



Queensland

*Water Act 2000*

# Water Resource (Fitzroy Basin) Plan 1999

Reprinted as in force on 18 December 2009

Reprint No. 1D

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**Also see endnotes for information about—**

- **when provisions commenced**
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## Queensland

# Water Resource (Fitzroy Basin) Plan 1999

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# Water Resource (Fitzroy Basin) Plan 1999

[as amended by all amendments that commenced on or before 18 December 2009]

## Part 1 Preliminary

### 1 Short title

This water resource plan may be cited as the *Water Resource (Fitzroy Basin) Plan 1999*.

### 2 Commencement

- (1) This plan commences from the date of release.
- (2) For the purposes of the *Statutory Instruments Act 1992*, section 54, this plan is taken to have been made on 23 December 1999.

### 3 Purposes of plan

The following are the purposes of this plan—

- (a) to provide a framework for sustainably managing water and the taking of water;
- (b) to provide a framework for establishing water allocations;
- (c) to regulate the taking of overland flow water.

### 4 Definitions

The dictionary in schedule 6 defines particular words used in this plan.

## **Part 2                      Plan area and water to which plan applies**

### **5            Plan area**

This plan applies to the area shown as the plan area on the map in schedule 1.

### **6            Information about plan area**

Greater definition of the location of the plan area boundary is held in digital electronic form by the department.<sup>1</sup>

### **7            Nodes**

- (1) A node mentioned in this plan is a place on a watercourse in the plan area at which, for comparison with this plan's environmental flow objectives—
  - (a) stream flow characteristics are described and measured; and
  - (b) modelled stream flows are estimated and reported.
- (2) The location of each node is shown on the map in schedule 1 and described in schedule 2, part 1.
- (3) Each node is identified on the map by a number.

### **8            Water to which plan applies**

This plan applies to the following water in the plan area—

- (a) water in a watercourse or lake;
- (b) water in springs not connected to—
  - (i) artesian water; or
  - (ii) subartesian water connected to artesian water;

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<sup>1</sup> The boundary location in digital electronic form may be inspected at the department's head office, Brisbane. The information held in digital electronic form can be reduced or enlarged as necessary to show the details of the boundary.



- (c) overland flow water, other than water in springs connected to—
  - (i) artesian water; or
  - (ii) subartesian water connected to artesian water.

## **Part 3                      Outcomes for sustainable management of water**

### **9                      Outcomes**

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

- (a) security for water users in the plan area; and
- (b) security for holders of resource operations licences in the plan area; and
- (c) for further water-related development in the plan area; and
- (d) for environmental water requirements for natural ecosystems in the plan area.

## **Part 4                      Performance indicators and objectives**

### **Division 1                      Environmental flow objectives**

#### **10                      Performance indicators for environmental flow objectives**

The performance indicators for assessing the following environmental flow objectives for this plan are stated in the schedule mentioned—

- (a) seasonal base flow objective—schedule 2, part 1;

- (b) first post-winter flow event objective—schedule 2, part 2;
- (c) medium to high flow event objective—schedule 2, part 3.

## **11 Environmental flow objectives**

The environmental flow objectives for this plan are stated in schedule 2.

## **Division 2 Water allocation security objectives**

### **12 Performance indicators for water allocation security objectives**

The performance indicators for the water allocation security objectives are stated in—

- (a) for taking supplemented water—schedule 3, part 1; and
- (b) for taking unsupplemented water—schedule 3, part 2.

### **13 Water allocation security objectives**

The water allocation security objectives for this plan are stated in—

- (a) for water allocations to take supplemented water—schedule 3, part 1; and
- (b) for water allocations to take unsupplemented water—schedule 3, part 2.

## **Part 5                      Strategies for achieving outcomes**

### **Division 1                Preliminary**

#### **14            Matters chief executive must consider**

In preparing the resource operations plan, or in making a decision about the grant of, or change to, a water allocation, the chief executive must consider—

- (a) the extent of inundation of stream-bed habitats;
- (b) the extent of artificial rapid variations in instream water levels;
- (c) the impact of instream infrastructure on water quality;
- (d) the localised impacts on streamflows associated with large-scale storage developments;
- (e) the impacts on local indigenous cultural values associated with streamflows;
- (f) the extent of water losses through inefficient use of water.

#### **15            Decisions consistent with objectives**

A decision about the allocation and management of water in the plan area must be consistent with—

- (a) the environmental flow objectives in schedule 2; and
- (b) the water allocation security objectives in schedule 3.

#### **16            Assessing consistency with objectives**

- (1) The IQQM computer program's simulation for the simulation period is used to assess consistency with the objectives.
- (2) If it is not practicable to use the IQQM computer program, another assessment method approved by the chief executive may be used.

- (3) The chief executive may approve an assessment method for subsection (2) only if the chief executive is satisfied the method will assess consistency with the objectives at least as accurately as the IQQM computer program.

## **17 Restrictions on taking water**

- (1) Water may be taken from a waterhole or lake only if the level of water in the waterhole or lake is above the level that is 0.5m below the level at which it naturally overflows.
- (2) Subsection (1) does not apply—
- (a) to water taken under—
    - (i) an authorisation in existence immediately before the commencement of this plan; or
    - (ii) a water allocation converted from an authorisation in existence immediately before the commencement of this plan; or
  - (b) to water taken for stock or domestic purposes; or
  - (c) to the taking of not more than the volume required to irrigate 10ha of crops for feeding stock.

## **18 Amending existing authorisations for consistency with plan**

The criteria for amending water entitlements in existence on the commencement of this plan to achieve the plan outcomes are stated in schedule 4.

# **Division 2 Conversion of authorisations to water allocations**

## **Subdivision 1 General provisions**

### **19 Application of div 2**

This division applies only to—

- (a) authorisations converted, under the resource operations plan, to water allocations; and
- (b) water allocations converted, under the resource operations plan, from authorisations.

## **20 Location for taking water**

The location, for taking water, stated on a water allocation must contain the place at which water could have been taken under the authorisation.

## **Subdivision 2 Supplemented water**

### **21 Nominal volume for supplemented water**

The nominal volume for a water allocation to take supplemented water is—

- (a) for an authorisation that states an area that may be irrigated—the volume decided by the chief executive having regard to the volume that is not more than the volume, in megalitres, calculated by multiplying the area, in hectares, by 6; and
- (b) for an authorisation that states an annual volume—
  - (i) if the authorisation is identified in an interim resource operations licence as for a distribution loss—the volume decided by the chief executive having regard to—
    - (A) the stated volume; and
    - (B) the annual volumes of water estimated by the chief executive to have been taken under the authorisation during the period, of not more than 10 years, immediately before the commencement of this plan; and
    - (C) the efficiency of the use of the water mentioned in subsubparagraph (B); or
  - (ii) otherwise—the stated volume.

**22 Priority groups for water allocations**

A water allocation to take supplemented water belongs to—

- (a) for an authorisation identified by an interim resource operations licence as high priority—the high priority group; and
- (b) for an authorisation, held by Rockhampton City Council for town water supply purposes, in the Fitzroy Barrage Water Supply Scheme—the high priority group; and
- (c) for an authorisation supplied from the Theodore or Gibber Gunyah area channels in the Dawson Valley Water Supply Scheme—the medium A priority group; and
- (d) to the extent allowed under the rules for conversion contained in the resource operations plan, for the part of an authorisation, in the Dawson Valley Water Supply Scheme, that is for stock or domestic purposes—the high priority group; and
- (e) for an authorisation identified in the resource operations plan as belonging to a priority group mentioned in schedule 3, part 1—the priority group mentioned; and
- (f) for all other authorisations—the medium priority group.

**23 Total water allocations for water supply schemes**

- (1) The total volume of water allocations for the existing water supply schemes mentioned in schedule 5 is equal to the cumulative total of—
  - (a) the volume of water allocations equal to the total nominal volumes supplied within the water supply scheme; and
  - (b) the unallocated volume referred to in schedule 5; and
  - (c) a volume of water to provide for losses associated with the delivery of water within channel systems.
- (2) The total volume of water for the Callide Valley Water Supply Scheme is the total of—

- (a) the volume calculated, for the scheme, under subsection (1); and
- (b) the volume released from the Callide and Kroombit dams for underground water recharge purposes.

### **Subdivision 3      Unsupplemented water**

#### **24      Nominal volume for unsupplemented water**

In deciding the nominal volume for a water allocation, the chief executive—

- (a) must have regard to—
  - (i) the local availability of water; and
  - (ii) the conditions under which the water may be taken under the authorisation; and
  - (iii) the simulated mean annual diversion; and
- (b) may have regard to the efficiency of the use of the water.

#### **25      Volumetric limit for unsupplemented water**

The volumetric limit for taking water under a water allocation to take unsupplemented water is the volumetric limit, for a year, decided by the chief executive having regard to—

- (a) for an authorisation that states an area that may be irrigated—the volume that is not more than the volume, in megalitres, calculated by multiplying the area, in hectares, by 6; and
- (b) for an authorisation for water harvesting in an area mentioned in schedule 3, part 2, column 1—the maximum rate for taking the water, decided under section 26, multiplied by the number of days stated for the area in schedule 3, part 2, column 3; and
- (c) for any other authorisation—the terms and conditions of the authorisation.

