



Water Act 2000

Water Resource (Logan Basin) Plan 2007

Reprinted as in force on 1 July 2008

Reprint No. 1B*

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Also see endnotes for information about—

- **when provisions commenced**
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Queensland

Water Resource (Logan Basin) Plan 2007

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Water Resource (Logan Basin) Plan 2007

[as amended by all amendments that commenced on or before 1 July 2008]

Part 1 Preliminary

1 Short title

This water resource plan may be cited as the *Water Resource (Logan Basin) Plan 2007*.

2 Purposes of plan

The following are the purposes of this plan—

- (a) to define the availability of water in the plan area;
- (b) to provide a framework for sustainably managing water and the taking of water;
- (c) to identify priorities and mechanisms for dealing with future water requirements;
- (d) to provide a framework for establishing water allocations;
- (e) to provide a framework for reversing, where practicable, degradation that has occurred in natural ecosystems.

3 Definitions

The dictionary in schedule 13 defines particular words used in this plan.

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

4 **Plan area**

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

Editor's note—

See section 6 for information about the exact location of the plan area.

5 **Subcatchment areas**

Each part of the plan area that is within a subcatchment area shown on the map in schedule 2, and named in schedule 3, is a subcatchment area for this plan.

6 **Information about areas**

- (1) The exact location of the plan area and subcatchment area boundaries is held in digital electronic form by the department.
- (2) The information held in digital electronic form can be reduced or enlarged to show the details of the boundaries.

7 **Nodes**

- (1) A node mentioned in this plan is a place—
 - (a) on a watercourse in the plan area; and
 - (b) for which environmental flow objectives are set for performance indicators.
- (2) The location of each node is shown on the map in schedule 1 and described in schedule 4.
- (3) Each node is identified on the map by a letter of the alphabet.

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.

Part 3 Outcomes for sustainable management of water

9 Outcomes for water in the plan area

Water in the plan area is to be allocated and sustainably managed in a way that—

- (a) recognises the natural state of watercourses, lakes and springs has changed because of water infrastructure, flow supplementation and the taking of water; and
- (b) seeks to achieve a balance in the following outcomes—
 - (i) the general outcomes mentioned in section 10;
 - (ii) the ecological outcomes for particular parts of the plan area mentioned in section 11.

10 General outcomes for the plan area

Each of the following is a general outcome for water in the plan area—

- (a) to provide for future water requirements, including the opportunity for additional water to be taken from the plan area;
- (b) to provide for the continued use of all water entitlements and other authorisations;

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- (c) to protect the probability of being able to obtain water under a water allocation;
- (d) to encourage the efficient use of water;
- (e) to protect essential water supplies during times of low water availability;
- (f) to support natural ecosystems by minimising changes to natural flow regimes;
- (g) to allow water-related cultural use of parts of the plan area by the traditional owners of the parts of the area;
- (h) to provide consistency with the SEQ regional plan.

11 Ecological outcomes for particular parts of the plan area

Each of the following is an ecological outcome for water in a particular part of the plan area—

- (a) for the Logan and Albert Rivers estuary—
 - (i) to minimise changes to the delivery of fresh water, sediment, nutrients and organic matter to the estuary and southern Moreton Bay; and
 - (ii) to minimise changes to the brackish water habitat in the estuary;
- (b) for Canungra Creek, Christmas Creek, Running Creek, Palen Creek and Upper Logan River subcatchment areas, Albert River and its tributaries upstream of node F, Burnett Creek and its tributaries upstream of node A and Teviot Brook and its tributaries upstream of node E—
 - (i) to minimise changes to the low flow regime of the watercourses; and
 - (ii) to minimise changes to the medium and high flow regime important to river forming processes;
- (c) for the Carbrook wetlands—to minimise changes to the flooding regime.

Part 4 Performance indicators and objectives

Division 1 Environmental flow objectives

12 Performance indicators for environmental flow objectives

The performance indicators for the environmental flow objectives are—

- (a) for assessing periods of low flow, the following—
 - (i) 50% daily flow;
 - (ii) 90% daily flow;
 - (iii) daily flow less than 1ML;
 - (iv) number of periods of no flow of at least 1 month but less than 3 months;
 - (v) number of periods of no flow of at least 3 months but less than 6 months;
 - (vi) number of periods of no flow of at least 6 months; and
- (b) for assessing periods of medium to high flow, the following—
 - (i) mean annual flow;
 - (ii) 1.5 year daily flow volume;
 - (iii) 5 year daily flow volume;
 - (iv) 20 year daily flow volume; and
- (c) for assessing seasonal flow patterns—
 - (i) flow regime class; and
 - (ii) annual proportional flow deviation.

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13 Environmental flow objectives

The environmental flow objectives for this plan are stated in schedule 5.

Division 2 Water allocation security objectives

14 Performance indicators for water allocation security objectives

The performance indicators for the water allocation security objectives are—

- (a) for taking supplemented water—monthly supplemented water sharing index; and
- (b) for taking unsupplemented water—
 - (i) for water allocations in a class A water allocation group—
 - (A) mean unsupplemented water sharing index; and
 - (B) 95% unsupplemented water sharing index; and
 - (ii) for water allocations in a class B, C or D water allocation group—
 - (A) mean unsupplemented water sharing index; and
 - (B) 70% unsupplemented water sharing index.

Editor's note—

See section 59 for the water allocations in particular water allocation groups.

15 Water allocation security objectives

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

- (a) for water allocations to take supplemented water—schedule 6, part 1; and
- (b) for water allocations to take unsupplemented water—schedule 6, part 2.

Part 5 Strategies for achieving outcomes

Division 1 Decisions made under this plan

16 Application of div 1

This division applies to decisions about the allocation or management of water in the plan area, other than a decision—

- (a) about reinstating or replacing an expired water licence; or
- (b) to grant a water entitlement to a local government, government agency or the water grid manager for supply under operations that were in existence on the commencement of this plan.

17 Decisions consistent with objectives

Decisions about the allocation or management of water in the plan area, other than a decision about a water permit, must be consistent with—

- (a) the environmental flow objectives stated in schedule 5; and
- (b) the water allocation security objectives stated in schedule 6.

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18 Assessing impact of decisions

- (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.

19 Decisions not to increase amount of water taken

- (1) The chief executive must not make a decision that would increase the average volume of water allowed to be taken under authorisations in the plan area.
- (2) Subsection (1) does not apply to—
 - (a) a decision about unallocated water made under section 22; or
 - (b) a decision about a water permit.
- (3) A decision mentioned in subsection (1) includes a decision about an application for an authorisation to take water made but not dealt with before the commencement of this plan.

20 Restriction on taking water from waterholes or lakes

- (1) The chief executive may grant a water licence, water permit or water allocation, or change the location from which water may be taken under a water allocation, to take water from a waterhole or lake only if—
 - (a) the chief executive imposes a condition on the licence, permit or allocation about maintaining the cultural or environmental values of the waterhole or lake; or

- (b) the chief executive is satisfied the taking of the water will not adversely affect the cultural or environmental values of the waterhole or lake.

Example for paragraph (a)—

a condition that the water may be taken only if the water level in the waterhole or lake is above the level that is 0.1m below the level at which the waterhole or lake naturally overflows

- (2) Subsection (1) does not apply to the grant of—
- (a) a water licence, water permit or water allocation to replace an authorisation in force immediately before the commencement of this plan; or
- (b) a water allocation converted from an authorisation in force immediately before the commencement.
- (3) In making a decision under subsection (1), the chief executive must consider—
- (a) the impact the proposed taking of the water may have on the following—
- (i) water quality;
- (ii) inundation of habitats;
- (iii) the movement of fish and other aquatic species;
- (iv) the natural movement of sediment;
- (v) recreation and aesthetic values;
- (vi) cultural values including, for example, the cultural values of the traditional owners of the area to which the application relates; and
- (b) whether the proposed taking is likely to have a direct adverse effect on groundwater flows.
- (4) Subsection (1) does not limit the restrictions that may be imposed on the taking of water from a waterhole or lake.
- (5) Subsection (3) does not limit the matters the chief executive may consider.

