2004

Supporting Integration of Water Planning & Regional NRM Plans & Arrangements

Guiding Integration

This document supports the planning module '*NRM Plans and other regional planning processes: What are the links*?' which in turn supports the *Guidelines for Regional Natural Resource Management Planning in Queensland*[1]. The *Regional NRM Plan Guidelines* identify two broad accreditation criteria or requirements that relate to consistency of NRM plans with water resource related planning activities:

1. ***Consistency with other planning processes and legislative requirements -*** *ensuring a logical link is established between the WRPs, ROPs, WUPs and accredited NRM Plans;* and
2. ***Set regional targets*** *for salinity, water quality, water flows, estuarine/coastal issues and stream and terrestrial biodiversity that are consistent with agreed national standards and relevant planning processes.*

This document provides some practical approaches for bodies that clearly demonstrate the above criteria in NRM plan development have been addressed (see Table 1).

This document also identifies some broader integration and coordination opportunities that support longer-term healthy regional arrangements for NRM planning (see Table 2). These go beyond the practical short-term considerations for developing a Regional NRM Plan for accreditation.

In recognition of the links between water quantity and water quality, there are requirements under the *Water Act 2000* to provide for Environmental Values under the Environment Protection Policy (Water). A separate module has been prepared titled *'Integrating Environmental Values for Water into Regional NRM Plans".*

Water planning processes

The following planning and implementation activities from the *Water Act 2000* are mainly concerned with the sustainable allocation, management and use of water.

- **Water Resource Plans (WRPs)** - are basin or catchment wide plans prepared to provide the statutory framework for allocating and managing water for both human use and environmental flow requirements. WRPs include environmental flow and water allocation security objectives as well as providing the platform for tradeable water allocations in the catchment. WRPs are in different stages of development in different catchments. In the development of WRPs the Minister must also consider Environmental Values established under the Environmental Protection (Water) Policy (1997). DNRM and EPA are collaborating on integrating water quality considerations more closely with water quantity issues in the WRP process. Web link.
- **Resource Operations Plans (ROPs) –** are basin or catchment wide plans which provide the 'operational' statutory framework for implementing the *Water Resource Plans*. They include arrangements for converting existing entitlements to tradeable water allocations, and define water sharing and flow management rules, water trading rules, infrastructure operating rules, and ecosystem and water monitoring practices.
- **Water Use Plans (WUPs) –** these regional or district scale statutory plans can be prepared in areas to address risks of natural resource degradation arising from water use practices in that area. The water use plans may set water use practice standards to address issues like rising groundwater, deteriorating water quality, soil erosion in the area

[1] *Guidelines for Regional Natural Resource Management Planning in Queensland*

or soil and water degradation due to contamination/salinisation particularly from irrigation practices.

- **Land and Water Management Plans –** these property-scale plans describe how a property's land and water are to be managed in order to minimise on and off-site impacts to land and water resources. These plans, prepared by the property-owner, are required prior to trading in water allocations or where new water allocations are purchased or leased. The plans might address issues such as water use efficiency, drainage, recycling, cropping practices and biodiversity and cultural heritage conservation. A LWMP may also be required in an area where a *Water Use Plan* is in place. Conversely, a WUP may alleviate the need for LWMPs within an area.

Water Planning Roll-out

1. **Status of WRPs and ROPs -** The status of development and implementation of *Water Resource Plans* and *Resource Operations Plans* in Queensland's catchments is available on the website detailed previously. It shows that WRPs and/or ROPs are either yet to be initiated, currently being drafted or finalised, or being amended in different parts of the State. Where WRPs are finalised, environmental flow objectives have been set. Where WRPs are under development, regional NRM planners should liaise with the Department of Natural Resources and Mines water planning teams regarding the current status and planned timeframes for WRP completion.

Key water planning inputs for Regional NRM Plans

The following table (Table 1) provides practical approaches that clearly ***address the criteria for NRM plan accreditation relating to water planning***. It is essential that Regional NRM Plans and WRPs are consistent. ***As the timing of water planning processes differs between regions, not all NRM planners will have access to these inputs or they will differ somewhat between regions***. Where WRPs are not developed Regional NRM plans will provide the strategic intent to guide the future development of the WRP. Using general planning outcomes as a focus, the table lists these key inputs and suggests their likely application in the Regional NRM Plan.

