

Fitzroy Basin

resource operations plan

January 2004

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(revision 2)

Prepared by:

Water Planning Group

Department of Environment and Resource Management

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Chapter 1

Introduction

This Fitzroy Basin Resource Operations Plan January 2004 implements the Water Resource (Fitzroy Basin) Plan 1999.

A water resource plan (WRP) is a plan prepared under the provisions of the *Water Act 2000* (Water Act), approved by the Minister and is subordinate legislation. A WRP sets the strategic framework for the allocation and sustainable management of water.

A resource operations plan (ROP) is a plan prepared under the provisions of the Water Act by the chief executive to implement a WRP for certain water in all or part of the plan area. A ROP defines the rules that guide the allocation and management of water to achieve the objectives set in the WRP.

The scope of the Fitzroy Basin Resource Operations Plan is detailed in Chapter 2.

Chapter 2

Scope of Resource Operations Plan

Overview

The Water Act specifies the elements that a resource operations plan (ROP) must contain or address – for instance its name, the area and the water to which it applies, the water resource plan (WRP) it is being prepared for, and the infrastructure involved. This chapter outlines some of these requirements.

2.1 WRP under which the ROP is made

The ROP is made to implement the Water Resource (Fitzroy Basin) Plan 1999.

2.2 Name of the ROP

The name of this ROP is the Fitzroy Basin Resource Operations Plan January 2004.

2.3 Commencement of the ROP

The Fitzroy Basin ROP was approved by the Governor in Council on 18 December 2003 and came into effect on 9 January 2004. The ROP commenced on the first business day after the ROP took effect.

Amendments to the ROP take effect on the day approval by the Governor in Council is notified in the Government Gazette. Amendments to the ROP commence on the first business day after the amendment to the ROP takes effect.

2.4 ROP area

The area to which the ROP applies is the entire Fitzroy River Basin covered by the WRP. The area covered is shown in Map A.

2.5 Water to which the ROP applies

The ROP applies to water in each watercourse, lake or spring, and water conserved by a weir, dam or barrage constructed in, on or over a watercourse, lake, or spring.

2.6 Water infrastructure to which the ROP applies

The ROP applies to the infrastructure outlined in the attachments for the following water supply schemes:

- Dawson Valley Water Supply Scheme – Attachment 4.1D;
- Nogoia Mackenzie Water Supply Scheme – Attachment 4.2D;
- Lower Fitzroy Water Supply Scheme – Attachment 4.3D; and
- Fitzroy Barrage Water Supply Scheme – Attachment 4.4D.

2.7 Sustainable management and allocation of water

The WRP states:

‘Water in the plan area must be managed in an integrated and sustainable way that seeks to achieve a balance in providing –

- security for water users in the plan area;
- security for holders of resource operations licences in the plan area;
- for further water-related development in the plan area; and
- for environmental water requirements for aquatic ecosystems in the plan area.’

These outcomes are to be achieved through the environmental flow objectives, water allocation security objectives and strategies specified in the WRP.

2.8 Zones

For the purpose of defining the location of a water allocation within a particular reach of river, geographic zones have been defined in parts of the ROP area.

The attachments to this chapter define these zones, according to the river systems in the ROP area. The river systems and relevant attachments are:

- The Dawson River – Attachment 2.1;
- The Nogoia and Mackenzie rivers – Attachment 2.2; and
- The Fitzroy River – Attachment 2.3.

The zones are shown in maps in each of these attachments.

Chapter 3

Assessment

Overview

Assessment framework

The assessment program is intended to assist in determining how effective the Water Resource Plan (WRP) strategies are in achieving the WRP's specified outcomes.

The outcomes relate to:

- Security for water users and holders of resource operations licences; and
- Providing environmental water for aquatic ecosystems.

The strategies specified in the WRP are designed to meet environmental flow objectives and water allocation security objectives that will in turn achieve these outcomes. The Resource Operations Plan (ROP) has been developed to ensure that these objectives are satisfied. The management arrangements in the ROP for supplemented water supply schemes and associated infrastructure, and those for unsupplemented water are dealt with in Chapter 4 and Chapter 5 respectively.

The assessment program will check for compliance with the management arrangements in the ROP and, over the long term, will assist in determining how effectively the strategies in the WRP are achieving the WRP outcomes.

The assessment framework is outlined in Figure 1.

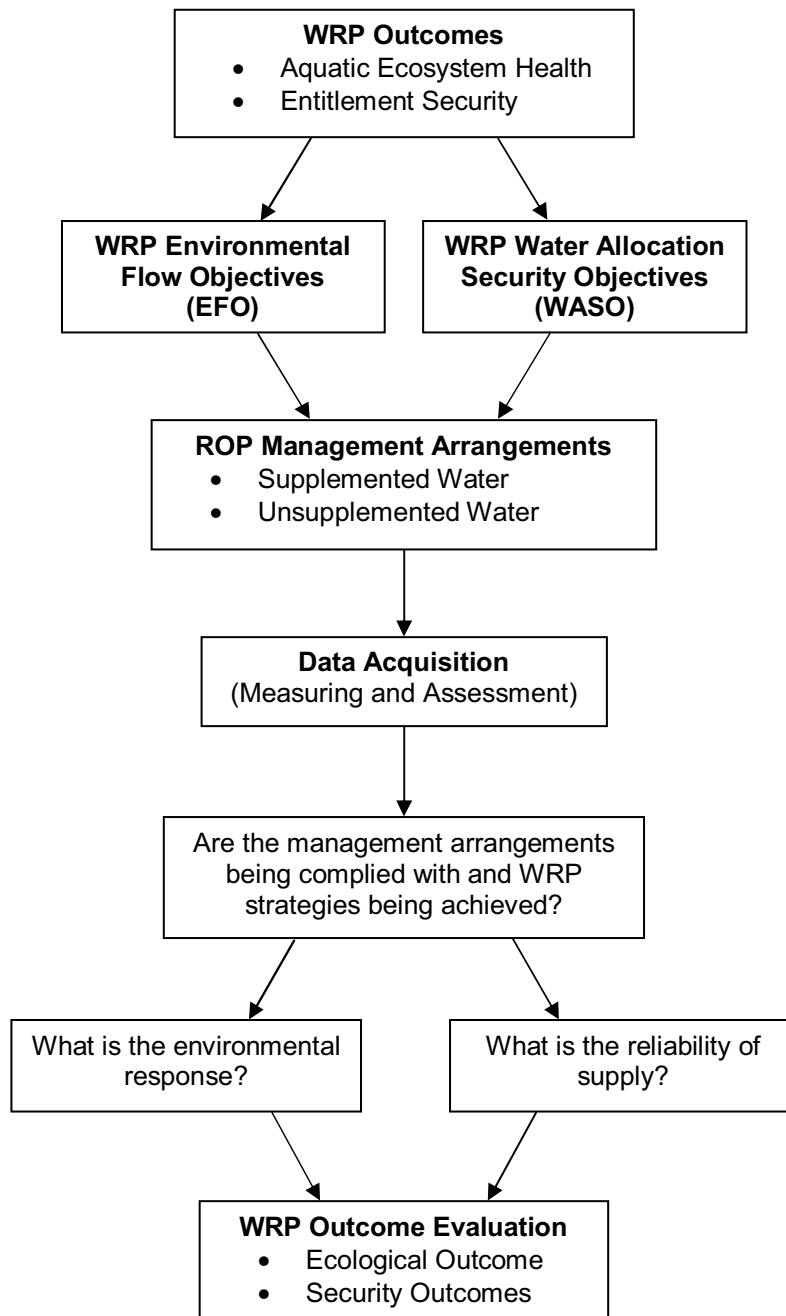
The assessment program seeks to establish whether:

- The management rules are being complied with;
- The water resource plan is contributing to the ecological outcome; and
- The water resource plan is contributing to the security outcomes.

The information obtained by the monitoring activities of the assessment program will also contribute to an improved information base for future water planning within the Fitzroy Basin.

The responsibilities for monitoring and reporting activities required by the assessment program rest with the State Government and the holders of Resource Operations Licences (ROL holders).

Figure 1: Assessment Framework



Aquatic ecosystem assessment in the Fitzroy Basin

The framework to assess the ecological performance of the strategies in the WRP is designed to confirm the detail of the implicit assumptions of the plan. The relevant assumptions fall into two categories:

- Specific flows create the aquatic conditions necessary to provide opportunity for an ecological response (for example, the first post-winter flow will create the conditions that enable yellowbelly fish to spawn and their eggs to hatch).
- Specific aquatic conditions provide opportunities for ecological responses (for example, if water velocity is sufficient to keep yellowbelly fish eggs suspended in the water column for approximately 2 to 3 weeks after spawning, the eggs and larvae have an increased chance of surviving)

The framework requires detailed understanding of the biology of organisms in order to find critical ecological responses (for example, death of individuals, breeding behaviour, successful recruitment) that depend on specific aquatic conditions (for example, water depth, water velocity, water temperature, length of time of inundation and seasonal timing).

Ecological responses might not necessarily be elicited given the provision of suitable aquatic conditions because other influences may prevent the response (for example, a chemical spill could kill all of the fish that would have otherwise spawned). Flow management can provide the opportunity for an ecological response but not guarantee the response.

The basis of the framework is as follows:

- Organisms respond to real-time specific aquatic conditions such as hydraulic characteristics of water depth and velocity;
- Water availability is currently managed by controlling hydrologic characteristics;
- Management of hydrologic characteristics controls the availability of specific aquatic conditions that give opportunities for ecological response; and
- Therefore, availability of specific aquatic conditions is the mediator for ecological responses to water management.

In the framework, the assessment of the effectiveness of delivery of ecological outcomes requires confirmation of:

- The provision of specific aquatic conditions that give opportunities for ecological response;
- The specifics of the aquatic conditions necessary for the ecological response; and
- The hydraulic model linking flow to specific aquatic conditions.

Related monitoring activities

Other monitoring programs being carried out in the Fitzroy Basin are addressing different questions and hence collect different information. This includes the water quantity and quality monitoring programs carried out by the department. Other programs are conducted by agencies such as the Environmental Protection Agency, the Department of Primary Industries, universities and Cooperative Research Centres (CRCs). These other programs include short-term, localised projects of only 2 or 3 years that are targeted at significant issues. However, although at this point they are not integral to the ROP, they may provide data and findings suitable for integration at some later stage. The studies will also contribute to the knowledge

base used to develop future water resource plans.

Metering water entitlements

Measuring water diversion and use is fundamental to responsible management of the State's water resources. Meters and/or other flow measurement devices are required to provide data for water management activities, including:

- Demonstrating compliance with management rules;
- Equitable sharing of available water;
- Property scale water management; and
- Water resource planning.

All water allocations will be metered. In addition, water licences identified by criteria set out in Section 5.5 of Chapter 5 will be amended to provide for metering.

3.1 Performance assessment

The assessment of the overall performance of the water resource plan will incorporate analysis of the data collected from monitoring programs.

3.1.1 Aquatic ecosystem monitoring program

The aquatic ecosystem monitoring and reporting requirements are specified in Attachment 3.1.

3.1.2 Other monitoring programs

Information collected as part of other monitoring and assessment programs in the catchment may be used in the assessment of the ecological outcomes detailed in the water resource plan. These may include (but are not limited to) ROL holder monitoring, the state monitoring program (www.nrw.qld.gov.au/water/monitoring/pdf/numeric.pdf), community monitoring programs, the National Action Plan for Salinity and Water Quality and specific research projects.

3.2 ROL holder monitoring and reporting requirements

The monitoring and reporting requirements for the ROL holder for the Dawson Valley Water Supply Scheme are given in Attachment 4.1G.

The monitoring and reporting requirements for the ROL holder for the Nogoia Mackenzie Water Supply Scheme are given in attachment 4.2G.

The monitoring and reporting requirements for the ROL holder for the Lower Fitzroy Water Supply Scheme are given in Attachment 4.3G.

The monitoring and reporting requirements for the ROL holder for the Fitzroy Barrage Water Supply Scheme are given in Attachment 4.4G.

3.3 Departmental water monitoring data collection standard

Where this plan requires monitoring by a ROL holder, including measurement, collection, analysis and storage of data, the ROL holder must ensure the monitoring is consistent with the

Water Monitoring Data Collection Standard.

The Water Monitoring Data Collection Standard may be reviewed and updated by the chief executive at any time.

The chief executive must notify the ROL holder at least 20 business days before any substantive changes are made to the Water Monitoring Data Collection Standard.

3.4 Departmental water monitoring data reporting standard

Where this plan requires transfer of data or reporting by a ROL holder, the ROL holder must ensure the transfer or reporting is consistent with the Water Monitoring Data Reporting Standard.

The Water Monitoring Data Reporting Standard may be reviewed and updated by the chief executive at any time.

The chief executive must notify the ROL holder at least 20 business days before any substantive changes are made to the Water Monitoring Data Reporting Standard.

3.5 Monitoring data must be made available

The ROL holder must transfer monitoring data to the chief executive upon request, and within the time requested.

Chapter 4

Supplemented water supply schemes

Overview

Supplemented water is water that is supplied from a water supply scheme managed under a Resource Operations Licence (ROL).

Unsupplemented water management (for example, waterharvesting), which is covered in Chapter 5, is the responsibility of the department.

Water supply schemes and their operation

Supplemented water management arrangements detailed in this Resource Operations Plan (ROP) cover the following water supply schemes:

- The Nogoia Mackenzie Water Supply Scheme;
- The Dawson Valley Water Supply Scheme;
- The Lower Fitzroy Water Supply Scheme; and
- The Fitzroy Barrage Water Supply Scheme.

The approximate extent of these water supply schemes is shown in Map B.

Callide Valley Water Supply Scheme

This ROP does not deal with the Callide Valley Water Supply Scheme, which will be subject to an amendment to the ROP at a later stage.

In the interim, the scheme will continue to be operated and managed in accordance with SunWater's existing Interim Resource Operations Licence, issued in November 2000, unless otherwise amended.

Monitoring and reporting

If, as a result of the monitoring required under this ROP, the ROL holder becomes aware of an incident or storage operation practice that may cause, or threaten to cause, material or serious environmental harm as defined by the Environmental Protection Act 1994 (EP Act), the ROL holder has an obligation under Section 320 of the EP Act to report the incident to the Environmental Protection Agency. This may include water released from storages not meeting the relevant water quality guidelines as determined by the Environmental Protection Policy 1997.

