

Water Act 2000

# Water Resource (Burdekin Basin) Plan 2007

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Queensland

### Water Resource (Burdekin Basin) Plan 2007

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### Water Resource (Burdekin Basin) Plan 2007

### Part 1 Preliminary

### 1 Short title

This water resource plan may be cited as the *Water Resource* (Burdekin 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;
- (f) to regulate the taking of overland flow water.

### 3 Definitions

The dictionary in schedule 10 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.

### 5 Subcatchment areas

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

### 6 Water management areas

The following subcatchment areas are water management areas with the names stated—

- (a) subcatchment area A—Lower Burdekin Water Management Area;
- (b) subcatchment area B—Haughton Water Management Area;
- (c) subcatchment area C—Bowen River Water Management Area.

### 7 Declaration about watercourse—Act, s 1006(2)

- (1) Water in an aquifer under a watercourse or under land adjacent to a watercourse, in the Giru Benefited Groundwater Area, is declared to be water in the watercourse.
- (2) Subsection (1) does not apply to water the chief executive is satisfied is not hydraulically connected to the water in the watercourse.

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#### 8 Information about areas

- (1) The exact location of the boundaries of the plan area, subcatchment areas, water management areas and the Giru Benefited Groundwater Area 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.

#### 9 Nodes

- (1) A node mentioned in this plan is a place on a watercourse in the plan area.
- (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 number.

#### 10 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;
- (c) overland flow water, other than water in springs connected to—
  - (i) artesian water; or
  - (ii) subartesian water connected to artesian water.

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## Part 3 Outcomes for sustainable management of water

#### 11 Outcomes for water in plan area

Water 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 12;
  - (ii) the general ecological outcomes mentioned in section 13;
  - (iii) the specific ecological outcomes mentioned in section 14.

### 12 General outcomes

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

- (a) to provide for the use of all water entitlements and other authorisations in the plan area;
- (b) to provide for the continued use of all existing overland flow works;
- (c) to protect the probability of being able to take water under a water allocation;
- (d) to make water available to support—
  - (i) population growth in towns and communities dependent on surface water resources in the plan area; and
  - (ii) growth in industries dependent on surface water resources in the plan area;

- (e) to make water available in the Lower Burdekin and Haughton subcatchments to support—
  - (i) water supplies for Townsville and Thuringowa; and
  - (ii) growth in irrigated agriculture in the Lower Burdekin, Gumlu and Bowen areas; and
  - (iii) water supplies for other urban, industrial and mining uses; and
  - (iv) the natural and artificial recharge of the Lower Burdekin delta groundwater system;
- (f) to make water available in the Upper Burdekin subcatchment to support—
  - (i) growth in irrigated agriculture; and
  - (ii) water supplies for Charters Towers, Dalrymple Shire and the mining industry;
- (g) to make water available in the Belyando-Suttor subcatchment to support growth in irrigated agriculture;
- (h) to make water available in the Bowen and Broken subcatchments to support water supplies for urban, industrial, mining and other uses at Collinsville and in neighbouring areas;
- to manage access to water to support the ongoing management of the Lower Burdekin delta groundwater system;
- (j) to encourage continual improvement in the efficient use of water;
- (k) to support water-related cultural values of Aboriginal and Torres Strait Islander communities in the plan area;
- (l) to ensure water is available to support natural ecosystem processes.

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### 13 General ecological outcomes

- (1) Each of the following is a general ecological outcome for water in the plan area—
  - (a) to maintain the natural variability of flows that support the habitats of native plants and animals and migratory birds in watercourses, floodplains, wetlands, lakes and springs;
  - (b) to provide for the continued capability of one part of a river system to be connected to another, including by maintaining flood flows that—
    - (i) allow for the movement of native aquatic fauna between riverine, floodplain, wetland, estuarine and marine environments; and
    - (ii) deliver nutrients and organic matter throughout the plan area to support natural processes such as breeding, growth and migration in riverine, floodplain, wetland, estuarine and marine environments; and
    - (iii) deliver water and sediments throughout the plan area to support river-forming processes;
  - (c) to minimise changes to natural variability in water levels and to support natural ecological processes, including maintaining refugia associated with waterholes and lakes particularly in the Belyando-Suttor subcatchment;
  - (d) to promote improved understanding of the matters affecting the flow-related health of ecosystems in the plan area;
  - (e) to maintain flooding in the Lower Burdekin and Haughton subcatchments to provide freshwater inputs to wetlands on the Burdekin Haughton floodplain;
  - (f) to provide a flow regime that—
    - (i) maintains delivery of fresh water to the estuaries of watercourses and the Great Barrier Reef Lagoon; and

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- (ii) maintains natural sedimentation processes to support the replenishment of beaches along the Burdekin Haughton floodplain and Cape Bowling Green; and
- (iii) supports productivity in the receiving waters of the Great Barrier Reef and inshore reefs.
- (2) In this section—

*refugia* means the habitat required by a species during a time of stress, including, for example, drought.

### 14 Specific ecological outcomes

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

- (a) to maintain the natural continuity of flow from immediately downstream of the Charters Towers Weir to the upstream limit of the impounded area of the Burdekin Falls Dam;
- (b) to maintain connectivity between Mistake Creek and its adjacent floodplain system during floods;
- (c) to minimise adverse impacts on the morphology of watercourses, waterholes, lakes and springs, used for taking supplemented water, in the Burdekin Haughton Water Supply Scheme;
- (d) to ensure there are no further impacts on natural creek flows in the Barratta Creek system;
- (e) to provide a flow regime that supports fish passage in the river reaches from the Clare Weir impoundment to the mouth of the Burdekin River;
- (f) to provide a flow regime that supports fish passage in the river reaches to the mouth of the Haughton River.

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## Part 4 Performance indicators and objectives

### Division 1 Environmental flow objectives

### 15 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% non-zero daily flow;
  - (ii) 80% non-zero daily flow;
  - (iii) daily flow;
  - (iv) period of no flow; and
- (b) for assessing periods of medium to high flow, the following—
  - (i) mean annual flow;
  - (ii) median annual flow;
  - (iii) 1.5 year daily flow volume;
  - (iv) 5 year daily flow volume;
  - (v) 20 year daily flow volume;
  - (vi) annual proportional flow deviation.

#### 16 Environmental flow objectives

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

### Division 2 Water allocation security objectives

### 17 Performance indicators for water allocation security objectives

The performance indicators for the water allocation security objectives are—

- (a) for taking supplemented water, the following—
  - (i) annual supplemented water sharing index;
  - (ii) monthly supplemented water sharing index; and
- (b) for taking unsupplemented water, the following—
  - (i) 30% unsupplemented water sharing index;
  - (ii) 50% unsupplemented water sharing index;
  - (iii) 70% unsupplemented water sharing index;
  - (iv) annual volume probability.

### 18 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.

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## Part 5 Strategies for achieving outcomes

### Division 1 Preliminary

### **19** 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.

### 20 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.

### 22 Restrictions on taking water from waterholes or lakes

- (1) This section applies to the chief executive in making a decision about—
  - (a) a water licence to take unsupplemented water; or
  - (b) converting an authorisation to take unsupplemented water into a water allocation; or

- (c) the management of water under a resource operations licence or a distribution operations licence.
- (2) If the water licence, water allocation, resource operations licence or distribution operations licence allows the taking of water from a waterhole or lake, the chief executive must—
  - (a) consider the impact the taking may have on the cultural or ecological values of the waterhole or lake; and
  - (b) impose a condition on the water licence, water allocation, resource operations licence or distribution operations licence about maintaining the cultural or ecological values of the waterhole or lake.