Table 1. Key water planning inputs for Regional NRM Plans

Planning Outcomes	Inputs from WRPs / ROPs / WUPs / L&WMPs	Description	Application in NRM Plan
Maintaining flows to achieve ecological outcomes	• **Provision for Environmental Flows**	The WRPs and ROPs provide management strategies and environmental flow provisions developed to provide for the water need of natural ecosystems.	Check that NRM Plan management action or relevant resource condition targets are consistent with WRP management strategies including environmental flow provisions.
	• **Environmental Flow Objectives**	These objectives are essentially assessment criteria that must be applied in future decision-making within a WRP catchment area under the Water Act. The objectives are tested by using IQQM hydrologic models to stimulate the potential effects of proposed decisions. The objectives relate to the long-term pattern of low, medium and high flows required to maintain ecosystem health.	Check that NRM Plan management action or relevant resource condition targets are consistent with environmental flow objectives.

	• Other environmental **'assessment criteria'**	Decision-making criteria for the allocation and management of water. Such criteria are factors for consideration in addition to assessment against the environmental flow objectives specified in a WRP. These criteria often are not flow related, but instead address the physical implications of alternative water allocation or management options that otherwise would meet environmental flow requirements. Typically, they include factors such as: • The inundation of riverine habitat; • Potential to cause stream bank erosion; • Thermal pollution; • Inter-basin transfers; and • Water use efficiency.	Check consistency of any investment criteria applied in NRM plans and related examples as possible management actions.
Aquatic ecosystem / ground water health	• **Monitoring programs** presented in ROPs for compliance, impact and plan performance	Includes indicators and practices for related monitoring programs, which are undertaken by licence holders and the State to determine compliance with ROP rules, to assess impact of infrastructure operation and to assess success of the plan in meeting its outcomes. Focus is on flow-related (and aquifer levels) affects on aquatic ecosystem health rather than land-related water quality affects.	Check consistency or complementarity of proposed **monitoring activities and indicators** in NRM plan with ROPs. Show where proposed monitoring investments under the NRM plan (e.g. Saltwatch, Waterwatch) may support and/or complement WRP monitoring outcomes.

Industry viability	• **Current moratoria in place** • **Future development** • **Additional water allocations**	Location and duration of water harvesting / development moratoria in place; proposed future development sites or projects; location and volume of additional water allocations in catchment for water industry development.	In **regional overview** identify status of moratoriums. If identifying regional economic assets (available water); evidence of planning for potential pressures on resource assets related to the development of that water resource and locations for investment in industry development, rural water use efficiency.
	• **Security of Water Entitlements**	The WRPs and ROPs provide management strategies and objectives relating to improving the security and certainty of water entitlements. This includes: • Conversion of water licences to tradeable water allocations; • Specification of water allocation security objectives; • Definition of water sharing and trading rules and assessment criteria; and • Volumetric specification of water entitlements.	Check NRM Plan **targets or proposed investments** potentially affecting security of water entitlements are consistent with water allocation security objectives.
	• **Implementation schedule** • **Transitional arrangements**	The WRPs and ROPs may specify transitional arrangements and implementation schedules for rolling out the management strategies, or for achievement of the plan objectives.	Check consistency of NRM Plan **targets or proposed investments** with planned transitional arrangements and implementation schedules.

Maintaining soil resource condition **&** **Reducing impacts of land use intensification**	• **Water Use Plans**	One of the issues that a WUP may address is potential impacts on soil condition associated with water use, e.g. as a consequence of a rising groundwater table under an irrigated area.	Identify in **regional overview** districts in region where WUPs are in place or being proposed and the natural resource degradation issues and risks in that district that led to the preparation of a WUP. Check consistency or complementarity of proposed **management actions, monitoring activities and indicators** in NRM plan with WUPs.
	• **Land and Water Management Plan**	An L&WMP may specify how a property's land and water are to be managed in order to minimise on- and off-site impacts to land and water resources.	Identify in **regional overview** the requirements for the preparation of L&MPs that apply to the region. Check consistency or complementarity of proposed **management actions, monitoring activities and indicators** in NRM plan with L&WMPs.

Opportunities for Integration and Coordination

This part of the guideline outlines a number of broader services, relationships and links between regional NRM planning and related water planning activities. These include water resource planning, regional NRM planning and water quality planning. The development, implementation and review phases of these plans provide the scope for longer-term coordination and cooperation. This requires discussion and negotiation between the planning groups at a regional scale.

