



Queensland

# Water Resource (Gold Coast) Plan 2006

## Subordinate Legislation 2006 No. 321

made under the

*Water Act 2000*

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## **Part 1 Preliminary**

### **1 Short title**

This water resource plan may be cited as the *Water Resource (Gold Coast) Plan 2006*.

### **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 11 defines particular words used in this plan.

## **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, 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.



- (i) to provide consistency between this plan and the SEQ regional plan.

## **11 Ecological outcomes**

- (1) Particular ecological outcomes for water in the part of the plan area stated for the outcome are as follows—
  - (a) for Coomera River within the area known as Canungra Land Warfare Centre, including, in particular, Back Creek, and other waters of high ecological value under the *Environmental Protection (Water) Policy 1997*, including, in particular, Tallebudgera Creek and Currumbin Creek—to minimise changes to the flow regimes of the waters;
  - (b) for Nerang River upstream of the Hinze Dam and Little Nerang Creek upstream of the Little Nerang Dam—
    - (i) to minimise changes to river-forming processes; and
    - (ii) to minimise changes to the flow regime;
  - (c) for Coomera River estuary—
    - (i) to minimise changes, as far as practicable, to freshwater flows into the Coomera River estuary; and
    - (ii) to minimise changes to the freshwater inflows to Coombabah Lake.
- (2) Also, an ecological outcome for water in the plan area is to minimise changes, as far as practicable, to the volume and seasonality of freshwater flows into Moreton Bay and the Broadwater.

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

#### **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—70% unsupplemented water sharing index.

### **15            Water allocation security objectives**

The water allocation security objectives for this plan are stated in schedule 6.

## **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 or a government agency for the continued taking of or interfering with water.

**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.

**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 available to be taken in the plan area.
- (2) Subsection (1) does not apply to a decision—
  - (a) about unallocated water made under section 23 or 24; or
  - (b) about a water permit; or
  - (c) about water entitlements managed under the system operating plan applying to the plan area, but only to the extent the decision does not impact on the environmental flow objectives for this plan or the water allocation security objectives for water allocations not managed under the system operating plan.

- (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 an authorisation to take water from a waterhole or lake only if—
- (a) the chief executive imposes a condition on the authorisation 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 and 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 0.5m below the level at which the waterhole or lake naturally overflows

- (2) 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, cultural values of the traditional owners of the area; and
  - (b) whether the proposed taking is likely to have a direct adverse effect on groundwater flows.
- (3) An authorisation mentioned in subsection (1) does not include a water allocation converted from an authorisation under division 5.
- (4) Subsection (1) does not limit the restrictions that may be imposed on the taking of water from a waterhole or lake.

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

## **Division 2                    General and strategic reserves**

### **21            Unallocated water held as general or strategic reserve**

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

### **22            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 authorisations in the plan area; and
    - (ii) emerging requirements for additional water, in 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 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, downstream watercourses or estuarine or marine waters; and
  - (e) whether the proposed use of the water is consistent with—
    - (i) the SEQ regional plan; and
    - (ii) any system operating plan applying to the plan area; and
    - (iii) any regional water security program for the SEQ region; and
  - (f) whether the proposed taking of or interfering with, or the proposed use of, the water is consistent with the ecological outcomes mentioned in section 11; and
  - (g) 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) In considering the impact the proposed taking of or interfering with the water may have on water quality under subsection (1)(c)(i), the chief executive must have regard to the *Environmental Protection (Water) Policy 1997*.
  - (3) Subsection (1) does not limit the matters the chief executive may consider.

## **23 Granting unallocated water from the general reserve**

- (1) The chief executive may grant unallocated water from the general reserve under a process in the resource operations plan.
- (2) However, the chief executive—

- (a) may grant unallocated water from the general reserve only for the subcatchment areas mentioned in schedule 7, column 1; and
- (b) must not grant unallocated water from the general reserve for a subcatchment area if, in granting the unallocated water, the total amount of unallocated water granted for the subcatchment area is more than the volume stated in schedule 7, column 2, opposite the subcatchment area; and
- (c) must, in granting a water entitlement for unallocated water, state flow conditions that provide for the protection of low flows in watercourses.

## **24 Granting 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 for—
  - (i) the SEQ regional plan; or
  - (ii) a regional water security program; or
- (c) under a process in the resource operations plan.