*Example for paragraph (b)—* 

a condition that the water may be taken only if the water level in the waterhole or lake is above the level that is 0.5m below the level at which it naturally overflows

- (3) However, the chief executive need not impose a condition mentioned in subsection (2)(b) if the chief executive is satisfied—
  - (a) the taking of water from the waterhole or lake will not adversely affect its cultural or ecological values; or
  - (b) for a water licence or water allocation that replaces an authorisation in force immediately before the commencement of this plan—the holder of the authorisation would suffer economic hardship if the condition were imposed.

### 23 Matters to be considered for environmental management rules

- (1) In deciding the environmental management rules to be included in the resource operations plan, the chief executive must consider—
  - (a) the streamflows required to maintain the following—
    - (i) the longitudinal connectivity of low flow habitats throughout river systems in the plan area;

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		(ii)	the wetted habitats at riffles and other streambed features;
		(iii)	the natural seasonality of flows and zero flows;
		(iv)	the replenishment of refuge pools that enable movement of instream biota;
		(v)	the lateral connectivity between rivers in the plan area and their adjacent riverine environments including floodplains; and
(b)			impact the taking of, or proposed taking of, or fering with, water may have on the following—
		(i)	water quality;
		(ii)	the natural movement of sediment;
		(iii)	the bed and banks of a watercourse or lake;
		(iv)	riparian vegetation;
		(v)	habitats for native plants and animals;
		(vi)	the movement of fish and other aquatic species;
		(vii)	the recreation and aesthetic values of the plan area;
		(viii	)cultural values including, for example, cultural values of local Aboriginal or Torres Strait Islander communities.
(2)		ection consi	n (1) does not limit the matters the chief executive der.

### 24 Matters to be considered for water sharing rules

- (1) In deciding the water sharing rules, to be included in the resource operations plan, for authorisations to take water in a part of the plan area, the chief executive must consider—
  - (a) for rules relating to supplemented water, the following—
    - (i) any existing water sharing rules;

- (ii) the extent to which any existing water supply arrangements are linked to the natural occurrence of streamflows;
- (iii) the frequency, duration, magnitude and timing of limited water availability; and
- (b) for rules relating to unsupplemented water, the following—
  - (i) any existing water sharing arrangements;
  - (ii) the local availability of water that may be taken from streamflows, waterholes or bedsands;
  - (iii) the conditions for taking water, decided under section 68 or 76;
  - (iv) the daily volumetric limits decided under section 66 or 74;
  - (v) the annual volumetric limits decided under section 67 or 75;
  - (vi) the impact on authorisations to take water in the plan area.
- (2) Subsection (1) does not limit the matters the chief executive may consider.

### 24A Matters to be considered for infrastructure operating rules

- (1) In deciding the infrastructure operating rules to be included in the resource operations plan for water infrastructure or proposed infrastructure, the chief executive must consider—
  - (a) the impact of the infrastructure's or proposed infrastructure's operation on the following—
    - (i) instream water levels;
    - (ii) beds and banks of watercourses;
    - (iii) riparian vegetation; and

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- (b) the extent to which artificial variations in instream water levels and flows may adversely affect natural ecosystems; and
- (c) the impact of the transfer of water between watercourses; and
- (d) the likelihood of fish deaths caused by the operation of the infrastructure; and
- (e) the matters mentioned in section 23(1)(a) and (b).
- (2) Subsection (1) does not limit the matters the chief executive may consider.

### 25 Matters to be considered for water allocation change rules

- (1) In deciding the water allocation change rules, to be included in the resource operations plan, for authorisations to take water in a part of the plan area, the chief executive must consider—
  - (a) the ongoing management of the Lower Burdekin delta groundwater system; and
  - (b) the implications, for the availability of water under water allocations, of changes to the frequency, duration, magnitude and timing of limited water availability.
- (2) Subsection (1) does not limit the matters the chief executive may consider.

### 26 Accepting and deciding particular applications to interfere with water

- (1) This section applies to the chief executive in making a decision about an application to interfere with, or increase the interference with, water in a watercourse, waterhole, lake or spring by impounding the flow of the water.
- (2) The chief executive may accept and decide the application if the purpose of the proposed interference or increase in interference is only—

- (a) to store water for stock or domestic purposes; or
- (b) to provide a pumping pool to enable water to be taken under an existing authorisation; or
- (c) to store water for a purpose not related to the taking of water under a water entitlement.

Examples of a purpose for subsection (2)(c)—

community landscaping or retaining water for flood mitigation purposes

- (3) The chief executive may approve the application if—
  - (a) the chief executive is satisfied the proposed interference or increase in interference is necessary for a purpose mentioned in subsection (2); and
  - (b) the proposed storage capacity is no greater than is necessary for the purpose of the proposed interference or increase in interference having regard to—
    - (i) the impact the proposed interference or increase in interference may have on the following—
      - (A) instream water levels;
      - (B) the natural movement of sediment;
      - (C) the bed and banks of the watercourse or lake;
      - (D) riparian vegetation;
      - (E) habitats for native plants and animals;
      - (F) the movement of fish and other aquatic species;
      - (G) the cultural and ecological values of watercourses, waterholes, lakes or springs; and
    - (ii) for a purpose mentioned in subsection (2)(a)—existing water supplies on the property to which the application relates, including existing weirs, groundwater and dams taking overland flow water and the availability of water at the proposed site.

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- (4) However, the chief executive must not approve an application for a purpose mentioned in subsection (2)(b) or (c) if the proposed storage capacity is greater than—
  - (a) for an application for a purpose mentioned in subsection (2)(b)—10ML; or
  - (b) for an application for a purpose mentioned in subsection (2)(c)—250ML.
- (5) This section does not apply to an application about unallocated water.
- (6) In this section—

*pumping pool* means a pool of water near a pump in a watercourse, lake or spring that ensures the water level of the watercourse, lake or spring is appropriate to enable the pump to function properly.

### Division 2 Unallocated water

## Subdivision 2 General, strategic and SunWater reserves

### 29 Unallocated water held as general, strategic or SunWater reserve

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

#### 30 Establishing general reserve, strategic reserve and Sunwater reserve

The resource operations plan must establish—

- (a) a general reserve; and
- (b) a strategic reserve that must include—
  - (i) a volume of water for a future raising of the Burdekin Falls Dam of not more than 2m; and

- (ii) a volume of water, for water infrastructure for the Bowen and Broken subcatchments, that is primarily intended for industrial use; and
- (c) a SunWater reserve of water with a nominal volume of 8744ML (the *SunWater reserve*).

### Subdivision 3 Dealing with unallocated water under the resource operations plan

### 31 Granting unallocated water

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

### 32 Preparing and implementing process under the resource operations plan generally

- (1) Unallocated water may be dealt with under a process in the resource operations plan.
- (2) In preparing and implementing the process, the chief executive must consider the following—
  - (a) the purpose for which the water is required;
  - (b) the efficiency of existing and proposed water use practices;
  - (c) the extent to which water is being taken under existing authorisations in the plan area;
  - (d) the availability of an alternative water supply for the purpose for which the water is required;
  - (e) the impact the proposed taking of, or interfering with, the water may have on existing water users in the plan area;
  - (f) whether the proposed taking or interfering is likely to have a direct adverse effect on groundwater flows;

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- (g) the matters mentioned in section 23(1)(a) and (b).
- (3) The resource operations plan must state that use, for irrigation, of water taken under a water licence granted under the process requires a land and water management plan approved under section 77 of the Act.
- (4) Subsection (2) does not limit the matters the chief executive may consider.