Planning Outcomes	Integration and Coordination Opportunities
Effective and coordinated consultation and participation approaches	• NRM&E (Water Planning) incorporate regional bodies & subregional networks into ***design of consultation process*** for WRP / ROP development and review (e.g. exploring new approaches to advisory structures & processes in the Burdekin). Similarly other water related planning processes provide opportunities for wider integration and coordination (e.g. WQIP for SEQ). • Regional bodies ***provide networks for sector-based and sub-regional consultation*** on water related planning processes (e.g. WUPs). • Explore sharing or merging existing ***technical or scientific advisory groups*** (e.g. TAP). • Explore ***cooperation on communication activities.*** • Regional bodies are encouraged to make detailed ***submissions on draft WRPs, ROPs*** and ***WUP s and water quality objectives or Environmental Values as per Schedule 1 of EPP Water.***
Adequate information base for planning and decision-making	• Research priorities identified in water planning processes e.g. regional NRM plans, WRPs, ROPs and WQIPs. ***Shared research priorities are negotiated*** and funded e.g. NAPSWQ planning / research can provide the link between instream health and land management practices. • Contributions of different regional WQ ***monitoring frameworks*** identified, shared indicators developed. ***Community-based monitoring programs*** (e.g. Waterwatch) to form part of this monitoring framework. Information derived from such monitoring programs may contribute to future ***reviews of water plans, e.g. WRPs, WQIPs.*** • Annual assessment (report) to be released by NRM&E on monitoring outputs for aquatic ecosystems and flow and ROP implementation progress. • Data collection practices for monitoring WQ and flow presented in ROPs (e.g. Attachment 3.3 of Fitzroy ROP) – may provide guidance for regional bodies. • In ***preparing a draft WUP*** 'changes to water use practices that will reduce the risk to land and water resources' and 'existing industry codes of practice for water use' must be considered. NRM plan investments, policies, projects or monitoring on practice use/industry codes could inform this process.

Social and economic impacts addressed	• Regional NRM plans and planners may partner the State or contribute to providing conflict resolution processes or for identifying and actioning cost-sharing and equity considerations relating to water planning. • In water planning, e.g. ROP implementation, economic evaluations are undertaken that include alternative options and economic costs and benefits (e.g. relating to un-allocated water available for future release). • Regional NRM planners and plans may support or participate in scenario development or evaluation of impacts and investments to support mitigation of impacts (infrastructure, industry/sector impacts, environmental impacts including WQ, salinity, terrestrial biodiversity, riverine health, cumulative impacts on in stream habitat, cultural heritage and social impacts, recreational and tourism impacts).
Coordinated property scale / on-ground investment	• Performance requirement in LWMPs to 'monitor water resource condition' including salinity of tail water, water runoff, salinity of shallow water tables, ground water table levels and general water quality. NRM planners ***support*** landholders in on-property ***implementation of LWMPs*** and ***monitoring activities*** (e.g. directing Saltwatch and Waterwatch resources to key areas) where there are complementary objectives or priority resource degradation issues. • Negotiate a partnership between NRM planners, government and industry to direct these individual property-based monitoring outputs into a catchment / sub-catchment wide framework. • NRM planners to consider ***management practice standards*** and local planning requirements (e.g. ***LWMPs***) in developing practice related strategies and targets.
Common policy basis	• The *Water Act 2000* states ***'the sustainable resource management strategies and policies*** for the catchment' must be considered in preparing a water resource plan. This means in drafting or reviewing WRPs, Environmental Protection Policy (Water) 1997, relevant policies and NRM plans developed by Regional NRM Bodies (e.g. CQ Water Quality Policy, regional NRM plans, catchment plans, regional community values) will inform the development and review of WRPs. • Under the Water Act (2000), where a WRP regulates taking or interfering with overland flow, there will be a requirement for consistency with any relevant self assessment or assessment Codes referred to within the WRP.

Important contacts, support and further information

Key regional contacts for delivery of water resource-related planning processes are:

	Regional water planning (WRPs, ROPs & WUPs)		Land and Water Plans
South East	Manager (Water Planning)	(07) 3238 3732	
Central-West	Manager (Water Planning)	(07) 4938 4251	
North	Manager (Water Planning)	(07) 4048 4856	
South-West	Manager (Water Planning)	(07) 4688 1134	

Follow this link to the NRM&E water planning webpages for futher information on the above plans and processes www.nrm.qld.gov.au/wrp/index.html

This module is one in a series of guidance products linked to the Regional NRM Plan Guidelines. Related modules (under development) include coastal management planning, regional growth management Frameworks and others.

For a full list of ***guidance materials*** as they become available visit the Queensland NAP website at www.nrm.qld.gov.au/salinity/framework.html