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Division 2 General, strategic and town water supply reserves

Subdivision 1 Preliminary

21 Unallocated water held as general, strategic or town water supply reserve

Unallocated water is held as a general, strategic or town water supply reserve and dealt with under this division.

22 Granting or reserving unallocated water

Unallocated water may be granted or reserved from the general, strategic or town water supply reserve under a process in the resource operations plan.

23 Matters chief executive must consider

- (1) In dealing with unallocated water, the chief executive must consider—
 - (a) the need for, and efficiency of, present and proposed uses of water including—
 - (i) the extent to which water is being taken under existing authorisations in the plan area; and
 - (ii) emerging requirements for additional water, both within and outside the plan area, and the likely timeframe in which the additional water will be required; and
 - (iii) alternative water sources including, for example, recycled water and water savings from improvements in the efficiency of water use; and
 - (b) the availability of an alternative water supply for the purpose for which the water is required; and

- (c) the impact the proposed taking of, or interfering with, the water may have on the following—
 - (i) water quality;
 - (ii) estuarine areas;
 - (iii) inundation of habitats;
 - (iv) the movement of fish and other aquatic species;
 - (v) the natural movement of sediment;
 - (vi) recreation and aesthetic values;
 - (vii) cultural values, including, for example, cultural values of the traditional owners of the area; and
 - (d) whether the proposed taking of or interfering with, or the proposed use of, the water is likely to—
 - (i) have a direct adverse effect on groundwater; or
 - (ii) lead to degradation of land or downstream watercourses; and
 - (e) whether the proposed use of the water is consistent with—
 - (i) the SEQ regional plan; and
 - (ii) a system operating plan applying to the plan area; and
 - (iii) a regional water security program for the SEQ region; and
 - (f) if the process in the resource operations plan for granting unallocated water includes a public auction, public ballot or public tender—the price offered under the process.
- (2) Subsection (1) does not limit the matters the chief executive may consider.

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Subdivision 2 General reserve

24 Application of sdiv 2

This subdivision applies to unallocated water that is held as a general reserve.

25 Granting or reserving unallocated water from the general reserve

- (1) Unallocated water may be granted or reserved from the general reserve under a water entitlement to take unsupplemented water.
- (2) Each water entitlement must state, for the entitlement, the following—
 - (a) the purpose for which the water may be taken;
 - (b) the annual volumetric limit;
 - (c) the maximum rate at which the water may be taken;
 - (d) the flow conditions under which the water may be taken.

Subdivision 3 Strategic reserve

26 Application of sdiv 3

This subdivision applies to unallocated water that is held as a strategic reserve.

27 Granting or reserving unallocated water from the strategic reserve

Unallocated water may be granted or reserved from the strategic reserve only—

- (a) for infrastructure for a project declared under the *State Development and Public Works Organisation Act 1971*, section 26, to be a significant project; or

- (b) for infrastructure identified in—
 - (i) the SEQ regional plan or instruments that implement the plan; or
 - (ii) a regional water security program for the SEQ region.

Subdivision 4 Town water supply reserve

28 Application of sdiv 4

This subdivision applies to unallocated water that is held as a town water supply reserve.

29 Granting unallocated water from the town water supply reserve

Unallocated water may be granted from the town water supply reserve under a water licence for the water grid manager to take an annual volumetric limit of up to 150ML from Canungra Creek.

Division 3 Process for granting and amending interim resource operations licence

Subdivision 1 Preliminary

30 Process for Act, ss 176 and 184A

- (1) This division states a process for granting or amending an interim resource operations licence to meet future water requirements if unallocated water is granted or reserved from the strategic reserve for infrastructure mentioned in section 27(b).
- (2) This division applies only until it is replaced by a process stated in the resource operations plan.

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Subdivision 2 Application or amendment after notice from chief executive

31 Applying for, or to amend, interim resource operations licence

- (1) The chief executive may give notice to the proposed owner of infrastructure mentioned in section 27(b) that the proposed owner must apply to the chief executive for—
 - (a) an interim resource operations licence to operate the infrastructure; or
 - (b) an amendment of an interim resource operations licence, already held by the proposed owner, to operate the infrastructure.
- (2) The application must—
 - (a) be in the approved form; and
 - (b) be made within—
 - (i) for an application mentioned in subsection (1)(a)—60 business days after the day the notice is given; or
 - (ii) for an application mentioned in subsection (1)(b)—30 business days after the day the notice is given; and
 - (c) include the following—
 - (i) details of the proposed infrastructure;
 - (ii) an assessment of the impact of constructing the infrastructure on—
 - (A) existing interim water allocations managed under the interim resource operations licence for the Logan River Water Supply Scheme; and
 - (B) existing water licences to take water from the area of the Logan River Water Supply Scheme; and

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- (C) the delivery and supply of water under the interim resource operations licence for the Logan River Water Supply Scheme; and
 - (D) other existing authorisations, other than water permits, that may be affected by the proposed infrastructure;
- (iii) the applicant's proposal for minimising the impact mentioned in subparagraph (ii);
 - (iv) proposed operating arrangements for the infrastructure;
 - (v) the entities to whom the applicant proposes to supply water;
 - (vi) the applicant's proposal about the total interim water allocation to be managed under the proposed interim resource operations licence or proposed amended interim resource operations licence;
 - (vii) any other information the applicant considers will enable the chief executive to decide the application; and
- (d) be accompanied by the fee prescribed under a regulation.
- (3) The chief executive may give a copy of the application to any entity the chief executive considers appropriate.

32 Additional information may be required

- (1) The chief executive may, by notice, require—
 - (a) the applicant to give additional information about the application; or
 - (b) any information included in the application, or any additional information required under paragraph (a), to be verified by statutory declaration.
- (2) If the applicant does not, without reasonable excuse, comply with the requirement within the reasonable time stated in the notice, the application lapses.

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33 Matters chief executive must consider

- (1) For deciding the application, the chief executive must consider—
 - (a) the application and any additional information given about the application; and
 - (b) the public interest.
- (2) Subsection (1) does not limit the matters the chief executive may consider.

34 Deciding application for, or to amend, interim resource operations licence

- (1) If the chief executive is satisfied the application should be approved, or approved in part, the chief executive must approve all or part of the application, with or without conditions.
- (2) If the chief executive grants, or amends, the interim resource operations licence, the chief executive must reserve, from the strategic reserve, unallocated water required for any proposed interim water allocations to which the approval applies.

Subdivision 3 Amendment by chief executive

35 Amending interim resource operations licence by chief executive—Act, s 184A

- (1) The chief executive may, at any time—
 - (a) amend the interim resource operations licence, granted or amended under section 34, to the extent the chief executive considers necessary to meet future water requirements; or
 - (b) amend any other interim resource operations licence, to the extent the chief executive considers necessary as a consequence of the granting or amendment of an interim resource operations licence under section 34.

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- (2) Before the chief executive acts under subsection (1), the chief executive must give the holder of the interim resource operations licence notice of the proposed amendment.
 - (3) The notice must—
 - (a) state the following—
 - (i) a summary of the proposed amendment;
 - (ii) the reasons for the proposed amendment;
 - (iii) that written submissions may be made by the holder about the proposed amendment;
 - (iv) the day by which, the person to whom, and the place where, the submissions must be made; and
 - (b) include a copy of the proposed amendment.
 - (4) The day stated under subsection (3)(a)(iv) must be at least 30 business days after the notice is given.

36 Matters chief executive must consider

- (1) In deciding whether to amend the interim resource operations licence, the chief executive must consider—
 - (a) any applications under section 31 for, or to amend, the interim resource operations licence and any additional information given about the application; and
 - (b) any submissions made under section 35(3)(a) about the proposed amendment; and
 - (c) the public interest.
- (2) Subsection (1) does not limit the matters the chief executive may consider.

