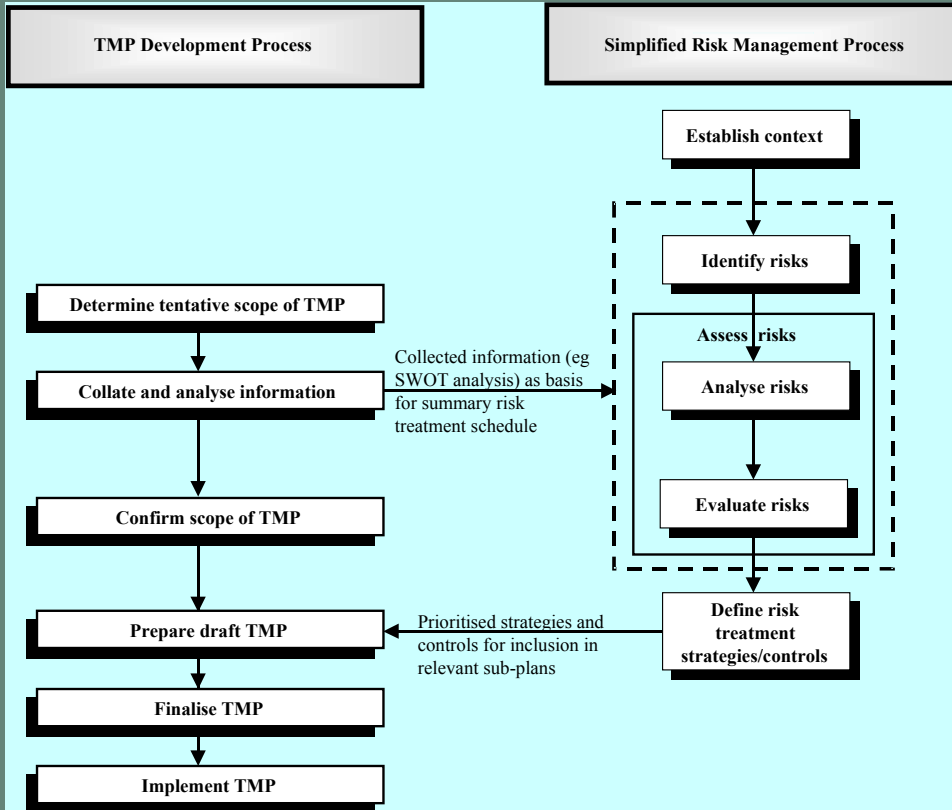
Relationship Between the Financial Management Plan and the Model



Relationship Between Asset Management and Other Key Result Areas



Integration of Risk Management and TMP Development Processes



TOTAL MANAGEMENT PLANNING

- Linkages to the *Water Act 2000*

TMP Approvals

The *Water Act 2000* requires the preparation of a Strategic Asset Management Plan (SAMP). A full TMP will cover virtually all of the requirements of a SAMP. Hence, although a different approval process, a SAMP will require minimal extra work, reducing administrative duplication and the impact of compliance with the Act.

The TMP guidelines are thus being updated in conjunction with SAMP guidelines under the Act.

STRATEGIC ASSET MANAGEMENT PLANS

- Levels of service and performance indicators
- Operation, maintenance & renewals strategy that demonstrates how standards will be achieved
- Best practice industry standards
- Methodology for developing standards

CUSTOMER SERVICE STANDARDS

- Levels of service
- Process for connection, billing, metering, accounting, customer consultation, complaints and dispute resolution