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

### **Subdivision 1 Preliminary**

#### **25 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 24(a) or (b).

- (2) This division applies only until it is replaced by a process stated in the resource operations plan.

## **Subdivision 2      Application or amendment after notice from chief executive**

### **26      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 24(a) or (b) that the proposed owner must apply to the chief executive within a stated period 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 stated period must be—
  - (a) for the grant of an interim resource operations licence—60 business days after the notice is given; or
  - (b) for the amendment of an interim resource operations licence—30 business days after the notice is given.
- (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) existing interim water allocations managed under the interim resource operations licence for the Nerang water supply scheme; and

- (B) existing water licences to take water from the area of the Nerang water supply scheme; and
  - (C) the delivery and supply of water under the interim resource operations licence for the Nerang 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 of constructing the infrastructure on the holders of water entitlements and interim resource operations licences 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 amendment of the interim resource operations licence;
  - (vii) any other information the applicant considers will assist 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.

## **27 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.

## **28 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.

## **29 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**

### **30 Amendment of 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 29, to the extent the chief executive considers necessary to meet future water requirements; or
  - (b) amend any other interim resource operations licence as a consequence of the granting or amendment of an interim

resource operations licence under section 29, to the extent the chief executive considers necessary to meet future water requirements.

- (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.

### **31 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 26 for, or to amend, the interim resource operations licence and any additional information given about the applications; and
  - (b) any submissions made under section 30(3)(a) about the proposed amendment; and
  - (c) the public interest.
- (2) Subsection (1) does not limit the matters the chief executive may consider.

### **32 Deciding to amend interim resource operations licence**

After considering the matters mentioned in section 31 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 necessary.

## **Subdivision 4      Granting interim water allocations**

### **33      Granting interim water allocations—Act, s 189**

- (1) This section applies to an amendment of an interim resource operations licence under section 29 or 32 if 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
  - (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 must grant the interim water allocations to which the interim resource operations licence relates.
- (3) However, the chief executive may, before acting under subsection (2), 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.

## **Division 4                      Interim resource operations licence for the Nerang water supply scheme**

### **34            Interim water allocations in the Nerang water supply scheme to be managed under interim resource operations licence**

Interim water allocations in the Nerang water supply scheme—

- (a) will not be converted to water allocations under this plan; and
- (b) are to be managed under the interim resource operations licence for the scheme; and
- (c) to the extent a system operating plan applies to interim water allocations in the plan area—are to be managed under the system operating plan.

### **35            Matters chief executive must consider**

- (1) In deciding the operating arrangements and supply requirements for water infrastructure and proposed infrastructure under the interim resource operations licence or resource operations licence for the Nerang water supply scheme, the chief executive must consider—
  - (a) the impact of the infrastructure's or proposed infrastructure's operation on the following—
    - (i) the water allocation security objectives;
    - (ii) water quality;
    - (iii) instream water levels;
    - (iv) erosion of the bed and banks of watercourses;
    - (v) riparian vegetation;
    - (vi) the extent to which artificial variations in instream water levels and flows may adversely affect natural ecosystems;
    - (vii) recreation and aesthetic values of the plan area;

- (viii) 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 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.

## **Division 5                      Converting authorisations to water allocations**

### **Subdivision 1            General**

#### **36            Application of div 5**

This division applies only to water allocations converted, under the resource operations plan, from authorisations.

#### **37            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.

#### **38            Purpose to be stated on water allocation**

The purpose stated on a water allocation must be 'any'.

## **Subdivision 2      Water allocations for taking supplemented water**

### **39      Nominal volumes for water allocations to take supplemented water**

- (1) A water allocation to take supplemented water must state a nominal volume.
- (2) The nominal volume for a water allocation to take supplemented water is the annual volume stated on the authorisation.

### **40      Priority group for water allocations to take supplemented water**

In the Nerang water supply scheme, a water allocation to take supplemented water belongs to the high priority group.