37 Deciding whether to amend interim resource operations licence

After considering the matters mentioned in section 36 and any other matters the chief executive considers appropriate, the

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chief executive may amend the interim resource operations licence to the extent the chief executive considers appropriate.

Subdivision 4 Amendment on application by holder

38 Amending interim resource operations licence on application by holder—Act, s 184A

- (1) The holder of the interim resource operations licence may apply to the chief executive to amend the licence.
- (2) The application must—
 - (a) be in the approved form; and
 - (b) include a summary of the amendment required and the reasons for the amendment; and
 - (c) be accompanied by the fee prescribed under a regulation.
- (3) The chief executive may give a copy of the application to any entity the chief executive considers appropriate.

39 Additional information may be required

- (1) The chief executive may, by notice, require—
 - (a) the applicant to give additional information about the application; or
 - (b) any information included in the application, or any additional information required under paragraph (a), to be verified by statutory declaration.
- (2) If the applicant does not comply with the requirement within the reasonable time stated in the notice, the application lapses.

40 Matters chief executive must consider

- (1) For deciding the application, the chief executive must consider—
 - (a) the application and any additional information given about the application; and
 - (b) the public interest.
- (2) Subsection (1) does not limit the matters the chief executive may consider.

41 Deciding application to amend interim resource operations licence

If the chief executive is satisfied the application should be approved, or approved in part, the chief executive must approve all or part of the application, with or without conditions.

Subdivision 5 Granting interim water allocations

42 Granting interim water allocations—Act, s 189

- (1) This section applies if, at the time the interim resource operations licence is amended under section 34, 37 or 41, the chief executive is satisfied—
 - (a) construction of the infrastructure to which the interim resource operations licence relates is complete; and
 - (b) the operation of the infrastructure is consistent with the objectives of this plan; and
 - (c) the interim resource operations licence holder has complied with the conditions of the licence in relation to the infrastructure.
- (2) The chief executive may require the interim resource operations licence holder to give the chief executive the following information—

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- (a) the number of interim water allocations to which the interim resource operations licence is to relate;
 - (b) the volume of water that may be taken under each allocation;
 - (c) the purpose for which the water may be taken;
 - (d) the priority group to which each allocation is to belong;
 - (e) the water sharing rules that are to apply.
- (3) After considering the information mentioned in subsection (2), the chief executive may grant the interim water allocations to which the interim resource operations licence relates.
- (4) This section does not apply to the amendment of another interim resource operations licence under section 37 as a consequence of—
- (a) the granting or amendment of an interim resource operations licence under section 34; or
 - (b) the amendment of an interim resource operations licence under section 41.

Division 4 Resource operations licences

43 Water entitlements to be managed under a resource operations licence

Water allocations converted from the following authorisations are to be managed under the resource operations licence for the Logan River Water Supply Scheme—

- (a) interim water allocations for the Logan River Water Supply Scheme;
- (b) other authorisations to take water supplied by the Logan River Water Supply Scheme.

44 Matters chief executive must consider

- (1) In deciding the operating arrangements and supply requirements for water infrastructure and proposed infrastructure, the chief executive must consider—
 - (a) the impact of the infrastructure or proposed infrastructure's operation on the following—
 - (i) water quality;
 - (ii) instream water levels;
 - (iii) erosion of the bed and banks of watercourses;
 - (iv) riparian vegetation;
 - (v) the extent to which artificial variations in instream water levels and flows may adversely affect natural ecosystems;
 - (vi) recreation and aesthetic values;
 - (vii) cultural values, including, for example, cultural values of the traditional owners of the area; and
 - (b) the impact of the infrastructure or proposed infrastructure on the movement of fish and other aquatic species; and
 - (c) the impact on natural ecosystems of the transfer of water between watercourses; and
 - (d) the likelihood of fish deaths caused by the operation of the infrastructure; and
 - (e) the joint operation of existing and proposed infrastructure; and
 - (f) any existing critical water supply strategy; and
 - (g) any system operating plan applying to the plan area; and
 - (h) any regional water security program for the SEQ region.
- (2) Subsection (1) does not limit the matters the chief executive may consider.

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Division 5 Granting water entitlements

45 Water entitlements to replace local government authorities

- (1) This section applies to authorities, continued under section 1037 of the Act, for the following local governments to take or interfere with water from the watercourses mentioned—
 - (a) Beaudesert Shire Council—Albert River;
 - (b) Gold Coast City Council—Albert River;
 - (c) Redland Shire Council—Tingalpa Creek.
- (2) Within 30 business days after the resource operations plan commences, the chief executive must replace the authorities with water entitlements for the continued taking of, or interfering with, the water.
- (3) The chief executive must impose conditions on the entitlements giving effect to any environmental management rules or water sharing rules included in the resource operations plan.

Division 6 Converting authorisations to water allocations

Subdivision 1 General

46 Definition for div 6

In this division—

authorisation means an authorisation or authority mentioned in section 47.

47 Application of div 6

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; and
- (c) local government authorities replaced with water entitlements under division 5.

48 Location for taking water

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

49 Purpose to be stated on water allocation

The purpose stated on a water allocation must be ‘any’.

Subdivision 2 Water allocations to take supplemented water

50 Elements of a water allocation to take supplemented water

A water allocation to take supplemented water must state the following—

- (a) the location from which water may be taken under the allocation;
- (b) the purpose for which water may be taken under the allocation;
- (c) the nominal volume for the allocation;
- (d) the priority group to which the allocation belongs.

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51 Nominal volume for water allocations to take supplemented water

The nominal volume for a water allocation to take supplemented water is the annual volume for supplemented water stated on the authorisation.

52 Priority groups for water allocations to take supplemented water

In the Logan River Water Supply Scheme, 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 other authorisations—the medium priority group.

Subdivision 3 Water allocations to take unsupplemented water

53 Elements of a water allocation to take unsupplemented water

A water allocation to take unsupplemented water—

- (a) must state the following—
 - (i) the location from which water may be taken under the allocation;
 - (ii) the purpose for which water may be taken under the allocation;
 - (iii) the nominal volume for the allocation;
 - (iv) the maximum rate at which water may be taken under the allocation;
 - (v) the annual volumetric limit for the allocation; and
- (b) may state the following—
 - (i) the daily volumetric limit for the allocation;

- (ii) the monthly volumetric limit for the allocation;
- (iii) the flow conditions for the allocation;
- (iv) any other elements of the allocation the chief executive considers appropriate.

54 Nominal volumes for water allocations to take unsupplemented water

- (1) The nominal volume for a water allocation in a water allocation group mentioned in schedule 8, column 1, is the volume decided by the chief executive.
- (2) In deciding the nominal volume, the chief executive—
 - (a) must have regard to—
 - (i) the local availability of water; and
 - (ii) the conditions under which water may be taken under the authorisation; and
 - (iii) 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
 - (iv) the simulated mean annual diversion for the authorisation; and
 - (v) the efficiency of the use of the water mentioned in subparagraph (iii); and
 - (b) must ensure the total of the nominal volumes for the water allocations in the water allocation group is not more than the volume stated in schedule 8, column 2, for the group.

55 Annual volumetric limit for taking unsupplemented water

- (1) The annual volumetric limit for a water allocation to take unsupplemented water is—

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- (a) for an authorisation that states the volume of water that may be taken in a period of 12 months—the volume stated on the authorisation; and
 - (b) for an authorisation that states the area that may be irrigated—the volume decided by the chief executive having regard to the volume of water required to efficiently irrigate the area, but not more than the volume, expressed in megalitres, calculated by multiplying the area, in hectares, by 6; and
 - (c) for another authorisation—the volume decided by the chief executive having regard to—
 - (i) the conditions under which water may be taken under the authorisation; and
 - (ii) the water taking capacity of any works, being used or authorised to be used, for taking water under the authorisation; and
 - (iii) 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
 - (iv) the efficiency of the use of the water mentioned in subparagraph (iii).
- (2) Subsection (1)(c) does not limit the matters the chief executive may consider.