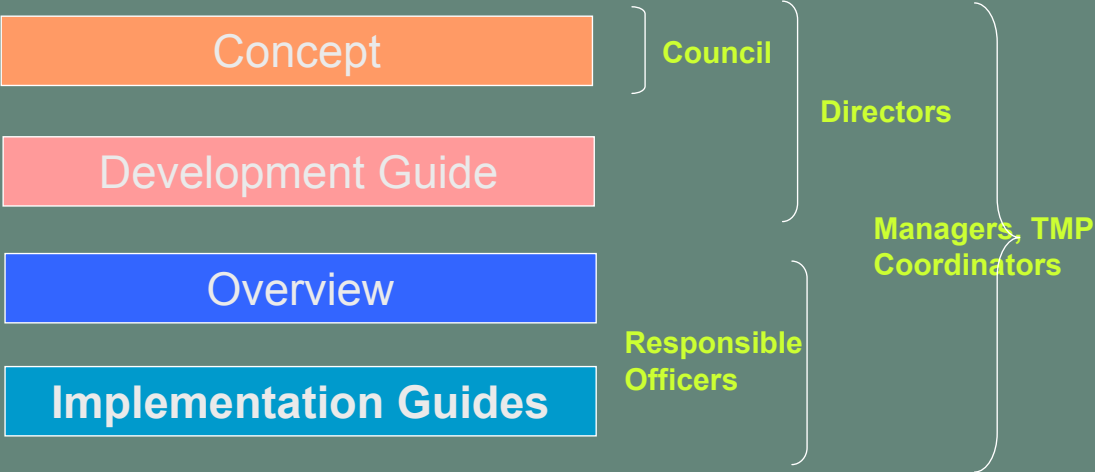
TOTAL MANAGEMENT PLANNING

- Format of Documentation

Basic TMP Structure

Level	Element	Main Target Readership
1	Business Management Plan (Overview)	Elected representatives; executive management; regulators
2	Operational sub-plans, including action plans	Operational management; regulators
3	Supporting documentation, including procedure manuals, reports, etc	Operational supervisors; technical staff