**26 Maximum rate for taking unsupplemented water**

The maximum rate at which water may be taken under a water allocation to take unsupplemented water is the rate decided by the chief executive having regard to—

- (a) the terms and conditions under which water may be taken under the authorisation including—
  - (i) the rate stated on the authorisation; and
  - (ii) the pump size for the authorisation; and
  - (iii) the area that may be irrigated under the authorisation; and
- (b) the works associated with the authorisation.

**Division 3 Dealing with unallocated water****27 Limitation on granting unallocated water**

- (1) Unallocated water may be granted under a process stated in the resource operations plan.
- (2) Otherwise, unallocated water may be granted only if—
  - (a) granting the water does not adversely affect meeting the environmental flow objectives or water allocation security objectives; and
  - (b) the water is—
    - (i) for the proposed Nathan Dam project; or
    - (ii) for the water supply schemes, and in the volumes, stated in schedule 5.
- (3) Subsections (1) and (2) do not prevent the grant of a water permit under section 240 of the Act.

**28 Water for proposed Nathan Dam project**

- (1) For the proposed Nathan Dam project, a total volume of 190000ML may be granted for water allocations in the medium priority group.
- (2) However, subsection (1) is based on the assumptions that—



- (a) a dam with a capacity of 880000ML is constructed on the Dawson River at AMTD 315.3km; and
  - (b) a weir with a capacity of 6000ML is constructed on the Dawson River at AMTD 30.1km; and
  - (c) the infrastructure and operating arrangements proposed for the Nathan Dam Project will have an equivalent or improved environmental or water allocation security outcome as the arrangements represented by case 0299DY3 of the Fitzroy Basin IQQM computer program.
- (3) The chief executive may grant an equivalent volume in a different priority group if meeting the environmental flow objectives or the water allocation security objectives is not adversely affected.
- (4) Changes to the assumptions mentioned in subsection (2) may be made only if the changes do not adversely affect meeting the environmental flow objectives or the water allocation security objectives.

## **Division 4                      Regulation of overland flow water**

### **28A      Limitation on taking overland flow water—Act, s 20(6)**

- (1) A person may not take overland flow water other than—
- (a) for stock or domestic purposes;<sup>2</sup> or
  - (b) under an authority under section 28B; or
  - (c) under an authority under section 28D; or
  - (d) under an authorisation; or
  - (e) overland flow water of not more than the amount necessary—
    - (i) to satisfy the requirements of—
      - (A) an environmental authority issued under the *Environmental Protection Act 1994*; or

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2      See the Act, section 20(4).

- (B) a development permit for carrying out an environmentally relevant activity, other than a mining or petroleum activity, under the *Environmental Protection Act 1994*; or
    - (ii) to divert the water around a mine-site; or
  - (f) overland flow water that is contaminated agricultural runoff water.
- (2) In this section—
- contaminated agricultural runoff water*** has the meaning given by the ‘Code for Assessable Development for Operational Works for Taking Overland Flow Water’.<sup>3</sup>
- (3) Subsection (1) does not apply to the taking of overland flow water for activities authorised under a mining tenement, the *Petroleum Act 1923* or the *Petroleum and Gas (Production and Safety) Act 2004* until—
- (a) an amendment of the resource operations plan, in relation to overland flow water, is approved; and
  - (b) unallocated overland flow water is granted under a process stated in the resource operations plan.

## **28B Taking overland flow water using small storages**

- (1) A person may use works with a capacity of not more than 5ML to take overland flow water for any purpose other than ponded pasture or water spreading.
- (2) In this section—
- ponded pasture*** means constructing banks or otherwise modifying naturally wet areas to impound water to use it mainly for growing fodder for grazing.
- water spreading*** means using shallow earth walls to divert or delay the movement of water across its natural flow path to increase beneficial infiltration of the soil by the water.

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3 A copy of the code is available on the department’s website.

**works** does not include works that are connected, physically or by any device able to transfer water, to any other works used or able to be used for storing water.

## **28C Decisions about taking overland flow water**

- (1) In deciding an application under the Act or the *Sustainable Planning Act 2009* about taking overland flow water, the chief executive must consider whether granting the application is likely to adversely affect—
  - (a) natural aquatic ecosystems, including, for example, natural wetlands; or
  - (b) users of overland flow water downstream of the area to which the application relates.
- (2) However, subsection (1) does not apply to an application—
  - (a) for a water permit; or
  - (b) to reinstate or replace an expired licence.

## **28D Taking water using existing works or reconfiguration of existing works authorised**

- (1) Subsection (2) applies to the owner of land on which either of the following is situated—
  - (a) existing works;<sup>4</sup>
  - (b) works that—
    - (i) are a reconfiguration of existing works; and
    - (ii) do not increase the average annual volume of water taken above the average annual volume taken using the existing works.
- (2) The owner may continue to take overland flow water, using the works—
  - (a) either—
    - (i) for existing works for mining purposes, until—

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<sup>4</sup> See schedule 6, definition *existing works*, paragraph 2.

- (A) an amendment of the resource operations plan, in relation to overland flow water, is approved; and
  - (B) unallocated overland flow water is granted under a process stated in the resource operations plan; or
- (ii) otherwise—for 1 year after the commencement of this section; and
- (b) if the owner gives the chief executive notice of the works, in the approved form, and any further information required by the chief executive about the works—after the notice and information are given.

## **28E Granting water licences for authorities under s 28D**

- (1) This section applies if—
  - (a) an owner of land is authorised under section 28D to continue taking overland flow water using works; and
  - (b) the chief executive is satisfied there has been, or may be, an increase, in the average annual volume of overland flow water taken using the works, above the average annual volume that could have been taken under the operating arrangements in place immediately before the commencement of this section.
- (2) The chief executive may—
  - (a) under section 212 of the Act, grant a water licence to replace the authority under section 28D; and
  - (b) impose a condition on the licence to ensure the average annual volume of overland flow water that may be taken using the works is not more than the average annual volume that could have been taken under the operating arrangements in place immediately before the commencement of this section.

**28F     Granting or amending water licences under the resource operations plan**

- (1) For granting, under section 212 of the Act, a water licence to replace an authority under section 28D, or amending a water licence granted under section 28E, the resource operations plan—
  - (a) must have regard to—
    - (i) the environmental flow and water allocation security objectives mentioned in part 4; and
    - (ii) the capacity to take water of the works to which the authority or licence relates; and
    - (iii) the annual volumes of water estimated by the chief executive to have been taken by the works during the period, of not more than 10 years, immediately before the commencement of this section; and
  - (b) may have regard to the extent to which the works allowed the taking of water under another authorisation immediately before the commencement.
- (2) Subsection (1) does not limit the matters to which the resource operations plan may have regard.
- (3) The chief executive may require the authority or licence holder to give the chief executive a certificate, from a registered professional engineer, stating information about the works including the capacity of the works and the rate at which the works may take water.
- (4) A water licence granted or amended under the resource operations plan may include, but is not limited to, the following—
  - (a) the maximum volume of water, in megalitres, that may be taken under the licence;
  - (b) the average annual volume of water, in megalitres, that may be taken under the licence;
  - (c) the maximum rate at which water may be taken under the licence;

- (d) a condition stating that water taken under the licence must be measured in the way stated in the resource operations plan.
- (5) Section 217 of the Act applies to the amendment, for consistency with the resource operations plan, of a water licence granted under section 28E.

## **28G Relationship with Sustainable Planning Act 2009**

- (1) Works that allow taking overland flow water, other than works mentioned in subsection (3), are assessable development for the *Sustainable Planning Regulation 2009*, schedule 3, part 1, table 4, item 3(c)(i).
- (2) Subsection (1) does not apply to repairs or maintenance to works mentioned in section 28D or works constructed under a development permit, that do not alter the design of the works.
- (3) The following works are self-assessable development for the *Sustainable Planning Regulation 2009*, schedule 3, part 2, table 4, item 1(b)(ii)—
  - (a) works for taking overland flow water for stock or domestic purposes;
  - (b) works for taking overland flow water mentioned section 28A(1)(e);
  - (c) works for taking overland flow water mentioned section 28B.
- (4) This section does not apply to works that allow taking overland flow water for activities authorised under a mining tenement, the *Petroleum Act 1923* or the *Petroleum and Gas (Production and Safety) Act 2004* until—
  - (a) an amendment of the resource operations plan, in relation to overland flow water, is approved; and
  - (b) unallocated overland flow water is granted under a process stated in the resource operations plan.