56 Daily and monthly volumetric limits for taking unsupplemented water

- (1) In deciding daily or monthly volumetric limits for a water allocation to take unsupplemented water, the chief executive must have regard to—
- (a) the local availability of water in each month; and
 - (b) the conditions under which water may be taken under the authorisation; and

-
- (c) the 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
 - (d) the simulated mean annual diversion for the authorisation; and
 - (e) the efficiency of the use of the water mentioned in paragraph (c).
- (2) Subsection (1) does not limit the matters the chief executive may consider.

57 Maximum rates for taking unsupplemented water

The maximum rate at which unsupplemented water may be taken under a water allocation is—

- (a) for an authorisation that states a maximum rate—the rate stated on the authorisation; and
- (b) for an authorisation that does not state a maximum rate but for which a related development permit states a pump size mentioned in schedule 9, column 1—
 - (i) if the authorisation holder satisfies the chief executive that the actual rate at which water can be taken is different from the rate stated in schedule 9, column 2, for the pump size—the rate decided by the chief executive having regard to—
 - (A) the conditions under which water may be taken under the authorisation; and
 - (B) the water taking capacity of the pump to which the development permit relates (the *existing pump*) under normal operating conditions; and
 - (C) the irrigation or water distribution system related to the existing pump during the period of not more than 10 years

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- immediately before the commencement of this plan; and
- (D) the efficiency of the water use mentioned in subsubparagraph (C); or
- (ii) otherwise—the rate stated in schedule 9, column 2, for the pump size; and
- (c) for an authorisation that does not state a maximum rate but for which a related development permit states a pump size other than a pump size mentioned in schedule 9, column 1—the rate decided by the chief executive having regard to the matters mentioned in paragraph (b)(i)(A) to (D); and
- (d) for another authorisation—the rate decided by the chief executive having regard to—
- (i) the nature of the authorisation; and
- (ii) an estimate of the rate, or measurement of the actual rate, at which water is taken under the authorisation.

58 Conditions for water allocations to take unsupplemented water

In deciding the conditions under which water may be taken under a water allocation to take unsupplemented water, the chief executive must have regard to the conditions stated on the relevant authorisation.

59 Water allocation groups for water allocations to take unsupplemented water

A water allocation to take unsupplemented water in a subcatchment area mentioned in schedule 10, column 1, belongs to—

- (a) for an authorisation for town water supply purposes—the water allocation group (class A)

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- (c) the maximum rate at which water may be taken under the licence;
- (d) the flow conditions for the licence.

61 Annual volumetric limit for taking unsupplemented water

- (1) The annual volumetric limit for a water licence mentioned in section 60 is—
 - (a) for a water licence that states a volume of water that may be taken in a period of 12 months—the volume stated on the licence; and
 - (b) for a licence or authority that states the area that may be irrigated—the volume decided by the chief executive having regard to the volume of water required to efficiently irrigate the area, but not more than the volume, expressed in megalitres, calculated by multiplying the area, in hectares, by 6; and
 - (c) for another licence or authority—the volume decided by the chief executive having regard to—
 - (i) the conditions under which water may be taken under the licence or authority; and
 - (ii) the water taking capacity of any works, being used or authorised to be used, for taking water under the licence or authority; and
 - (iii) the annual volumes of water estimated by the chief executive to have been taken under the licence or authority during the period, of not more than 10 years, immediately before the commencement of this plan; and
 - (iv) the efficiency of the use of the water mentioned in subparagraph (iii).
- (2) Subsection (1)(b) and (c) do not limit the matters the chief executive may consider.

62 Maximum rates for taking unsupplemented water

The maximum rate at which unsupplemented water may be taken under a water licence in force on the commencement of this plan is—

- (a) for a licence that states a maximum rate—the rate stated on the licence; and
- (b) for a licence that does not state a maximum rate but for which a related development permit states a pump size mentioned in schedule 9, column 1—
 - (i) if the licence holder satisfies the chief executive that the actual rate at which water can be taken is different from the rate stated in schedule 9, column 2, for the pump size—the rate decided by the chief executive having regard to—
 - (A) the conditions under which water may be taken under the licence; and
 - (B) the water taking capacity of the pump to which the development permit relates (the *existing pump*) under normal operating conditions; and
 - (C) the irrigation or water distribution system related to the existing pump during the period of not more than 10 years immediately before the commencement; and
 - (D) the efficiency of the water use mentioned in subsubparagraph (C); or
 - (ii) otherwise—the rate stated in schedule 9, column 2, for the pump size; and
- (c) for a licence that does not state a maximum rate but for which a related development permit states a pump size other than a pump size mentioned in schedule 9, column 1—the rate decided by the chief executive having regard to the matters mentioned in paragraph (b)(i)(A) to (D); and

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- (d) for another licence—the rate decided by the chief executive having regard to—
 - (i) the nature of the licence; and
 - (ii) an estimate of the rate, or measurement of the actual rate, at which water is taken under the licence.

Division 8 Critical water supply strategy

63 Critical water supply strategy

- (1) The resource operations plan must contain a strategy for critical water supply management (a *critical water supply strategy*) for water in the plan area.
- (2) If the strategy is not included in the resource operations plan at the time it is approved—
 - (a) the resource operations plan must state that an amendment of the resource operations plan may be made under section 106(b) of the Act to include the strategy; and
 - (b) the amendment must be made within 1 year after the commencement of the resource operations plan.
- (3) In deciding the critical water supply strategy, the chief executive must consider—
 - (a) any existing strategy for critical water supply management; and
 - (b) any system operating plan applying to the plan area; and
 - (c) any regional water security program for the SEQ region.

64 Water sharing and infrastructure operating rules

- (1) The critical water supply strategy must state—
 - (a) the water sharing and infrastructure operating rules that apply during periods of critical water supply, including

the rules that state the share of water that will be managed under the system operating plan applying to the plan area; and

- (b) details of the situations in which the rules are to apply.
- (2) In deciding the rules, the chief executive must consult with the commission, water service providers, infrastructure operators, water users and local governments in the plan area.
 - (3) The monitoring and reporting requirements mentioned in the resource operations plan must be included in—
 - (a) for requirements of water service providers—the water sharing rules; and
 - (b) for requirements of infrastructure operators—the infrastructure operating rules.

Division 9 Miscellaneous

65 Releasing water through fish ways

If water to which this plan applies can be released from a dam or weir through fish ways, the environmental management rules in the resource operations plan must provide for the release.

66 Measuring devices

- (1) A measuring device must be used to measure the volume of water taken, other than for stock or domestic purposes, under a water entitlement in the plan area.
- (2) Subsection (1) applies—
 - (a) from the day the water entitlements are declared to be metered entitlements under the *Water Regulation 2002*, part 7; and
 - (b) in the circumstances mentioned in part 7 of the regulation.

Part 6 Monitoring and reporting requirements

67 Monitoring

- (1) The monitoring requirements for this plan are—
 - (a) water monitoring for—
 - (i) stream flows; and
 - (ii) supply, taking and diverting of water; and
 - (iii) water quantity for water storages including inflow, storage volume or water level and outflow; and
 - (iv) groundwater levels; and
 - (b) natural ecosystems monitoring for—
 - (i) volume, frequency, duration and timing of stream flows; and
 - (ii) information on hydraulic habitat requirements of ecological assets in the plan area; and
 - (c) other water and natural ecosystem monitoring required by the chief executive.
- (2) The monitoring requirements are to be achieved by—
 - (a) monitoring programs undertaken by water infrastructure operators under the resource operations plan; and
 - (b) monitoring programs administered by the chief executive and relevant State agencies; and
 - (c) other monitoring programs considered by the chief executive to be relevant to the matters mentioned in subsection (1).