4.1 Dawson Valley Water Supply Scheme

Overview

This section specifies the water management arrangements for the Dawson Valley Water Supply Scheme, which extends some 338 km along the Dawson River from the Glebe Weir pond to the downstream end of the Boolburra waterhole, which is near Duinga, or approximately 18 km upstream of the Fitzroy River junction.

Priority group for authorisations supplied through Dawson channel system

Existing authorisations supplied through the Theodore and Gibber Gonyah channel systems have been converted as medium A priority water allocations, except where part or all of an authorisation has been converted as high priority water allocation under the conversion rules.

Sub-schemes

The Dawson Valley Water Supply Scheme is divided into two sub-schemes. The upper Dawson sub-scheme includes Glebe, Gylanda, Orange Creek, Theodore, and Moura weirs and the Moura Offstream Storage, while the lower Dawson sub-scheme includes Neville Hewitt Weir.

Releases may not be made from the upper sub-scheme to supply water orders or maintain storage levels in the lower sub-scheme. The lower sub-scheme independently achieves higher reliabilities than the upper sub-scheme without the need for releases from the upper sub-scheme.

Environmental management rules

The operating rules include strategies for meeting environmental flow requirements. Provisions are made for passing first post-winter flows and seasonal base flows.

For the upper Dawson sub-scheme, the first post-winter flow management strategy will be activated by specified flow criteria for flows downstream of Glebe Weir. For the lower Dawson sub-scheme, the strategy will be activated by specified flow criteria for flows either immediately downstream of Neville Hewitt Weir or downstream of the Don River junction. Management strategies apply for 21 days following activation, during which the ROL holder will be required, subject to specified exceptions, to pass inflows. There are no specific restrictions on taking supplemented water during this period.

The ROP also includes seasonal base flow management strategies for Theodore, Moura and Neville Hewitt weirs. The strategies require the ROL holder to pass base flows through these weirs whenever specified flow and storage level criteria occur.

Water sharing rules

The water sharing rules specify the way the available water will be shared between the water allocation priority groups, namely medium, medium A and high.

The water sharing rules include announced allocation rules for medium, medium A and high priority water allocations, rules for sharing water to deal with occurrences of low water

availability (critical water supply water sharing rules), provision for the transfer of water from one water year to another, and provision for seasonal water assignment.

Seasonal assignment of water allocations for distribution losses associated with the Theodore or Gibber Gunyah channels is currently not permitted.

The ROP maintains the 20% announced allocation differential for medium A priority water allocations.

The critical water supply water sharing rules define how the available supplies are to be shared when available supplies are low, including securing supplies for essential water needs. The arrangements for July to September are activated only when the announced allocations cannot be met from available supplies.

4.1.1 Extent of the water supply scheme

The extent of the Dawson Valley Water Supply Scheme is:

- The Dawson River from the upstream limit of Glebe Weir (AMTD 356.5 km) to the downstream limit of the Boolburra waterhole (AMTD 18.37 km); and,
- Sections of tributaries of the Dawson River that contain water from natural waterholes and infrastructure within the above section of the Dawson River.

The Dawson Valley Water Supply Scheme is divided into:

- The upper Dawson sub-scheme; and
- The lower Dawson sub-scheme.

The extent of the upper Dawson sub-scheme is from the upstream limit of Glebe Weir (AMTD 356.5 km) to the effective upstream limit of Neville Hewitt Weir (AMTD 113 km), which is the upstream extent of the Harcourt waterhole.

The lower Dawson sub-scheme extends from the effective upstream limit of Neville Hewitt Weir (AMTD 113 km) to the downstream limit of Boolburra waterhole (AMTD 18.37 km), which is near Duaringa.

4.1.2 Water allocations associated with the water supply scheme

Authorisations supplied through the Dawson Valley Water Supply Scheme have been converted to water allocations under the rules given in Attachment 4.1B.

Details of water allocations converted from authorisations supplied through the Dawson Valley Water Supply Scheme are given in Attachment 4.1A.

The total volume of supplemented water allocations in the Dawson Valley Water Supply Scheme, for each zone and priority group, at commencement of the ROP, is given in Attachment 4.1C.

Water supplied under a water allocation may only be used for the purpose stated on that water allocation.

4.1.3 Continuing interim water allocations associated with the water supply scheme

An interim water allocation for 105 ML held by SunWater for the Back Creek Water Area will not be converted to a water allocation until the future arrangements for administration of the area and the volume and ownership details for the water allocation are resolved to the satisfaction of the chief executive. These matters will be resolved following a review of the Back Creek Water Area referred to in Section 6.2.5 of Chapter 6.

4.1.4 Infrastructure associated with the water supply scheme

The infrastructure associated with the Dawson Valley Water Supply Scheme is defined in Attachment 4.1D.

Infrastructure details defined in Attachment 4.1D may not be changed unless the change is provided for in Chapter 8.

4.1.5 Infrastructure operating rules

The rules for infrastructure operation and environmental management for the Dawson Valley Water Supply Scheme are given in Attachment 4.1E.

4.1.6 Water sharing rules

The water sharing rules for the Dawson Valley Water Supply Scheme are given in Attachment 4.1F.

4.1.7 Monitoring and reporting requirements for Resource Operations Licence holder

The monitoring and reporting requirements for the ROL holder for the Dawson Valley Water Supply Scheme are given in Attachment 4.1G.

4.1.8 Water allocation change rules

The water allocation change rules for the Dawson Valley Water Supply Scheme are given in Attachment 4.1H.

4.1.9 Amending critical water supply management arrangements

The rules for amending critical water supply management arrangements for the Dawson Valley Water Supply Scheme are given in Attachment 4.1I.

4.2 Nogo Mackenzie Water Supply Scheme

Overview

This section specifies the water management arrangements for the Nogo Mackenzie Water Supply Scheme, which extends for some 398 km along the Nogo and Mackenzie rivers from the Fairbairn Dam pond to the Springton Creek junction. The Springton Creek junction is located approximately 29 km upstream from the Dawson River junction.

Environmental management rules

The operating rules include strategies for meeting environmental flow requirements. Provisions are made for passing first post-winter flows and seasonal base flows.

For Fairbairn Dam, the first post-winter flow management strategy will be activated by specified flow criteria for flow in the Mackenzie River immediately downstream of the Comet River junction. For Bedford Weir, the first post-winter flow management strategy will be activated by specified flow criteria for flow in the Mackenzie River immediately downstream of Bingegang Weir. The management strategy applies for Fairbairn Dam for 19 days following activation, and 21 days for Bedford Weir, during which the ROL holder will be required, subject to specified exceptions, to pass inflows to Fairbairn Dam and Bedford Weir through these storages. There are no requirements under the management strategy applying to Selma, Bingegang or Tartrus weirs. There are no specific restrictions on taking supplemented water during this period.

The discharge capacity of the outlet of Fairbairn Dam will be increased from its current (approximately) 600 ML/day limit to up to about 1,500 ML/day to achieve the first post-winter flow objectives at Bedford and Bingegang Weirs. The implementation schedule provided in Attachment 9 gives a timeframe for the ROL holder to comply with this higher release rate requirement.

The ROP also includes seasonal base flow management strategies for Bedford, Bingegang and Tartrus weirs. The strategies require the ROL holder to pass base flows through these weirs whenever specified time of year, flow and storage level criteria occur.

Water sharing rules

The water sharing rules specify the way the available water will be shared between the water allocation priority groups, namely medium and high.

The water sharing rules include announced allocation rules for medium and high priority water allocations, rules for sharing water to deal with occurrences of low water availability (critical water supply water sharing rules), provision for the transfer of water from one water year to another, and provision for seasonal water assignment.

Seasonal assignment of water allocations for distribution losses associated with the Selma or Weemah channels and Blackwater pipeline is currently not permitted.

The critical water supply water sharing rules define how the available supplies are to be shared when available supplies are low, including securing supplies for essential purposes.

4.2.1 Extent of the water supply scheme

The extent of the Nogo Mackenzie Water Supply Scheme is:

- The Nogo River from the upstream limit of Fairbairn Dam (AMTD 737.5 km) to the Comet River junction (AMTD 611.5 km);
- The Mackenzie River from the Comet River junction (AMTD 611.5 km) to the Springton Creek junction (AMTD 339.3 km); and
- Sections of tributaries of these rivers that contain water from natural waterholes and infrastructure within the above sections of the Nogo and Mackenzie rivers.

4.2.2 Water allocations associated with the water supply scheme

Authorisations supplied through the Nogo Mackenzie Water Supply Scheme have been converted to water allocations under the rules given in Attachment 4.2B.

Details of water allocations converted from authorisations supplied through the Nogo Mackenzie Water Supply Scheme are given in Attachment 4.2A.

The total volume of supplemented water allocations in the Nogo Mackenzie Water Supply Scheme, for each zone and priority grouping, at commencement of the ROP, is given in Attachment 4.2C.

Water supplied under a water allocation may only be used for the purpose stated on that water allocation.

4.2.3 Infrastructure associated with the water supply scheme

The infrastructure associated with the Nogo Mackenzie Water Supply Scheme is defined in Attachment 4.2D.

The infrastructure details defined in Attachment 4.2D may not be changed unless the change is provided for in Chapter 8.

4.2.4 Infrastructure operating rules

The rules for infrastructure operation and environmental management for the Nogo Mackenzie Water Supply Scheme are given in Attachment 4.2E.

4.2.5 Water sharing rules

The water sharing rules for the Nogo Mackenzie Water Supply Scheme are given in Attachment 4.2F.

4.2.6 Monitoring and reporting requirements for Resource Operations Licence holder

The monitoring and reporting requirements for the ROL holder for the Nogo Mackenzie Water Supply Scheme are given in Attachment 4.2G.

4.2.7 Water allocation change rules

The water allocation change rules for the Nogo Mackenzie Water Supply Scheme are given in Attachment 4.2H.

4.2.8 Amending critical water supply management arrangements

The rules for amending critical water supply management arrangements for the Nogoia Mackenzie Water Supply Scheme are given in Attachment 4.2I.

4.3 Lower Fitzroy Water Supply Scheme

Overview

This section specifies the water management arrangements for the Lower Fitzroy Water Supply Scheme, which extends for some 68 km along the Fitzroy River from the Eden Bann Weir pond to the upstream limit of the Fitzroy Barrage.

Conversion of area-based water licences on and downstream of Eden Bann Weir pond

The area-based water licences from the Eden Bann Weir pond to the upstream limit of the Fitzroy Barrage pond have been converted to medium priority water allocations, and will be supplied by the ROL holder for the Lower Fitzroy Water Supply Scheme.

Conjunctive operation of Eden Bann Weir and Fitzroy Barrage

The Lower Fitzroy Water Supply Scheme, based on Eden Bann Weir, and the Fitzroy Barrage Water Supply Scheme, based on the Fitzroy Barrage, will be operated in conjunction.

Releases will be made from Eden Bann Weir to maintain the level of water stored in the Barrage at about 0.4 metres below full supply level. This will enable the Barrage fishway to continue to function, will minimise pumping costs for Barrage water users, and support continued recreational use.

Releases from Eden Bann Weir to the Barrage will cease when the weir level falls to EL 9.55 m AHD (overflow level for original waterhole at Eden Bann). Provision is made for releases to the Barrage to resume when the level in the Barrage is very low and water is available from the weir.

While releases from Eden Bann Weir to the Barrage will cease at EL 9.55 m AHD, releases will continue to be made to supply water allocation holders upstream of the Barrage pond. This practice will cease when weir releases are no longer practicable, or restrictions are imposed through the critical water supply water sharing rules.

Environmental management rules

Seasonal base flows will be passed through Eden Bann Weir as a consequence of the seasonal base flow management rules for the Fitzroy Barrage Water Supply Scheme and the requirement for releases from Eden Bann Weir to maintain the level in the Barrage.

Water sharing rules

The water sharing rules specify the way the available water will be shared between the water allocation priority groups, namely medium and high.

The water sharing rules include announced allocation rules for medium and high priority water allocations, rules for sharing water to deal with occurrences of low water availability (critical water supply water sharing rules), provision for the transfer of water from one water year to another, and provision for seasonal water assignment.

The critical water supply water sharing rules prevent medium priority water extractions whenever the Barrage is approximately 3 metres below full supply level. This is necessary to protect high priority water allocations such as those held by Stanwell Power Station and

Rockhampton City Council. The rules also restrict the amount of high priority water allocation that may be taken during these periods.

Seasonal assignment of water allocations for distribution losses associated with the Stanwell pipeline is currently not permitted.

4.3.1 Extent of the water supply scheme

The extent of the Lower Fitzroy Water Supply Scheme is:

- The Fitzroy River from the upstream limit of Eden Bann Weir (AMTD 183.4 km) to the upstream limit of the Fitzroy Barrage (AMTD 115.0 km); and
- Sections of tributaries of the Fitzroy River that contain water from natural waterholes and infrastructure within the above section of the Fitzroy River.

4.3.2 Water allocations associated with the water supply scheme

Authorisations supplied through the Lower Fitzroy Water Supply Scheme have been converted to water allocations under the rules given in Attachment 4.3B.

Details of water allocations converted from authorisations supplied through the Lower Fitzroy Water Supply Scheme are given in Attachment 4.3A.

The total volume of supplemented water allocations in the Lower Fitzroy Water Supply Scheme, for each zone and priority grouping, at commencement of the ROP, is given in Attachment 4.3C.

Water supplied under a water allocation may only be used for the purpose stated on that water allocation.

4.3.3 Infrastructure associated with the water supply scheme

The infrastructure associated with the Lower Fitzroy Water Supply Scheme is defined in Attachment 4.3D.

Infrastructure details defined in Attachment 4.3D may not be changed unless the change is provided for in Chapter 8.

4.3.4 Infrastructure operating rules

The rules for infrastructure operation and environmental management for the Lower Fitzroy Water Supply Scheme are given in Attachment 4.3E.

4.3.5 Water sharing rules

The water sharing rules for the Lower Fitzroy Water Supply Scheme are given in Attachment 4.3F.

4.3.6 Monitoring and reporting requirements for Resource Operations Licence holder

The monitoring and reporting requirements for the ROL holder for the Lower Fitzroy Water Supply Scheme are given in Attachment 4.3G.