## **Subdivision 3      Water allocations to take unsupplemented water**

### **41      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 the 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 or monthly volumetric limits;

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

## **42 Nominal volumes for water allocations to take unsupplemented water**

In deciding the nominal volume for a water allocation in a subcatchment area mentioned in schedule 8, column 1, the chief executive—

- (a) must consider, for each authorisation—
  - (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—
  - (i) the total of the nominal volumes for the water allocations, converted from authorisations that state an area that may be irrigated, in the subcatchment area is not more than the volume stated in schedule 8, column 2, for the area; and
  - (ii) the total of the nominal volumes for the water allocations, converted from authorisations that do not state an area that may be irrigated, in the subcatchment area is not more than the volume stated in schedule 8, column 3, for the area.

**43 Annual volumetric limit for taking unsupplemented water**

- (1) The annual volumetric limit for a water allocation to take unsupplemented water is—
  - (a) if the authorisation states an annual volume of water—the stated volume; and
  - (b) if the authorisation does not state an annual volume of water—the volume decided by the chief executive having regard to—
    - (i) the conditions under which water may be taken under the authorisation, including any stated area that may be irrigated and the volume of water required to irrigate the area efficiently; 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)(b) does not limit the matters the chief executive may consider.

**44 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 consider—
  - (a) the local availability of water; 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.

#### **45 Maximum rates for taking unsupplemented water**

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

- (a) if the authorisation states a maximum rate—the stated rate; and
- (b) if the authorisation 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 immediately before the commencement of this plan; and
    - (D) the efficiency of the irrigation or water distribution system mentioned in subparagraph (C); or

- (ii) otherwise—the rate stated in schedule 9, column 2, for the pump size; and
- (c) if the authorisation does not state a maximum rate but 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) if paragraphs (a) to (c) do not apply—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.

#### **46 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 consider the conditions stated on the authorisation.

### **Division 6 Authorisations to take unsupplemented water**

#### **47 Amending water licences to take unsupplemented water**

- (1) This section applies to a water licence to take unsupplemented water in force on the commencement of this plan.
- (2) The licence may be amended under a process in the resource operations plan to state the following—
  - (a) the purpose for which water may be taken under the licence;
  - (b) the annual volumetric limit for the licence;

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

#### **48 Annual volumetric limit for taking unsupplemented water**

- (1) This section states the annual volumetric limit for an authorisation to take unsupplemented water in force on the commencement of this plan.
- (2) The annual volumetric limit is—
  - (a) for an authorisation that states a volume of water that may be taken in a period of 12 months—the stated volume; and
  - (b) for an authorisation that states an area that may be irrigated—the volume decided by the chief executive having regard to—
    - (i) the volume of water required to irrigate the area efficiently; and
    - (ii) the water taking capacity of any works, in existence on the commencement of this plan, 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; and
    - (iv) the efficiency of the use of the water mentioned in subparagraph (iii); and
    - (v) the flow conditions under which water may be taken under the authorisation; and
    - (vi) the local availability of water; 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, in existence on the commencement of this plan, 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).
- (3) In deciding the volume for subsection (2)(b), the chief executive must ensure the sum of the annual volumetric limits for all authorisations converted from authorisations that state an area that may be irrigated in a subcatchment area is not more than the volume stated in schedule 8, column 2, opposite the subcatchment area in column 1 of the schedule.
- (4) In deciding the volume for subsection (2)(c), the chief executive must ensure the sum of the annual volumetric limits for all authorisations converted from authorisations that do not state an area that may be irrigated in a subcatchment area is not more than the volume stated in schedule 8, column 3, opposite the subcatchment area in column 1 of the schedule.
- (5) Subsection (2)(b) and (c) do not limit the matters the chief executive may consider.

#### **49 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 stated rate; 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 water taking capacity of the pump to which the development permit relates (the *existing pump*) under normal operating conditions; and
  - (B) 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
  - (C) the efficiency of the water use mentioned in subsubparagraph (B); and
  - (D) the conditions under which the water may be taken; 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
- (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 7

## Critical water supply strategy

### 50 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 this 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.

## **51 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 and 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 8                      Miscellaneous**

### **52        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 under the resource operations plan must provide for the release.

### **53        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**

### **54        Monitoring**

- (1) The monitoring requirements for this plan are—
  - (a) water monitoring for—
    - (i) stream flows; and
    - (ii) taking and diverting water; and
    - (iii) releases from water storages; and
    - (iv) water storages including inflow, storage volume or water level and outflow; and
    - (v) groundwater levels; and

- (b) natural ecosystems monitoring for—
    - (i) information on hydraulic habitat requirements of ecological assets in the plan area; and
    - (ii) volume, frequency, duration and timing of stream flows to provide habitats for the ecological assets; 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 operators of infrastructure for interfering with water 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).