### 33 Dealing with SunWater reserve under the resource operations plan

The SunWater reserve may be granted as a water allocation to SunWater under a process in the resource operations plan if—

- (a) SunWater makes a submission to the chief executive requesting the release of all or part of the SunWater reserve; and
- (b) the submission deals, to the satisfaction of the chief executive, with—
  - (i) the matters the chief executive must consider under section 32(2); and
  - (ii) any other matters the chief executive requires SunWater to deal with in the submission; and
- (c) the granting is consistent with—
  - (i) the environmental flow objectives for this plan; and
  - (ii) the water allocation security objectives for this plan-
    - (A) generally; and
    - (B) in particular, for the priority group to which the water allocation will belong; and
  - (iii) the general and strategic reserves mentioned in section 30.

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### Division 3 Process for granting and amending interim resource operations licence

### Subdivision 1 Preliminary

### 34 Process for Act, ss 176 and 184A

- (1) This division—
  - (a) states a process for granting or amending an interim resource operations licence to meet future water requirements; and
  - (b) applies only to the granting or amendment of an interim resource operations licence for a project declared under the *State Development and Public Works Organisation Act 1971*, section 26, to be a significant project.
- (2) This division applies only until it is replaced by a process stated in the resource operations plan.

## Subdivision 2 Interim resource operations licence for particular infrastructure

### 35 Applying for, or to amend, interim resource operations licence

- (1) This section applies to the proposed owner of infrastructure for a project declared under the *State Development and Public Works Organisation Act 1971*, section 26, to be a significant project.
- (2) The chief executive may give notice to the proposed owner that the proposed owner must apply to the chief executive for—
  - (a) an interim resource operations licence to operate the infrastructure; or

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- (b) an amendment of an interim resource operations licence, already held by the proposed owner, to operate the infrastructure.
- (3) The application must—
  - (a) be in the approved form; and
  - (b) include the following—
    - (i) details of the proposed infrastructure;
    - (ii) an assessment of the impact of constructing the infrastructure on—
      - (A) the supply of water managed under the interim resource operations licences for the water supply schemes; and
      - (B) existing water entitlements to take unsupplemented water from the areas of the water supply schemes; and
      - (C) the operating arrangements and supply arrangements under the interim resource operations licences for the water supply schemes; 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 assessed and 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;

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- (vii) any other information the applicant considers will help the chief executive to decide the application; and
- (c) be accompanied by the fee prescribed under a regulation.
- (4) The chief executive may give a copy of the application to any entity the chief executive considers appropriate.
- (5) In this section—

water supply schemes means—

- (a) the Burdekin Haughton Water Supply Scheme; and
- (b) the Bowen Broken Water Supply Scheme.

### 36 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.

### 37 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.

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### 38 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

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

- (1) The chief executive may, at any time—
  - (a) amend an interim resource operations licence, granted or amended under section 38, 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—
    - (i) the granting or amendment of an interim resource operations licence under section 38; or
    - (ii) the amendment of an interim resource operations licence under section 45.
- (2) Before the chief executive acts under subsection (1), the chief executive must give the interim resource operations licence holder 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 must be at least 30 business days after the day the notice is given.

### 40 Matters chief executive must consider

- (1) In deciding whether to amend an interim resource operations licence, the chief executive must consider—
  - (a) the following—
    - (i) for an amendment mentioned in section 39(1)(a)—the original application under section 35 for, or to amend, the licence and any additional information given about the application;
    - (ii) for an amendment mentioned in section 39(1)(b)(i) as a consequence of the granting or amendment of an interim resource operations licence under section 38—the original application under section 35 for the granting or amendment and any additional information given about the application;
    - (iii) for an amendment mentioned in section 39(1)(b)(ii) as a consequence of the amendment of an interim resource operations licence under section 45—the original application under section 42 for the amendment and any additional information given about the application; and
  - (b) any submissions made by the interim resource operations licence holder about the proposed amendment; and
  - (c) the public interest.

#### [s 41]

(2) Subsection (1) does not limit the matters the chief executive may consider.

### 41 Deciding whether to amend interim resource operations licence

After considering the matters mentioned in section 40 and any other matters the chief executive considers appropriate, the chief executive may amend the interim resource operations licence to the extent the chief executive considers appropriate.

## Subdivision 4 Amendment on application by holder

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

- (1) The holder of an interim resource operations licence, granted or amended under section 38, 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.

### 43 Additional information may be required

- (1) The chief executive may, by notice, require—
  - (a) the applicant to give additional information about the application; or

[s 44]

- (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.

### 44 Matters chief executive must consider

- (1) In 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.

### 45 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

#### 46 Granting interim water allocations—Act, s 189

- (1) This section applies if, at the time an interim resource operations licence is amended under section 38, 41 or 45, the chief executive is satisfied—
  - (a) construction of the infrastructure to which the interim resource operations licence relates is substantially complete and the infrastructure may be regarded as operational; and

[s 46]

- (b) the operation of the infrastructure is, or will be, 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—
  - (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 41 as a consequence of—
  - (a) the granting or amendment of an interim resource operations licence under section 38; or
  - (b) the amendment of an interim resource operations licence under section 45.

## Division 6 Converting authorisations to water allocations

### Subdivision 1 Preliminary

### 54 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.

### 55 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.

#### 56 Purpose to be stated on water allocation

The purpose stated on a water allocation must be—

- (a) if the purpose stated on the authorisation is stock, domestic, irrigation, stock intensive, agriculture or a similar purpose—'rural'; or
- (b) if the purpose stated on the authorisation is 'distribution loss'—'distribution loss'; or
- (c) for an authorisation to take water held by the North Burdekin Water Board or the South Burdekin Water Board—a purpose related to supplementing a water supply scheme; or
- (d) otherwise—'any'.

[s 62]

## Subdivision 3 Water allocations to take unsupplemented water

### 62 Authorisations to be converted

The authorisations to be converted to water allocations to take unsupplemented water are water licences to take unsupplemented water—

- (a) from—
  - (i) the Burdekin River downstream of node 7 including the anabranch; or
  - (ii) the Haughton River downstream of node 3; or
  - (iii) the Bowen River downstream of node 13; and
- (b) that state flow conditions.

### 63 Elements of a water allocation to take unsupplemented water

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

- (a) the maximum rate at which water may be taken under the allocation;
- (b) the daily volumetric limit for the allocation;
- (c) the annual volumetric limit for the allocation;
- (d) the flow conditions for the allocation.

### 64 Nominal volumes for water allocations to take unsupplemented water

In deciding the nominal volume for a water allocation to take unsupplemented water, the chief executive must have regard to the following—

(a) the local availability of water;

- (b) the conditions under which water may be taken under the authorisation;
- (c) if the authorisation states any volumetric limits—the volumetric limits;
- (d) the simulated mean annual diversion for the authorisation.