68 Monitoring programs to be undertaken by resource operations licence holders

- (1) Each resource operations licence holder must develop and undertake monitoring programs, satisfactory to the chief

executive, that include monitoring the matters mentioned in section 67 for the water supply scheme for which the holder manages water.

- (2) For subsection (1), the programs must include monitoring—
 - (a) water quantity including—
 - (i) the flow of water at gauging stations; and
 - (ii) the supply and taking of water; and
 - (iii) inflows of water to the dams and weirs mentioned in the holder's resource operations licence; and
 - (iv) the quantity of water released from the dams and weirs; and
 - (v) the level of water in the dams and weirs; and
 - (b) water quality including chemical, physical and biological measurements; and
 - (c) the operation of outlet works relating to the dams and weirs including, for example, multi-level offtakes; and
 - (d) the operation of fish ways; and
 - (e) the operation of devices to minimise the impact on natural ecosystems of the transfer of water between watercourses.
- (3) The monitoring programs must assist in enabling the chief executive to assess the effectiveness of the strategies under part 5.

69 Resource operations licence holders to give reports

- (1) Each resource operations licence holder must give the chief executive a written report containing the following information—
 - (a) details of the information obtained by the monitoring mentioned in section 68;

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- (b) details of decisions made by the holder in managing water and water infrastructure, including, for example, decisions about the following—
 - (i) making water available to water users under the holder's usual procedures for managing water in a water supply scheme;
 - (ii) managing the flow of water;
 - (iii) restrictions on the taking or supply of water;
 - (iv) infrastructure modifications or installations;
 - (c) information about any non-compliance by the holder with the resource operations plan;
 - (d) details about remedial action taken by the holder—
 - (i) in relation to a requirement under the resource operations plan; or
 - (ii) in response to an event or thing affecting water quality;
 - (e) details of any emergency action taken by the holder that may affect the achievement of the outcomes under part 3.
- (2) A report about a matter mentioned in subsection (1)(a), (1)(b)(i) or (1)(b)(ii) must be given—
 - (a) for each financial year in which the holder manages water under this plan; and
 - (b) within 3 months after the end of the financial year to which the report relates.
 - (3) A report about a matter mentioned in subsection (1)(b)(iii), (1)(b)(iv), (1)(c) or (1)(d) must be given within 5 business days after the matter happens.
 - (4) A report about a matter mentioned in subsection (1)(e) must be given the next business day after the action is taken.
 - (5) A report under this section must be given in a way that is consistent with the department's Water Monitoring Data

Reports Standards, a copy of which is available on the department's website.

70 Minister's report on plan—Act, s 53

- (1) The Minister's report on this plan must be prepared—
 - (a) for the first report—for the financial year in which the resource operations plan commences; and
 - (b) for subsequent reports—for each financial year this plan is in force; and
 - (c) for each report—within 6 months after the end of the financial year to which the report relates.
- (2) The report prepared 3 years after the commencement of the resource operations plan must, to the extent information on the level of development of works for taking overland flow water and subartesian water in the plan area is available, include the information.
- (3) If the Minister is satisfied about any of the matters mentioned in section 74, the report, in its assessment of the effectiveness of the implementation of this plan in achieving this plan's outcomes, must include a consideration of the matters.

Part 7 Implementing and amending this plan

71 Priorities for converting to, or granting, water allocations

Each area described in schedule 11 is a priority area for this plan for the conversion to, or granting of, water allocations.

72 Implementation schedule

- (1) This section states—

[s 73]

- (a) the proposed arrangements for implementing this plan; and
 - (b) the priorities for the conversion to, or granting of, water allocations.
- (2) Within 2 years after the commencement of this plan, it is proposed to prepare a resource operations plan—
- (a) to convert interim water allocations in the medium and high priority groups in priority area 1 to water allocations; and
 - (b) to convert authorisations in priority area 1, other than authorisations for taking water for stock or domestic purposes, to water allocations; and
 - (c) to deal with unallocated water available for future water requirements; and
 - (d) for water in priority area 1—to make environmental management rules, water sharing rules, water allocation change rules and seasonal water assignment rules; and
 - (e) to implement the monitoring requirements under part 6.
- (3) Within 4 years after the commencement, it is proposed to amend the resource operations plan—
- (a) to include priority area 2; and
 - (b) to convert authorisations in priority area 2 to water allocations; and
 - (c) for water in priority area 2—to make environmental management rules, water sharing rules, water allocation change rules and seasonal water assignment rules.
- (4) Subsections (2) and (3) do not limit the matters that may be included in the resource operations plan.

73 Minor or stated amendment of plan—Act, s 57

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

-
- (a) an amendment or addition of an environmental flow objective if the amendment or addition achieves an equivalent or improved ecological outcome without adversely affecting the water allocation security objectives or the outcomes under part 3;
 - (b) an amendment or addition of a water allocation security objective if the amendment or addition does not adversely affect existing water allocations, environmental flow objectives or the outcomes under part 3;
 - (c) an amendment or addition of a priority area;
 - (d) an amendment or addition of a node;
 - (e) an amendment or addition of a priority group;
 - (f) an amendment or addition of a water allocation group;
 - (g) an amendment to subdivide a subcatchment area or amalgamate subcatchment areas;
 - (h) an amendment to subdivide a volume, or amalgamate volumes, stated in schedule 8;
 - (i) an amendment or addition of a monitoring or reporting requirement under part 6.

74 Amending or replacing plan

The Minister must consider amending this plan or preparing a new plan to replace this plan if the Minister is satisfied—

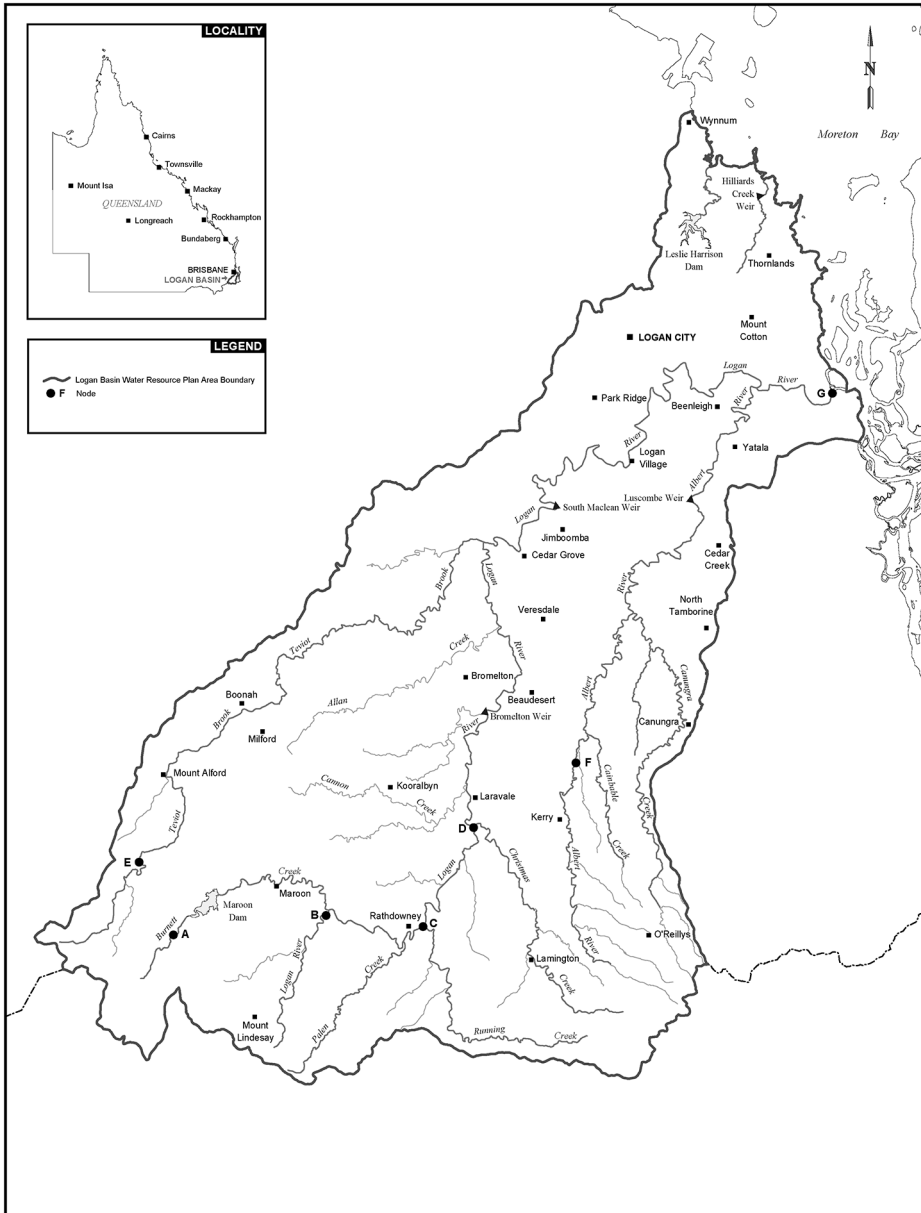
- (a) in relation to this plan's outcomes under part 3—
 - (i) water entitlements in the plan area are not sufficient to meet water needs sourced from the plan area having regard to—
 - (A) the extent to which water is being taken under the water entitlements; and
 - (B) the efficiency of present, and expected future, water use; and