## **55 Monitoring programs to be undertaken by holders of resource operations licences**

- (1) Each resource operations licence holder must develop monitoring programs, satisfactory to the chief executive, that include monitoring the matters mentioned in section 54(1) 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 for 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 the chief executive to assess the effectiveness of the strategies under part 5.

## **56 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 55;
  - (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) Subject to subsection (4), a report about a matter mentioned in subsection (1)(a), (b), (c) or (d) must be given—
  - (a) for each water year in which the holder manages water under this plan; and
  - (b) within 3 months after the end of the water year to which the report relates.
- (3) A report about a matter mentioned in subsection (1)(e) must be given the next business day after the action is taken.
- (4) The chief executive may require that a report about a matter mentioned in subsection (1)(a), (b), (c) or (d) be given more frequently than in each water year in which the holder manages water under this plan.
- (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.

## **57 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 water year in which the resource operations plan commences; and
  - (b) for subsequent reports—for each water year this plan is in force; and
  - (c) for each report—within 6 months after the end of the water 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 61, the report, in its assessment of the effectiveness

of the implementation of the plan in achieving the plan's outcomes, must include a consideration of the matters.

## **Part 7**                      **Implementing and amending this plan**

### **58**        **Priorities for converting to, or granting, water allocations**

Each area described in schedule 10 is a priority area for this plan for the conversion to, or granting of, water allocations to take water in the plan area.

### **59**        **Implementation schedule**

- (1) This section states—
  - (a) the proposed arrangements for implementing this plan; and
  - (b) the priorities for the conversion to, or granting of, water allocations.
- (2) Within 2 years after the commencement of this plan, it is proposed to prepare a resource operations plan—
  - (a) to convert authorisations in priority area 1 to water allocations; and
  - (b) to deal with unallocated water available for future water requirements in the plan area; and
  - (c) to make environmental management rules, water sharing rules, water allocation change rules and seasonal water assignment rules for water in priority area 1; and
  - (d) to implement the monitoring requirements in part 6.
- (3) Within 4 years after the commencement, it is proposed to amend the resource operations plan—
  - (a) to convert authorisations in priority area 2 to water allocations; and

- (b) to make environmental management rules, water sharing rules, water allocation change rules and seasonal water assignment rules for water in priority area 2.
- (4) It is proposed to make a system operating plan that will apply to the plan area and, to the extent to which it applies to water entitlements in the Nerang water supply scheme, will state additional arrangements for taking water under the water entitlements.

*Note—*

See section 360V (Commission to make system operating plan for region) of the Act.

- (5) Subsections (2) and (3) do not limit the matters that may be included in the resource operations plan.