**Division 5****Miscellaneous provisions****28H Continued effect of moratorium notice—Act, s 46(3)**

- (1) This section amends and continues, in part, the effect of the moratorium notice, published on 13 September 2001 and amended on 29 October 2001, 10 December 2003 and 17 May 2004.
- (2) Until an amendment of the resource operations plan, in relation to overland flow water, is approved—
  - (a) new works must not be physically started; and
  - (b) completed, or partly completed, works in existence must not be raised, enlarged or deepened.
- (3) Subsection (2) applies only to works for taking or storing water from a watercourse, lake or spring that may increase the taking of overland flow water in the plan area.
- (4) This section does not apply to—
  - (a) works for taking water under an authorisation that states an area that may be irrigated; or
  - (b) works for taking only supplemented water; or
  - (c) works being completed in accordance with a variation of the moratorium notice mentioned in subsection (1); or
  - (d) works for taking water under a water permit; or
  - (e) works for taking water under section 20(2), (3), (4) or (5) of the Act; or
  - (f) works for activities authorised under a mining tenement, the *Petroleum Act 1923* or the *Petroleum and Gas (Production and Safety) Act 2004*; or
  - (g) works that have been physically started if—
    - (i) under the moratorium notice, the works could be continued; and
    - (ii) the works are being completed in accordance with the moratorium notice; and
    - (iii) within 20 business days after the commencement of this section, the owner of the works gives the

chief executive notice that the works are being completed.

- (5) However, this section applies to works for storing water taken under an authorisation mentioned in subsection (4)(a).

## **28I Measuring devices**

- (1) A measuring device must be used to measure the volume of water taken under a water entitlement to take water in the plan area.
- (2) Subsection (1) applies in the circumstances mentioned and on the day a regulation prescribes the matters mentioned in section 1014(2)(d) of the Act, in relation to meters.

# **Part 6 Monitoring and reporting requirements**

## **29 Water monitoring requirements for resource operations licence holders**

- (1) A holder of a resource operations licence must—
- (a) undertake an ongoing water quantity monitoring program, which must measure—
    - (i) inflows to dams, weirs and barrages associated with the water supply scheme in which the holder manages water; and
    - (ii) flow at other locations stated in the resource operations plan; and
    - (iii) volumes released through dams, weirs and barrages within the water supply scheme for each of the following—
      - (A) consumptive purposes;
      - (B) environmental flow requirements;
      - (C) operation of fishways;



- (D) other purposes as determined by the chief executive; and
  - (iv) deliveries and diversions of supplemented water supplies from each section of watercourse, lake or spring within the water supply scheme; and
  - (v) dam and weir pool levels; and
  - (vi) multi-level offtake and other outlet works operations; and
  - (b) undertake an ongoing water quality monitoring program including details of physical, chemical and biological measurements of the quality of waters stored in or released from dams, weirs and barrages in the water supply scheme.
- (2) Also, a holder of a resource operations licence must report to the chief executive as required by the chief executive on—
- (a) the matters referred to in subsection (1); and
  - (b) all decisions associated with the management of water allocations and infrastructure within the water supply scheme including—
    - (i) announced entitlements; and
    - (ii) restrictions on the taking or supply of water; and
    - (iii) carryovers; and
    - (iv) infrastructure modifications or installations; and
    - (v) the management of flows; and
  - (c) the circumstances in which the requirements of the resource operations plan were not met by the resource operations licence holder; and
  - (d) details of any remedial action taken to address a requirement of the resource operations plan or in response to transient water quality issues; and
  - (e) details of any actions relevant to the outcomes of this plan which are taken in response to emergencies.

**30 Water and natural ecosystem monitoring requirements**

- (1) Water and natural ecosystems must be monitored in respect to the following matters—
  - (a) stream flows;
  - (b) frequency and duration and seasonality of flows;
  - (c) water quality;
  - (d) aquatic macro-vertebrate composition;
  - (e) aquatic macro-invertebrate composition;
  - (f) condition of—
    - (i) waterhole and lake ecosystems;
    - (ii) stream-bed habitats;
    - (iii) upper and in-channel riparian zone;
    - (iv) floodplains;
    - (v) connected wetlands;
  - (g) morphological processes;
  - (h) key biological trigger processes;
  - (i) the matters mentioned in section 29(1).
- (2) The water and natural ecosystem monitoring requirements referred to in subsection (1) will be achieved by—
  - (a) a requirement under the resource operations plan in relation to a water supply scheme; and
  - (b) monitoring, assessment and evaluation programs administered by the responsible State agencies.

**Part 7 Implementing this plan****31 Implementation schedule**

- (1) This section states—

- (a) the proposed arrangements for implementing this plan; and
  - (b) the priorities for the conversion to or granting of water allocations.
- (2) By 30 June 2004, it is proposed to prepare a resource operations plan to convert authorisations in the following parts of the plan area to water allocations, and to state the management arrangements for the water to which the allocations apply—
  - (a) the Nogoa and Mackenzie rivers from Fairbairn Dam to the Mackenzie River's junction with the Dawson River;
  - (b) the Dawson River from Glebe Weir to its junction with the Fitzroy River;
  - (c) the Fitzroy River from its junction with the Dawson River to the Fitzroy Barrage.
- (3) If there is an economic effect from a decline in the performance of existing authorisations for water harvesting from the Dawson River downstream of the proposed Nathan Dam, the resource operations plan must be amended or a new resource operations plan must be prepared to address the economic effect by, for example—
  - (a) amending the terms or conditions of the authorisations; or
  - (b) converting the authorisations to water allocations for taking water from the proposed Nathan Dam.
- (4) By 31 December 2007, it is proposed to prepare a new resource operations plan or amend the plan mentioned in subsection (2) or (3) to convert authorisations in the remaining parts of the plan area to water allocations, and to state the management arrangements for the water to which the allocations apply.

## **Part 8                      Minister's report and amending plan**

### **32            Minister's report on plan—Act, s 53**

A report<sup>5</sup> under section 53 of the Act must be prepared—

- (a) for each financial year the plan is in force; and
- (b) within 6 months after the end of the financial year to which the report relates.

### **33            Minor or stated amendments of plan—Act, s 57**

The following types of amendments may be made to this plan under section 57(b) of the Act—

- (a) an amendment of section 28B to vary the capacity of the works or the parts of the plan area to which the capacity applies;
- (b) an amendment of section 28H if notice of the amendment is published as if it were a moratorium notice under section 26 of the Act;
- (c) an amendment of section 28I in relation to measuring devices;
- (d) an amendment of section 29 in relation to water monitoring and reporting requirements for resource operations licence holders;
- (e) an amendment of section 30 in relation to water and natural ecosystem monitoring requirements;
- (f) an amendment of schedule 2, part 1—
  - (i) to add nodes at which the seasonal base flow objectives apply and the base flows and values of the seasonal base flow performance indicators for the nodes; or
  - (ii) to add nodes at which the first post-winter flow event objectives apply; or

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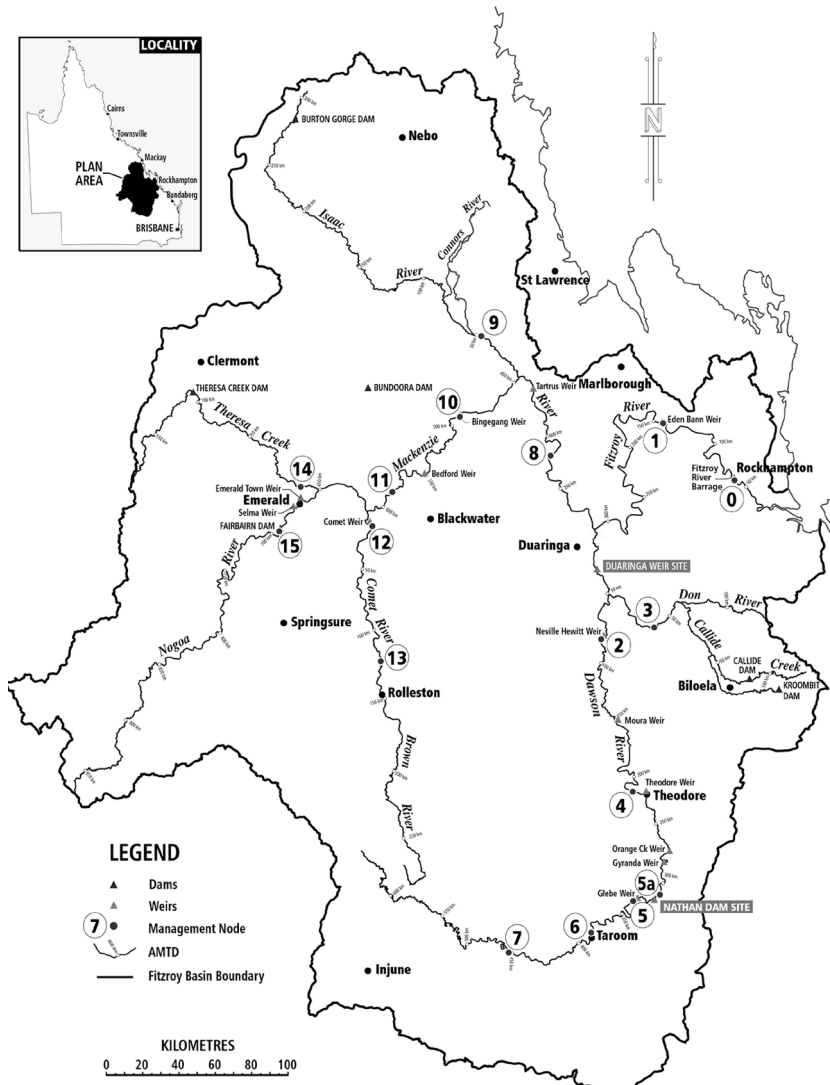
5 See section 54 (Matters the reports must include) of the Act.