### 65 Maximum rates for taking unsupplemented water

- (1) 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 stated rate; and
  - (b) for an authorisation that does not state a maximum rate but for which a related development permit—
    - (i) states a pump size mentioned in schedule 8, column 1—the rate stated in schedule 8, column 2, for the pump size; or
    - (ii) states a pump size other than a pump size mentioned in schedule 8, column 1—the rate decided by the chief executive having regard to the rates stated for similar pump sizes in schedule 8, column 2; and
  - (c) for another authorisation—the rate decided by the chief executive having regard to—
    - (i) the type of authorisation; and
    - (ii) an estimate or measurement of the rate at which water can be taken under the authorisation.
- (2) However, for subsection (1)(b), if the authorisation holder satisfies the chief executive that the maximum rate at which water can be taken is different from the rate decided under the subsection, the maximum rate is the rate decided by the chief executive having regard to the following—
  - (a) the conditions under which the water may be taken;

[s 66]

- (b) the water taking capacity of the pump to which the development permit relates (the *existing pump*);
- (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 of this plan;
- (d) the efficiency of the water use mentioned in paragraph (c).

### 66 Daily volumetric limits for taking unsupplemented water

- (1) The daily volumetric limit for a water allocation to take unsupplemented water is—
  - (a) for an authorisation that states the volume of water that may be taken in a day—the stated volume; and
  - (b) for an authorisation that does not state a volume but for which a related development permit—
    - (i) states a pump size mentioned in schedule 8, column 1—the daily volumetric limit stated in schedule 8, column 3, for the pump size; or
    - (ii) states a pump size other than a pump size mentioned in schedule 8, column 1—the daily volumetric limit decided by the chief executive having regard to the daily volumetric limits stated for similar pump sizes in schedule 8, column 3; and
  - (c) for another authorisation—the daily volumetric limit decided by the chief executive having regard to—
    - (i) the type of authorisation; and
    - (ii) an estimate or measurement of the rate at which water can be taken under the authorisation.
- (2) However, for subsection (1)(b), if the authorisation holder satisfies the chief executive that the water taking capacity of the pump is different from the daily volumetric limit decided under the subsection, the daily volumetric limit is the volume

[s 67]

decided by the chief executive having regard to the following-

- (a) the conditions under which the water may be taken under the authorisation;
- (b) the water taking capacity of the pump to which the development permit relates (the *existing pump*) under normal operating conditions;
- (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 of this plan;
- (d) the efficiency of the water use mentioned in paragraph (c).
- (3) The chief executive must ensure the daily volumetric limit for a water allocation is not more than the total volume that could be taken in a day at the maximum rate decided, for the water allocation, under section 65.

# 67 Annual volumetric limits for taking unsupplemented water

The annual volumetric limit for a water allocation to take unsupplemented water is—

- (a) for an authorisation that states the volume of water that may be taken in a period of 12 months—the stated volume; and
- (b) for another authorisation—the volume decided by the chief executive having regard to the following—
  - (i) the conditions under which water may be taken under the authorisation;
  - (ii) the water taking capacity of any works for taking water under the authorisation;
  - (iii) the volume required for the allocation's intended purpose;

[s 68]

- (iv) 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;
- (v) the efficiency of the use of the water mentioned in subparagraph (iv).

### 68 Conditions for taking unsupplemented water

- (1) The chief executive may impose on a water allocation to take unsupplemented water any condition the chief executive is satisfied is necessary to ensure the purpose and outcomes of this plan are achieved.
- (2) In deciding the flow conditions under which water may be taken under the allocation, the chief executive must have regard to the conditions stated on the authorisation.

#### 69 Water allocation groups for water allocations to take unsupplemented water

A water allocation to take unsupplemented water belongs to-

- (a) for a water allocation in subcatchment area A—water allocation group A1; and
- (b) for a water allocation in subcatchment area B—water allocation group B1; and
- (c) for a water allocation in subcatchment area C—water allocation group C1.

### Division 7 Water licences to take or interfere with unsupplemented water

### 70 Application of div 7

This division applies only to water licences to take or interfere with unsupplemented water from a watercourse, lake or spring.

### 71 Water licences to take unsupplemented water

A water licence to take unsupplemented water must state the following—

- (a) the purpose for which water may be taken under the licence, which must be 1 of the following—
  - (i) stock and domestic;
  - (ii) rural;
  - (iii) any;
- (b) the maximum rate at which the water may be taken under the licence;
- (c) the daily volumetric limit for the licence;
- (d) the annual volumetric limit for the licence.

# 72 Purpose to be stated on water licence to take unsupplemented water

The purpose stated on a water licence to take unsupplemented water, replacing an existing licence, must be—

- (a) if the purpose stated on the existing licence is stock or domestic—'stock and domestic'; or
- (b) if the purpose stated on the existing licence is irrigation, stock intensive, agriculture or a similar purpose—'rural'; or
- (c) otherwise—'any'.

[s 73]

### 73 Maximum rates for taking unsupplemented water

The maximum rate at which unsupplemented water may be taken under a water licence is the maximum rate mentioned in section 65 or decided by the chief executive under that section as if the water licence were a water allocation.

### 74 Daily volumetric limits for taking unsupplemented water

The daily volumetric limit to take unsupplemented water under a water licence is the annual volumetric limit mentioned in section 66 or decided by the chief executive under that section as if the water licence were a water allocation.

# 75 Annual volumetric limits for taking unsupplemented water

The annual volumetric limit for a water licence to take unsupplemented water is—

- (a) for a licence that states the volume of water that may be taken in a period of 12 months—the stated volume; and
- (b) for a licence that states the area that may be irrigated—the volume decided by the chief executive having regard to the volume of water required for the licence's intended purpose, but not more than the volume, expressed in megalitres, calculated by multiplying the area, in hectares, by—
  - (i) for subcatchment areas A and B—8; and
  - (ii) for subcatchment area C—9; and
  - (iii) for subcatchment area D—6; and
  - (iv) for other subcatchment areas—12; and
- (c) for another licence—the volume decided by the chief executive having regard to the following—
  - (i) the conditions under which water may be taken under the licence;

[s 76]

- (ii) the water taking capacity of any works for taking water under the licence;
- (iii) the volume required for the licence's intended purpose;
- (iv) the annual volumes of water estimated by the chief executive to have been taken under the licence during the period, of not more than 10 years, immediately before the commencement of this plan;
- (v) the efficiency of the use of the water mentioned in subparagraph (iv).

### 76 Conditions for taking unsupplemented water

- (1) The chief executive may impose on a water licence to take unsupplemented water any condition the chief executive is satisfied is necessary to ensure the purpose and outcomes of this plan are achieved.
- (2) In deciding the flow conditions under which water may be taken under the licence, the chief executive must have regard to the conditions stated on the licence.

## 77 Storing unsupplemented water taken under a water licence

- (1) Without limiting section 76(1), the chief executive may impose, on a water licence to take unsupplemented water, a condition that states the works that may be used to store the water taken under the licence.
- (2) In deciding whether to impose the condition mentioned in subsection (1), the chief executive must have regard to the capacity of any existing overland flow works being used to store the water.

Water Resource (Burdekin Basin) Plan 2007 Part 5 Strategies for achieving outcomes

[s 78]

### 78 Conditions giving effect to rules

- (1) Subsection (2) applies to any environmental management rules, operating rules or water sharing rules included in the resource operations plan.
- (2) The chief executive must—
  - (a) amend water licences, in existence on the commencement of the resource operations plan, to impose conditions giving effect to the rules; and
  - (b) impose conditions, giving effect to the rules, on water licences granted after the commencement.