## **60 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.

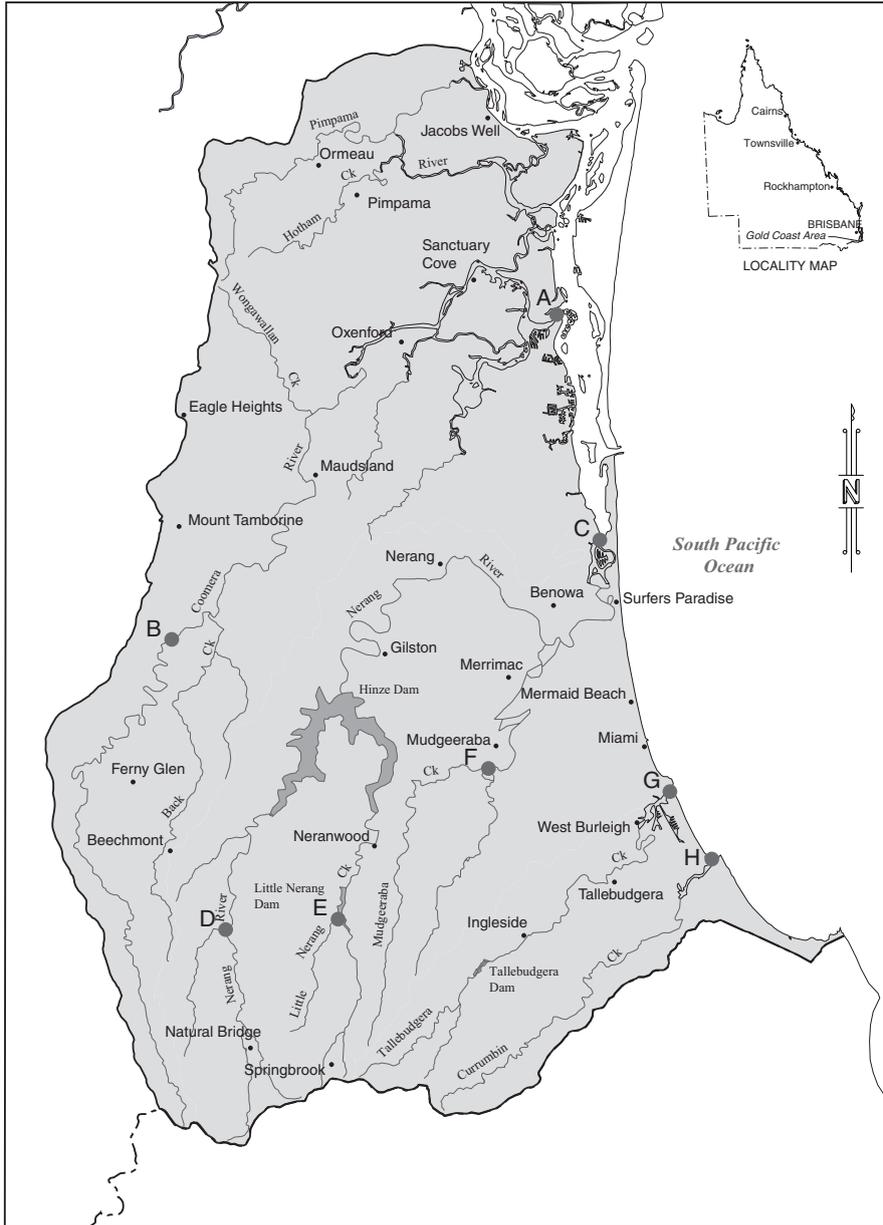
## **61 Amending or replacing plan**

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 the outcomes mentioned in 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
    - (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) the plan's ecological outcomes are not being achieved; or
- (c) the plan is inconsistent with the SEQ regional plan.