- (iii) to amend the specification of the seasonal base flow performance indicators, but only if the amendment achieves an equivalent or improved environmental outcome and does not affect—
    - (A) water allocations in the plan area; or
    - (B) other objectives of this plan;
- (g) an amendment of schedule 2, part 2, only if the amendment achieves an equivalent or improved environmental outcome but does not adversely affect—
  - (i) water allocations in the plan area; or
  - (ii) other outcomes of this plan;
- (h) an amendment of schedule 3, part 1—
  - (i) to add new water allocation priority groups for supplemented water supplies within existing or future water supply schemes; or
  - (ii) to include additional water allocation security objectives for new water allocation priority groups added under subparagraph (i); or
  - (iii) to amend a water allocation security objective if the amendment does not adversely affect existing water allocations, environmental flow objectives or the outcomes of this plan;
- (i) an amendment of schedule 3, part 2—
  - (i) to add locations at which the water allocation security objectives for unsupplemented water supplies apply and the values of the water allocation security performance indicators for the corresponding nodes; or
  - (ii) to amend the specification or values of the water allocation security performance indicators only if the amendment achieves an equivalent water allocation security outcome but does not affect—
    - (A) water allocations in the plan area; or
    - (B) other objectives of this plan; or

- (iii) to re-arrange the water allocation security objectives into applicable water allocation groups and to include additional water allocation groups and water allocation security objectives for the groups;
- (j) an amendment of schedule 5 in relation to existing or future water supply schemes;
- (k) an amendment of schedule 6, definition *works that allow taking overland flow water*.

## Schedule 1      Plan area

## section 7



## Schedule 2 Environmental flow objectives

sections 10 and 11

### Part 1 Seasonal base flow objectives

- 1 The seasonal baseflow objectives are—
  - (a) for watercourses within water supply schemes, seasonal base flow performance indicators at the nodes detailed in the following table should be between 0.8 to 1.2 times the values in the table below;
  - (b) for watercourses elsewhere, the seasonal base flow performance indicators at the nodes detailed in the following table must be greater than or equal to 0.9 times the values in the table below.
- 2 The seasonal base flow performance indicator is defined as the proportion of time (expressed as a percentage) for each of the three seasons (Jan–Apr, May–Aug and Sep–Dec) during which the base flow is equalled or exceeded for the corresponding season over the simulation period.
- 3 The base flow for a given node is the estimated flow at that node that has been assessed as being required to optimise the available wetted habitat in the low flow section of the river.

Node	Location	Base flow (ML/d)	Seasonal base flow performance indicator values (based on the pre-development flow pattern)		
			Jan–Apr	May–Aug	Sep–Dec
0	Fitzroy River at Barrage	288	89%	65%	50%
1	Fitzroy River at Eden Bann Weir	260	89%	65%	50%
2	Dawson River at Beckers	86	67%	29%	35%



## Schedule 2 (continued)

Node	Location	Base flow (ML/d)	Seasonal base flow performance indicator values (based on the pre-development flow pattern)		
			Jan–Apr	May–Aug	Sep–Dec
3	Don River at Rannes	26	53%	29%	26%
4	Dawson River at Theodore	78	64%	27%	36%
5A	Dawson River at Nathan Gorge	45	62%	27%	35%
6	Dawson River at Taroom	38	55%	28%	33%
7	Dawson River at Utopia	30	42%	38%	26%
8	Mackenzie River at Tartrus	190	81%	47%	39%
9	Isaac River at Yatton	104	77%	48%	26%
10	Mackenzie River at Bingegang	163	59%	24%	31%
11	Mackenzie River at Carnangarra	156	59%	23%	31%
12	Comet River at Comet	148	34%	14%	12%
13	Comet River at 124.2km AMTD	115	33%	14%	12%

## Schedule 2 (continued)

Node	Location	Base flow (ML/d)	Seasonal base flow performance indicator values (based on the pre-development flow pattern)		
			Jan–Apr	May–Aug	Sep–Dec
14	Theresa (Retreat) Creek at Main Road	104	28%	6%	8%
15	Nogoa River at Fairbairn Dam	52	47%	18%	25%

## Part 2 First post–winter flow event objective

### 1 Definitions for pt 2

In this part—

***average flow volume*** means the average of the volume ratios in the post-winter flow years in the simulation period.

***average peak flow*** means the average of the peak flow ratios for the post-winter flow years in the simulation period.

***daily flow*** means the volume of water that flows past a node in a day.

***days of flow 5-times base flow*** means the number of days in a first post-winter flow event on which the daily flow is at least 5 times the seasonal base flow.

***days of flow twice base flow*** means the number of days in a first post-winter flow event on which the daily flow is at least twice the seasonal base flow.

***event volume***—

- 1 *Event volume* means the total daily flows for a first post-winter flow event.

## Schedule 2 (continued)

- 2 However, if the event volume calculated under paragraph 1 is greater than the volume of the estuary of the Fitzroy River, the event volume is the estuary volume.

*first peak flow—*

- 1 *First peak flow* means the daily flow on the first day in a first post-winter flow event on which the flow reaches a peak.
- 2 However, if the *first peak flow* calculated under paragraph 1 is greater than the daily flow for a flow with a depth of 3m (a **3-metre event**), the first peak flow is the daily flow for a 3-metre event.

*first post-winter flow event—*

- 1 *First post-winter flow event* means the first flow in a year at a node that—
  - (a) starts between 15 September and 10 April in the year; and
  - (b) lasts for 21 days; and
  - (c) the chief executive is satisfied meets the following criteria—
    - (i) for a node other than node 0, the flow, within 6 days after its start, is greater than a flow with a depth of 1.5m;
    - (ii) for node 0, the flow at its start is at least 5000ML a day;
    - (iii) for a flow that starts in September, the water temperature is at least 23°C;
    - (iv) the flow, for a node, for the duration of the event, is greater than the seasonal base flow mentioned for the node in part 1;
    - (v) for a node other than node 0, the first peak in the flow that is greater than a flow with a depth of 1.5m happens within 6 days after the start of the event;

## Schedule 2 (continued)

- (vi) for node 0, the event has an event volume greater than half the volume of the estuary of the Fitzroy River.

- 2 However, a *first post-winter flow event* does not include a flow that happens in a year in the simulation period for which a flow satisfying the requirements of paragraph 1 did not happen for the pre-development flow pattern.

***flow duration (2-times base flow)*** means the number of 2-times base flow events in the simulation period, expressed as a percentage of the number of post-winter flow years in the period.

***flow duration (5-times base flow)*** means the number of 5-times base flow events in the simulation period, expressed as a percentage of the number of post-winter flow years in the period.

***number of first post-winter flows*** means the number of first post-winter flow events in the simulation period expressed as a percentage of the number of post-winter flow years in the period.

***number of flows within 2 weeks of the pre-development event*** means the number of 2-week lag events in the simulation period, expressed as a percentage of the number of 4-week lag events in the period.

***number of flows within 4 weeks of the pre-development event*** means the number of 4-week lag events in the simulation period, expressed as a percentage of the number of post-winter flow years in the period.

***peak flow ratio*** means the first peak flow for a year expressed as a percentage of the first peak flow for the year for the pre-development flow pattern.

***post-winter flow year*** means a year in the simulation period in which a first post-winter flow event happens for the pre-development flow pattern.

### Schedule 2 (continued)

**2-times base flow event** means a post-winter flow year in which the days of flow twice base flow are not more than 4 days fewer than the days of flow twice base flow in the year for the pre-development flow pattern.

**5-times base flow event**, means a post-winter flow year in which the days of flow 5-times base flow are not more than 4 days fewer than the days of flow 5-times base flow in the year for the pre-development flow pattern.

**volume ratio** means the event volume for a year, expressed as a percentage of the event volume for the year for the pre-development flow pattern.

**2-week lag event** means a first post-winter flow event that starts within 2 weeks after the date the first post-winter flow event starts in the same year for the pre-development flow pattern.

**4-week lag event** means a first post-winter flow event that starts within 4 weeks after the date the first post-winter flow event starts in the same year for the pre-development flow pattern.

**year** means a period of 1 year beginning on 1 July.

## 2 Performance indicators

The performance indicators for the first post-winter flow event objective are the following—

- (a) number of first post-winter flows;
- (b) number of flows within 2 weeks of the pre-development event;
- (c) number of flows within 4 weeks of the pre-development event;
- (d) average flow volume;
- (e) average peak flow;
- (f) flow duration (2-times base flow);
- (g) flow duration (5-times base flow).

