



Great Artesian Basin

resource operations plan

February 2007

Prepared by the:
Water Management & Use Group
Department of Natural Resources and Water

This report has been prepared with all due care and diligence, using the best information available at the time of publication; however, no responsibility is held for any errors or omissions. Any decisions made by other parties on the basis of this report are solely the responsibility of those parties.

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Foreword

The Great Artesian Basin Resource Operations Plan has been finalised following consultation and review that began with the release of a draft plan in July 2006. The views of water users, local governments, natural resource management regional bodies, industry, and community groups were considered in the preparation of the final plan.

The finalised plan will implement the objectives and outcomes specified in the *Water Resource (Great Artesian Basin) Plan 2006*. Together, these plans will provide enhanced certainty and security for water users and the natural environment.

Both plans are complementary parts of a water planning process that will ensure that the Great Artesian Basin is sustainably managed for the benefit of future generations.

The resource operations plan contains proposals for issues that must be addressed in implementing the *Water Resource (Great Artesian Basin) Plan 2006*.

Included are arrangements for—

- Releasing unallocated water from the Great Artesian Basin
- Protecting flow of water to springs and baseflow to watercourses
- Protecting existing entitlements
- Providing volumetric water licences to local governments for existing town water supply
- Providing rules for relocating water licences
- Providing water sharing and seasonal water assignment rules
- Monitoring flow to springs and baseflow to watercourses
- Dealing with existing and new water licence applications and amendments to existing water licences
- Amendments that can be made to the plan.

The plan specifies a process for making up to 23 400 megalitres of unallocated water available across the Basin from the general reserve. In addition, 10 000 megalitres of unallocated water for projects of state or regional significance, or for future town water supply, has been reserved to provide for further economic opportunity in the Basin.

The plan ensures that the release of any new water from the Basin does not put at risk the natural assets of springs. Any future development will be managed within sustainable levels.

I'd like to take this opportunity to thank all those who have contributed to the development of this plan for all their hard work and input.

Scott Spencer
Director-General
Department of Natural Resources and Water

This document contains the following:

- (1) The Great Artesian Basin Resource Operations Plan**
- (2) Explanatory notes for The Great Artesian Basin Resource Operations Plan**
- (3) The *Water Resource (Great Artesian Basin) Plan 2006***

The Great Artesian Basin
Resource Operations Plan 2006

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Chapter 1 – Preliminary

1. Water resource plan implemented through the resource operations plan

This resource operations plan implements the *Water Resource (Great Artesian Basin) Plan 2006* (the water resource plan).

2. Name of the resource operations plan

This resource operations plan may be cited as the *Great Artesian Basin Resource Operations Plan 2006* (the plan).

3. Commencement of the resource operations plan

This plan commences on the first business day after this plan is notified in the *Queensland Government Gazette*.

4. Plan area

This plan applies to the area shown as the plan area on the map in Attachment A¹.

5. Water to which this plan applies

This plan applies to the following water in or from management units in the plan area

- (a) artesian water
- (b) subartesian water connected to artesian water, and
- (c) water in springs connected to-
 - (i) artesian water, or
 - (ii) subartesian water connected to artesian water.

6. Management areas and management units

- (1) There are 25 management areas within the plan area.
- (2) The location of the management areas are identified in Attachments B1 to B25.
- (3) Each management area includes the management units identified in schedule 5 of the water resource plan.

7. Information about areas

- (1) The exact boundary of the plan and management areas 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 boundaries².

8. Sustainable management of water

This plan, in implementing the water resource plan, provides for the sustainable management of water by—

- (b) protecting the significant environmental and cultural values of springs and watercourses by-
 - (i) defining criteria for protection of flow to springs and baseflow to watercourses that must be considered when dealing with water licences;

¹ This Plan area is identical to the Plan area for the water resource plan.

² The boundaries in digital electronic form may be inspected at the Department's head office in Brisbane.