### Division 8 Regulation of overland flow water

### 79 Limitation on taking overland flow water—Act, s 20(2)

- (1) A person may not take overland flow water other than—
  - (a) for stock or domestic purposes; or
  - (b) for another purpose if the works for taking the overland flow water have a capacity of not more than 250ML; or
  - (c) under a water licence; or
  - (d) overland flow water of not more than the amount necessary to satisfy the requirements of—
    - (i) an environmental authority issued under the *Environmental Protection Act 1994*; or
    - (ii) a development permit for carrying out an environmentally relevant activity, other than a mining or petroleum activity, under the *Environmental Protection Act 1994*; or
  - (e) overland flow water that is contaminated agricultural runoff water; or
  - (f) under an authority under section 80.
- (2) In this section—

[s 80]

*contaminated agricultural runoff water* has the meaning given by the 'Code for Assessable Development for Operational Works for Taking Overland Flow Water'.

Editor's note—

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

## 80 Taking water using particular existing overland flow works authorised

- (1) This section applies to the owner of land on which existing overland flow works are situated, other than works for taking only the overland flow water that may be taken under section 79(1)(a) to (e).
- (2) The owner may continue to use the existing overland flow works to take overland flow water for 1 year after the commencement of this plan.
- (3) Also, if the owner gives the chief executive notice of the existing overland flow works, in the approved form, and any further information reasonably required by the chief executive about the works, the owner may continue to use the works to take overland flow water after the notice and information are given.
- (4) In this section—

existing overland flow works includes works that-

- (a) are a reconfiguration of existing overland flow works (the *original works*); and
- (b) do not increase the average annual volume of water taken above the average annual volume taken using the original works.

# 81 Granting or amending water licences under the resource operations plan

(1) This section applies if the resource operations plan states a process for—

[s 81]

- (a) granting, under section 212 of the Act, a water licence to replace an authority under section 80(3); or
- (b) amending a water licence mentioned in paragraph (a).
- (2) In following the process and granting or amending a water licence, the chief executive—
  - (a) must consider—
    - the average annual volume of overland flow water that could have been taken, immediately before the commencement of this plan, using the existing overland flow works to which the authority relates; and
    - (ii) the annual volumes of overland flow water estimated by the chief executive to have been taken using the works during the period, of not more than 10 years, immediately before the commencement; and
  - (b) may consider the extent to which the works, immediately before the commencement, allowed—
    - (i) the taking of other water under another authorisation; or
    - (ii) the storage of other water taken under another authorisation.
- (3) Subsection (2) does not limit the matters the chief executive may consider.
- (4) The process must provide that 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.

### Division 9 Relationship with Sustainable Planning Act 2009

### 82 Works for taking overland flow water

- (1) Works that allow the taking of overland flow water are assessable development for the *Sustainable Planning Regulation 2009*, schedule 3, part 1, table 4, item 3(f).
- (2) Subsection (1) does not apply to—
  - (a) works mentioned in subsection (3); or
  - (b) the repair or maintenance of either of the following works if the repair or maintenance does not alter the design of the works—
    - (i) works to which section 80 applies;
    - (ii) works constructed under a development permit.
- (3) The following works that allow the taking of overland flow water are self-assessable development for the *Sustainable Planning Regulation 2009*, schedule 3, part 2, table 4, item 1(e)—
  - (a) works for taking overland flow water only for stock or domestic purposes;
  - (b) works mentioned in section 79(1)(b);
  - (c) works for taking only the overland flow water mentioned in section 79(1)(d).

### 82A Particular works for interfering with water in the Burdekin Haughton Water Supply Scheme

- (1) Works that are earth dams in the Burdekin Haughton Water Supply Scheme that interfere with water in a watercourse, lake or spring by impounding the flow of water are self-assessable development for the *Sustainable Planning Regulation 2009*, schedule 3, part 2, table 4, item 1(b)(i).
- (2) In this section—

#### [s 83]

#### earth dam—

- 1 *Earth dam* means works that are a temporary barrier, made of earth, sand or rock, for impounding water, whether or not the barrier has a core of impervious material.
- 2 The term includes—
  - (a) the storage area created by the works mentioned in paragraph 1; and
  - (b) an embankment or other structure that controls the flow of water and is incidental to the works mentioned in paragraph 1; and
  - (c) works made of earth, sand or rock and associated with the dam.

# Part 6 Monitoring and reporting requirements

### 83 Monitoring and reporting requirements

- (1) To help the Minister assess the effectiveness of the management strategies for achieving the outcomes mentioned in part 3, the resource operations plan must state—
  - (a) the monitoring requirements for water and natural ecosystems for this plan; and
  - (b) the reporting requirements for this plan for operators of infrastructure interfering with water in the plan area.
- (2) Subsection (1) does not limit the monitoring requirements the chief executive may impose for this plan.

#### 84 Minister's report on plan—Act, s 53

- (1) The Minister's report on this plan must be prepared for a period (the *reporting period*)—
  - (a) starting on the commencement of this plan; and
  - (b) ending within 5 years—
    - (i) for the first report—after the beginning of the financial year in which this plan commenced; and
    - (ii) for subsequent reports—after the end of the previous reporting period.
- (2) The Minister's report must be prepared within 12 months after the end of the reporting period to which the report relates.
- (3) In this section—

*previous reporting period*, in relation to a reporting period, means the reporting period immediately preceding the reporting period.

# Part 7 Implementing and amending this plan

### 87 Implementation schedule

- (1) This section states the proposed arrangements for implementing this plan.
- (2) Within 1 year after the commencement of this plan, it is proposed to prepare a resource operations plan—
  - (a) to grant and convert authorisations mentioned in section 62 in the Burdekin Haughton Water Supply Scheme and the Bowen Broken Water Supply Scheme to water allocations; and
  - (b) for water in the Burdekin Haughton Water Supply Scheme and the Bowen Broken Water Supply

[s 88]

Scheme—to make environmental management rules, infrastructure operating rules, water sharing rules, water allocation change rules and seasonal water assignment rules; and

- (c) to establish a process to deal with unallocated water available for future water requirements in the plan area; and
- (d) to establish a process for granting or amending water licences to take overland flow water; and
- (e) to implement the monitoring requirements mentioned in part 6.

### 88 Minor or stated amendment of plan—Act, s 57

- (1) 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 node;
  - (d) an amendment to subdivide a subcatchment area;
  - (e) an amendment or addition of a priority group;
  - (f) an amendment or addition of a water management area;
  - (g) an amendment or addition of a water allocation group;
  - (h) an amendment of the capacity mentioned in section 79(1)(b);

- (i) an amendment to state that works that are earth dams in the Burdekin Haughton Water Supply Scheme that interfere with, or increase the interference with, water in a watercourse, waterhole, lake or spring by impounding the flow of water are self-assessable development under the for the *Sustainable Planning Regulation 2009*, schedule 3, part 2, table 4, item 1(b)(i);
- (j) an amendment or addition of a monitoring or reporting requirement mentioned in part 6.
- (2) Subsection (1)(i) applies only if—
  - (a) the *Water Act 2000*, section 46(2), allows a draft plan to include, as types of works that are intended to be self-assessable development under the *Sustainable Planning Act 2009*, works that are earth dams that interfere with, or increase the interference with, water in a watercourse, waterhole, lake or spring by impounding the flow of water; and
  - (b) the *Sustainable Planning Regulation 2009*, schedule 3, part 2, table 4, item 1(b)(i), includes operational work that is an earth dam if the work allows interfering with, or increasing the interference with, water in a watercourse, waterhole, lake or spring by impounding the flow of water.