**Schedule 2 (continued)****3 First post-winter flow event objectives**

- (1) The first post-winter flow event objectives are that—
  - (a) first post-winter flow events that pass through dams, weirs, barrages, watercourses or lakes mimic the pre-development flow pattern of first post-winter flow events in duration, timing and magnitude; and
  - (b) at each node mentioned in part 1, other than node 15—
    - (i) the performance indicator mentioned in section 2(a) be at least 80%; and
    - (ii) the performance indicator mentioned in section 2(b) be at least 50%; and
    - (iii) the performance indicators mentioned in section 2(c) to (g) be at least 70%.
- (2) However—
  - (a) the objectives for the performance indicator mentioned in section 2(d) apply only at node 0; and
  - (b) the objectives for the performance indicator mentioned in section 2(e) do not apply at node 0.

## Part 3

## **Medium to high flow event objectives**

- 1 The medium to high flow event objectives are—
  - (a) the medium to high flow performance indicators for the nodes in the following table must be better than or equal to the corresponding planned development limits; and
  - (b) the medium to high flow performance indicators for the nodes in the following table should be better than the corresponding environmental flow limits.
- 2 The medium to high flow performance indicators are defined as—

## Schedule 2 (continued)

- (a) mean annual flow—the total volume of flow in the simulation period divided by the number of years in the simulation period;
- (b) median annual flow—the annual flow volume that is equalled or exceeded in 50% of years within the simulation period;
- (c) marine and estuarine processes statistic—the total volume of flow at the Fitzroy Barrage during the months of January, February, March and April in the simulation period divided by the number of years in the simulation period;
- (d) flood plain zone statistic—the number of flows in the simulation period which reach a level assessed as being required to inundate flood plain habitats;
- (e) upper riparian zone statistic—the number of flows in the simulation period which reach a level assessed as being required to inundate instream habitats to bank-full levels;
- (f) in-channel riparian zone statistic—the number of flows in the simulation period which reach a level assessed as being required to inundate instream habitats to mid-channel levels;
- (g) channel morphology statistic—the annual peak daily flow volume in the simulation period with an annual probability of exceedance of 50%;
- (h) fish species diversity statistic—the annual proportional flow deviation which is a statistical measure of changes to both flow seasonality and volume as defined by the following formula when applied to the simulation period—

$$APFD = \sum_{j=1}^p \frac{\sqrt{\sum_{i=1}^{12} \left\{ \frac{c_{ij} - \bar{n}_{ij}}{\bar{n}_i} \right\}^2}}{p}$$

## Schedule 2 (continued)

where—

$p$  = number of years in the simulation period

$c_{ij}$  = modelled existing flow for month  $i$  in year  $j$

$n_{ij}$  = modelled natural flow for month  $i$  in year  $j$

$\bar{n}_i$  = mean natural flow for month  $i$  across  $p$  years

$\Sigma$  = the sum of

- 3 With the exception of fish species diversity statistic, the performance indicators, planned development limits and environmental flow limits in this schedule are expressed in terms of the percentage of the same performance indicator for the pre-development flow pattern.

Performance indicator		Node 0 Lower Fitzroy	Node 2 Dawson	Node 3 Callide/ Don	Node 8 Lower Mackenzie	Node 9 Isaac/ Connors	Node 10 Upper Mackenzie/ Nogoa	Node 12 Comet
<b>Mean annual flow</b>	Environmental flow limit	74%	74%	74%	74%	74%	74%	74%
	Planned development limit	77%	69%	74%	74%	74%	70%	74%
<b>Median annual flow</b>	Environmental flow limit	50%	50%	50%	50%	50%	50%	50%
	Planned development limit	50%	50%	50%	50%	50%	50%	50%
<b>Marine and estuarine processes statistic</b>	Environmental flow limit <sup>a</sup>							
	Planned development limit	80%						
<b>Flood plain zone statistic</b>	Environmental flow limit	70%	70%	70%	70%	70%	70%	70%
	Planned development limit	70%	69%	70%	70%	70%	60%	70%



## Schedule 2 (continued)

Performance indicator		Node 0 Lower Fitzroy	Node 2 Dawson	Node 3 Callide/ Don	Node 8 Lower Mackenzie	Node 9 Isaac/ Connors	Node 10 Upper Mackenzie/ Nogoa	Node 12 Comet
<b>Upper riparian zone statistic</b>	Environmental flow limit	85%	85%	85%	85%	85%	85%	85%
	Planned development limit	80%	80%	85%	85%	85%	77%	85%
<b>In-channel riparian zone statistic</b>	Environmental flow limit	75%	75%	75%	75%	75%	75%	75%
	Planned development limit	75%	75%	75%	75%	75%	69%	75%
<b>Channel morphology statistic</b>	Environmental flow limit	65%	65%	65%	65%	65%	65%	65%
	Planned development limit	65%	60%	65%	65%	65%	60%	65%
<b>Fish species diversity statistic</b>	Environmental flow limit	3.00	3.00	3.00	3.00	3.00	3.00	3.00
	Planned development limit	3.00	3.00	3.00	3.00	3.00	3.00	3.00

a An environmental flow limit could not be specified for this performance indicator.

## **Schedule 3      Water allocation security objectives**

sections 12 and 13

### **Part 1                      Supplemented water**

- 1 The water allocation security objectives for supplemented water supplies within the existing or future water supply schemes referred to in schedule 5 are—
  - (a) for medium priority water allocations, that the water allocation security performance indicator for the simulation period be between 82% and 88%; and
  - (b) for medium A priority water allocations in the Dawson Valley Water Supply Scheme, that the water allocation security performance indicator for the simulation period be between 82% and 88%; and
  - (c) for high priority water allocations, that the water allocation security performance indicator for the simulation period be between 95% and 100%.
- 2 The water allocation security performance indicator for supplemented water supplies within an existing or future water supply scheme referred to in schedule 5 is defined as the median of the simulated monthly reliabilities for water allocations of a particular priority group within that water supply scheme.

### **Part 2                      Unsupplemented water**

- 1 The performance indicators for the water allocation security objectives are—
  - (a) the number of days water would have been taken in the 30th percentile wettest year in the simulation period

**Schedule 3 (continued)**

under an allocation to take water at a place, and if a purpose is mentioned, for a purpose, stated in column 1 and with the flow condition stated, for the place, in column 2; and

- (b) the number of days water would have been taken in the 50th percentile wettest year in the simulation period under an allocation to take water at a place, and if a purpose is mentioned, for a purpose, stated in column 1 and with the flow condition stated, for the place, in column 2; and
- (c) the number of days water would have been taken in the 75th percentile wettest year in the simulation period under an allocation to take water at a place, and if a purpose is mentioned, for a purpose, stated in column 1 and with the flow condition stated, for the place, in column 2.

2 The water allocation security objectives are that—

- (a) for a performance indicator mentioned in item 1(a)—water would have been taken for not less than the number of days stated, for the place and flow condition, in column 3; and
- (b) for a performance indicator mentioned in item 1(b)—water would have been taken for not less than the number of days stated, for the place and flow condition, in column 4; and
- (c) for a performance indicator mentioned in item 1(c)—water would have been taken for not less than the number of days stated, for the place and flow condition, in column 5.

3 A water allocation at a place mentioned in column 1, for the Nogoa Mackenzie Water Management Area or the Fitzroy Water Management Area, belongs to the water allocation group stated, for the water allocation, in column 6.

4 In this part, a reference to a column is a reference to the column in the table for this part.

## Schedule 3 (continued)

**Table for part 2****Nogoa Mackenzie Water Management Area**

<b>Column 1</b>	<b>Column 2</b>	<b>Column 3</b>	<b>Column 4</b>	<b>Column 5</b>	<b>Column 6</b>
<b>Place</b>	<b>Flow condition</b>	<b>30th %ile year</b>	<b>50th %ile year</b>	<b>75th %ile year</b>	<b>Water allocation group</b>
Mackenzie River from the Isaac Mackenzie water harvesting upstream limit at AMTD 465.5km to its junction with the Dawson River at AMTD 310.3km	2592ML/day	26 days	24 days	20 days	class 1A
	4320ML/day	23 days	21 days	15 days	class 1B
Nogoa and Mackenzie rivers from the Comet Mackenzie water harvesting upstream limit at AMTD 615.1km to the Isaac Mackenzie water harvesting limit at AMTD 465.5km	2592ML/day	22 days	18 days	8 days	class 2A
	4320ML/day	17 days	14 days	6 days	class 2B
Nogoa River from its junction with Theresa Creek at 649km to the Comet Mackenzie water harvesting upstream limit at AMTD 615.1km	2592ML/day	12 days	7 days	2 days	class 3A