- (ii) setting conditions of water licences for protection of flow to springs and baseflow to watercourses;
- (c) allowing for the allocation of water and improving the confidence of water users regarding the availability and security of water authorisations by-
 - (i) specifying processes for dealing with unallocated water and granting new water licences for unallocated water;
 - (ii) specifying processes for dealing with water licence applications existing at the commencement of this plan;
 - (iii) specifying criteria for protection of existing entitlements;
 - (iv) specifying arrangements for the collection and assessment by the chief executive of data relating to the water resource plan outcomes (including pressure and water level monitoring);
- (d) detailing arrangements for the collection and assessment by the chief executive of data relating to the water resource plan outcomes (including ecological outcomes);
- (e) contributing to increased community understanding and participation in the sustainable management of the Basin water by specifying rules and arrangements for allocation and management of water in the plan area.

9. Addressing water resource plan outcomes

- (1) This plan addresses water resource plan outcomes by—
 - (a) specifying processes, rules and limits, the application of which are consistent with objectives specified in the water resource plan; and
 - (b) providing reporting arrangements that will assist in the ongoing assessment of whether water management arrangements in the plan area will contribute to the achievement of water resource plan outcomes.
- (2) Attachment C lists the outcomes of the water resource plan and how the rules of this plan are linked to those outcomes.

Chapter 2 – Process for dealing with unallocated water

10. Scope of Chapter 2

- (1) This chapter sets out processes for making available and granting unallocated water identified in section 17 of the water resource plan.
- (2) The processes detailed in this chapter for granting a water licence to take water are processes for the purpose of section 212 of the Act.
- (3) When the chief executive makes a decision under this chapter the decision must also be in accordance with the water resource plan and this plan.

11. Record of volume of unallocated water

The chief executive must maintain a register to keep a record of the volume of unallocated water remaining for each management area and management unit.

12. Who can apply for a water licence

Any person who has standing to apply for a water licence under section 206 of the Act can apply for granting of a water licence under this chapter.

Part 1: Making unallocated water available for granting

Division 1: General reserve unallocated water

13. Preliminary

This division sets out the processes for making unallocated water available from the general reserve that is identified in section 21 of the water resource plan.

14. Application to register an interest in unallocated water

- (1) The chief executive may at anytime make a public invitation for applications to register an interest in unallocated water available in a management area and a management unit.
- (2) The invitation must state-
 - (a) the management area and management unit in which water may be available;
 - (b) the maximum volume of water that may be available in a management area and a management unit; and
 - (c) any other detail necessary for registrations.
- (3) The invitation may state a process by which the water may be available.
- (4) Application to register must be-
 - (a) in response to the invitation to register;
 - (b) made in the approved form; and
 - (c) accompanied by a prescribed fee.
- (5) The chief executive may require additional information from applicants in relation to their application.

15. Deciding application to register an interest in unallocated water

- (1) The chief executive may refuse an application to register if-
 - (a) the chief executive is satisfied that the applicant should apply for water under the state reserve in accordance with section 19 of the water resource plan; or
 - (b) the proposed taking of water would be inconsistent with the water resource plan, this plan or the invitation to register under section 14.
- (2) If the application is refused under subsection (1) the chief executive must give the applicant a notice stating the decision.

- (3) The chief executive must register the applicant's interest in unallocated water if the application is not refused under subsection (1).

16. Deciding and notifying a process for release of unallocated water

- (1) After considering all registered applications the chief executive may decide to—
 - (a) use a fixed price process for making and assessing applications for granting a water licence in accordance with part 2, division 1, of this chapter; or
 - (b) use a tender process for making and assessing tender bids for granting a water licence in accordance with part 2, division 2, of this chapter; or
 - (c) not make unallocated water available.
- (2) The chief executive must consider the following matters in making a decision under subsection (1) -
 - (a) the volume of unallocated water available;
 - (b) volumes for which interests are registered; and
 - (c) any other matter that may be relevant.
- (3) The chief executive must publicly notify a decision made under subsection (1), stating -
 - (a) the process for making unallocated water available for granting;
 - (b) the maximum volume of water that may be available for granting from a management area and a management unit;
 - (c) a maximum volume of water that can be granted to an applicant or bidder;
 - (d) that water will not be available if a decision under subsection 1(c) is to not make unallocated water available.
- (4) This section does not apply if a process for making unallocated water is stated in the invitation to register under section 14(3).