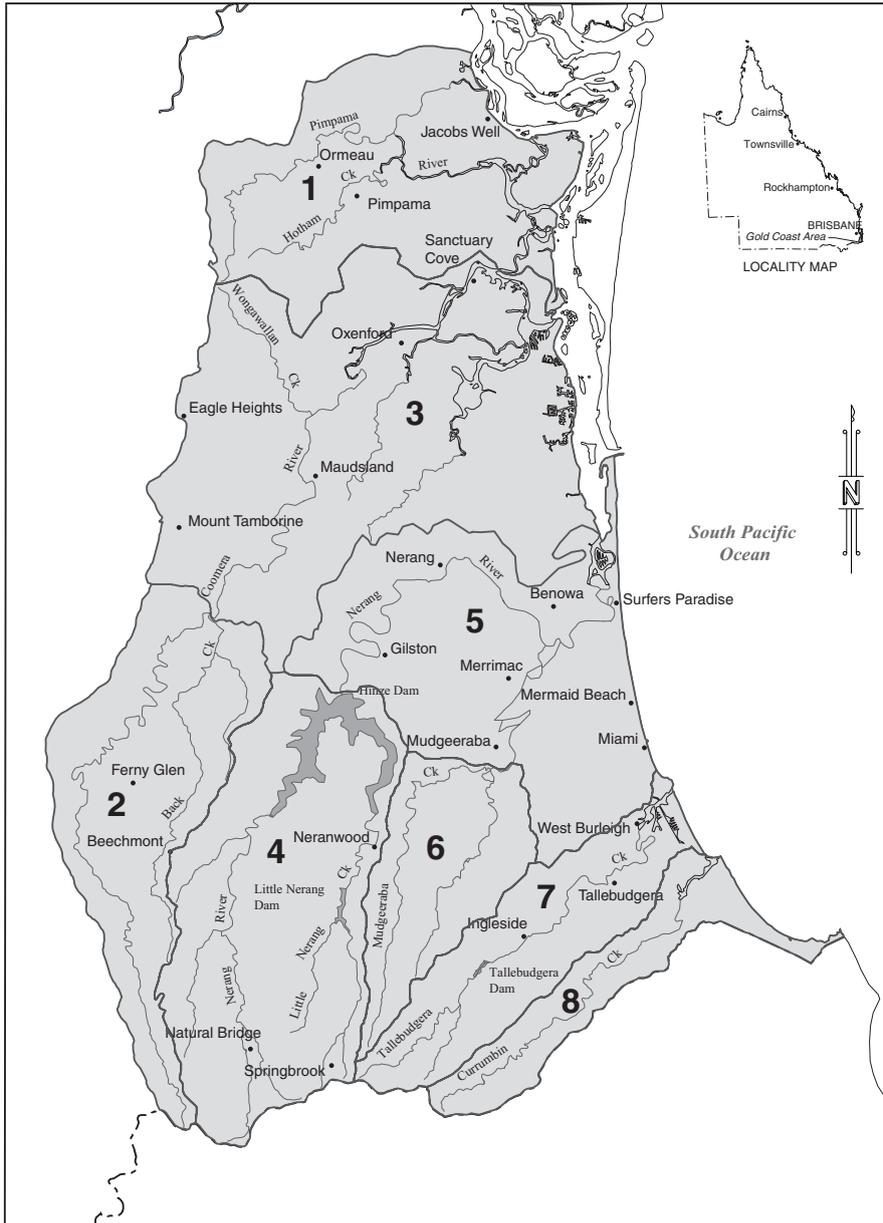
# Schedule 1 Plan area

section 4



# Schedule 2 Subcatchment areas

## section 5



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**Schedule 3      Subcatchment area names**

section 5

<b>Column 1</b>	<b>Column 2</b>
<b>Subcatchment area</b>	<b>Subcatchment area name</b>
1	Pimpama River
2	Upper Coomera River
3	Lower Coomera River
4	Upper Nerang River
5	Lower Nerang River
6	Mudgeeraba Creek
7	Tallebudgera Creek
8	Currumbin Creek

## Schedule 4      Nodes

section 7(2)

<b>Column 1</b>	<b>Column 2</b>
<b>Node</b>	<b>Location</b>
A	Coomera River at end of system (AMTD 0.0km)
B	Coomera River at Army Camp GS146010A (AMTD 45.9km)
C	Nerang River at end of system (AMTD 0.0km)
D	Nerang River upstream of dam (AMTD 55km)
E	Little Nerang Dam inflows (AMTD 16.1km)
F	Mudgeeraba Creek at Springbrook Road GS146020A (AMTD 13.3km)
G	Tallebudgera Creek at end of system (AMTD 0.0km)
H	Currumbin Creek at end of system (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 column 2 of the table 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	105	224	252	229	197	164
B	22	49	53	42	35	29
C	187	353	412	246	164	129
D	48	94	104	68	42	35
E	27	57	69	50	36	31
F	9	20	24	19	13	10
G	43	82	94	60	43	36
H	34	56	65	51	43	39

## Schedule 5 (continued)

<b>Column 1</b>	<b>Column 2</b>					
<b>Node</b>	<b>50% daily flow in megalitres</b>					
	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>
A	128	88	59	46	49	63
B	22	16	11	9	10	13
C	85	48	33	33	48	86
D	23	15	12	11	15	23
E	23	15	11	10	12	15
F	6	3	2	2	3	5
G	24	16	13	11	16	22
H	31	22	16	14	15	20

- 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

<b>Column 1</b>	<b>Column 2</b>					
<b>Node</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>
A	36	34	35	32	30	32
B	11	14	16	14	8	8
C	30	30	30	28	28	28
D	44	46	46	46	46	46
E	47	47	47	47	47	47
F	43	43	41	43	45	45

## Schedule 5 (continued)

<b>Column 1</b>	<b>Column 2</b>					
<b>Node</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>
G	32	28	30	28	30	28
H	46	46	46	45	46	46

<b>Column 1</b>	<b>Column 2</b>					
<b>Node</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>
A	33	32	28	26	26	31
B	6	37	35	31	35	39
C	24	23	19	22	29	30
D	47	47	45	47	45	42
E	47	47	47	47	47	47
F	34	35	29	25	33	37
G	26	29	29	33	35	31
H	45	43	44	41	43	44

- 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 column 2 of the table for a month for the node is equalled or exceeded on fewer than 75% of the days in the month in the simulation period.