## Schedule 3 (continued)

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Place	Flow condition	30th %ile year	50th %ile year	75th %ile year	Water allocation group
Nogoa River from Fairbairn Dam (including the ponded area) at AMTD 737.5km to its junction with Theresa Creek at AMTD 649km (The performance of water harvesting in this reach is not stated as it relies solely on the spilling of Fairbairn Dam, which occurs in fewer than 30% of years.)	2592ML/day				
Mackenzie River from its junction with Springton Creek at AMTD 339.3km to its junction with the Dawson River at AMTD 310.3km	no flow condition and 9ML/day	80 days	70 days	60 days	class 4C

## Schedule 3 (continued)

**Fitzroy Water Management Area**

<b>Column 1</b>	<b>Column 2</b>	<b>Column 3</b>	<b>Column 4</b>	<b>Column 5</b>	<b>Column 6</b>
<b>Place</b>	<b>Flow condition</b>	<b>30th %ile year</b>	<b>50th %ile year</b>	<b>75th %ile year</b>	<b>Water allocation group</b>
Fitzroy River from its junction with the Dawson River at AMTD 310.3km to the Fitzroy Barrage at AMTD 59.6km	2592ML/day	72 days	45 days	22 days	class 5A
	4320ML/day	42 days	35 days	21 days	class 5B
Fitzroy River from its junction with the Dawson River at AMTD 310.3km to the upstream limit of Eden Bann Weir at AMTD 183.4km	no flow condition and 9ML/day	102 days	98 days	95 days	class 6C
	260ML/day	70 days	58 days	47 days	class 7D

**Other areas**

<b>Column 1</b>	<b>Column 2</b>	<b>Column 3</b>	<b>Column 4</b>	<b>Column 5</b>
<b>Place and purpose</b>	<b>Flow condition</b>	<b>30th %ile year</b>	<b>50th %ile year</b>	<b>75th %ile year</b>
water harvesting on the Dawson River from AMTD 453.5km to the Nathan Gorge	water harvesting	24 days	20 days	10 days
water harvesting on the Dawson River below the Nathan Gorge (See section 31)	water harvesting			
Comet River downstream of AMTD 124km	water harvesting with a starting threshold less than 864ML/day	24 days	18 days	10 days
	water harvesting with a starting threshold equal to or greater than 864ML/day	20 days	10 days	5 days

## **Schedule 4      Criteria for amending authorisations**

### **section 18**

- 1 One or more of the following criteria may be applied when amending the terms and conditions of an existing authorisation that is not consistent with the provisions of this plan—
  - (a) the volumetric limit decided under section 25;
  - (b) the maximum rate at which water may be taken, decided under section 26;
  - (c) constraints on the timing and maximum rate at which water may be taken or requirements for the timing and rate of instream releases may be specified to provide for—
    - (i) seasonal base flows by apportioning the seasonal base flow requirement at the next downstream node in schedule 2, part 1 according to the proportional catchment area and other hydrologic characteristics at the location at which the authorisation applies; and
    - (ii) first post-winter flow events by apportioning the first post-winter flow event requirement at the next downstream node in schedule 2, part 1 according to the proportional catchment area and other hydrologic characteristics at the location at which the authorisation applies; and
    - (iii) in the case of a water harvesting authorisation, any existing flow conditions associated with the

**Schedule 4 (continued)**

authorisation or not less than the values in the following table;

<b>Upstream catchment area at the location at which the authorisation applies</b>	<b>Flow threshold values (ML/d)</b>
---	-------------------------------------

< 3000km <sup>2</sup>	86ML/d
3000–6000km <sup>2</sup>	172ML/d
6000–12000km <sup>2</sup>	432ML/d
>12000km <sup>2</sup>	1296ML/d

- (d) any other matter the chief executive considers necessary to achieve the objectives of this plan.



## Schedule 5 Existing and future water supply schemes

sections 23 and 27

### Existing water supply schemes

Water supply scheme	Unallocated volume	Description
Dawson Valley Water Supply Scheme	<b>300ML high priority</b> at Neville Hewitt Weir	<b>Dawson River</b> —from Glebe Weir at AMTD 326.2km (including the ponded area) to the control at the downstream end of the Boolburra waterhole at AMTD 18.37km
Callide Water Supply Scheme	—	<b>Callide Creek</b> —from Callide Dam at AMTD 80.1km (including the ponded area) to the junction of Callide Creek and the Callide Valley Railway <b>Kroombit Creek</b> —from Kroombit Dam at AMTD 68.8km (including the ponded area) to its junction with Callide Creek Kariboe Creek—downstream of the Callide diversion channel

## Schedule 5 (continued)

Water supply scheme	Unallocated volume	Description
Nogoa Mackenzie Water Supply Scheme	<b>1500ML high priority</b> from Bedford Weir to above Bingegang Weir <b>1500ML high priority</b> from Bingegang Weir to the junction of Isaacs River <b>45ML of high priority</b> from Fairbairn Dam <b>155ML medium priority</b> from Fairbairn Dam	<b>Nogoa River</b> —from Fairbairn Dam at AMTD 685.6km (including the ponded area) to its junction with the Comet River at AMTD 611.5km <b>Mackenzie River</b> —from its junction with the Comet River at 611.5km to its junction with Springton Creek at AMTD 339.3km
Lower Fitzroy Water Supply Scheme	—	<b>Fitzroy River</b> —from Eden Bann Weir at AMTD 141.2km (including the ponded area) to the upstream limit of the Fitzroy Barrage at AMTD 115km
Fitzroy Barrage Water Supply Scheme	<b>575ML medium priority</b>	<b>Fitzroy River</b> —Fitzroy River Barrage at AMTD 59.6km (including the ponded area)

## Future water supply schemes

Water supply scheme	Unallocated volume	Description
Nathan Dam Project (see section 31)7	—	<b>Dawson River</b> —from the proposed Nathan Dam at AMTD 315.3km (including the ponded area) to its junction with the Fitzroy River at AMTD 0km

## Schedule 6      Dictionary

### section 4

**AMTD** means adopted middle thread distance, which is the distance in kilometres 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 the watercourse.

**authorisation** 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.

**barrage** is a barrier constructed across a watercourse to prevent the inflow of tidal water.

**channel system** means a system of channels, canals, pumps and pipelines and other works used for the distribution of water to water users within a water supply scheme.

**date of release** means the date that this plan is first made available to the public.

**environmental flow** means the pattern of flow in a watercourse required to maintain healthy river habitats and aquatic ecosystems.

**environmental flow limit** defines the level of impact beyond which there is an increased risk of unacceptable environmental degradation.

**existing works**—

- 1 *Existing works* means works that—
  - (a) allow taking overland flow water; and
  - (b) either—
    - (i) were in existence on 13 September 2001; or
    - (ii) were started, but not completed by 13 September 2001 and—
      - (A) if a variation to a moratorium notice was granted for the works under section 27 of

## Schedule 6 (continued)

the Act—have been, or are being, completed in accordance with the moratorium notice, as varied; or

(B) if subsubparagraph (A) does not apply—were completed by 12 November 2001; or

(iii) for works for mining purposes and to which the moratorium mentioned in section 28H did not apply, are completed before—

(A) an amendment of the resource operations plan, in relation to overland flow water, is approved; and

(B) unallocated overland flow water is granted under a process stated in the resource operations plan.

2 The term does not include works that allow taking overland flow water only for stock or domestic purposes.<sup>6</sup>

***flow condition***, for a water allocation, means the flow that passes the point at which water is being taken under the allocation while the water is being taken.

***IQQM computer program*** means the department's Integrated Quantity and Quality Modelling computer program, and associated modelling, 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 plan area.

***macro-invertebrate*** means any animal, without a backbone, that is easily seen by the naked eye. In aquatic ecosystems this generally refers to insect larvae, prawns and worms.

***macro-vertebrate*** means any animal, with a backbone, that is easily seen by the naked eye. In aquatic ecosystems this generally refers to fish, amphibians, reptiles, water birds and monotremes.

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6 See section 20 (Authorised taking of water without water entitlement) of the Act.

## Schedule 6 (continued)

**mean annual flow** means the total volume of flow in the simulation period divided by the number of years in the simulation period.

**median annual flow** means the annual flow volume that is equalled or exceeded in 50% of years within the simulation period.

**mining tenement** see the *Mineral Resources Act 1989*, section 422.

**plan area** means the area shown as the plan area on the map in schedule 1.

**planned development limit** defines the level of impact against environmental flow indicators that the Government considers within the bounds of acceptable environmental risk in order to accommodate water development.

**pre-development flow pattern** means the pattern of water flows, during the simulation period, decided by the chief executive using the IQQM computer program as if—

- (a) there were no dams or other water infrastructure on watercourses in the plan area; and
- (b) no water was taken under authorisations from watercourses or floodplains in the plan area.

**seasonal base flow**, for a node, means the base flow for the node shown in schedule 2, part 1.

**simulation period** means the period from 1 January 1900 to 31 December 1995.

**started**, for existing works, means—

- (a) construction of the works had physically started or, if construction had not physically started, a contract had been entered into to start construction, and construction had started, by 12 November 2001; and
- (b) an independently verifiable construction program existed for progressive construction towards completion of the works; and

## Schedule 6 (continued)

- (c) detailed design plans existed showing, among other things, the extent of the works; and
- (d) if a permit under the *Local Government Act 1993*, section 940 was required for the works—the permit had been issued; and
- (e) if a development permit was required for the works—the permit had been given.