4.3.7 Water allocation change rules

The water allocation change rules for the Lower Fitzroy Water Supply Scheme are given in Attachment 4.3H.

4.3.8 Amending critical water supply management arrangements

The rules for amending critical water supply management arrangements for the Lower Fitzroy Water Supply Scheme are given in Attachment 4.3I.

4.4 Fitzroy Barrage Water Supply Scheme

Overview

This section specifies the water management arrangements for the Fitzroy Barrage Water Supply Scheme, which extends for some 55 km along the Fitzroy River.

Conversion of existing authorisations to water allocations

Water entitlements for Fitzroy Barrage irrigators have been converted to medium priority water allocations, which will be supplied by the ROL holder for the Fitzroy Barrage Water Supply Scheme.

Conjunctive operation of Eden Bann Weir and Fitzroy Barrage

The Lower Fitzroy Water Supply Scheme, based on Eden Bann Weir, and the Fitzroy Barrage Water Supply Scheme, based on the Fitzroy Barrage, will be operated in conjunction.

Releases will be made from Eden Bann Weir to maintain the level of water stored in the Barrage at about 0.4 metres below full supply level. This will enable the Barrage fishway to continue to function, will minimise pumping costs for Barrage water users, and support continued recreational use.

Releases from Eden Bann Weir to the Barrage will cease when the weir level falls to EL 9.55 m AHD (overflow level for original waterhole at Eden Bann). Provision is made for releases to resume when the level within the Barrage is very low and water is available from the weir.

Environmental management rules

The ROP includes a seasonal base flow management strategy for the Barrage. The strategy requires the ROL holder to pass base flows through the Barrage whenever specified flow and storage level criteria occur. The flow criteria relate to inflows to Eden Bann Weir.

Water sharing rules

The water sharing rules specify the way the available water will be shared between the water allocation priority groups, namely medium and high.

The water sharing rules include announced allocation rules for medium and high priority water allocations, rules for sharing water to deal with occurrences of low water availability (critical water supply water sharing rules), provision for the transfer of water from one water year to another, and provision for seasonal water assignment.

The critical water supply water sharing rules prevent medium priority water extractions whenever the Barrage is approximately 3 metres below full supply level. This is necessary to protect high priority water allocations such as those held by Stanwell Power Station and Rockhampton City Council. The rules also restrict the amount of high priority water allocation that may be taken during these periods.

4.4.1 Extent of the water supply scheme

The extent of the Fitzroy Barrage Water Supply Scheme is:

- The Fitzroy River from the upstream limit of the Fitzroy Barrage (AMTD 115.0 km) to the Fitzroy Barrage (AMTD 59.6 km); and
- Sections of tributaries of the Fitzroy River that contain water from the Fitzroy Barrage.

4.4.2 Water allocations associated with the water supply scheme

Authorisations supplied through the Fitzroy Barrage Water Supply Scheme have been converted to water allocations under the rules given in Attachment 4.4B.

Details of water allocations converted from authorisations supplied through the Fitzroy Barrage Water Supply Scheme are given in Attachment 4.4A.

The total volume of supplemented water allocations in the Fitzroy Barrage Water Supply Scheme, for each zone and priority grouping, at the commencement of the ROP, is given in Attachment 4.4C.

Water supplied under a water allocation may only be used for the purpose stated on that water allocation.

4.4.3 Infrastructure associated with the water supply scheme

The infrastructure associated with the Fitzroy Barrage Water Supply Scheme is defined in Attachment 4.4D.

Infrastructure details defined in Attachment 4.4D may not be changed unless the change is provided for in Chapter 8.

4.4.4 Infrastructure operating rules

The rules for infrastructure operation and environmental management for the Fitzroy Barrage Water Supply Scheme are given in Attachment 4.4E.

4.4.5 Water sharing rules

The water sharing rules for the Fitzroy Barrage Water Supply Scheme are given in Attachment 4.4F.

4.4.6 Monitoring and reporting requirements for Resource Operations Licence holder

The monitoring and reporting requirements for the ROL holder for the Fitzroy Barrage Water Supply Scheme are given in Attachment 4.4G.

4.4.7 Water allocation change rules

The water allocation change rules for the Fitzroy Barrage Water Supply Scheme are given in Attachment 4.4H.

4.4.8 Amending critical water supply management arrangements

The rules for amending critical water supply management arrangements for the Fitzroy Barrage Water Supply Scheme are given in Attachment 4.4I.

Chapter 5

Unsupplemented water management

Overview

Unsupplemented water is water that is not supplied from a water supply scheme managed under a resource operations licence.

Unsupplemented water management is the responsibility of the department.

Supplemented water management within a water supply scheme, which is covered in Chapter 4, is the responsibility of a Resource Operations Licence (ROL) holder.

Unsupplemented water management areas

Unsupplemented water management arrangements detailed in this Resource Operations Plan (ROP) cover the following water management areas:

- The Dawson Valley Water Management Area in Section 5.1 covering the Dawson River from the Glebe Weir pond to the Fitzroy River junction;
- The Nogoia Mackenzie Water Management Area in Section 5.2 covering the Nogoia and Mackenzie rivers from the Fairbairn Dam pond to the Dawson River junction; and
- The Fitzroy Water Management Area in Section 5.3 covering the Fitzroy River from the Dawson River junction to the Fitzroy Barrage.

The approximate extent of these water management areas is shown in Map C.

Over time, future additions to the ROP will progressively extend the unsupplemented water management arrangements to other parts of the Fitzroy basin.

Seasonal assignment of water licences outside water management areas

Section 5.4 specifies those areas outside of those water management areas established under this ROP where seasonal water assignments can be made, and the associated rules.

Additional areas and rules for seasonal water assignment may be established under the amendment provisions given in Chapter 8.

Amendment of water licences and metering outside water management areas

Section 5.5 sets out the criteria under which metering of water licences will be required and provides for the amendment of those affected licences in areas outside the water management areas established under this ROP.

Apart from these changes, existing authorisations outside the specified water management areas will continue to be subject to their current terms and conditions unless they are amended either by a change to the ROP, for consistency with the Water Resource Plan (WRP), or as a consequence of other routine actions under the Water Act.

5.1 Dawson Valley Water Management Area

Overview

This section specifies the unsupplemented water management arrangements for the Dawson River within the Dawson Valley Water Management Area, which extends some 356 km from the Glebe Weir pond to the Fitzroy River junction.

The water management area overlaps the Dawson Valley Water Supply Scheme, which ends at the Boolburra waterhole near Duaringa about 18 km upstream of the Fitzroy River junction.

These unsupplemented water management arrangements thus refer to taking water under high stream flow conditions (waterharvesting) within the bounds of the Dawson Valley Water Supply Scheme and to taking any water downstream of the Boolburra waterhole.

Zones

The location from which water may be taken under a water allocation is specified as a zone. Zones for the Dawson River are specified in Attachment 2.1.

Amending waterharvesting authorisations

The WRP specifies that a ROP must address any economic impacts associated with a decline in the performance of existing waterharvesting authorisations downstream of the proposed Nathan Dam. At this point the operational details for the Nathan Dam development are not available, therefore options to address any impacts can not be assessed nor can existing waterharvesting licences be converted to water allocations under this ROP.

The WRP indicated that the way in which such impacts might be addressed include amending the terms and conditions of existing waterharvesting authorisations, conversion of existing waterharvesting authorisations to water allocations from the proposed Nathan Dam or by other agreed actions.

The operating rules for waterharvesting given in this ROP apply before the Nathan Dam development proceeds. After the ROP has commenced, existing waterharvesting licences will be amended for consistency with these operating rules. Other amendments include the addition of a zone for the specification of the location for each licence. Volumetric limits and maximum rates for taking water will not be applied to waterharvesting licences at this stage.

Metering will continue to be a requirement for taking unsupplemented water under waterharvesting conditions.

Permanent trading and seasonal assignment of unsupplemented (waterharvesting) water in the Dawson can not occur until water allocations have been established under a future amendment to the ROP.

Operating and environmental management rules for waterharvesting licences

The operating rules for waterharvesting include arrangements under which water may be taken and the strategies for meeting environmental flow requirements. Provision for passing part of the first post-winter flow event is an example of these strategies.

During the first post-winter flow management strategy, announced waterharvesting periods for taking water for all waterharvesting will be determined on a 30 cumec passing flow for a period that depends on a number of specified factors.

Licences (not for waterharvesting) downstream of the Boolburra waterhole

Area-based licences in the water management area situated downstream of the Boolburra waterhole continue as water licences under this ROP. These licences have not been converted to water allocations and there are no operating rules specified in the ROP for these licences.

Back Creek Water Board

The ROP allows for the possible future grant of a water licence to the Back Creek Water Board under arrangements given in Section 6.2.5 of Chapter 6.

5.1.1 Extent of the Dawson Valley Water Management Area

The extent of the Dawson Valley Water Management Area is:

- The Dawson River from the upstream limit of Glebe Weir (AMTD 356.5 km) to the Fitzroy River junction; and
- Sections of tributaries of the Dawson River where flows in the above section of the Dawson River are accessible.

5.1.2 Amending waterharvesting authorisations

Waterharvesting licences on the Dawson River between the upstream limit of Glebe Weir and the Fitzroy River junction will be amended under the rules given in Attachment 5.1A.

Processing of these amendments, under Section 217 of the Water Act, will commence as soon as possible after commencement of this ROP.

5.1.3 Operating rules for water licences for waterharvesting

The operating rules for water waterharvesting licences with 15 and 30 cumec flow conditions are given in Attachment 5.1B.

5.2 Nogoia Mackenzie Water Management Area

Overview

This section specifies the unsupplemented water management arrangements for the Nogoia and Mackenzie rivers within the Nogoia Mackenzie Water Management Area, which extends for some 427 km from the Fairbairn Dam pond to the Dawson River junction.

The water management area overlaps the Nogoia Mackenzie Water Supply Scheme, which ends at the Springton Creek junction about 29 km upstream from the Dawson River junction.

These unsupplemented water management arrangements thus refer to taking water under high stream flow conditions (waterharvesting) within the bounds of the Nogoia Mackenzie Water Supply Scheme and to taking any water downstream of the Springton Creek junction.

Zones

The location from which water may be taken under a water allocation is specified as a zone. Zones for the Nogoia and Mackenzie rivers are specified in Attachment 2.2.

Conversion of waterharvesting authorisations to water allocations

Waterharvesting authorisations on the Nogoia and Mackenzie rivers downstream from the Theresa Creek junction have been converted to water allocations.

For these water allocations, the total volumetric limit is approximately 60,000 ML and the total maximum rate for taking water is about 36 cumec.

Conversion of area irrigated authorisations downstream of Springton Creek junction to water allocations

Area irrigated authorisations on the Mackenzie River downstream of the Springton Creek junction have been converted to water allocations.

For these water allocations, the total volumetric limit is 720 ML.

Amendment of existing waterharvesting authorisations upstream of Theresa Creek junction

Waterharvesting authorisations on the Nogoia River from the Fairbairn Dam pond downstream to the Theresa Creek junction remain as water licences under this ROP. These licences are not being converted to water allocations because the performance of waterharvesting in this reach does not have a specified water allocation security objective in the WRP.

Waterharvesting in this reach is permitted only when Fairbairn Dam overflows at greater than 30 cumec, which occurs in fewer than 30 per cent of years.

These waterharvesting licences will be amended for consistency with the operating rules and to specify a volumetric limit and a maximum rate for taking water.

Unsupplemented water allocations

An unsupplemented water allocation is described in terms of volume, location, the purpose for which water may be taken, the maximum rate for taking water and the flow conditions under which it may be taken.

The volume specification for unsupplemented water allocations comprises two elements – a volumetric limit and a nominal volume.

The volumetric limit is the maximum amount of water that may be taken under a water allocation in a water year. The amount of water actually taken is dependent on the flow conditions and rate for taking water stated for the water allocation, the operating rules in the ROP and availability of water in the locality at the time, subject to the total amount taken not exceeding the volumetric limit for the allocation.

The nominal volume, as defined in the Water Act, is a number used to calculate the allocation's share of the water available to be taken by holders of water allocations in all water allocation groups in a water resource plan area. The nominal volume represents the long-term average amount of water entitled to be taken under the allocation, which establishes a uniform measure for all unsupplemented water entitlements throughout the basin. The nominal volume is also relevant in relation to a basis on which a reconfiguration of a water allocation is permitted.

The nominal volume does not affect how much water can actually be taken within a particular water year or flow event.

Operating and environmental management rules

The operating rules for waterharvesting include arrangements under which water may be taken and the strategies for meeting environmental flow requirements. Specification of volumetric limits and provisions for passing part of the first post-winter flow event are examples of these strategies.

Under the first post-winter flow management strategy, announced waterharvesting periods for all waterharvesting will be determined on a 4,320 ML/day (50 cumec) passing flow for a period that depends on a number of specified factors.

The operating rules for low stream flow condition (up to 9 ML/day passing flow) water allocations apply only to those water allocations converted from area-based licences downstream of Springton Creek. These rules include specific monitoring requirements for drawdown of waterholes and the circumstances when limitations may be applied.

Rules for seasonal water assignment are specified in the operating rules. A holder of a water allocation may apply to seasonally assign to another person, for the current water year, the benefit of all or part of the water associated with the allocation. Seasonal water assignment is not permitted for waterharvesting licences on the Nogoia River upstream of the Theresa Creek junction.

Water allocation change rules

The water allocation change rules specify those changes that are permitted, and changes that are prohibited. Applications for any changes that are not expressly permitted (and not prohibited) would be considered through the public processes given in the Water Act.

For instance, permitted changes include the relocation, subdivision and amalgamation of allocations subject to the specified arrangements.

Prohibited changes include the relocation of a water allocation to an area outside of where water allocations have been established in the Fitzroy Basin.

5.2.1 Extent of Nogoia Mackenzie Water Management Area

The extent of the Nogoia Mackenzie Water Management Area is:

- The Nogoia River from the upstream limit of Fairbairn Dam (AMTD 737.5 km) to the Comet River junction (AMTD 611.5 km); and
- The Mackenzie River from the Comet River junction (AMTD 611.5 km) to the Dawson River junction (AMTD 310.3 km); and
- Sections of tributaries of the Nogoia and Mackenzie rivers where flows in the above river sections are accessible.