## Schedule 5 (continued)

Table 3

Column 1	Column 2					
Node	90% daily flow in megalitres					
	Jan	Feb	Mar	Apr	May	June
A	6	17	39	44	47	45
B	2	4	8	9	10	8
C	7	22	54	44	28	21
D	3	9	17	14	10	8
E	3	7	14	15	12	9
F	0	1	3	3	2	1
G	3	9	15	15	12	11
H	0	4	14	15	15	12

Column 1	Column 2					
Node	90% daily flow in megalitres					
	July	Aug	Sep	Oct	Nov	Dec
A	34	18	11	4	3	4
B	6	3	2	0	0	0
C	14	8	4	3	3	6
D	5	3	3	2	2	3
E	6	5	4	3	3	3
F	1	0	0	0	0	0
G	8	5	3	1	1	1
H	7	3	2	0	0	0

## Schedule 5 (continued)

- 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

<b>Column 1</b>	<b>Column 2</b>					
<b>Node</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>
A	75	76	76	78	74	70
B	68	77	82	79	78	77
C	67	72	64	61	62	60
D	69	76	82	83	85	85
E	87	87	87	87	87	87
F	67	77	81	75	73	71
G	79	81	77	73	75	75
H	79	84	86	85	83	85

<b>Column 1</b>	<b>Column 2</b>					
<b>Node</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>
A	68	68	65	71	77	73
B	77	75	69	67	65	63
C	56	48	47	55	59	58
D	85	83	77	79	75	62
E	87	87	84	84	83	85
F	59	49	39	35	45	53

## Schedule 5 (continued)

Column 1	Column 2					
Node	July	Aug	Sep	Oct	Nov	Dec
G	71	67	63	67	71	75
H	84	83	77	73	73	73

- 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 column 2 of the table.

Table 5

Column 1	Column 2
Node	Minimum-maximum percentage
A	3–12
B	6–23
C	2–10
D	3–17
E	1–3
F	16–43
G	4–14
H	7–18

- 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 column 2; and

## Schedule 5 (continued)

- (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 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 column 4.

Table 6

Column 1	Column 2	Column 3	Column 4
Node	Minimum-maximum	Minimum-maximum	Minimum-maximum
A	0-12	0-0	0-0
B	3-74	0-12	0-2
C	0-3	0-0	0-0
D	2-44	0-3	0-0
E	0-0	0-0	0-0
F	7-125	0-14	0-2
G	1-22	0-2	0-0
H	5-42	0-2	0-2

## Part 2 Medium to high flow objectives

At each node mentioned in table 7, column 1—

- (a) the mean annual flow (the *MAF*), expressed as a percentage of the MAF for the pre-development flow pattern, be at least the percentage stated for the node in column 2; and

## Schedule 5 (continued)

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

Table 7

Column 1	Column 2	Column 3	Column 4	Column 5
Node	MAF %	1.5 year DFV %	5 year DFV %	20 year DFV %
A	85	92	96	96
B	70	80	96	96
C	66	—	—	—
D	96	97	97	97
E	97	97	97	97
F	82	68	94	97
G	80	92	96	97
H	96	97	97	97

### Part 3 Seasonal flow objectives

At each node mentioned in table 8, column 1—

## Schedule 5 (continued)

- (a) the annual proportional flow deviation be no greater than the annual proportional flow deviation stated for the node in column 2 of the table; 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	0.8
B	1.9
C	2.0
D	0.1
E	0.1
F	1.1
G	1.2
H	0.2

## Schedule 6      **Water allocation security objectives**

section 15

### Part 1              **Supplemented water**

For water allocations in a high priority group—

- (a) the monthly supplemented water sharing index be at least 95%; and
- (b) the extent to which it is less than 100% be minimised.