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- (C) emerging requirements for additional water; and
 - (D) alternative water sources including, for example, recycled water and water savings from improvements in the efficiency of water use; and
 - (E) the likely timeframe in which additional water will be required; and
- (ii) there are economically viable and ecologically sustainable uses for additional water; or
- (b) this plan's ecological outcomes under section 10 or 11 are not being achieved; or
 - (c) this plan is inconsistent with the SEQ regional plan.

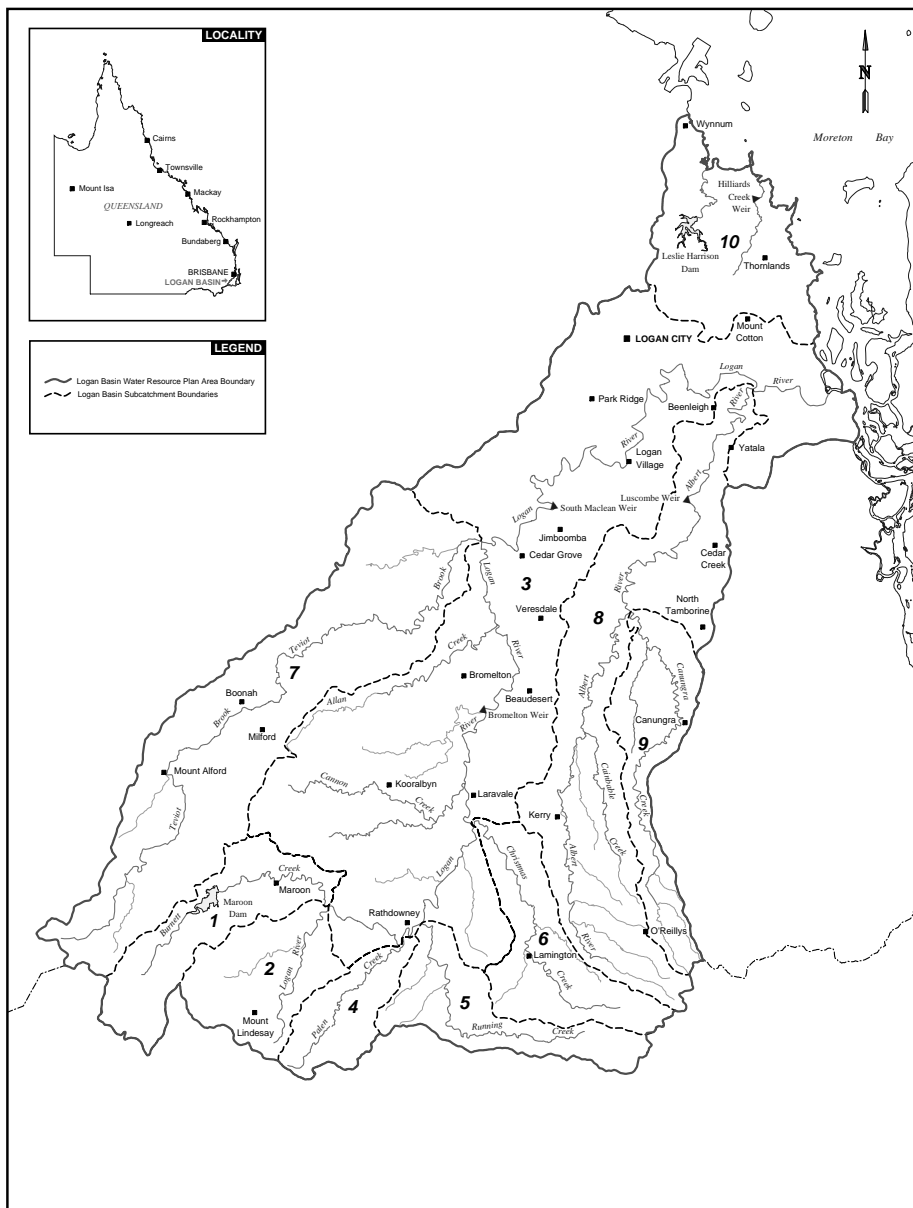
Schedule 1 Plan area

section 4



Schedule 2 Subcatchment areas

section 5



Schedule 3 Subcatchment area names

section 5

Column 1	Column 2
Subcatchment area	Subcatchment area name
1	Burnett Creek
2	Upper Logan River
3	Logan River
4	Palen Creek
5	Running Creek
6	Christmas Creek
7	Teviot Brook
8	Albert River
9	Canungra Creek
10	Redlands subcatchments

Schedule 4 Nodes

section 7

Column 1	Column 2
Node	Location
A	Burnett Creek upstream of Maroon Dam at AMTD 32.6km
B	Logan River at Foresthome AMTD 166.4km
C	Running Creek at AMTD 0.0km
D	Christmas Creek at AMTD 0.0km
E	Teviot Brook at Croftby AMTD 82.3km
F	Albert River at Lumeah AMTD 75.5km
G	Logan River at AMTD 0.0km

Schedule 5 Environmental flow objectives

section 13

Part 1 Low flow objectives

- 1 At each node mentioned in table 1, column 1, minimise the extent to which the 50% daily flow for the pre-development flow pattern stated in table 1, column 2 for a month for the node—
 - (a) is equalled or exceeded on fewer than 35% of the days in the month in the simulation period; and
 - (b) is equalled or exceeded on more than 65% of the days in the month in the simulation period.

Table 1

Column 1	Column 2					
Node	50% daily flow in megalitres					
	Jan	Feb	Mar	Apr	May	June
A	11	21	24	18	13	12
B	31	47	46	30	21	23
C	42	74	85	69	53	47
D	35	50	64	58	45	43
E	6	10	10	7	6	6
F	44	70	86	61	48	44
G	370	586	658	478	350	334

Schedule 5

Column 1	Column 2					
Node	50% daily flow in megalitres					
	July	Aug	Sep	Oct	Nov	Dec
A	10	9	8	7	6	7
B	18	12	9	9	13	23
C	42	32	28	27	27	34
D	37	31	27	27	27	30
E	5	4	3	2	3	4
F	37	30	24	24	27	32
G	258	189	170	183	196	278

- 2 At each node mentioned in table 2, column 1, the percentage of the total number of days in a month in the simulation period that the 50% daily flow for the plan scenario flow pattern stated for the month in table 1 is equalled or exceeded be at least the percentage stated in table 2, column 2, for the month.