5.2.2 Conversion of authorisations to water allocations

Waterharvesting authorisations on the Nogoia and Mackenzie rivers from the Theresa Creek junction downstream to the Dawson River junction have been converted to water allocations under the rules given in Attachment 5.2B.

Area irrigated authorisations on the Mackenzie River from the Springton Creek junction downstream to the Dawson River junction have been converted to water allocations under the rules given in Attachment 5.2C.

Details of water allocations converted from authorisations in the Nogoia Mackenzie Water Management Area are given in Attachment 5.2A.

The total volume for unsupplemented water allocations for each zone at commencement of the ROP are given in Attachment 5.2E.

5.2.3 Amending waterharvesting authorisations

Waterharvesting licences on the Nogoia River from the upstream limit of Fairbairn Dam to the Theresa Creek junction will be amended under the rules given in Attachment 5.2D.

Processing of these amendments, under Section 217 of the Water Act, will commence as soon as possible after commencement of this ROP.

5.2.4 Operating rules

The operating rules for:

- Water allocations and water licences with 2,592 and 4,320 ML/day passing flow conditions are given in Attachment 5.2F; and
- Water allocations with up to 9 ML/day passing flow conditions are given in Attachment 5.2G.

5.2.5 Water allocation change rules

The water allocation change rules are given in Attachment 5.2H.

5.2.6 Zones

Zones for the Nogoia and Mackenzie Rivers are given in Attachment 2.2.

5.2.7 Water allocation groups

Water allocation groups for the Nogoia Mackenzie Water Management Area are given in Table 1.

Table 1: Water allocation groups

Location for water allocation	Zone	Water allocation group	Flow conditions for water allocations
Mackenzie River from the Isaac Mackenzie waterharvesting upstream limit to the Dawson River junction	Mackenzie A Mackenzie B Mackenzie C Mackenzie D Mackenzie E	Class 1A	2,592 ML/day passing flow
		Class 1B	4,320 ML/day passing flow
Nogoia and Mackenzie rivers from the Comet Mackenzie waterharvesting upstream limit to the Isaac Mackenzie waterharvesting upstream limit	Mackenzie F Mackenzie G Mackenzie H Mackenzie I Mackenzie J Mackenzie K	Class 2A	2,592 ML/day passing flow
		Class 2B	4,320 ML/day passing flow
Nogoia river from the Theresa Creek junction to the Comet Mackenzie waterharvesting upstream limit	Mackenzie L	Class 3A	2,592 ML/day passing flow
Mackenzie River from the Springton Creek junction to the Dawson River junction	Mackenzie A	Class 4C	No flow condition, and 9 ML/day passing flow

5.3 Fitzroy Water Management Area

Overview

This section specifies the unsupplemented water management arrangements for the Fitzroy River within the Fitzroy Water Management Area, which extends for some 250 km from the Dawson River junction to the Fitzroy Barrage.

The water management area overlaps both the Lower Fitzroy Water Supply Scheme and the Fitzroy Barrage Water Supply Scheme.

These unsupplemented water management arrangements thus refer to taking water under high stream flow conditions (waterharvesting) within the bounds of both water supply schemes and to taking any water upstream of the Eden Bann Weir pond.

Zones

The location from which water may be taken under a water allocation is specified as a zone. Zones for the Fitzroy River are defined in Attachment 2.3.

Conversion of waterharvesting authorisations to water allocations

Waterharvesting authorisations on the Fitzroy River have been converted to water allocations.

For these water allocations, the total volumetric limit is approximately 46,000 ML and the total maximum rate for taking water is about 7.5 cumec.

Conversion of authorisations (other than for waterharvesting) upstream of Eden Bann Weir pond to water allocations

Authorisations (other than for waterharvesting) upstream of the Eden Bann Weir pond have been converted to water allocations.

For these water allocations, the total volumetric limit is about 12,300 ML.

Unsupplemented water allocations

An unsupplemented water allocation is described in terms of volume, location, the purpose for which water is used, the maximum rate for taking water and the flow conditions under which it may be taken.

The volume specification for unsupplemented water allocations comprises two elements – a volumetric limit and a nominal volume.

The volumetric limit is the maximum amount of water that may be taken under a water allocation in a water year. The amount of water taken is dependent on the flow conditions and rate for taking water stated for the water allocation, the operating rules in the ROP and availability of water in the locality at the time, subject to the total amount taken not exceeding the volumetric limit for the allocation.

The nominal volume, as defined in the Water Act, is a number used to calculate the allocation's share of the water available to be taken by holders of water allocations in all water allocation groups in a water resource plan area. The nominal volume represents the

long-term average amount of water entitled to be taken under the allocation, which establishes a uniform measure for all unsupplemented water entitlements throughout the basin. The nominal volume is also relevant in relation to a basis on which a reconfiguration of a water allocation is permitted.

The nominal volume does not affect how much water can actually be taken within a particular water year or flow event.

Operating rules

The operating rules for waterharvesting include arrangements under which water may be taken and the strategies for meeting environmental flow requirements. Specification of volumetric limits and provisions for passing part of the first post-winter flow event are examples of these strategies.

Under the first post-winter flow management strategy, announced waterharvesting periods for all waterharvesting will be determined on a 6,000 ML/day (approximately 70 cumec) passing flow for a period that depends on a number of specified factors.

The operating rules for low stream flow condition (up to 260 ML/day passing flow) water allocations apply to those water allocations that have been converted from authorisations (other than for waterharvesting) upstream of the Eden Bann Weir pond. These rules include specific monitoring requirements for drawdown of waterholes and the circumstances when limitations may be applied.

Rules for seasonal water assignment are specified in the operating rules. A holder of a water allocation may apply to seasonally assign to another person, for the current water year, the benefit of all or part of the water associated with the allocation.

Water allocation change rules

The water allocation change rules specify those changes that are permitted, and changes that are prohibited. Applications for any changes that are not expressly permitted (and not prohibited) would be considered through the public processes given in the Water Act.

For instance, permitted changes include the relocation, subdivision and amalgamation of allocations subject to the specified arrangements.

Prohibited changes include the relocation of a water allocation to an area outside of where water allocations have been established in the Fitzroy Basin.

5.3.1 Extent of the Fitzroy Water Management Area

The extent of the Fitzroy Water Management Area is:

- The Fitzroy River from the Dawson River junction (AMTD 310.3 km) to the Fitzroy Barrage (AMTD 59.6 km); and
- Sections of tributaries of the Fitzroy River where flows in the above section of the Fitzroy River are accessible.

5.3.2 Conversion of authorisations to water allocations

Waterharvesting authorisations on the Fitzroy River from the Dawson River junction to the

Fitzroy Barrage have been converted to water allocations under the rules given in Attachment 5.3B.

All other authorisations on the Fitzroy River from the Dawson River junction to the upstream limit of Eden Bann Weir (AMTD 183.4 km) have been converted to water allocations under the rules given in Attachment 5.3C.

Details of water allocations converted from authorisations in the Fitzroy Water Management Area are given in Attachment 5.3A.

Total volumes for unsupplemented water allocations for each zone as at commencement of the ROP are given in Attachment 5.3D.

5.3.3 Operating rules

The operating rules for:

- Water allocations with 2,592 ML/day and 4,320 ML/day passing flow conditions are given in Attachment 5.3E; and
- Water allocations with up to 260 ML/day passing flow conditions are given in Attachment 5.3F.

5.3.4 Water allocation change rules

Water allocation change rules are given in Attachment 5.3G.

5.3.5 Zones

Zones for the Fitzroy River are given in Attachment 2.3.

5.3.6 Water allocation groups

Water allocation groups for the Fitzroy Water Management Area are given in Table 2.

Table 2: Water allocation groups

Location for water allocation	Zone	Water allocation group	Flow conditions for water allocations
Fitzroy River from the Dawson River junction to the Fitzroy Barrage	Fitzroy A Fitzroy B Fitzroy C Fitzroy D Fitzroy E	Class 5A	2,592 ML/day passing flow
		Class 5B	4,320 ML/day passing flow
Fitzroy River from the Dawson River junction to the upstream limit of Eden Bann Weir	Fitzroy D Fitzroy E	Class 6C	No flow condition, and 9 ML/day passing flow
Fitzroy River from the Dawson River junction to the upstream limit of Eden Bann Weir	Fitzroy D Fitzroy E	Class 7D	260 ML/day passing flow

5.4 Seasonal water assignment of water licences outside water management areas

Overview

This section provides for the seasonal water assignment of water licences, under Section 230 of the Water Act, in areas outside of water management areas established under the ROP.

The seasonal water assignment arrangements set out in this section will not apply to an area that is subsequently included within the bounds of a water management area established under a future amendment of the ROP.

5.4.1 Seasonal water assignment rules

This section does not apply to seasonal water assignments in areas within the bounds of a water management area established under the ROP.

Areas where seasonal water assignment of water licences is permitted outside of water management areas established under the ROP, and the rules for those seasonal water assignments, are given in Attachment 5.4.

5.5 Metering water licences

Overview

This section provides for the chief executive to amend a water licence to make the fitting and operation of a water meter or other approved flow measurement device a condition of the licence, subject to the criteria specified in Section 5.5.1.

Where meters or other approved flow measurement devices are to be installed as a requirement of the ROP, affected water licensees will be invited to participate in the planning and management of the project.

A project team will be established for each implementation area. This team, to be made up of departmental staff and licensees, will manage the process to ensure that local conditions and issues are addressed. The project may include:

- Consultation with affected water licensees;
- Establishment of project management guidelines;
- Evaluation of existing works for meter installation requirements for user and regulatory needs;
- Preliminary design and costing of meter installations;
- Consideration of financial arrangements for metering; and
- Contractual arrangements for the supply and installation of metering devices.

5.5.1 Requirement for metering

Installation of a meter or other approved flow measuring device is required where a water licence:

- Requires that water taken be metered; or
- States a volumetric limit or maximum annual diversion; or
- Is in an area where there are:
 - Significant risks of environmental or resource damage; or
 - Disputes over sharing available water.

5.5.2 Amendment of licences

Any water licence for which flow measurement is required will be amended to provide for a meter or other approved flow measuring device to be installed in accordance with arrangements prescribed by a Water Regulation made under the Water Act.

Chapter 6

Granting of new water entitlements

Overview

This chapter provides for the granting of new water entitlements for the taking of water. In particular, it provides for:

- Water licences that may be granted to particular groups of water users (Section 6.1);
- Water licences and water allocations to be granted to specified entities (Section 6.2);
- The process and options for the release of unallocated water (Sections 6.4, 6.5 and 6.6); and
- The process and requirements for provision of water to projects of significant economic or social importance to the State (Section 6.7).

Grant of particular water licences for taking of water

If an application for taking water, lodged under Chapter 2 Part 6 Division 2 of the Water Act, falls within one of the categories of application covered by Sections 6.1.1 to 6.1.6, the chief executive will deal with the application. The categories of application are discussed below.

Landholders may apply for a water licence to take water for stock and domestic purposes. Section 6.1.1 sets out how applications made by landholders without an alternative water supply for stock and domestic purposes will be decided.

Applications for or about a water licence to take water from watercourses, lakes and springs that flow into the Fitzroy River below the Fitzroy Barrage will be decided in accordance with Section 6.1.2. Section 6.1.2 sets out how these applications will be decided. The Fitzroy Barrage is the lowest reporting point on the Fitzroy River, and it is at this point, or above, that stream flow is measured, and environmental flow objective and water allocation security objective performance evaluated. The diversion of water from watercourses that do not enter the Fitzroy River upstream of the Fitzroy Barrage will not affect those measures of performance. However, the Water Resource Plan (WRP) still requires that specified impact assessment criteria must be considered in making a decision concerning any application to take water.

Holders of mining tenure (for example, a mineral development licence or mining lease) may make an application for or about a water licence to take water. Section 6.1.3 sets out how these applications will be decided. Any water licence issued would be limited to enabling removal of mine site seepage or runoff that is unavoidably being or proposed to be discharged to a watercourse. The arrangements would need to form part of an approved overall mine site environmental management strategy. These circumstances are more likely to arise on older mine sites where historical mining practices may have led to poor quality water entering watercourses which can not be avoided. In that instance the issue of a licence could allow that water to be taken from the watercourse and suitably stored and or treated.

Local governments and the State may make an application for or about a water licence to take water. Section 6.1.4 sets out how these applications will be decided. Any licence issued will be limited to taking of water for the construction and maintenance of public assets, such as

roads and bridges. Currently, temporary permits are issued for individual projects and localities for comparatively small volumes. The proposed approach will provide a more streamlined and effective means of addressing these needs.

If a licence has expired and there was no application lodged within the specified time in the Water Act for the licence to be reinstated or replaced, the licensee may apply for a new licence to take water. Section 6.1.5 sets out how these applications will be decided. Any licence issued will be limited to circumstances where it can be shown that at the time the licence expired, the works associated with the licence were installed and there had been continuing use of the entitlement in the intervening period.

Under Section 6.1.6 applications may be made that do not increase the amount of water taken. For example this section covers amending existing authorisations where there is no increase in the amount of water taken.

Grant of water licences and water allocations to specified entities

Section 6.2 specifies the water licences and water allocations to be granted to specified entities. Most of these water licences and allocations are to be granted to replace a range of existing authorisations. The exception is the water licence for a water supply to the town of Rolleston. The issue of this water licence is urgently required and considered to be in the broader public interest.

These water licences and allocations will be granted following approval of the ROP without application or other process.

Process for dealing with applications for water licences

Section 6.3 requires the chief executive to refuse any application to take water made prior to commencement of the Resource Operations Plan (ROP), unless the application is in one of the categories that may be dealt with under Section 6.1 discussed above.

Applications made after commencement of the ROP will be refused unless the applications are in one of the categories that may be dealt with under Section 6.1, or in connection with processes outlined under sections 6.5, 6.6 or 6.7 discussed below.

Release of unallocated water by grant of water allocation

Section 6.4 details the process that will apply for release of unallocated water in the Mackenzie and Fitzroy rivers through sale of unsupplemented water allocations.

If water taken under an allocation granted under Section 6.4 is proposed to be used for irrigation, then the use of the water will require an approved Land and Water Management Plan under Section 73 of the Water Act.