### Part 2              **Unsupplemented water**

- 1 For water allocations, converted from authorisations that stated an area that may be irrigated, for taking unsupplemented water in a subcatchment area mentioned in table 1, column 1, the 70% unsupplemented water sharing index be at least the percentage stated for the subcatchment area in column 2 of the table.

**Table 1**

<b>Column 1</b>	<b>Column 2</b>
<b>Subcatchment area</b>	<b>70% unsupplemented water sharing index—percentage</b>
2	85
3	85
4	86
5	81
6	78

## Schedule 6 (continued)

<b>Column 1</b>	<b>Column 2</b>
<b>Subcatchment area</b>	<b>70% unsupplemented water sharing index—percentage</b>
7	65
8	79

- 2 For water allocations, converted from authorisations that did not state an area that may be irrigated, for taking unsupplemented water in a subcatchment area mentioned in table 2, column 1, the 70% unsupplemented water sharing index be at least the percentage stated, for the subcatchment area, in column 2 of the table.

Table 2

<b>Column 1</b>	<b>Column 2</b>
<b>Subcatchment area</b>	<b>70% unsupplemented water sharing index—percentage</b>
2	94
3	95
4	95
5	95
6	95
7	90
8	95

**Schedule 7      General reserve**

section 23(2)

<b>Column 1</b>	<b>Column 2</b>
<b>Subcatchment area</b>	<b>Volume in megalitres</b>
2	50
3	200
4	50
5	50
6	50
7	50
8	50

## Schedule 8      Unsupplemented water to be taken

sections 42 and 48

Column 1	Column 2	Column 3
Subcatchment area	Volume in megalitres	Volume in megalitres
2	1455	435
3	1500	1700
4	1365	55
5	685	240
6	240	310
7	120	90
8	330	55

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**Schedule 9      Rates and pump sizes**

sections 45 and 49

<b>Column 1</b>	<b>Column 2</b>
<b>Pump size (mm)</b>	<b>Rate (litres/second)</b>
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    Priority areas**

section 58

### **1        Priority area 1**

Priority area 1 consists of the area downstream of the Nerang River at AMTD 16.1km for which there are water entitlements to take unsupplemented water.

### **2        Priority area 2**

Priority area 2 consists of the parts of the plan area, other than priority area 1, that have unsupplemented water.

## Schedule 11 Dictionary

### section 3

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

**90% daily flow**, for a month, means the flow, in megalitres, 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 authorisations, means the average total volume of water simulated to have been taken annually under the authorisations in at least 70% of years in the simulation period, if the authorisations were in existence for the whole of the simulation period, expressed as a percentage of the simulated mean annual diversion for the authorisations.

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

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

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

**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** means the statistical measure of changes to flow season and volume in the simulation period calculated using the formula for annual proportional flow deviation described in Technical Report 5

## Schedule 11 (continued)

of 'Fitzroy Basin Water Allocation and Management Planning Technical Reports' published by the department.

*Editor's note—*

Copies of the reports are available for inspection on the department's website.

***annual volumetric limit***, for an authorisation, means the maximum volume of water that may be taken under the authorisation in a water year.

***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.

***critical water supply strategy*** see section 50(1).

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

***daily volumetric limit***, for a water allocation, means the maximum volume of water that may be taken under the allocation 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 riverine 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, 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.

## Schedule 11 (continued)

**high priority group** means the water allocations in a water supply scheme that are stated to be high priority group in the water allocations register.

**hydraulic habitat requirements**, of an ecological asset, are the biophysical conditions created by aspects 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** for infrastructure to which the resource operations plan applies, means 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.

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

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

**Nerang water supply scheme** means the area that consists of—

- (a) the part of Nerang River from its confluence with Little Nerang Creek and the Hinze Dam at its full supply level to AMTD 36.4km; and

### Schedule 11 (continued)

- (b) the part of Little Nerang Creek from its confluence with the Little Nerang Dam at its full supply level to AMTD 16.1km.

**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 58.

**priority area 1** see schedule 10, section 1.

**priority area 2** see schedule 10, section 2.

**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.

## Schedule 11 (continued)

**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 December 2000.

**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.

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ENDNOTES

- 1 Approved by the Governor in Council on 14 December 2006.
- 2 Notified in the gazette on 15 December 2006.
- 3 Laid before the Legislative Assembly on . . .
- 4 The administering agency is the Department of Natural Resources and Water.