Table 2

Column 1	Column 2					
Node	Jan	Feb	Mar	Apr	May	June
A	40	40	40	40	40	40
B	40	40	40	40	40	40
C	35	35	35	35	35	35
D	24	32	35	35	35	35
E	40	40	40	40	39	40
F	35	35	35	35	35	35
G	24	30	32	28	24	26

Column 1	Column 2					
Node	July	Aug	Sep	Oct	Nov	Dec
A	40	40	40	40	40	40
B	40	40	40	40	40	40
C	30	28	22	18	22	28
D	30	29	18	12	14	14
E	40	37	35	34	33	40
F	35	35	28	22	24	28
G	22	18	10	10	12	18

- 3 At each node mentioned in table 3, column 1, minimise the extent to which the 90% daily flow for the pre-development flow pattern stated in table 3, column 2 for a month for the node is equalled or exceeded on fewer than 75% of the days in the month in the simulation period.

Table 3

Column 1	Column 2					
Node	90% daily flow in megalitres					
	Jan	Feb	Mar	Apr	May	June
A	0	0	1	1	1	1
B	1	1	2	2	2	2
C	9	14	19	21	18	18
D	6	9	15	14	13	13
E	0	0	1	0	1	1
F	6	10	14	19	18	16
G	51	79	119	128	122	113

Schedule 5

Column 1	Column 2					
Node	90% daily flow in megalitres					
	July	Aug	Sep	Oct	Nov	Dec
A	1	1	0	0	0	0
B	1	0	0	0	0	1
C	16	14	12	10	8	8
D	11	10	8	6	5	5
E	1	0	0	0	0	0
F	13	10	8	5	4	6
G	86	65	45	38	39	56

- 4 At each node mentioned in table 4, column 1, the percentage of the total number of days in a month in the simulation period that the 90% daily flow for the plan scenario flow pattern stated for the month in table 3 is equalled or exceeded be at least the percentage stated in table 4, column 2, for the month.

Table 4

Column 1	Column 2					
Node	Jan	Feb	Mar	Apr	May	June
A	80	80	80	80	80	80
B	80	80	80	80	80	80
C	48	62	72	72	75	75
D	30	42	52	56	60	66
E	62	74	80	80	78	80
F	50	66	73	70	72	73
G	50	57	56	47	38	42

Column 1	Column 2					
Node	July	Aug	Sep	Oct	Nov	Dec
A	80	80	80	80	80	80
B	77	80	76	76	78	80
C	46	45	33	28	29	38
D	42	42	28	18	18	20
E	67	76	65	50	50	54
F	66	56	40	32	34	39
G	34	29	26	28	34	38

- 5 At each node mentioned in table 5, column 1, the percentage of the total number of days in the simulation period on which the daily flow is less than 1ML be between the minimum and maximum percentages stated for the node in table 5, column 2.

Table 5

Column 1	Column 2
Node	Minimum-maximum percentage
A	11–19
B	8–26
C	0–2
D	0–4
E	14–55
F	7–61
G	0–24

Schedule 5

- 6 At each node mentioned in table 6, column 1, minimise the extent to which—
- (a) the number of periods of no flow of at least 1 month but less than 3 months in the simulation period is less than the minimum or more than the maximum number stated for the node in table 6, column 2; and
 - (b) the number of periods of no flow of at least 3 months but less than 6 months in the simulation period is less than the minimum or more than the maximum number stated for the node in table 6, column 3; and
 - (c) the number of periods of no flow of at least 6 months in the simulation period is less than the minimum or more than the maximum number stated for the node in table 6, column 4.

Table 6

Column 1	Column 2	Column 3	Column 4
Node	Minimum-maximum	Minimum-maximum	Minimum-maximum
A	6–26	0–3	0–0
B	8–45	1–12	0–0
C	0–2	0–0	0–0
D	0–4	0–0	0–0
E	12–73	1–29	0–6
F	0–127	0–38	0–11
G	0–17	0–2	0–0

Part 2 Medium to high flow objectives

At each node mentioned in table 7, column 1—

- (a) the mean annual flow, expressed as a percentage of the mean annual flow for the pre-development flow pattern, be at least the percentage stated for the node in table 7, column 2; and
- (b) the 1.5 year daily flow volume, expressed as a percentage of the 1.5 year daily flow volume for the pre-development flow pattern, be at least the percentage stated for the node in table 7, column 3; and
- (c) the 5 year daily flow volume, expressed as a percentage of the 5 year daily flow volume for the pre-development flow pattern, be at least the percentage stated for the node in table 7, column 4; and
- (d) the 20 year daily flow volume, expressed as a percentage of the 20 year daily flow volume for the pre-development flow pattern, be at least the percentage stated for the node in table 7, column 5.

Table 7

Column 1	Column 2	Column 3	Column 4	Column 5
Node	Mean annual flow percentage	1.5 year daily flow volume percentage	5 year daily flow volume percentage	20 year daily flow volume percentage
A	99	99	99	99
B	99	99	99	99
C	88	99	99	99
D	82	98	99	99
E	95	99	99	99
F	90	97	99	99
G	76	80	83	86

Part 3 Seasonal flow objectives

At each node mentioned in table 8, column 1—

- (a) the annual proportional flow deviation be no greater than the annual proportional flow deviation stated for the node in table 8, column 2; and
- (b) the flow regime class be maintained as late summer flow regime class.

Table 8

Column 1	Column 2
Node	Annual proportional flow deviation
A	0.1
B	0.1
C	1.2
D	1.2
E	0.2
F	0.8
G	1.5

Schedule 6 Water allocation security objectives

section 15

Part 1 Supplemented water

- 1 For water allocations in a high priority group in the Logan River Water Supply Scheme—
 - (a) the monthly supplemented water sharing index be at least 95%; and
 - (b) the extent to which it is less than 99% be minimised.
- 2 For water allocations in a medium priority group in the Logan River Water Supply Scheme—
 - (a) the monthly supplemented water sharing index be at least 80%; and
 - (b) the extent to which it is less than 85% be minimised.

Part 2 Unsupplemented water

- 1 For water allocations in a water allocation group mentioned in table 1, column 1—
 - (a) the mean unsupplemented water sharing index be at least the volume stated, for the group, in table 1, column 2; and
 - (b) the extent to which the 70% unsupplemented water sharing index is less than the percentage stated, for the group, in table 1, column 3, be minimised; and
 - (c) the 95% unsupplemented water sharing index be at least the percentage stated, for the group, in table 1, column 4.

Table 1

Column 1	Column 2	Column 3	Column 4
Water allocation group	Mean unsupplemented water sharing index—volume in megalitres	70% unsupplemented water sharing index—percentage	95% unsupplemented water sharing index—percentage
8A	982	—	56
9A	285	—	99
1B	30	81	—
2B	156	83	—
3B	2057	85	—
4B	417	79	—
5B	4540	94	—
6B	6241	90	—
7B	1893	87	—
8B	9192	83	—
9B	4299	86	—
1C	23	—	—
3C	6037	86	—
3D	486	87	—
4D	43	49	—
5D	129	89	—
6D	136	86	—
7D	1176	81	—
8D	4487	84	—
9D	2036	81	—

Schedule 8 Total volumes for water allocation groups

section 54

Column 1	Column 2
Water allocation group	Volume in megalitres
8A	982
9A	285
1B	30
2B	156
3B	2057
4B	417
5B	4540
6B	6241
7B	2329
8B	9192
9B	4299
1C	23
3C	6037
3D	486
4D	43
5D	129
6D	136
7D	1405
8D	4487
9D	2036

Schedule 9 Rates and pump sizes

sections 57 and 62

Column 1	Column 2
Pump size (mm)	Rate (litres/second)
32	8
40	13
50	25
65	46
80	50
100	85
125	120
150	150
200	190
250	220
300	300
350	350
400	440

Schedule 10 Water allocation groups

section 59

Column 1	Column 2	Column 3	Column 4	Column 5
Subcatchment area	Water allocation group (class A)	Water allocation group (class B)	Water allocation group (class C)	Water allocation group (class D)
1	—	1B	1C	1D
2	—	2B	—	—
3	—	3B	3C	3D
4	—	4B	—	4D
5	—	5B	—	5D
6	—	6B	—	6D
7	—	7B	—	7D
8	8A	8B	—	8D
9	9A	9B	—	9D

Schedule 11 Priority areas

section 71

1 Priority area 1

Priority area 1 is the area of the Logan River Water Supply Scheme which consists of—

- (a) the part of Burnett Creek downstream of Maroon Dam including the ponded area of the dam; and
- (b) the part of the Logan River from its confluence with Burnett Creek to AMTD 65km.