Release of unallocated water by grant of water licence

Section 6.5 details the process that will apply for release of unallocated water through sale of water licences. The release will only be available in the Isaac/Connors, lower Mackenzie and Fitzroy River catchments, excluding the Dawson River catchment, Fitzroy River and Lower Mackenzie River.

A water licence granted via this process is subject to the provisions of the Water Act that

apply to water licences, and it should be noted that:

- The licence is not tradable separate from land to which it is attached;
- The licence does not have any specified reliability of supply; and
- At times of water shortage, the chief executive may limit the taking of water under a water licence or permit as provided in Section 25 of the Water Act.

If water taken under a licence granted under Section 6.5 is proposed to be used for irrigation, then the use of the water will require an approved Land and Water Management Plan under Section 73 of the Water Act.

Triggers for additional unallocated water release

The volumes of release identified under Sections 6.4 and 6.5 may not meet current viable, sustainable demand, and/or additional demand may be identified in the period after the ROP commencement but before completion of the next phase of the planning process through the Central Queensland Regional Water Supply Study (CQRWSS). Under those circumstances, provision of a mechanism that permits release of additional water within defined constraints and without compromise to other future planning processes, is appropriate where unallocated water reserves allow. Section 6.6 details the triggers for, and volumetric constraints on such additional release.

Such additional release is possible in the Isaac/Connors and lower Mackenzie and Fitzroy catchments because of the volume of unallocated water that is still available in these systems.

Significant projects

The ROP provides for the setting aside of reserves of water for projects determined by the Queensland Government to be of significant economic or social importance to the State. These reserves are designed to be a small, one-off source of last resort that is available to support significant regional development projects where there is no opportunity for trading or access to 'unallocated' water, and when there is no other cost-effective water supply available.

Applicants for this water will need to provide assessments of alternative piped and groundwater supply opportunities for benchmarking against comparable local industries, and show that best water use efficiency, demand management and wastewater recycling/reuse practices are to be utilised.

6.1 Water licence applications under Chapter 2 Part 6 Division 2 of the Water Act

Under this section the chief executive may grant an application for or about a water licence to take water made under Chapter 2 Part 6 Division 2 of the Water Act.

6.1.1 Stock and domestic use

Landholders anywhere in the Fitzroy Basin may make an application for a water licence to take water for stock and domestic purposes.

The chief executive must deal with an application in accordance with this section and the provisions of the Water Act.

However, the chief executive must refuse the application if:

- an alternative water supply is available to the applicant, such as a supply from a farm dam or a bore;
- the application is to take water from a watercourse in which water is managed under a ROL or IROL; or
- the application is to take water from sections of a watercourse where water allocations have been granted.

When granting a water licence under this section of the ROP, the chief executive must limit the volume that can be taken in any year.

The maximum annual volume calculated for domestic purposes is:

- 1 ML; or
- An alternative volume determined by the chief executive based on consideration of the circumstances.

The maximum annual volume calculated for stock watering is:

- A volume equivalent to 1 ML per 250 ha of land without an alternative water supply; or
- An alternative volume determined by the chief executive based on a consideration of the circumstances. (Note: The volume equivalent to 1 ML per 250 ha is the minimum value for the purpose of this section, which would be increased if actual stocking rates and the particular situation indicate larger water requirements. Annual consumptive requirements would be assessed on industry standards, for example, an average annual consumption of 16,000 litres per head per annum would be assumed for beef cattle)

The total maximum annual volume (volumetric limit) on the licence will be the sum of the volume allowed for stock purposes and that allowed for domestic purposes.

6.1.2 Downstream locations

For the purposes of this section, a ‘downstream location’ means a location within the plan area on any watercourse, lake or spring that does not provide tributary inflow to the Fitzroy River upstream of the Fitzroy Barrage.

Application may be made for a water licence to take water from a downstream location.

The chief executive must deal with the application in accordance with this section and the provisions of the Water Act.

In deciding whether to grant or refuse an application, the chief executive will take into consideration the criteria in Section 14 of the WRP.

The purchase price for a water licence will be at a fixed price per megalitre of maximum annual volume of take of water. The chief executive will determine the fixed price per megalitre of maximum annual volume of take having regard to matters including:

- market value of water entitlements in the Fitzroy plan area and relativity of product;
- market value of water entitlements in adjacent plan areas and relativity of product;
- capacity to pay; and
- any other matters.

6.1.3 Mining tenure

For the purposes of this section, ‘mining tenure’ means a mineral development licence or mining lease granted under the *Mineral Resources Act 1989*.

The holder of a mining tenure may make application for a water licence to take water.

The chief executive must deal with the application in accordance with this section and the provisions of the Water Act.

Any water licence issued, in accordance with this section, must be limited to enabling removal of mine site seepage or runoff that is unavoidably being discharged or proposed to be discharged to a watercourse. The arrangements would need to form part of an approved overall mine site environmental management strategy.

A condition of a water licence under this section must be that the water may only be taken if there would be inconsequential effect on the flow naturally occurring in the watercourse downstream of the mining tenure.

6.1.4 Local governments and the State

A local government or the State may make application for a water licence to take water.

The chief executive must deal with the application in accordance with this section and the provisions of the Water Act.

Any water licence issued, in accordance with Section 6.1.4, will be limited to the taking of water required for the construction and maintenance of public assets such as roads and bridges.

The chief executive must refuse any application to take water from a watercourse in which water is managed under a ROL or IROL.

The chief executive must refuse any application to take water from sections of a watercourse where water allocations have been established.

In deciding whether to grant or refuse an application, the chief executive will take into consideration the criteria in Section 14 of the WRP.

6.1.5 Previous licences

If a licence has expired and there was no application lodged within the specified time in the Water Act for the licence to be reinstated or replaced, the landholder may make application for a new licence to take water.

The chief executive must deal with the application in accordance with this Section and the provisions of the Water Act.

The chief executive must refuse the application if:

- The works associated with the licence that has expired were not installed at the time the licence expired;
- There has not been continuing use of water associated with the licence that expired; and

- Other licences of the same type and in the same area have been converted to water allocations.

If the chief executive approves the application, the volume entitled to be taken under the new licence will not exceed that of the previous licence.

6.1.6 Other applications for or about a water licence

The chief executive may grant water licences that do not increase the amount of water that is authorised to be taken.

The chief executive must deal with the application in accordance with this section and the provisions of the Water Act.

6.2 Process for grant of water licences and water allocations to specified entities

Following approval of this ROP, the chief executive may grant the following water licences and water allocations under Section 122 and 212 of the Water Act, subject to any additional conditions determined by the chief executive:

6.2.1 Woorabinda Aboriginal Council

Licence details

Licensee: Woorabinda Aboriginal Council

Period: 10 years

Water: Mimosa Creek

Location: Lot 6 on Plan No WNA141

Volumetric limit: 150 ML per water year

Rate: 7 L/s

Purpose: Any

Reason for grant

Part of the water supply for Woorabinda township is drawn from galleries in the sands of Mimosa Creek. These galleries were constructed prior to 1950. This type of activity now requires an authorisation under the Water Act.

6.2.2 Environmental Protection Agency

Licence details

Licensee: Environmental Protection Agency

Period: 10 years

Water: Carnarvon Creek

Location: Lot 236 on Plan No NPW490

Volumetric limit: 15 ML per water year

Rate: 7 L/s

Purpose: Any

Reasons for grant

A permit to take water from Carnarvon Creek to provide water for camping facilities at Carnarvon National Park was previously granted under the *Water Act 1926/1983*. This form of authority is no longer available under the current legislation. It is appropriate that this activity be authorised by a water licence under the Water Act. The water licence replaces the permit.

6.2.3 Mount Morgan Shire Council

Licence details:

Licensee:	Mount Morgan Shire Council
Period:	10 years
Water:	Dee River
Location:	Lot 201 on Plan No RN836502
Volumetric limit:	584 ML per water year
Rate:	37 L/s
Purpose:	Any

Reason for grant:

Mount Morgan Shire Council's (MMSC) existing No 7 Dam was raised in 1999 to a capacity of 2,930 ML to increase the reliability of the Mount Morgan town water supply. The grant of a water licence to the MMSC has been put on hold pending preparation of this ROP. The hydrologic model (IQQM) for the Fitzroy Basin includes the raised dam. The water licence authorises the taking of water from this dam.

6.2.4 Bauhinia Shire Council

Licence details:

Licensee:	Bauhinia Shire Council
Period:	10 years
Water:	Comet River
Location:	Lot 71 on Plan No CP856877
Volumetric limit:	400 ML per water year
Rate:	1,000 L/s
Purpose:	Any

Conditions to include: Water may only be taken when the passing flow exceeds 12 cumec.

Reason for grant:

Bauhinia Shire Council urgently requires a water licence to provide for a new water supply for the town of Rolleston. A reliable supply of 60 ML per annum is needed. The proposed scheme comprises two 500 L/s pumps delivering water to a 290 ML capacity offstream storage. The hydrologic model (IQQM) for the Fitzroy Basin includes the proposed scheme. The proposed scheme has wide community support, including industry sectors in the Central Highlands.

6.2.5 Back Creek Water Supply Area

A water licence for taking of unsupplemented (waterharvesting) water from the Dawson River may be granted for the Back Creek Water Supply Area once the future arrangements for administration of the area and the volume of the required waterharvesting entitlement are resolved to the satisfaction of the chief executive.

Reason for grant:

The Back Creek Water Area and Board was originally established by Order in Council in 1960 for the purpose of supplying the stock and domestic water requirements on 7 properties along Back Creek from the Dawson River. By Order in Council in 1987 the Board was dissolved and an administrator was appointed to manage the affairs of the Board. The arrangements for supply of water to the area from the Dawson River at Moura Weir have not been effective for a number of years. A review will be undertaken to establish the future arrangements for administration of the area and to determine whether a waterharvesting entitlement is needed for the supply of the stock and domestic water requirements of the area and the appropriate details of any entitlement. The grant of a water licence for waterharvesting, if required, would replace historic arrangements for supply of water to the area.

An interim water allocation for 105 ML was granted to SunWater in December 2000, for supply to the Back Creek Water Area from Moura Weir, pending a review of the Back Creek Water Area. The volume and ownership details for this allocation would also be integral to the abovementioned review.

6.2.6 Rockhampton City Council

Medium priority water allocation specifications

Water allocation holder:	Rockhampton City Council
Resource Operations Licence:	Fitzroy Barrage Water Supply Scheme
Location:	Zone Fitzroy A
Nominal Volume:	575 ML per water year
Purpose:	Agriculture
Priority Group:	Medium

Reason for grant

The WRP identified an amount of 575 ML of unallocated medium priority water supply from the Fitzroy Barrage. This amount is the difference between the total allocatable agricultural supply from the Fitzroy Barrage of 12,335 ML and the total amount of water allocation for existing water users of 11,760 ML. This allocation is granted to the Rockhampton City Council as the owner of the Fitzroy Barrage.

6.2.7 SunWater

Medium priority water allocation specifications

Water allocation holder:	SunWater
Resource Operations Licence:	Nogoa Mackenzie Water Supply Scheme
Location:	Zone Mackenzie N
Nominal Volume:	155 ML per water year
Purpose:	Any
Priority Group:	Medium

High priority water allocation specifications

Water allocation holder:	SunWater
Water supply scheme:	Nogoa Mackenzie Water Supply Scheme
Location:	Zone Mackenzie N
Nominal Volume:	45 ML per water year
Purpose:	Any
Priority Group:	High

Reason for grants

Water has historically been taken from Fairbairn Dam to supply public amenities, including the recreation area and the Fairbairn Dam township. This water was previously taken by the State, as the operator of the dam, and accordingly no formal authorisation was required at that time. The grant of these allocations will formalise the continued take of water for this public purpose. The grant is made to SunWater who has responsibility for supplying this water.

6.2.8 JN, VC, & DC Kavanagh

Licence details:

Licensee:	JN, VC, DC Kavanagh
Period:	10 Years
Water:	Sandy Creek (stream classification 130.01.41.01)
Location:	Lot 5 RP619639
Attached lands:	Lot 5 RP619639
Maximum area to be irrigated:	100 hectares

Rate: 200l/s

Purpose: Agriculture

Conditions to include: Water that is taken under the authority of this water licence must only be water that is impounded under the authority of water licence 57852F.

Reason for grant:

On 25 August 1998 JN, AJ, DC, & GM Kavanagh were granted an authority to construct a water storage on Sandy Creek for the purpose of irrigation. Upon the granting of the authority to construct the dam it was intended to also approve an authority to take water stored in the dam for irrigation/agricultural requirements. Due to the administrative arrangements in place at the time, the authority to take water was not issued. The issue of this authority will enable the licensee to use the water stored in the dam for the purpose it was intended.

6.3 Process for dealing with applications for water licences

This section only applies to applications for taking water made under Chapter 2 Part 6 Division 2 of the Water Act.

6.3.1 Process for dealing with applications for water licences made prior to commencement of this ROP

Following approval of this ROP, the chief executive must refuse all applications for water licences to take water made prior to commencement of this ROP, other than those applications dealt with under Section 6.1.

6.3.2 Process for dealing with applications for water licences made after commencement of this ROP

The chief executive must refuse all applications for water licences to take water made after commencement of this ROP, other than those dealt with under sections 6.1, 6.5, 6.6 or 6.7.

6.4 Release of unallocated water by grant of water allocation

6.4.1 Volume and location of initial release

This section provides for two separate releases of unsupplemented water allocations as follows:

- Group one release: Up to 8,000 ML nominal volume for water allocations to be located in the lower Mackenzie River in zones Mackenzie A, Mackenzie B, Mackenzie C, Mackenzie D and/or Mackenzie E (Mackenzie River from the Dawson River junction to the Isaac Mackenzie waterharvesting upstream limit); and
- Group two release: Up to 7,000 ML nominal volume for water allocations to be located in the Fitzroy River in zones Fitzroy A, Fitzroy B, Fitzroy C, Fitzroy D and/or Fitzroy E (Fitzroy River from the Fitzroy Barrage to the Dawson River junction).

The group one release will proceed as soon as practicable after the approval of the ROP. The group two release will proceed when the specified conditions in Section 6.6.2 are met.

Additional water may also be granted through Section 6.6 if the specified triggers are met.