Basic TMP Guideline Structure

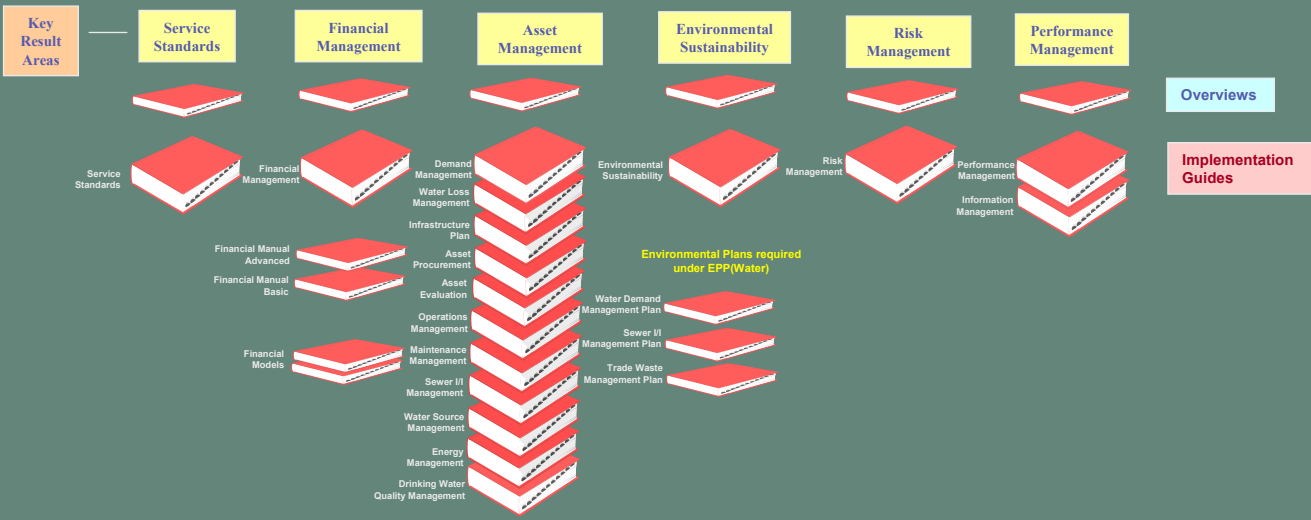


Structure of the Guideline for Implementing Total Management Planning



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

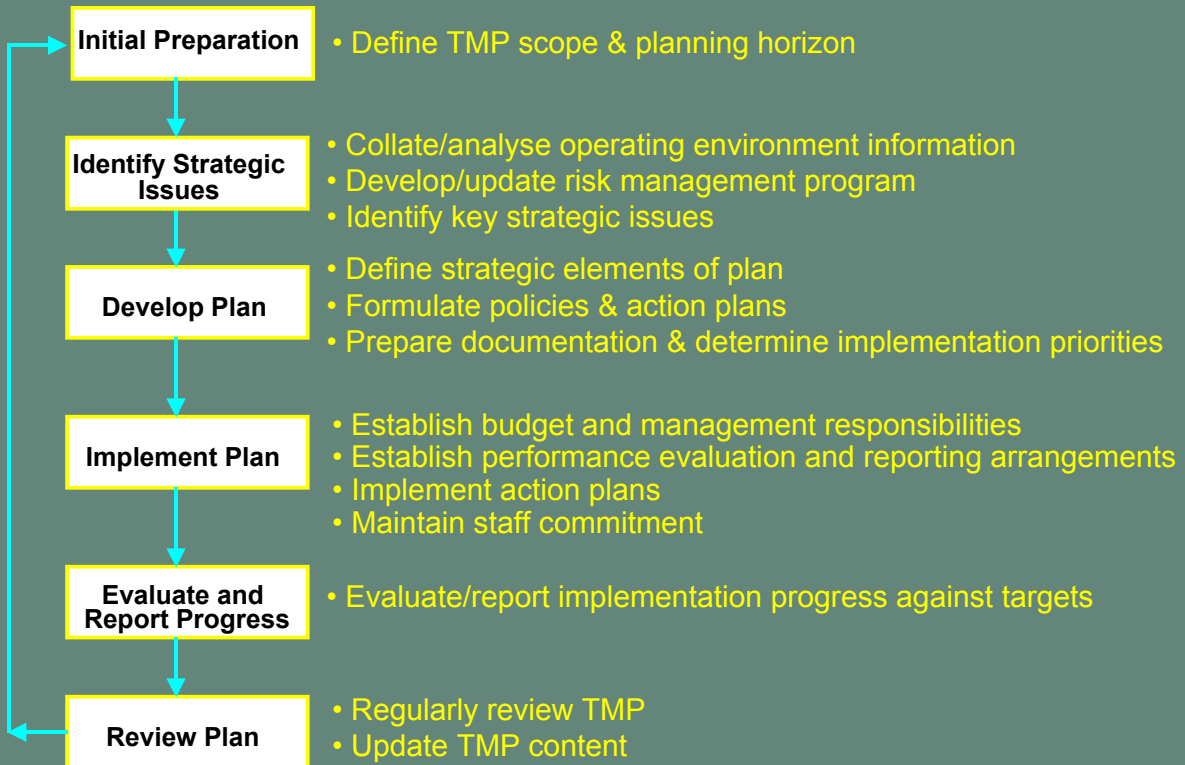
- Interim Guidelines for Reuse or Disposal of Reclaimed Wastewater
- Model Trade Waste Policy
- Sewage Effluent Generation, Disposal & Reuse in Queensland