### 89 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 general outcomes under section 12—
  - (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

Water Resource (Burdekin Basin) Plan 2007 Part 7 Implementing and amending this plan

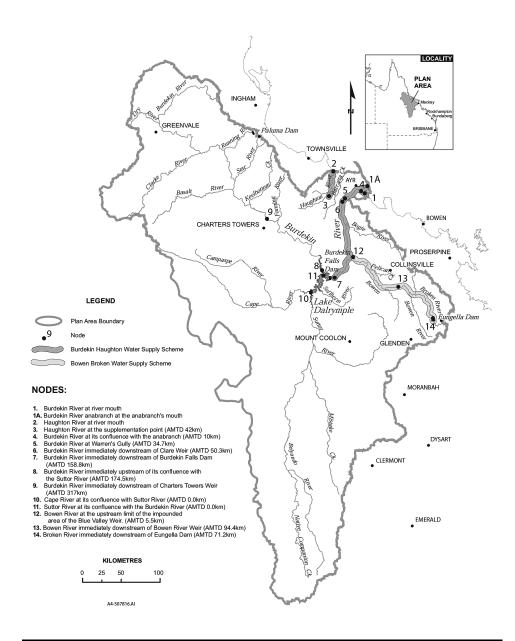
[s 89]

(B)	the	efficiency	of	present,	and	expected
	futu	re, water us	e; ar	nd		

- (C) emerging requirements for additional water; and
- (D) water savings that may be made from improvements in the efficiency of water use or the use of water from other sources including, for example, recycled water; 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 general ecological outcomes under section 13 or specific ecological outcomes under section 14 are not being achieved.

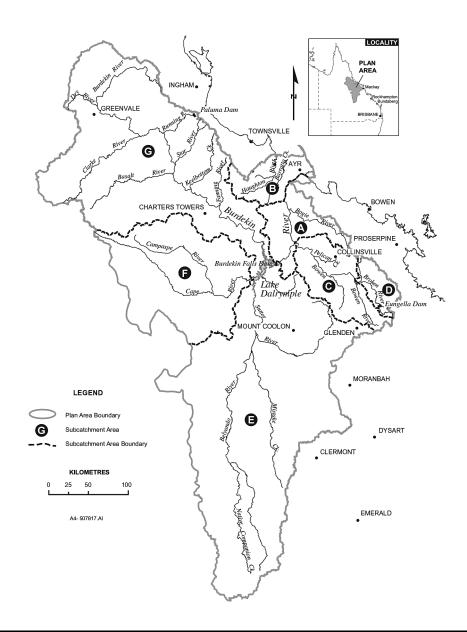
### Schedule 1 Plan area

#### sections 4 and 9



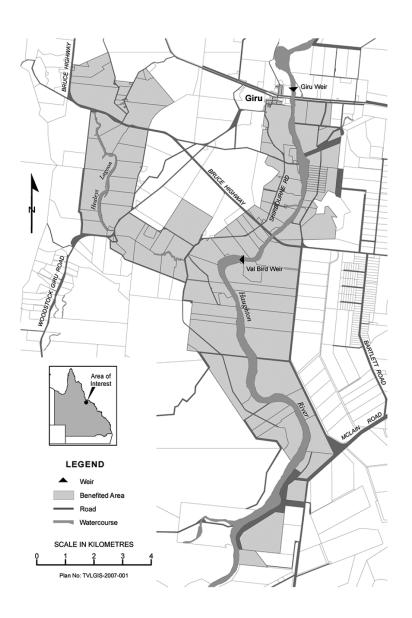
### Schedule 2 Subcatchment areas

section 5



### Schedule 3 Giru Benefited Groundwater Area

section 7



### Schedule 4 Nodes

section 9

Column 1	Column 2
Node	Location
1	Burdekin River at the river's downstream limit declared under the <i>Water Regulation 2002</i> , section 54(1)
1A	Burdekin River anabranch at the anabranch's downstream limit declared under the <i>Water Regulation 2002</i> , section 54(1)
2	Haughton River at the river's downstream limit declared under the <i>Water Regulation 2002</i> , section 54(1)
3	Haughton River at the supplementation point (AMTD 42km)
4	Burdekin River at its confluence with the anabranch (AMTD 10km)
5	Burdekin River at Warren's Gully (AMTD 34.7km)
6	Burdekin River immediately downstream of Clare Weir (AMTD 50.3km)
7	Burdekin River immediately downstream of Burdekin Falls Dam (AMTD 158.8km)
8	Burdekin River immediately upstream of its confluence with the Suttor River (AMTD 174.5km)
9	Burdekin River immediately downstream of Charters Towers Weir (AMTD 317km)
10	Cape River at its confluence with the Suttor River (AMTD 0.0km)
11	Suttor River at its confluence with the Burdekin River (AMTD 0.0km)

Column 1	Column 2
Node	Location
12	Bowen River at the upstream limit of the impounded area of the Blue Valley Weir (AMTD 5.5km)
13	Bowen River immediately downstream of Bowen River Weir (AMTD 94.4km)
14	Broken River immediately downstream of Eungella Dam (AMTD 71.2km)

### Schedule 5 Environmental flow objectives

section 16

### Part 1 Low flow objectives

- 1 At each node mentioned in table 1, column 1—
  - (a) the percentage of the total number of days in the simulation period that the 50% non-zero daily flow is equalled or exceeded be at least the percentage stated, for the node, in table 1, column 2; and
  - (b) the percentage of the total number of days in the simulation period that the 80% non-zero daily flow is equalled or exceeded be at least the percentage stated, for the node, in table 1, column 3; and
  - (c) the percentage of the total number of days in the simulation period that the daily flow is zero be not more than the percentage stated, for the node, in table 1, column 4.

Column 1	Column 2	Column 3	Column 4
Node	Percentage	Percentage	Percentage
1	24	65	5
2	15	26	66
8	44	69	15
10	25	41	49
11	32	52	35
12	32	62	15

Та	bl	e	1

2 At each node mentioned in table 2, column 1, the percentage of the total number of days in a water flow season in the simulation period that the 80% non-zero daily flow is equalled or exceeded be at least the percentage stated for the water flow season, for the node, in table 2, column 2.

Column 1	Column 2			
Node	Node Water flow se		w season	
	January– March water flow season percentage	April– June water flow season percentage	July– September water flow season percentage	October– December water flow season percentage
1	92	84	45	44
2	64	29	4	9
12	85	81	46	35

Та	bl	е	2

- 3 At each node mentioned in table 3, column 1—
  - (a) the number of periods of no flow of more than 1 month but not more than 6 months in the simulation period be not more than the number stated for the node in table 3, column 2; and
  - (b) the number of periods of no flow of more than 6 months in the simulation period be not more than the number stated for the node in table 3, column 3.