6.4.2 Water allocation specifications

Water allocations granted under the process detailed in Section 6.4.3 will be for the taking of unsupplemented water under conditions commonly referred to as waterharvesting. The management rules set out in Chapter 5 will apply to each water allocation.

A water allocation granted under Section 6.4.3 will specify:

- A nominal volume, which will be the volume purchased through the process set out in Section 6.4.3;
- A volumetric limit, which will be determined from the nominal volume as follows:
 - For a water allocation with a Mackenzie location, the volumetric limit (in megalitres) will be equal to the nominal volume (in megalitres) multiplied by 1.20; and
 - For a water allocation with a Fitzroy location, the volumetric limit (in megalitres) will be equal to the nominal volume (in megalitres) multiplied by 1.35;
- A maximum rate that the water may be taken at, which will be determined from the volumetric limit as follows:
 - For a water allocation with a Mackenzie location, the maximum rate (in litres per second) will be equal to the volumetric limit (in megalitres) multiplied by 0.503; and
 - For a water allocation with a Fitzroy location, the maximum rate (in litres per second) will be equal to the volumetric limit (in megalitres) multiplied by 0.276;
- A location which identifies the zone from which water can be taken;
- A purpose for the use of the water taken under the allocation; and
- A passing flow condition of 4,320 megalitres per day.

In the context of this specification:

- ‘Nominal volume’ represents the estimated long-term average amount of water entitled to be taken under the allocation;
- ‘Volumetric limit’ means the maximum amount of water that may be taken in a water year under the allocation;
- ‘Maximum rate’ means the maximum rate that water may be taken averaged over a

specified time period;

- ‘Passing flow condition’ means the stream flow nominally required to pass downstream while water is being taken under the water allocation; and
- ‘Purpose’ means the purpose for which the water can be taken which will be specified as either ‘any’ or ‘agriculture’ where:
 - ‘Agriculture’ means that the water allocation will be used primarily for agricultural purposes; and
 - ‘Any’ means that the water allocation can be used for any purpose.

6.4.3 Process for tendering for a water allocation

The chief executive will grant water allocations by inviting tenders to purchase an allocation for a nominal volume of water. The process outlined below will apply.

a) Preliminary

Prior to the public invitation to tender, the chief executive will determine the minimum price criterion per megalitre for the water being released to tender.

The chief executive may alter the minimum price criteria at any time.

b) Invitation to tender

The chief executive will publicly call for tenders and make relevant information about the tender available, including the conditions of tender. Particular conditions on tender process include the following:

- Participation in the tender will be open to all prospective tenderers;
- The minimum price criteria will not be publicly advertised;
- The tender will be open for a time period specified by the chief executive;
- The tender must be made in the form approved by the chief executive; and
- A tender will become a binding offer for the bid volume at the bid price.

c) Dealing with tenders

The chief executive will deal with tenders as follows:

- Tenders will be publicly opened;
- All tenders will be assessed against the minimum price criterion;
- Tenders with a bid price below the minimum price criterion will be unsuccessful;
- Tenders with a bid price equal to or above the minimum price criteria will be ranked in order of bid prices, from highest to lowest;
- Ranked tenders will be accepted in order of bid price, until all of the total release volume has been sold;
- Where two or more tenders have the same bid price, and the combined volumes being sought cannot be met from the remaining release volume, then each of those tenderers will be offered a proportionate share of the remaining water;
- If the release is under-subscribed, the chief executive will either:
 - Offer the balance of the total release volume to unsuccessful tenderers at the lowest accepted bid price; or
 - Add the balance of the total release volume to the release volume available under Section 6.6; and

- Where an offer is made to unsuccessful tenderers, the offer will be for the bid volume included in their tender. The offer will be made to tenderers in order of bid price and will continue until all of the release has been sold, or all tenderers have been approached. Any remaining balance of the total release volume will be added to the release volume available under Section 6.6.

d) Grant and registration

- On the completion of the sale of a water allocation through the above process, the chief executive will grant the water allocation to the buyer and the registrar will record the water allocation on the water allocation register, in accordance with Section 122 of the Water Act. The water allocation has effect from the day it is recorded on the water allocation register.

e) Definition of terms

In the context of the tender process outlined above:

- ‘Total release volume’ is the total nominal volume to be released;
- ‘Bid price’ is the price per megalitre of nominal volume that the tenderer offers for the proposed water allocation;
- ‘Bid volume’ is the amount of nominal volume tendered for at the bid price;
- ‘Ranked tenders’ are tenders with a bid price equal to or above the minimum price criteria which have been ranked in order of bid prices, from highest to lowest;
- ‘Under-subscribed’ means that the total amount of nominal volume sought at bid prices that are equal to or above the minimum price criteria is less than the total release volume; and
- ‘Lowest accepted bid price’ is the lowest bid price which exceeds the minimum price criteria.

6.5 Release of unallocated water by grant of water licence

The processes for dealing with unallocated water by grant of water licences are covered in Section 6.5.

6.5.1 Volume and location of release

The chief executive will initially release unallocated water by grant of water licences of up to 12,000 ML of total maximum annual volume in the Isaac/Connors, lower Mackenzie and Fitzroy River catchments, excluding the Dawson River catchment, Fitzroy River and lower Mackenzie River. This initial release will commence as soon as practicable after the approval of the ROP under the process specified in Section 6.5.3.

Any part of the unallocated water volume not granted in the initial release will be added to the release volume available under Section 6.6.

Following the initial process for granting water licences under Section 6.5.3, the chief executive may decide under Section 6.6 to make additional releases of unallocated water. At the discretion of the chief executive, additional releases of unallocated water to be granted as water licences may be made either by:

- The process specified in Section 6.5.3;
- The process specified in Section 6.5.4; or
- The process specified in Section 6.5.5.

6.5.2 Water licence specifications

A water licence granted under the processes detailed in Sections 6.5.3, 6.5.4 or 6.5.5 may specify:

- A maximum annual volume specified as a volumetric limit;
- A location;
- The land to which the licence attaches;
- A purpose for the use of the water taken under the licence;
- A passing flow condition;
- A first post-winter flow condition;
- A maximum rate that the water may be taken at;
- A seasonal base flow condition; and
- Any other details and conditions decided by the chief executive.

In the context of water licence specification:

- ‘Location’ for a water licence to take from a watercourse means the AMTD on the river or creek at the point where the water must be taken;
- ‘Purpose’ means the purpose for which the water can be taken which will be specified as either ‘any’ or ‘agriculture’ where:
 - ‘Agriculture’ means that the water licence will be used primarily for agricultural purposes; and
 - ‘Any’ means that the water licence can be used for any purpose;
- ‘Passing flow condition’ means the stream flow nominally required to pass downstream while water is being taken under the water licence;

- ‘Maximum rate’ means the maximum rate that water may be taken; and
- The basis for determination of the passing flow condition, first post-winter flow condition, seasonal base flow condition and maximum rate of take will be established through a set of guidelines to be published prior to the public notification of a water release under Sections 6.5.3 b), 6.5.4 b) or 6.5.5 b).

6.5.3 Granting water licences under Section 212 of the Water Act by inviting offers to purchase water

The chief executive will grant water under a water licence by inviting offers to purchase a water licence for a maximum annual volume of water.

The process outlined in this section provides for the granting of water licences under Section 212 of the Water Act following an amendment of the ROP in accordance with Section 106(b) of the Water Act.

The process outlined below will apply.

a) Preliminary

Prior to public notification of a water release under Section 6.5.3 b), the chief executive will determine:

- The minimum price per megalitre of maximum annual volume for the water being released; and
- Evaluation criteria for offers.

The chief executive may alter the minimum price at any time.

Evaluation criteria may include, but not be limited to, benchmarking of water use efficiency against comparable regional and/or industry standards and consideration of risk management strategies for water use, to establish individual licence limits on maximum annual volume of take. Offerers may also need to demonstrate they can physically access the water bid for.

b) Public notification of water release

The chief executive will publicly call for offers and make relevant information about the offer available, including details of how the offers will be evaluated. Particular conditions on the offer process will include the following:

- Participation in the offer process will be open to all prospective offerers;
- The minimum price will not be publicly advertised;
- The offer will be open for a time period specified by the chief executive; and
- The offer must be made in the form approved by the chief executive.

The chief executive may require a one-off, non-refundable, offer processing fee to be lodged with the offer or prior to the offer details being publicly advertised in accordance with Section 6.5.3 d).

c) Offers considered

The chief executive will assess all offers against price and the publicly advertised evaluation criteria.

The chief executive may invite an offerer to make an amendment of a stated type to its offer within a stated timeframe. Without limiting the type of amendment that may be invited, the chief executive may invite an amendment to include a draft flow condition or limit on annual volume of take that would apply to the proposed licence. An offerer amending its offer as invited may also alter its bid price. If the offerer does not take up this invitation within the timeframe, the offer will be regarded as unsuccessful.

d) Public notification of offers

All offers that meet the conditions on the offer process, evaluation criteria and minimum price will be ranked in order of their bid price. Subsequently, for those ranked offers that sum within, or up to, the total release volume, proposed water licences will be advertised as a proposed amendment to the ROP. For each of the proposed water licences advertised in the proposed amendment, the following will be specified:

- The name of the proposed licensee;
- The land on which the water is to be used;
- The maximum annual volume (specified as a volumetric limit);
- The location where the water is proposed to be taken; and
- Where information on any draft conditions the chief executive proposes to apply to the proposed water licence can be viewed.

The chief executive will invite submissions on matters relating to the proposed amendment to the ROP within a specified timeframe.

e) Review of submissions and settling of offers

Review of submissions and settling of offers will be undertaken in accordance with the following:

- The chief executive may collate information about the submissions and refer the collated information and submissions to a Referral Panel established under Section 1004 of the Water Act for review and recommendation on how the submissions and offers should be dealt with;
- The chief executive must consider the submissions received, and if a submission has been referred to a Referral Panel, the recommendations of the Panel, and for each offer:
 - Accept the offer;
 - Invite the offerer to make an amendment of a stated type to its offer; or
 - Refuse the offer;
- An offerer amending its offer as invited may also alter its bid price;
- If an offerer amends its offer as invited, the chief executive will accept the offer, provided that the offer still meets the evaluation criteria and any altered bid price still meets the minimum price criteria;
- If the chief executive accepts the offer, the offerer must pay the bid price by the specified date in order for the offer to be regarded as a successful offer; otherwise the offer will be unsuccessful; and
- If the chief executive refuses the offer, the offer is unsuccessful.

f) Amendment of ROP and grant of licences

The chief executive will amend the ROP to specify the details for water licences for all successful offers. Following amendment of the ROP, the chief executive will, under Section

212 of the Water Act, grant a water licence to the successful offerers in accordance with the details specified in the ROP.

g) Unsuccessful offerers advised

On amendment of the ROP, the chief executive will advise any offerers whose offer has been unsuccessful and will provide reasons the offer was unsuccessful.

h) Definition of terms

In the context of the offer process outlined above:

- ‘Total release volume’ is the total maximum annual volume to be granted in the release;
- ‘Bid price’ is the price per megalitre of maximum annual volume of take that the offerer offers for the proposed water licence; and
- ‘Draft condition’ means a condition that the chief executive proposes to attach to any licence granted as a result of the offer process.

6.5.4 Granting water licences under Section 212 of the Water Act by application and purchase at a fixed price

The chief executive will grant water under a water licence by inviting applications to purchase a water licence for a maximum annual volume of water. The purchase price for a water licence will be at a fixed price per megalitre of maximum annual volume of take of water.

The process outlined in this section provides for the granting of water licences under Section 212 of the Water Act following an amendment of the ROP in accordance with Section 106(b) of the Water Act.

The process outlined below will apply.

a) Preliminary

Prior to public notification of a water release under Section 6.5.4 b), the chief executive will determine:

- The fixed price per megalitre of maximum annual volume for the water being released; and
- Evaluation criteria for applications.

Evaluation criteria may include, but not be limited to, benchmarking of water use efficiency against comparable regional and/or industry standards and consideration of risk management strategies for water use, to establish individual licence limits on maximum annual volume of take. Applicants may also need to demonstrate they can physically access the water applied for.

b) Public notification of water release

The chief executive will publish a notice to advise interested parties of the water release and make relevant information about the release available, including details of how applications will be evaluated. Particular conditions on the release process may include the following:

- The fixed price per megalitre of maximum annual volume of take of water;
- Conditions for taking water made available under the release;

- Application requirements and details of how the applications will be evaluated; and
- Applications must be made in the form approved by the chief executive.

The chief executive may require a one-off, non-refundable, application processing fee to be lodged with the application or prior to the proposed licence details being publicly advertised in accordance with Section 6.5.4 d).

c) Applications considered

The chief executive will assess applications against the publicly advertised evaluation criteria.

The chief executive may invite an applicant to make an amendment of a stated type to its application within a stated timeframe. Without limiting the type of amendment that may be invited, the chief executive may invite an amendment to include a draft flow condition or limit on annual volume of take that would apply to the proposed licence. If the applicant does not take up this invitation within the timeframe, the application will not be accepted.

d) Public notification of applications

For each application that meets the conditions on the release process and the evaluation criteria, proposed water licences will be advertised as a proposed amendment to the ROP. For each proposed water licence advertised in the proposed amendment, the following will be specified:

- The name of the proposed licensee;
- The land on which the water is to be used;
- The maximum annual volume (specified as a volumetric limit);
- The location where the water is to be taken; and
- Where information on any draft conditions the chief executive proposes to apply to the proposed water licence can be viewed.

The chief executive will invite submissions on matters relating to the proposed amendment to the ROP within a specified timeframe.

e) Review of submissions and decisions on applications

Review of submissions and decisions on an application will be undertaken in accordance with the following:

- The chief executive may collate information about the submissions and refer the collated information and submissions to a Referral Panel established under Section 1004 of the Water Act for review and recommendation on how the submissions and applications should be dealt with;
- The chief executive must consider the submissions received, and if a submission has been referred to a Referral Panel, the recommendations of the Panel, and for each application, either:
 - Decide the details for the water licence that may be granted following an amendment to the ROP; or
 - Refuse the application.
- If the details decided by the chief executive for the water licence are not accepted by the applicant, the chief executive will refuse the application.
- If the chief executive decides that a water licence may be granted following an

amendment of the ROP, the applicant must pay the price for the water licence by the date specified by the chief executive; otherwise the application will be refused.

f) Amendment of ROP and grant of licences

The chief executive will amend the ROP to specify the details of water licences that may be granted. Following amendment of the ROP, the chief executive will, under Section 212 of the Water Act, grant the water licences in accordance with the details specified in the ROP.

g) Refused applications

On amendment of the ROP, the chief executive will advise any applicant whose application has been refused and provide reasons for refusing the application.