2 Priority area 2

Priority area 2 consists of—

- (a) Running Creek subcatchment area consisting of Running Creek and all its tributaries; and
- (b) Christmas Creek subcatchment area consisting of Christmas Creek and all its tributaries.

Schedule 12 Formula

sch 13, definition *annual proportional flow deviation*

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

where—

p means the number of years.

c_{ij} means the modelled flow for month i in year j .

n_{ij} means the modelled natural flow for month i in year j .

\bar{n}_i means the modelled natural flow for month i across p years.

Schedule 13 Dictionary

section 3

1.5 year daily flow volume, for a node, means the daily flow, at the node, that has a 67% probability of being reached at least once a year.

5 year daily flow volume, for a node, means the daily flow, at the node, that has a 20% probability of being reached at least once a year.

20 year daily flow volume, for a node, means the daily flow, at the node, that has a 5% probability of being reached at least once a year.

50% daily flow, for a month for a node, means the daily flow, at the node, that is equalled or exceeded on 50% of days in the month in the simulation period.

90% daily flow, for a month for a node, means the daily flow, at the node, that is equalled or exceeded on 90% of days in the month in the simulation period.

70% unsupplemented water sharing index, for a group of water allocations, means the average total volume of water simulated to have been taken annually under the allocations in at least 70% of years in the simulation period, if the allocations were in existence for the whole of the simulation period, expressed as a percentage of the simulated mean annual diversion for the allocations.

95% unsupplemented water sharing index, for a group of water allocations, means the average total volume of water simulated to have been taken annually under the allocations in at least 95% of years in the simulation period, if the allocations were in existence for the whole of the simulation period, expressed as a percentage of the simulated mean annual diversion for the allocations.

adopted middle thread distance means the distance in kilometres, measured along the middle of a watercourse, that

a specific point in the watercourse is, at the commencement of this plan, from—

- (a) the watercourse's mouth; or
- (b) if the watercourse is not a main watercourse—the watercourse's confluence with its main watercourse.

AMTD means adopted middle thread distance.

annual proportional flow deviation, for a node, means the statistical measure of changes to flow season and volume in the simulation period, at the node, calculated using the formula in schedule 12.

annual variability, for a flow at a point in a watercourse, means the amount of change in the flow that happens between years.

annual volumetric limit, for a water entitlement, means the maximum volume of water that may be taken under the entitlement in a period of 12 months.

authorisation means a water licence, water permit, interim water allocation or other authority to take water given under the Act or the repealed Act, other than a permit for stock or domestic purposes.

average volume of water allowed to be taken under authorisations means the total volume of water simulated to have been taken under the authorisations during the simulation period if the authorisations were in existence for the whole of the simulation period, divided by the number of years in the simulation period.

critical water supply strategy see section 63.

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

daily volumetric limit, for a water entitlement, means the maximum volume of water that may be taken under the entitlement in a day.

discharge, for a flow at a point in a watercourse, means the rate at which water passes the point, measured in cubic metres a second or megalitres a day.

ecological assets include a species, a group of species, a biological function, an ecosystem and a place of natural value.

event duration, for a flow at a point in a watercourse, means the period of time when the discharge is greater than or less than the level necessary for a particular ecological process to happen.

flow regime means the entire range of flows at a point in a watercourse including variations in the watercourse height, discharge, seasonality, annual variability and event duration.

flow regime class means the measure of flow regime seasonality worked out using the method stated in Haines, A.T., Finlayson, B.L. and McMahon, T.A., 'A global classification of river regimes. Applied Geography, 1988'.

groundwater means water from an underground source.

hydraulic habitat requirements, of an ecological asset, are the hydraulic or physical attributes of the flow regime that are—

- (a) required for a particular biological process or response to happen in relation to the asset; or
- (b) necessary to maintain the long-term biological integrity of the asset.

infrastructure operating rules means, for infrastructure to which the resource operations plan applies, the infrastructure operating rules included in the resource operations plan.

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 diversions, water demands and other hydrologic events in the plan area.

mean annual flow, for a node, means the total volume of flow, at the node, in the simulation period divided by the number of years in the simulation period.

mean unsupplemented water sharing index, for a group of water allocations, means the average total volume of water simulated to have been taken annually under the allocations in

the simulation period, if the allocations were in existence for the whole of the simulation period.

monthly supplemented water sharing index, for water allocations in a water supply scheme, means the percentage of months in the simulation period in which the allocations are fully supplied.

monthly volumetric limit, for a water entitlement, means the maximum volume of water that may be taken under the entitlement in a month.

node see section 7.

period of no flow, for a node, means a period in which the flow of water in the watercourse at the node is less than 1ML a day.

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

plan scenario 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) all unallocated water in the strategic reserve and general reserve is being taken; and
- (b) the maximum volume allowed to be taken under each authorisation in the plan area is being taken.

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 in the plan area; and
- (b) no water was taken under authorisations in the plan area.

priority area see section 71.

related development permit, for an authorisation, means the development permit for the works for taking water under the authorisation.

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

seasonality, for a flow at a point in a watercourse, means the time of year when the flow happens.

SEQ region see the *Integrated Planning Act 1997*, section 2.5A.2.

SEQ regional plan see the *Integrated Planning Act 1997*, section 2.5A.10.

simulated mean annual diversion, for an authorisation or group of authorisations, means the total volume of water simulated to have been taken under the authorisations, if the authorisations were in existence for the whole of the simulation period, divided by the number of years in the simulation period.

simulation period means the period from 1 January 1890 to 30 June 2003.

subcatchment area see section 5.

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

this plan means this water resource plan.

traditional owners, of an area, means the Aboriginal people who identify as descendants of the original inhabitants of the area.

unsupplemented water means water that is not supplemented water.

water supply scheme means the Logan River Water Supply Scheme described in schedule 11.

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 1 July 2008. Future amendments of the Water Resource (Logan Basin) Plan 2007 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	none	2 March 2007	
1A	2007 SL No. 242	28 September 2007	
1B	2008 Act No. 34	1 July 2008	

5 List of legislation

Water Resource (Logan Basin) Plan 2007 SL No. 25

approved by the Governor in Council on 1 March 2007
notfd gaz 2 March 2007 pp 983–6
commenced on date of notification
exp 1 September 2017 (see SIA s 54)

Notes—(1) The expiry date may have changed since this reprint was published. See the latest reprint of the SIR for any change.

(2) An explanatory note was prepared.

amending legislation—

Water Resource (Logan Basin) Amendment Plan (No. 1) 2007 SL No. 242

notfd gaz 28 September 2007 pp 595–6
commenced on date of notification

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

date of assent 21 May 2008
ss 1–2, 751 commenced on date of assent
remaining provisions commenced 1 July 2008 (2008 SL No. 202)

6 List of annotations

Application of div 1

s 16 amd 2008 Act No. 34 s 751 sch 2

Decisions not to increase amount of water taken

s 19 amd 2008 Act No. 34 s 751 sch 2

Granting unallocated water from the town water supply reserve

s 29 amd 2008 Act No 34 s 751 sch 2

Water entitlements to be managed under a resource operations licence

s 43 amd 2008 Act No. 34 s 751 sch 2

Implementation schedule

s 72 amd 2008 Act No. 34 s 751 sch 2

SCHEDULE 7—INTERIM WATER ALLOCATIONS

sub 2007 SL No. 242 s 3

om 2008 Act No. 34 s 751 sch 2

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