Column 1	Column 2	Column 3	
Node	Periods of no flow of more than 1 month but not more than 6 months	Periods of no flow of more than 6 months	
1	11	0	
2	144	43	

Table 3

Water Resource (Burdekin Basin) Plan 2007

Column 1	Column 2	Column 3 Periods of no flow of more than 6 months	
Node	Periods of no flow of more than 1 month but not more than 6 months		
8	57	1	
10	165	3	
11	118	1	
12	54	2	

Schedule 5

### Part 2 Medium to high flow objectives

- 1 At each node mentioned in table 4, column 1—
  - (a) the mean annual flow in the simulation period, 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 4, column 2; and
  - (b) the median annual flow in the simulation period, expressed as a percentage of the median annual flow for the pre-development flow pattern, be at least the percentage stated for the node in table 4, column 3; and
  - (c) the 1.5 year daily flow volume in the simulation period, 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 4, column 4; and
  - (d) the 5 year daily flow volume in the simulation period, 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 4, column 5; and
  - (e) the 20 year daily flow volume in the simulation period, 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 4, column 6.

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Node	Mean annual flow percentage	Median annual flow percentage	1.5 year daily flow volume percentage	5 year daily flow volume percentage	20 year daily flow volume percentage
1	75	59	50	79	86
2	92	88	95		—
8	97	96	99		—
10	98	97	98	99	99
11	92	88	94	96	98
12	82	80	92	86	86

Table 4

2 At each node mentioned in table 5, column 1, the annual proportional flow deviation be not more than the annual proportional flow deviation stated for the node in table 5, column 2.

Table 5	
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Column 1	Column 2
Node	Annual proportional flow deviation
1	2.9
2	1.8
10	0.2
11	1.0
12	1.2

# Schedule 6 Water allocation security objectives

section 18

### Part 1 Supplemented water

- 1 For water allocations in the high priority group in the Burdekin Haughton Water Supply Scheme, the annual supplemented water sharing index be 100%.
- 2 For water allocations in the medium priority group in the Burdekin Haughton Water Supply Scheme—
  - (a) the annual supplemented water sharing index be at least 90%; and
  - (b) the monthly supplemented water sharing index be at least 95%; and
- 3 For water allocations in the high A1 priority group in the Bowen Broken Water Supply Scheme—
  - (a) the annual supplemented water sharing index be at least 95%; and
  - (b) the extent to which it is less than 99% be minimised; and
  - (c) the monthly supplemented water sharing index be at least 98%.
- 4 For water allocations in the high A2 priority group in the Bowen Broken Water Supply Scheme—
  - (a) the annual supplemented water sharing index be at least 90%; and
  - (b) the extent to which it is less than 95% be minimised; and
  - (c) the monthly supplemented water sharing index be at least 98%; and

- (d) the extent to which it is less than 99% be minimised.
- 5 For water allocations in the medium priority group in the Bowen Broken Water Supply Scheme—
  - (a) the annual supplemented water sharing index be at least 65%; and
  - (b) the extent to which it is less than 75% be minimised; and
  - (c) the monthly supplemented water sharing index be at least 85%; and
  - (d) the extent to which it is less than 90% be minimised.

### Part 2 Unsupplemented water

- 1 For water allocations in a water allocation group mentioned in table 1, column 1—
  - (a) the 30% unsupplemented water sharing index be at least the percentage stated for the group in table 1, column 2; and
  - (b) the 50% unsupplemented water sharing index be at least the percentage stated for the group in table 1, column 3; and
  - (c) the 70% 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	30% unsupplemented water sharing index percentage	50% unsupplemented water sharing index percentage	70% unsupplemented water sharing index percentage	
A1 (Lower Burdekin)	107	107	107	
B1 (Haughton)	107	107	107	
C1 (Bowen)	110	110	110	

2 For water allocations in a water allocation group mentioned in table 2, column 1, the annual volume probability be at least the percentage stated for the group in table 2, column 2.

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Column 1	Column 2
Water allocation group	Annual volume probability percentage
A1 (Lower Burdekin)	85
B1 (Haughton)	85
C1 (Bowen)	75

### Schedule 8 Rates and pump sizes

sections 65, 66, 73 and 74

Column 1	Column 2	Column 3
Pump size (mm)	Maximum rate (litres/second)	Daily volumetric limit (megalitres)
32	8	0.6
40	16	1
50	25	1.5
65	46	3.5
80	65	3.9
100	95	6.9
125	120	7.8
150	150	12.1
200	220	15.6
250	300	21.6
300	350	25.9
350	400	30.2
375 to 400	500	37.2
500	660	47.5
600 to 610	1200	86.4
650 to 660	1700	120
700 to 720	2100	150
750 to 770	2500	180
780 to 810	2800	200

Current as at 27 June 2014

### Schedule 9 Formula

sch 10, definition annual proportional flow deviation

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

where---

*p* means the number of years.

 $c_{ii}$  means the modelled flow for month *i* in year *j*.

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

 $\overline{n_i}$  means the modelled natural flow for month *i* across *p* years.

### Schedule 10 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.

**30% unsupplemented water sharing index**, for a group of water allocations, means the total volume of water simulated to have been taken annually under the allocations in at least 30% 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.

*50% non-zero daily flow*, for a node, means the daily flow, at the node, that is equalled or exceeded on 50% of the days on which there is a flow in the simulation period for the pre-development flow pattern.

**50% unsupplemented water sharing index**, for a group of water allocations, means the total volume of water simulated to have been taken annually under the allocations in at least 50% 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.

**70% unsupplemented water sharing index**, for a group of water allocations, means the 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.

**80% non-zero daily flow**, for a node, means the daily flow, at the node, that is equalled or exceeded on 80% of the days on which there is a flow in the simulation period for the pre-development flow pattern.

*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 flow volume*, for a node, means the total volume of flow, at the node, in a period of 12 months starting on 1 July.

*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 9.

*annual supplemented water sharing index*, for water allocations to take supplemented water in a particular priority group, means the percentage of years in the simulation period in which the allocations are fully supplied.

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

*annual volume probability*, for a group of water allocations, means the percentage of years in the simulation period in which the volume of water that may be taken by the group is at least the total of the nominal volumes for the allocations in the group.

*annual volumetric limit*, for a water entitlement, means the maximum volume of water that may be taken under the entitlement—

- (a) for a water entitlement that is a water licence—in the water year for the licence; or
- (b) for other water entitlements—in the water year for the resource operations plan.

*authorisation* means a licence, 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.

#### Bowen Broken Water Supply Scheme means-

- (a) until the resource operations plan commences—the scheme for the supply of water under the interim resource operations licence for the Bowen Broken Water Supply Scheme; and
- (b) on and from the day the resource operations plan commences—the scheme for the supply of water under the resource operations licence for the Bowen Broken Water Supply Scheme.

### Burdekin Haughton Water Supply Scheme means—

- (a) until the resource operations plan commences—the scheme for the supply of water under the interim resource operations licence for the Burdekin Haughton Water Supply Scheme; and
- (b) on and from the day the resource operations plan commences—the scheme for the supply of water under the resource operations licence for the Burdekin Haughton Water Supply Scheme.

*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.

*existing overland flow works* means works that allow the taking of overland flow water and were—

- (a) in existence on 17 January 2002; or
- (b) started, but not completed by 17 January 2002 and—
  - (i) if a variation to a moratorium notice was granted for the works under section 27 of the Act—have been, or are being, completed in accordance with the moratorium notice, as varied; or
  - (ii) if subparagraph (i) does not apply—were completed by 30 June 2002; or
- (c) for works to which the moratorium notice published on 17 January 2002 and amended on 25 July 2002 did not apply—started before the commencement of this plan.