6.5.5 Granting of water licences by application under Section 206 of the Water Act and purchase at a fixed price

The chief executive will grant water under a water licence by inviting applications to purchase a water licence for a maximum annual volume of water. The purchase price for a water licence will be at a fixed price per megalitre of maximum annual volume of take of water.

The process outlined in this section provides for the granting of water licences by application made under Section 206 of the Water Act.

The process outlined below will apply.

a) Preliminary

Prior to public notification that applications may be made to purchase water under this section, the chief executive will determine:

- The fixed price per megalitre of maximum annual volume for the water being released; and
- Evaluation criteria for applications.

Evaluation criteria may include, but not be limited to, benchmarking of water use efficiency against comparable regional and/or industry standards and consideration of risk management strategies for water use, to establish individual licence limits on maximum annual volume of take. Applicants may also need to demonstrate they can physically access the water applied for.

b) Public notification of water release

The chief executive will publish a notice to advise interested parties of the water release and to make relevant information about the release available. Particular conditions on the release process may include the following:

- The fixed price per megalitre of maximum annual volume of take of water;
- Conditions for taking water made available under the release;
- Application requirements and details of how the applications will be evaluated; and
- Applications must be made under Section 206 of the Water Act.

c) Processing applications

The chief executive will decide applications made under Section 206 under the provisions of the Water Act.

6.6 Triggers for release of additional unallocated water

6.6.1 Volume, location and process for release

This section provides for the release of up to 20,000 ML of water in addition to the provisions of Sections 6.4 and 6.5. This additional water will be only released when the requirements of Section 6.6.2 are met.

Water can only be made available in the Isaac/Connors, lower Mackenzie and Fitzroy River catchments, excluding the Dawson River catchment. The proportion of water made available in any system will be determined by the level of justified need identified through Section 6.6.2.

Water in the lower Mackenzie River (zones Mackenzie A to Mackenzie E) and Fitzroy River will be released as tradable water allocations granted through the process identified in Section 6.4.3, and subject to the specification provisions of Section 6.4.2. The volume of release will be assessed as nominal volume.

Water in the Isaac/Connors, lower Mackenzie and Fitzroy River catchments, excluding the Dawson River catchment, lower Mackenzie River and Fitzroy River will be released as water licences granted through the processes specified in Section 6.5. The volume of release will be assessed as maximum annual volume of take.

6.6.2 Trigger assessment

The need for release of additional water under this Section 6.6 will be assessed by the chief executive having regard to the following:

- The broad socio-economic profile of the catchment being evaluated, and the socio-economic justification for additional water supplies;
- Current water use efficiency, demand management and water need profiles for proponents who express an interest or need for the water;
- Trading market characteristics, and access to alternative water supplies through trading, improved demand management and/or wastewater reuse; and
- The likely timeframe in which additional water will be required.

The purpose of this assessment will be to determine valid need for water, assess the opportunity to meet those needs through means other than release of unallocated water and, when appropriate, establish the timing, quantum and location of any additional water release.

6.7 Significant projects

6.7.1 Limits on application and volume of grant

The Coordinator-General will determine which projects are considered projects of State or regional significance, where:

- “a project of State significance” means a project declared under the *State Development and Public Works Organisation Act 1971* to be a significant project;
- “a project of regional significance” means a project the Coordinator-General, having regard to the matters mentioned in the *State Development and Public Works Organisation Act 1971*, section 27, decides is a project of regional significance for the purposes of this plan.

The process detailed in Section 6.7.3 provides for the granting of water licences for these projects in situations where no other cost-effective source of water is available.

The cumulative volume of licences granted by the chief executive under this Section 6.7 must not exceed:

- 600 ML of maximum annual volume of take in the upper Mackenzie River system (the catchment of the Mackenzie River upstream of the Isaac Mackenzie waterharvesting upstream limit identified in Attachment 2.2); or
- 600 ML of maximum annual volume of take in the Dawson River system; or
- 1,000 ML of maximum annual volume of take in the Fitzroy Basin not including the upper Mackenzie River and Dawson River systems.

6.7.2 Water licence specifications

A water licence granted under the process detailed in Section 6.7.3 will specify:

- A maximum annual volume; and
- A location.

A water licence granted under the process detailed in Section 6.7.3 may specify:

- The land to which the licence attaches;
- A purpose for the use of the water taken under the licence, which will be ‘any’;
- A passing flow condition;
- A first post-winter flow condition;
- A maximum rate that the water may be taken at;
- A seasonal base flow condition; and
- Any other details and conditions decided by the chief executive.

In the context of water licence specification:

- ‘Location’ means the AMTD on the river or creek at the point where the water must be taken;
- A purpose of ‘any’ means that the water licence can be used for any purpose;
- ‘Passing flow condition’ means the stream flow nominally required to pass downstream while water is being taken under the water licence;
- ‘Maximum rate’ means the maximum rate that water may be taken averaged over a specified time period; and

- The basis for determination of the passing flow condition, first post-winter flow condition, seasonal base flow condition and maximum rate of take will be established through a set of published guidelines.

6.7.3 Granting of water licences to take an annual maximum volume of water

An entity requiring water for a project deemed by the Coordinator-General to be a project of State significance or a project of regional significance may make an application for a licence to take water under this Section 6.7. The process outlined below will apply to assessment of applications and grant of licences.

a) Consideration of applications

Each application must be accompanied by an appropriate report providing:

- Detailed description of the project water supply balance including a breakdown of predicted unit water needs by major components of use, timing of supply requirements, and planned wastewater discharge characteristics;
- Details of proposed risk management strategy for water use and disposal;
- Costed evaluation of the identified least-cost pumped/piped water supply option to meet project water needs;
- Costed evaluation of the identified least-cost option for improved water use efficiency and/or wastewater reuse to meet as much as possible of the project water needs;
- If a potential groundwater resource is available, costed evaluation of the least-cost groundwater development to meet project water needs; and
- Evaluation of the local surface water hydrology to establish that sufficient water is available to meet the proposed application, without compromising environmental flow requirements and/or other downstream users.

The chief executive must deal with each application in accordance with this section and the provisions of the Water Act taking into account the following:

- The chief executive must refuse any application to take water in an area where unallocated water is being made available in a suitable timeframe under Section 6.4, 6.5 or 6.6;
- The chief executive must refuse any application to take water from a watercourse in which water is managed under a ROL or IROL;
- The chief executive must refuse any application to take water from sections of a watercourse where water allocations have been granted;
- Where necessary the chief executive may require an applicant to provide more detailed information to justify the planned water balance and/or cost of alternative water supplies;
- The chief executive must refuse an application if an alternative, feasible, cost-effective supply (benchmarked against best practice) is available to the applicant; and
- The justified annual maximum volume of take for a licence granted under this Section 6.7 will be assessed by the chief executive having regard to the following:
 - Current water use efficiency, demand management and water need profiles of the applicant;
 - Access to alternative water supplies through piped supplies, groundwater development, improved demand management and/or wastewater reuse;
 - The likely timeframe in which additional water will be required; and
 - The needs of any other projects in the same catchment that are deemed to be of economic or social importance to the State.

b) Determination of price to be paid for a licence

The price to be paid for a licence granted under this section will be determined by the chief executive based on an assessment of the likely market value of the water.

c) Amendment to application

The chief executive may invite an applicant to make an amendment of a stated type to its application within a stated timeframe. Without limiting the type of amendment that may be invited, the chief executive may invite an amendment to include a draft flow condition that would apply to the proposed licence. If the applicant does not take up this invitation within the timeframe, the application will be regarded as unsuccessful.

d) Public notification of applications

Each application will be advertised as a draft amendment to the ROP. The following information will be specified for each application:

- The proposed licence volume;
- The location where the water is proposed to be taken; and
- Any draft conditions the chief executive proposes to apply to the proposed licence.

The chief executive will invite submissions on matters relating to the draft ROP amendment within a specified timeframe.

e) Review of submissions and settling of applications

Review of submissions and settling of applications will be undertaken in accordance with the following:

- The chief executive may collate information about the submissions and refer the collated information and submissions to a Referral Panel established under Section 1004 of the Water Act for review and recommendation on how the submissions and applications should be dealt with;
- The chief executive must consider the submissions received, and if a submission has been referred to a Referral Panel, the recommendations of the Panel, and for each application:
 - Accept the application; or
 - Accept the application subject to conditions; or
 - Invite the applicant to make an amendment of a stated type to its application; or
 - Refuse the application;
- If an applicant amends its application as invited, the chief executive will accept the application, provided that the application still meets the evaluation criteria;
- If the chief executive accepts the application, the applicant must pay the specified price by the specified date in order for the application to be regarded as a successful application; otherwise the application will be unsuccessful; and
- If the chief executive refuses the application, the application is unsuccessful.

f) Amendment of ROP and grant of licences

The chief executive will amend the ROP to specify the details of all successful applications. Following amendment of the ROP to include details of the successful applications, the chief executive will, under Section 212 of the Water Act, grant a licence to the successful applicants in accordance with the details specified in the ROP.

6.7.4 Cancellation of licences

Any licence granted in accordance with this Section 6.7 of the ROP must be cancelled and the volume of the licence revert to the available reserve, if the relevant project:

- Has not commenced productive operation that relies on the taking or interfering with water authorised under the licence within 3 years of the grant of the licence; or
- Ceases productive operation that relies on the taking of water authorised under the licence.

Where any licence is cancelled, the proponent may reapply in accordance with Section 6.7.3 if the appropriate conditions of application are met.

6.8 Lower Fitzroy Reservations

This section specifies the following reserves of unallocated water:

- Nominal volume of 30,000 ML of high reliability water from the Fitzroy River for urban and industrial supplies in the Gladstone area (the *Gladstone reserve*)
- Nominal volume of 4,000 ML of high reliability water from the Fitzroy River for urban supplies in the Capricorn Coast area (the *Capricorn Coast reserve*).

6.8.1 Granting from the Gladstone reserve

The chief executive may grant a supplemented water allocation to Gladstone Area Water Board under Section 122 of the *Water Act 2000* for all or part of the unallocated water held as Gladstone reserve if:

- (a) Gladstone Area Water Board makes a submission to the chief executive requesting the release of all or part of the Gladstone reserve, and the submission demonstrates to the satisfaction of the chief executive that there is a formal agreement with the proponent of the additional water infrastructure necessary to supply the water allocation.
- (b) The granting is consistent with:
 - (i) the environmental flow objectives for the *Water Resource (Fitzroy Basin) Plan 1999*; and
 - (ii) the water allocation security objectives for the *Water Resource (Fitzroy Basin) Plan 1999*:
 - (A) generally; and
 - (B) in particular, for the priority group to which the water allocation will belong; and
 - (iii) the resource operations licence for the scheme under which the water allocation would be supplied.

6.8.2 Granting from the Capricorn Coast reserve

The chief executive may grant a supplemented water allocation to Rockhampton Regional Council under Section 122 of the *Water Act 2000* for all or part of the unallocated water held as Capricorn Coast reserve if:

- (a) Rockhampton Regional Council makes a submission to the chief executive requesting the release of all or part of the Capricorn Coast reserve, and the submission demonstrates to the satisfaction of the chief executive that there is a formal agreement with the proponent of the additional water infrastructure necessary to supply the water allocation.
- (b) The granting is consistent with:
 - (i) the environmental flow objectives for the *Water Resource (Fitzroy Basin) Plan 1999*; and
 - (ii) the water allocation security objectives for the *Water Resource (Fitzroy Basin) Plan 1999*:
 - (A) generally; and
 - (B) in particular, for the priority group to which the water allocation will belong; and
 - (iii) the resource operations licence for the scheme under which the water allocation would be supplied.

Chapter 7

Meeting future water requirements

Overview

This chapter focuses on potential future releases of water in the Fitzroy Basin in addition to those dealt with in Chapter 6 of this Resource Operations Plan (ROP).

Unallocated water available for future release

The Water Resource Plan (WRP) provides for additional water allocations in a number of parts of the basin. These include 190,000 ML of medium priority water allocations from the Dawson River for the proposed Nathan Dam Project.

The Plan overview of the WRP also identified estimated quantities of water potentially available at other locations within the basin including:

- Up to 300,000 ML of mean annual diversion from the Isaac/Connors and Lower Fitzroy River systems;
- Up to 40,000 ML of mean annual diversion from the Comet/Nogoa/Mackenzie River system;
- Up to 11,500 ML of mean annual diversion from the upper Dawson River.

The 'unallocated' water reflects a potential to take additional unsupplemented water without impact on the objectives of the WRP. It generally represents a low reliability resource and it is likely that useful access to this water will require significant new storage infrastructure (either in or off stream).

Since development of the initial Water Resource Plan, it has been recognised that extensive overland flow capture in some catchments (for example, the Comet River) already utilises a significant proportion of the available 'unallocated' water. The WRP was amended in 2005 to address overland flow management.

In addition, continued drought conditions experienced in Central Queensland have highlighted the potential impact of severe long-term climate patterns and climatic change on the long-term yield of water supply infrastructure. This, too, has potential implications for future water supply releases.

Central Queensland Regional Water Supply Strategy

The Central Queensland Regional Water Supply Strategy (CQRWSS) was released in December 2006.

It was developed in response to the severe drought conditions in Central Queensland and the need to develop a strategic water supply plan for the region.

The strategy is an adaptive long-term statement, outlining equitable and timely solutions to the urban, industrial/mining and agricultural water needs of the Central Queensland region. Through a coordinated regional approach the strategy was tailored to achieve optimum social,

environmental and economic outcomes for the region.

Together, the elements of the strategy provide a basis for allocating and managing the regions' water resources, and for planning for infrastructure developments, to 2020 and beyond.

The strategy identifies a range of options for meeting future water demands, including water trading, improved water use efficiency and reuse, and potential additional water infrastructure supply sources.