***supplemented water*** means water supplied under an interim resource operations licence, resource operations licence or other authority to operate water infrastructure.

***the resource operations plan*** means the resource operations plan to implement this plan.

***underground water recharge*** means the replenishment of underground water by the infiltration of either surface water or water from a watercourse, lake or spring.

***unsupplemented water*** means water that is not supplemented water.

***waterhole*** means a part of a watercourse that contains water after the watercourse ceases to flow, other than a part of a watercourse that is within the storage area of a dam on the watercourse.

***works that allow taking overland flow water*** include—

- (a) storages, sumps, drains, embankments, channels, pipes and pumps for taking, or that can be used for taking, overland flow water; and
- (b) storages that are connected to the works mentioned in paragraph (a); and
- (c) works that make, or that can be used to make, the original connection between the storages mentioned in paragraph (b) and the works mentioned in paragraph (a).

## Endnotes

### 1 Index to endnotes

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### 2 Date to which amendments incorporated

This is the reprint date mentioned in the Reprints Act 1992, section 5(c). Accordingly, this reprint includes all amendments that commenced operation on or before 18 December 2009. Future amendments of the Water Resource (Fitzroy Basin) Plan 1999 may be made in accordance with this reprint under the Reprints Act 1992, section 49.

### 3 Key

Key to abbreviations in list of legislation and annotations

Key	Explanation	Key	Explanation
AIA	= Acts Interpretation Act 1954	(prev)	= previously
amd	= amended	proc	= proclamation
amdt	= amendment	prov	= provision
ch	= chapter	pt	= part
def	= definition	pubd	= published
div	= division	R[X]	= Reprint No. [X]
exp	= expires/expired	RA	= Reprints Act 1992
gaz	= gazette	reloc	= relocated
hdg	= heading	renum	= renumbered
ins	= inserted	rep	= repealed
lap	= lapsed	(retro)	= retrospectively
notfd	= notified	rv	= revised edition
num	= numbered	s	= section
o in c	= order in council	sch	= schedule
om	= omitted	sdiv	= subdivision
orig	= original	SIA	= Statutory Instruments Act 1992
p	= page	SIR	= Statutory Instruments Regulation 2002
para	= paragraph	SL	= subordinate legislation
prec	= preceding	sub	= substituted
pres	= present	unnum	= unnumbered
prev	= previous		

## 4 Table of reprints

Reprints are issued for both future and past effective dates. For the most up-to-date table of reprints, see the reprint with the latest effective date.

If a reprint number includes a letter of the alphabet, the reprint was released in unauthorised, electronic form only.

Reprint No.	Amendments included	Effective	Notes
1	2003 SL No. 342	12 December 2003	
1A	2005 SL No. 166	22 July 2005	
1B	2006 SL No. 49	31 March 2006	
1C rv	2008 Act No. 34	21 May 2008	
1D	2009 SL No. 280	18 December 2009	

## 5 Tables in earlier reprints

Name of table	Reprint No.
Corrected minor errors	1

## 6 List of legislation

### **Water Resource (Fitzroy Basin) Plan 1999 (prev Water Allocation and Management Plan (Fitzroy Basin) 1999)**

made by the department on 23 December 1999  
commenced from the date of release

exp 1 September 2010 (see s SIA s 54)

[prev exp 23 December 1999 (see s 2)]

Notes—(1) This plan originally made under the repealed Water Resources Act 1989 and made by the department on 23 December 1999 is now taken to be a plan under the Water Act 2000 (see 2000 No. 34 s 1041; see also 2008 No. 34 s 751 sch 2).

(2) The expiry date may have changed since this reprint was published. See the latest reprint of the SIR for any change.

amending legislation—

### **Water Allocation and Management (Fitzroy Basin) Amendment Plan (No. 1) 2003 SL No. 342**

notfd gaz 12 December 2003 pp 1203–7

commenced on date of notification

Note—An explanatory note was prepared

### **Water Resource (Fitzroy Basin) Amendment Plan (No. 1) 2005 SL No. 166**

notfd gaz 22 July 2005 pp 988–9

commenced on date of notification

Note—An explanatory note was prepared



**Water Resource (Great Artesian Basin) Plan 2006 SL No. 49 s 1, pt 7 div 5**

notfd gaz 31 March 2006 pp 1282–5

commenced on date of notification

Note—An explanatory note was prepared

**Water Supply (Safety and Reliability) Act 2008 No. 34 ss 1, 2(2), 751 sch 2**

date of assent 21 May 2008

commenced on date of assent (see s 2(2))

**Sustainable Planning Regulation 2009 SL No. 280 ss 1–2, pt 9 div 37**

notfd gaz 27 November 2009 pp 1001–6

ss 1–2 commenced on date of notification

remaining provisions commenced 18 December 2009 (see s 2)

## **7 List of annotations**

**Short title****s 1** sub 2003 SL No. 342 s 3**Commencement****s 2** amd 2008 Act No. 34 s 751 sch 2**Purposes of plan****prov hdg** amd 2003 SL No. 342 s 5(1)**s 3** (prev s 4) amd 2003 SL No. 342 s 5(2)

renum and reloc 2003 SL No. 342 s 6

sub 2005 SL No. 166 s 3

**Definitions****s 4** (prev s 3) amd 2003 SL No. 342 s 4

renum and reloc 2003 SL No. 342 s 6

**Plan area****s 5** prev s 5 om 2003 SL No. 342 s 7

pres s 5 ins 2003 SL No. 342 s 8

**Information about plan area****s 6** prev s 6 om 2003 SL No. 342 s 7

pres s 6 ins 2003 SL No. 342 s 8

**Nodes****s 7** sub 2003 SL No. 342 s 8**Water to which plan applies****s 8** sub 2005 SL No. 166 s 4; 2006 SL No. 49 s 57**PART 3—OUTCOMES FOR SUSTAINABLE MANAGEMENT OF WATER****pt hdg** sub 2003 SL No. 342 s 9**Outcomes****s 9** amd 2003 SL No. 342 s 10**PART 4—PERFORMANCE INDICATORS AND OBJECTIVES****pt hdg** sub 2003 SL No. 342 s 12

**Division 1—Environmental flow objectives****div hdg** amd 2003 SL No. 342 s 13**Performance indicators for environmental flow objectives****s 10** prev s 10 om 2003 SL No. 342 s 11  
pres s 10 ins 2003 SL No. 342 s 14**Environmental flow objectives****s 11** prev s 11 om 2003 SL No. 342 s 11  
pres s 11 ins 2003 SL No. 342 s 14**Division 2—Water allocation security objectives****div hdg** sub 2003 SL No. 342 s 16**Performance indicators for water allocation security objectives****s 12** prev s 12 om 2003 SL No. 342 s 14  
pres s 12 ins 2003 SL No. 342 s 16**Water allocation security objectives****s 13** ins 2003 SL No. 342 s 16**Division 3—Water and aquatic ecosystem monitoring requirements****div hdg** om 2003 SL No. 342 s 17**PART 5—STRATEGIES FOR ACHIEVING OUTCOMES****pt hdg** sub 2003 SL No. 342 s 21**Division 1—Preliminary****div hdg** sub 2003 SL No. 342 s 21**Matters chief executive must consider****prov hdg** sub 2003 SL No. 342 s 15(1)  
**s 14** (prev s 13) amd 2003 SL No. 342 s 15(2)  
renum and reloc 2003 SL No. 342 s 15(3)**Decisions consistent with objectives****s 15** ins 2003 SL No. 342 s 22**Assessing consistency with objectives****s 16** ins 2003 SL No. 342 s 22**Purpose of monitoring and reporting****s 16A** om 2003 SL No. 342 s 20**Restrictions on taking water****s 17** sub 2003 SL No. 342 s 22**Amending existing authorisations for consistency with plan****s 18** sub 2003 SL No. 342 s 22**Division 2—Conversion of authorisations to water allocations****div hdg** sub 2003 SL No. 342 s 23**Subdivision 1—General provisions****sdiv hdg** ins 2003 SL No. 342 s 23**Application of div 2****s 19** sub 2003 SL No. 342 s 23

**Location for taking water**

- s 20** (prev s 19A) ins 2003 SL No. 342 s 23  
renum 2003 SL No. 342 s 27

**Subdivision 2—Supplemented water**

- sdiv hdg** ins 2003 SL No. 342 s 23

**Division 3—Water allocations for water project areas**

- div hdg** om 2003 SL No. 342 s 24

**Nominal volume for supplemented water**

- s 21** (prev s 20) sub 2003 SL No. 342 s 23  
renum 2003 SL No. 342 s 27

**Priority groups for water allocations**

- s 22** prev s 22 om 2003 SL No. 342 s 26  
pres s 22 (prev s 20A) ins 2003 SL No. 342 s 23  
renum 2003 SL No. 342 s 27