*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.

*Giru Benefited Groundwater Area* means the area shown on the map in schedule 3 as the Giru Benefited Groundwater Area.

*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.

*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.

*median annual flow*, for a node, means the annual flow volume, at the node, that is equalled or exceeded in 50% of years in the simulation period.

mining includes prospecting or exploring-

- (a) under the *Mineral Resources Act 1989* or another Act relating to mining; and
- (b) on land to which a mining tenement under the *Mineral Resources Act 1989* relates.

*monthly supplemented water sharing index*, for water allocations to take supplemented water in a particular priority group, means the percentage of months in the simulation period in which the allocations are fully supplied.

*node* see section 9.

*operator of infrastructure for interfering with water*, for part 6, means—

- (a) the holder of a resource operations licence or a distribution operations licence; or
- (b) an operator of infrastructure for interfering with water, mentioned in the resource operations plan.

*period of no flow*, for a node, means a period in which the watercourse has ceased to flow at the node.

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

*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.

*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.

*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 31 December 2004.

started, for existing overland flow works, means-

- (a) construction of the works had physically begun or, if construction had not physically begun, a contract had been entered into to begin construction; and
- (b) an independently verifiable construction program existed for progressive construction towards completion of the works; and
- (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.

subcatchment area see section 5.

*SunWater reserve* see section 30(c).

*supplementation point*, for a watercourse, means the most upstream point on the watercourse at which the natural flow of water in the watercourse is supplemented by water from a dam or weir.

*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.

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

water flow season means any of the following periods in a year-

- (a) the period from 1 January to 31 March (January–March water flow season);
- (b) the period from 1 April to 30 June (*April–June water flow season*);
- (c) the period from 1 July to 30 September (*July–September water flow season*);
- (d) the period from 1 October to 31 December (*October–December water flow season*).

*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.

water management area see section 6.

works that allow the taking of overland flow water include-

(a) storages, sumps, drains, embankments, channels 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).

### 1 Index to endnotes

2 Key

- 3 Table of reprints
- 4 List of legislation
- 5 List of annotations

### 2 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
amd t	= 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	renu m	= renumbered
ins	= inserted	rep	= repealed
lap	= lapsed	(retro )	= retrospectively
notf d	= notified	rv	= revised version
num	= numbered	S	= section

Water Resource (Burdekin Basin) Plan 2007

#### Endnotes

Key o in c	Explanation = order in council	Key sch	Explanation = schedule
om	= omitted	sdiv	= subdivision
orig	= original	SIA	= Statutory Instruments Act 1992
р	= page	SIR	= Statutory Instruments Regulation 2012
para	= paragraph	SL	= subordinate legislation
prec	= preceding	sub	= substituted
pres	= present	unnu m	= unnumbered

prev = previous

### 3 Table of reprints

A new reprint of the legislation is prepared by the Office of the Queensland Parliamentary Counsel each time a change to the legislation takes effect.

The notes column for this reprint gives details of any discretionary editorial powers under the **Reprints Act 1992** used by the Office of the Queensland Parliamentary Counsel in preparing it. Section 5(c) and (d) of the Act are not mentioned as they contain mandatory requirements that all amendments be included and all necessary consequential amendments be incorporated, whether of punctuation, numbering or another kind. Further details of the use of any discretionary editorial power noted in the table can be obtained by contacting the Office of the Queensland Parliamentary Counsel by telephone on 3003 9601 or email legislation.queries@oqpc.qld.gov.au.

From 29 January 2013, all Queensland reprints are dated and authorised by the Parliamentary Counsel. The previous numbering system and distinctions between printed and electronic reprints is not continued with the relevant details for historical reprints included in this table.

Reprint No.	Amendments included	Effective	Notes
1	none	3 August 2007	
1A	2009 SL No. 280	18 December 2009	

Endnotes

Reprint No.	Amendments included	Effective	Notes
1 <b>B</b>	2010 SL No. 261	1 October 2010	
1C	2011 Act No. 40	24 November 2011	
Current	as at	Amendments included	Notes
27 September 2013		2013 Act No. 23	
27 Sept	ember 2013	2015 Act No. 25	

### 4 List of legislation

#### **Regulatory impact statements**

For subordinate legislation that has a regulatory impact statement, specific reference to the statement is included in this list.

#### Explanatory notes

All subordinate legislation made on or after 1 January 2011 has an explanatory note. For subordinate legislation made before 1 January 2011 that has an explanatory note, specific reference to the note is included in this list.

Water Resource (Burdekin Basin) Plan 2007 SL No. 189 made by the Governor in Council on 2 August 2007 notfd gaz 3 August 2007 pp 1785–6 commenced on date of notification <u>exp 1 September 2017</u> (see 2000 Act No. 34 s 52A(3)) Note—An explanatory note was prepared. amending legislation—
Sustainable Planning Regulation 2009 SL No. 280 ss 1–2, pt 9 div 33 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)
Water Resource (Burdekin Basin) Amendment Plan (No. 1) 2010 SL No. 261

#### water Resource (Burdekin Basin) Amendment Plan (No. 1) 2010 SL No. 261 notfd gaz 1 October 2010 pp 294–7 commenced on date of notification

#### Water and Other Legislation Amendment Act 2011 No. 40 pt 1, s 107 sch date of assent 24 November 2011 commenced on date of assent

Water Resource (Burdekin Basin) Plan 2007

#### Endnotes

### Land, Water and Other Legislation Amendment Act 2013 No. 23 ss 1, 2(d), 352 sch 1 pt 2

date of assent 14 May 2013 ss 1–2 commenced on date of assent remaining provisions commenced 27 September 2013 (2013 SL No. 189)

Water Resource Plans Amendment Plan (No. 1) 2014 SL No. 142 pts 1, 6 notfd <www.legislation.qld.gov.au> 27 June 2014 commenced on date of notification

### 5 List of annotations

#### PART 5—STRATEGIES FOR ACHIEVING OUTCOMES

- Measuring devices s 21 om 2014 SL No. 142 s 39
- Matters to be considered for infrastructure operating rules s 24A ins 2014 SL No. 142 s 40

#### Division 2—Unallocated water

- Subdivision 1—Continued moratorium and interim arrangements sdiv 1 (ss 27–28) om 2014 SL No. 142 s 41
- Unallocated water held as general, strategic or SunWater reserve s 29 amd 2014 SL No. 142 s 42
- Establishing general reserve, strategic reserve and Sunwater reserve s 30 amd 2014 SL No. 142 s 43
- Division 4—Resource operations licences and distribution operations licences div 4 (ss 47–50) om 2014 SL No. 142 s 44
- Division 5—Granting water entitlements div 5 (ss 51–53) om 2014 SL No. 142 s 44
- **Division 6—Converting authorisations to water allocations**
- Subdivision 2—Water allocations to take supplemented water sdiv 2 (ss 57–61) om 2014 SL No. 142 s 45
- Elements of a water allocation to take unsupplemented water s 63 sub 2014 SL No. 142 s 46
- Water licences to take unsupplemented water s 71 sub 2014 SL No. 142 s 47
- Maximum rates for taking unsupplemented water s 73 sub 2014 SL No. 142 s 48
- Daily volumetric limits for taking unsupplemented water s 74 sub 2014 SL No. 142 s 48

Endnotes