Guidelines for Performance Monitoring

TOTAL MANAGEMENT PLANNING

- Implementation of Total Management Planning**

Developing a Total Management Plan



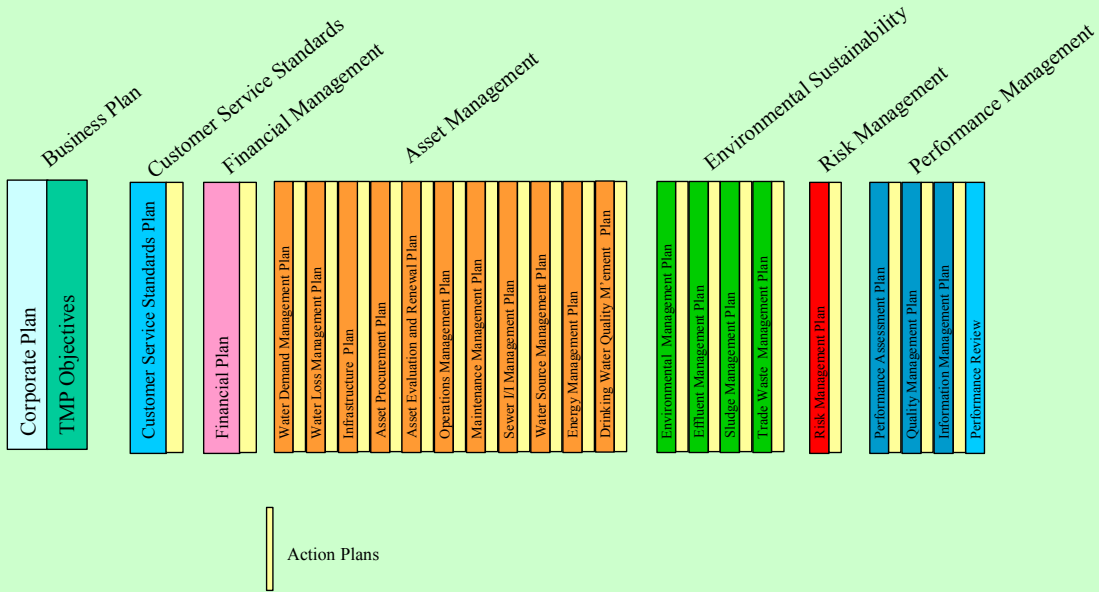
Key Issues in a Total Management Plan

- **Meet Corporate Objectives**
 - **Address key result areas**
- **Result in Action Plans**
 - **Operate system sustainably**
 - **Plan capital works for future**
- **Link planning to financial plan**
 - **Deliver service standards**
 - **Result in coordinated planning approach**

Delivery of a Total Management Plan

- **Council TMP Co-ordinator**
- **Council team versus Consultant**
- **Co-ordinated approach within Council**
- **Involve each key area**
- **Develop process for implementing**

TYPICAL STRUCTURE OF A TMP FOR A LOCAL AUTHORITY



TOTAL MANAGEMENT PLANNING

- Publishing the Guidelines

Compact Discs



NR&M Website



Marketing and Communication

- Competency training for staff
- Awareness sessions at 8 centres around the State for Councils and associated organisations
- Follow up sessions delivered by regional staff
- Web associated updating and communication

TOTAL MANAGEMENT PLANNING

Summary

The Future of TMP'S

TMP's are becoming more holistic in the application and will provide:

- A tool to plan and manage water and sewerage infrastructure in a manner that provides the best outcomes for their customers
- A system for integrating different water management mechanisms into the overall planning process and ensuring all aspects of water planning is linked

The Future of TMP'S (cont')

- A mechanism that will provide concurrent approval with legislative requirements of other Departments and the *Water Act 2000*.
- A system to ensure all parts of the water based infrastructure systems are planned in the most efficient, balanced manner with strong links between financial and technical issues.
- An ongoing plan to ensure water schemes are sustainable both financially and operationally.

Where to from here?

- Development of CD, Web and printing of guidelines
- Conduct staff training sessions
- Develop review manuals for TMP's
- Conduct state wide awareness sessions
- Conduct follow up sessions

Contacts

Rolf Rose

Ph 07 3224 2733

Fax 07 3224 7999

Mob 0418 183985

Email rolf.rose@nrm.qld.gov.au

Water Industry Regulation

Department of Natural Resources and Mines

GPO Box 2454

Brisbane 4001

TOTAL MANAGEMENT PLANNING

- a concept which encourages water service providers to utilise best practice planning, achieve least cost outcomes and whole-of-business sustainable management