**Total water allocations for water supply schemes**

- prov hdg** amd 2003 SL No. 342 s 25(1)  
**s 23** prev s 23 om 2003 SL No. 342 s 26  
pres s 23 (prev s 21) amd 2003 SL No. 342 s 25(2)–(6)  
renum 2003 SL No. 342 s 27

**Subdivision 3—Unsupplemented water**

- sdiv hdg** ins 2003 SL No. 342 s 28

**Nominal volume for unsupplemented water**

- s 24** prev s 24 om 2003 SL No. 342 s 28  
pres s 24 (prev s 23A) ins 2003 SL No. 342 s 28  
renum 2003 SL No. 342 s 29

**Volumetric limit for unsupplemented water**

- s 25** prev s 25 om 2003 SL No. 342 s 28  
pres s 25 (prev s 23B) ins 2003 SL No. 342 s 28  
renum 2003 SL No. 342 s 29

**Maximum rate for taking unsupplemented water**

- s 26** prev s 26 om 2003 SL No. 342 s 28  
pres s 26 (prev s 23C) ins 2003 SL No. 342 s 28  
renum 2003 SL No. 342 s 29

**Division 3—Dealing with unallocated water**

- div hdg** prev div hdg om 2003 SL No. 342 s 24  
pres div hdg ins 2003 SL No. 342 s 28

**Limitation on granting unallocated water**

- s 27** prev s 27 om 2003 SL No. 342 s 28  
pres s 27 (prev s 24) ins 2003 SL No. 342 s 28  
renum 2003 SL No. 342 s 29

**Water for proposed Nathan Dam project**

- s 28**      prev s 28 om 2003 SL No. 342 s 28  
              pres s 28 (prev s 25) ins 2003 SL No. 342 s 28  
              renum 2003 SL No. 342 s 29

**Division 4—Regulation of overland flow water**

- div hdg**    prev div 4 hdg om 2003 SL No. 342 s 26  
              pres div 4 hdg ins 2005 SL No. 166 s 5

**Limitation on taking overland flow water—Act, s 20(6)**

- s 28A**      ins 2005 SL No. 166 s 5

**Taking overland flow water using small storages**

- s 28B**      ins 2005 SL No. 166 s 5

**Decisions about taking overland flow water**

- s 28C**      ins 2005 SL No. 166 s 5  
              amd 2009 SL No. 280 s 169

**Taking water using existing works or reconfiguration of existing works authorised**

- 28D**      ins 2005 SL No. 166 s 5

**Granting water licences for authorities under s 28D**

- s 28E**      ins 2005 SL No. 166 s 5

**Granting or amending water licences under the resource operations plan**

- s 28F**      ins 2005 SL No. 166 s 5

**Relationship with Sustainable Planning Act 2009**

- prov hdg**    amd 2009 SL No. 280 s 170(1)  
**s 28G**      ins 2005 SL No. 166 s 5  
              amd 2009 SL No. 280 s 170(2)–(3)

**Division 5—Miscellaneous provisions**

- div hdg**    prev div 5 hdg om 2003 SL No. 342 s 28  
              pres div 5 hdg ins 2005 SL No. 166 s 5

**Continued effect of moratorium notice—Act, s 46(3)**

- s 28H**      ins 2005 SL No. 166 s 5

**Measuring devices**

- s 28I**      ins 2005 SL No. 166 s 5

**Division 6—Restrictions on taking water from waterholes and lakes**

- div hdg**    om 2003 SL No. 342 s 28

**PART 6—MONITORING AND REPORTING REQUIREMENTS**

- pt hdg**      sub 2003 SL No. 342 s 28

**Water monitoring requirements for resource operations licence holders**

- prov hdg**    amd 2003 SL No. 342 s 18(1)  
**s 29**      (prev s 15) amd 2003 SL No. 342 s 18(2)–(12)  
              renum and reloc 2003 SL No. 342 s 18(13)  
              (prev s 26) renum 2003 SL No. 342 s 29

**Water and natural ecosystem monitoring requirements**

- prov hdg** amd 2003 SL No. 342 s 19(1)  
**s 30** (prev s 16) amd 2003 SL No. 342 s 19(2)–(8)  
 renum and reloc 2003 SL No. 342 s 19(9)  
 (prev s 27) renum 2003 SL No. 342 s 29

**PART 7—IMPLEMENTING THIS PLAN**

- pt hdg** ins 2003 SL No. 342 s 28

**Implementation schedule**

- s 31** (prev s 27A) ins 2003 SL No. 342 s 28  
 renum 2003 SL No. 342 s 29

**PART 8—MINISTER’S REPORT AND AMENDING PLAN**

- pt hdg** ins 2003 SL No. 342 s 28

**Minister’s report on plan—Act, s 53**

- s 32** (prev s 28) ins 2003 SL No. 342 s 28  
 renum 2003 SL No. 342 s 29

**Minor or stated amendments of plan—Act, s 57**

- s 33** (prev s 29) ins 2003 SL No. 342 s 28  
 renum 2003 SL No. 342 s 29  
 amd 2005 SL No. 166 s 6

**SCHEDULE 1—PLAN AREA**

- sch hdg** (prev sch 3) amd 2003 SL No. 342 s 32  
 renum and reloc 2003 SL No. 342 s 43

**SCHEDULE 2—ENVIRONMENTAL FLOW OBJECTIVES**

- sch hdg** sub 2003 SL No. 342 s 34(1)  
**sch 2** prev sch 2 om 2003 SL No. 342 s 31  
 pres sch 2 (prev sch 5) renum and reloc 2003 SL No. 342 s 43

**PART 1—SEASONAL BASE FLOW OBJECTIVES**

- pt hdg** ins 2003 SL No. 342 s 34(1)  
**pt 1** amd 2003 SL No. 342 s 34(2)  
 renum and reloc 2003 SL No. 342 s 43

**PART 2—FIRST POST-WINTER FLOW EVENT OBJECTIVE**

- pt 2 (ss 1–3)** ins 2003 SL No. 342 s 35

**SCHEDULE 3—WATER ALLOCATION SECURITY OBJECTIVES**

- sch hdg** sub 2003 SL No. 342 s 38(1)  
**sch 3** (prev sch 8) amd 2003 SL No. 342 ss 38(2)–(8)  
 renum and reloc 2003 SL No. 342 s 43

**PART 1—SUPPLEMENTED WATER**

- pt hdg** ins 2003 SL No. 342 s 38(1)

**PART 2—UNSUPPLEMENTED WATER**

- ins 2003 SL No. 342 s 39

**SCHEDULE 4—CRITERIA FOR AMENDING AUTHORISATIONS**

- sch hdg** sub 2003 SL No. 342 s 41(1)  
**sch 4** prev sch 4 om 2003 SL No. 342 s 33  
 pres sch 4 (prev sch 10) amd 2003 SL No. 342 s 41(2)–(9)  
 renum and reloc 2003 SL No. 342 s 43

**SCHEDULE 5—EXISTING AND FUTURE WATER SUPPLY SCHEMES**

- (prev sch 11) sub 2003 SL No. 342 s 42  
 renum and reloc 2003 SL No. 342 s 43

**SCHEDULE 6—DICTIONARY**

- sch hdg** sub 2003 SL No. 342 s 30(1)  
**sch 6** prev sch 6 om 2003 SL No. 342 s 36  
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 def “**authorisation**” sub 2003 SL No. 342 s 342 s 30(2)–(3)  
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 def “**nominal allocation**” om 2003 SL No. 342 s 30(2)

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def “**objective**” om 2003 SL No. 342 s 30(2)  
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 def “**taking**” om 2003 SL No. 342 s 30(2)  
 def “**Technical Advisory Panel**” om 2003 SL No. 342 s 30(2)  
 def “**the resource operations plan**” ins 2003 SL No. 342 s 30(3)  
 def “**threshold**” om 2003 SL No. 342 s 30(2)  
 def “**transfer**” om 2003 SL No. 342 s 30(2)  
 def “**tributary**” om 2003 SL No. 342 s 30(2)  
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 def “**unsupplemented water**” ins 2003 SL No. 342 s 30(3)  
 def “**volume of water allocation**” om 2003 SL No. 342 s 30(2)  
 def “**water allocation**” om 2003 SL No. 342 s 30(2)  
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 def “**waterhole**” sub 2003 SL No. 342 s 342 s 30(2)–(3)  
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 def “**weir**” om 2003 SL No. 342 s 30(2)  
 def “**works that allow taking overland flow water**” ins 2005 SL No. 166 s 7

## **SCHEDULE 7—MEDIUM TO HIGH FLOW EVENT OBJECTIVES**

amd 2003 SL No. 342 s 37

**SCHEDULE 9—WATER ENTITLEMENT SECURITY OBJECTIVES FOR  
UNREGULATED WATER SUPPLIES**

om 2003 SL No. 342 s 40