The additional water infrastructure supply sources proposed to be developed include:

- Raising of Eden Bann Weir and construction of Rookwood Weir, to meet the short- to medium-term needs of Rockhampton, Gladstone and the Capricorn Coast areas, along with construction of a pipeline from Rockhampton to Gladstone, and construction of a pipeline from Rockhampton to the Capricorn Coast;
- Construction of a water pipeline from the Burdekin to Moranbah, which became operational in 2007, to meet the short- to medium-term needs for coal mining in the northern Bowen Basin;
- Construction of the Connors River Dam, to meet the medium- to long-term urban and mining needs of the Isaac Connors area, along with construction of associated distribution pipelines;
- Construction of Nathan Dam, to meet future supply needs in the Dawson region.

The CQRWSS identifies the following reservations of unallocated water to provide high-priority supplies to meet urban, industrial and mining demands in the region:

- Reservation of up to 30,000 ML/a of reliable water from the Lower Fitzroy for urban and industrial purposes for the Gladstone Area Water Board, or other entity that may arise from a review of the institutional arrangements;
- Reservation of 4,000 ML/a of reliable water from the Lower Fitzroy for urban needs on the Capricorn Coast;
- Reservation of the balance of available water from the Lower Fitzroy for urban, industrial and agricultural purposes in the Lower Fitzroy;
- Reservation of water for urban and other purposes in other systems in the Fitzroy Basin where unallocated water is available.

The CQRWSS also identifies that water needs to be reserved in association with the proposed water infrastructure.

Section 6.8 currently includes water reservations for Gladstone and the Capricorn Coast. It is anticipated that future amendments may need to be made to this plan relating to these and other reservations and the future release of this water, in particular once specific water infrastructure project details are more certain. Water release and/or reservation strategies identified under the CQRWSS are an amendment contemplated by this plan.

Chapter 8

Amending the Resource Operations Plan

Overview

Section 106 of the Water Act provides that amendments can be made to a resource operations plan (ROP) through a simplified process, rather than following the formal public notification and submission processes required under the Water Act, if:

- The amendment is one that would correct a minor error or make a change that is not a change of substance; or
- It is stated in the ROP as an amendment that can be made under Section 106(b).

Section 8.1 details the amendments that can be made under Section 106(b) of the Water Act.

8.1 Amending the Resource Operations Plan

The following amendments may be made to the ROP under Section 106 (b) of the Water Act:

- a) An amendment necessary to implement an amendment to the Water Resource Plan (WRP) made under Section 57(b) of the Water Act.
- b) An amendment that provides for improved or more efficient monitoring for assessing the WRP outcomes. Examples of such amendments may include:
 - Changing indicators for ecological monitoring; and
 - An increase or addition to monitoring requirements, if further information is required;
 - A reduction or removal of monitoring requirements, if no further information or benefit is gained from the continuation of the monitoring requirements
- c) An amendment to change the infrastructure details in Attachments 4.1D, 4.2D, 4.3D or 4.4D provided the amendment is one of the following and does not adversely impact on the achievement of the WRP objectives:
 - An amendment to correct an error in the details shown in Attachments 4.1D, 4.2D, 4.3D or 4.4D (for example, revision of surface area, storage volume, spillway and/or outlet discharge relationships);
 - The installation of, or modification to, a fish transfer system on any of the infrastructure detailed;
 - The installation of, or modification to, multi-level inlet works on any of the infrastructure detailed; and
 - An increase in the discharge capacity of the Fairbairn Dam river outlet works to up to 1,600 ML/day (when the level of water stored by the dam is EL 199.0 m AHD), and any associated modifications to the outlet works, including if necessary, installation of multi-level inlet works.
- d) An amendment to change the guidelines for the evaluation of flow attributes in making a decision to activate the first post-winter flow management strategies in Attachment 4.1E, 4.2E, 4.3E and 4.4E;
- e) An amendment to add or change the fishway management strategies in Attachments 4.1E, 4.2E, 4.3E and 4.4E;
- f) An amendment to Attachments 4.1E, 4.2E, 4.3E, 4.4E, 4.1F, 4.2F, 4.3F and 4.4F where the amendment is necessary to implement a decision to amend the rules under Attachment 4.1I, 4.2I, 4.3I and 4.4I;

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- g) An amendment to change the rules for transfer of water between water years in Section 3.2 of Attachments 4.1F, 4.2F, 4.3F and 4.4F;
 - h) An amendment to change the rules for seasonal assignment in Section 4.2 of Attachments 4.1F, 4.2F, 4.3F and 4.4F;
 - i) An amendment to change:
 - Table 1, Table 2, Table 3 or Table 4 in Attachment 4.1H; or
 - Table 1 or Table 2 in Attachment 4.2H;
 - j) An amendment to change the specified continuous period for the purpose of the maximum rate for taking water in Attachment 5.2F, 5.2G, 5.3E and 5.3F;
 - k) An amendment to add or change an area where seasonal water assignments of water licences are allowed in Attachment 5.4, provided that each water licence to take water in the area specifies the amount of water that may be taken;
 - l) An amendment to add or change the seasonal water assignment rules for an area where seasonal water assignments are allowed in Attachment 5.4, provided that the objectives of the WRP have been considered in the development of or changes to the seasonal water assignment rules;
 - m) An amendment in relation to the release process and triggers for release in Sections 6.4, 6.5, 6.6 and 6.7 of Chapter 6;
 - n) An amendment to provide for the grant of licences in accordance with the process specified in Sections 6.5.3 f) and 6.7.3 f) of Chapter 6;
 - o) An amendment to accommodate the outcomes of the Central Queensland Regional Water Supply Study; and
 - p) An amendment to the implementation schedule in Attachment 9.

Chapter 9

Implementation of the Resource Operations Plan

Overview

Section 98 of the Water Act provides for the Resource Operations Plan (ROP) to include an implementation schedule setting out arrangements for progressive implementation of the requirements of the plan over a period of 5 years.

9.1 Implementation schedule for the ROP

Details of how the ROP will be implemented are specified in the implementation schedule in Attachment 9.1.

9.2 Transitional arrangements for the Fitzroy Barrage Water Supply Scheme

Prior to commencement of this ROP, the department was responsible for supplemented water management in the Fitzroy Barrage Water Supply Scheme. The following transitional arrangements will apply to the shift in responsibility for this scheme from the department to the Resource Operations Licence (ROL) holder for the Fitzroy Barrage Water Supply Scheme.

9.2.1 Seasonal water assignments

Seasonal water assignments approved by the chief executive prior to the issue of a ROL will continue to have effect until the end of the 2003/04 water year. Seasonal water assignments approved by the chief executive will be administered by the ROL holder from the date of issue of the ROL.

9.3 Amendments to the ROP

Details of amendments to the ROP are specified in Attachment 9.2.

Glossary

‘AHD’ means Australian height datum, which references a level or height to a standard base level.

‘AMTD’ means adopted middle thread distance, which is the distance in kilometres (km) that a specific point in a watercourse is from the watercourse’s mouth or junction with the main watercourse and is measured along the middle of a watercourse.

‘authorisation’ as defined in the Water Resource Plan, means a licence, permit, or other authority to take water given under the Act or the repealed Act, other than a permit for stock or domestic purposes.

‘channel system’ as defined in the Water Resource Plan, means a system of channels, canals, pumps and pipelines and other works used for the distribution of water to water users in a water supply scheme.

‘cease to flow’ level for a waterhole, means the level at which water stops flowing from a waterhole over its downstream control.

‘critical water supply’ management arrangements and water sharing rules mean the management arrangements and rules in the Resource Operations Plan that apply during periods of low water availability.

‘cumec’ means cubic metre per second.

‘department’ means the Department of Natural Resources and Mines.

‘distribution loss’ means water that is lost when delivering water for water allocations in reticulated areas via constructed infrastructure through processes such as (but not limited to) evaporation, seepage, pipeline leakage, accidental loss through temporary pipe failure (breaks), loss through pressure relief systems and scouring.

‘domestic purposes’ as defined in the *Water Act 2000*, includes irrigating a garden, not exceeding 0.25 hectares, cultivated for domestic use and not for the sale, barter or exchange of goods produced in the garden.

‘ecological asset’ means a species, group of species, a biological function, particularly ecosystem or place of value for which the conditions created by water are directly critical.

‘ecological outcome’ as defined in the *Water Act 2000*, means a consequence for an ecosystem in its component parts specified for aquifers, drainage basins, catchments, subcatchments and watercourses.

‘environmental flow objective’ as defined in the *Water Act 2000*, means a flow objective for the protection of the health of natural ecosystems for the achievement of ecological outcomes. The environmental flow objectives are specified in the Water Resource Plan.

‘high priority water allocation’ means a water allocation belonging to the high priority group. The water allocation security objectives for the high priority group are specified in the

Water Resource Plan.

‘interim resource operations licence (IROL)’ as defined in the *Water Act 2000*, means a licence granted under s. 175 of the Act. The purpose of an interim resource operations licence is to make provision for how infrastructure and water is managed before the details have been established through an approved resource operations plan.

‘interim water allocation (IWA)’ as defined in the *Water Act 2000*, means an authority to take water managed under an interim resource operations licence that represents a volumetric share of water and any conditions attached to that authority.

‘IQQM computer program’ means the department’s Integrated Quantity and Quality Modelling computer program, and associated statistical analysis and reporting programs, that simulate daily stream flows, flow management, storages, releases, instream infrastructure, water extractions, water demands and other hydrologic events in the Water Resource Plan area.

‘mean annual diversion (MAD)’ means the long-term average annual volume of water diverted.

‘medium priority water allocation’ means a water allocation belonging to the medium priority group. The water allocation security objectives for the medium priority group are specified in the Water Resource Plan.

‘medium A priority water allocation’ means a water allocation belonging to the medium A priority group. The water allocation security objectives for the medium A priority group are specified in the Water Resource Plan.

‘multi-level outlet’ means an outlet arrangement on a dam or weir that allows stored water to be released downstream from selected levels below the stored water surface.

‘nominal volume’ for a water allocation, as defined in the *Water Act 2000*, means:

- a) For a water allocation managed under a resource operations licence – the number used to calculate the allocation’s share of the water available to be taken by holders of water allocations in the same priority group; and
- b) For a water allocation not managed under a resource operations licence – the number used to calculate the allocations share of the water available to be taken by holders of water allocations in all water allocation groups in a water resource plan area.

‘NR&M’ means the Department of Natural Resources and Mines.

‘overland flow water’ is defined in the *Water Act 2000*. Overland flow water includes floodwater and water flowing over land other than in a watercourse or lake.

‘proponent’ has the same definition meaning as in the *State Development and Public Works Organisation Act 1971*.

‘resource operations licence (ROL)’ means a licence granted under the *Water Act 2000* to make provision for how infrastructure and water are managed under an approved resource operations plan.

‘resource operations plan (ROP)’ means a plan approved under Section 103 of the *Water*

Act 2000. A resource operations plan, prepared by the chief executive implements a water resource plan for any water in the plan area in all or part of the plan area.

‘seasonal water assignment’ of an interim water allocation, a water allocation or water licence as defined in the *Water Act 2000*, means the assignment by the holder of the allocation or licence of the benefit under the allocation or licence to another person, for a water year, of all or part of the water that may be taken under the allocation or licence.

‘stock purposes’ in relation to taking water, as defined in the *Water Act 2000*, means watering stock that would normally be depastured on the land on which the water is, or is to be, used.

‘stratification’ means the formation of layers of water in a dam or weir that do not readily mix with each other.

‘supplemented water’ as defined in the Water Resource Plan, means water supplied under an interim resource operations licence, resource operations licence or other authority to operate water infrastructure.

‘tailwater’ means the flow of water immediately downstream of a dam or weir. Tailwater includes all water passing the water storage, for example, controlled releases and uncontrolled overflows.

‘thermocline’ means the depth in the water column of a dam or weir where a distinct change in temperature occurs due to stratification.

‘unsupplemented water’ means water that is not supplemented water.

‘volumetric limit’ for a water allocation, as defined in the *Water Act 2000*, means the maximum volume of water that may be taken under the allocation during the period of time, or in the circumstances, stated in the resource operations plan under which the allocation is managed, unless Section 120B(3) of the Act applies.

‘Water Act’ means the *Water Act 2000*.

‘water allocation’ means an authority to take water granted under Section 121 or 122 of the *Water Act 2000*. A water allocation can only be issued under an approved resource operations plan.

For supplemented water, a water allocation may be specified in terms of:

- The nominal volume of water for the allocation;
- The location from which the water may be taken under the allocation;
- The purpose for which water may be taken under the allocation; and
- The priority group to which the allocation belongs.

For unsupplemented water, a water allocation may be specified in terms of:

- The nominal volume of water for the allocation;
- The volumetric limit for the allocation;
- The location from which the water may be taken under the allocation;
- The purpose for which water may be taken under the allocation;

- The maximum rate for taking water;
- The flow conditions under which water may be taken; and
- The water allocation group to which the allocation belongs.

‘water allocation change rules’ means the rules included in the Resource Operations Plan that define how certain attributes of a water allocation may be changed, for example, a change to the location from which water can be taken or the subdivision or amalgamation of a water allocation.

‘water allocations register,’ means the register required under Section 148 of the *Water Act 2000*. The register records details of water allocations and other interests and dealings in a water allocation on a similar basis to that for land titles.

‘water allocation security objective (WASO)’ as defined in the *Water Act 2000*, means an objective that may be expressed as a performance indicator and is stated in a water resource plan for the protection of the probability of being able to obtain water in accordance with a water allocation.

‘waterharvesting’ means taking of unsupplemented water during specified high flow events, and generally involves storing the water offstream for later use.

‘water licence’ means a licence granted under the *Water Act 2000*. A water licence is for the taking of and using water or interfering with the flow of water. The authority to construct the works associated with the water licence is given under the *Integrated Planning Act 1997*.

‘water resource plan’ means a plan approved under the *Water Act 2000*. A water resource plan details the plan area, the water to which the plan applies and what the plan aims to achieve.

‘water sharing rules’ for a water entitlement, means the water sharing rules included in the Resource Operations Plan. For example, the water sharing rules for water supply schemes in the Resource Operations Plan include rules for announced allocations, critical water supply water sharing arrangements and seasonal water assignments.

‘zone’ means a geographic location defined by a reach of a watercourse. The location for a water allocation is specified as a zone.