Division 2: State reserve unallocated water

17. Preliminary

This division sets out the process for making available state reserve unallocated water identified in section 26 of the water resource plan.

18. Availability of state reserve water

- (1) All of the state reserve water under section 26 of the water resource plan will be available for granting at the commencement of the plan.
- (2) The water will be made available for granting through the fixed priced method in accordance with Part 2, Division 1 of this chapter.

19. Limitations on access to state reserve water

- (1) Water is available for granting in all management areas other than the Eastern Downs, Clarence Moreton and Mulgildie management areas.
- (2) As far as practicable, water granted from the state reserve will be from those management units in which general reserve water is made available under the water resource plan, or from deeper management units.

Part 2: Application and assessment process for granting unallocated water

20. Preliminary

The purpose of this part is to provide for a process for making and assessing applications for unallocated water under fixed price and tender method.

Division 1: Fixed Price Process

21. Scope of Division 1

This division provides a process for making and assessing applications for a water licence by fixed price.

22. Application for a water licence

- (1) If water is available from the general reserve by the fixed price method then the chief executive must publicly invite applications for a water licence for that water.
- (2) The invitation must state a price for which the water would be available.
- (3) Applications must be made to the chief executive in the approved form and accompanied by a prescribed fee.
- (4) The chief executive may take an application to register an interest in water under section 14 to be an application under this section.
- (5) Subsections (1), (2), and (4) do not apply if the application is for unallocated water from the State reserve.

23. Assessing application for water licence

- (1) In assessing whether to grant or refuse an application for a water licence or in deciding the conditions of a water licence, the chief executive must consider the following—
 - (a) the application and additional information given in relation to the application;
 - (b) availability of unallocated water in the management area and the management unit; and
 - (a) consistency of proposed taking of water with the water resource plan and this plan.
- (2) Applications must be considered in the order in which they are received.
- (3) The chief executive may require an applicant to provide additional information about the application including details about a business plan, water use efficiency and alternate water supply sources.
- (4) If the applicant fails without a reasonable excuse to provide information requested under subsection (3) and within the stipulated time then the application lapses.

24. Deciding applications

- (1) After assessment under section 23, the chief executive must either—
 - (a) advise the applicant of proposed conditions for the proposed water licence and a date by which the applicant must send a written consent accepting the proposed conditions; or
 - (b) refuse the application and give the applicant a notice stating the decision.
- (2) If the applicant does not consent to the proposed conditions then the chief executive must decide to refuse the application and give the applicant a notice stating the decision.
- (3) At any time the chief executive may cease the process to grant a water licence under the fixed price method and instead commence a process to grant a water licence under the tender method if the chief executive considers this to be in the public interest.
- (4) If the fixed price method is ceased under subsection (3) then all relevant applications under section 22 lapse.

- (5) Subsections (3) and (4) do not apply if the application is for unallocated water from the State reserve.
- (6) If the water is proposed to be granted from the state reserve then the chief executive must determine an appropriate price for the water.
- (7) If the chief executive is satisfied that the proposed water licence could be granted to the applicant (the *proposed licensee*) then the chief executive must make a decision on granting the water licence in accordance with Part 3 of this chapter.

Division 2: Tender Process

25. Scope of Division 2

- (1) This division provides a process for making, and assessing, tenders for the grant of a water licence.
- (2) Prior to commencing the tender process the chief executive must determine a reserve price per megalitre of water;
- (3) The chief executive may alter the reserve price at anytime.

26. Tender

- (1) The chief executive must only send an invitation to tender to persons who are registered for an interest in unallocated water under section 15.
- (2) The invitation must state-
 - (a) management area and the management unit in which the water is available;
 - (b) maximum volume of water that is available for granting under the tender;
 - (c) any conditions that may be applicable to water licence/s if granted;
 - (d) criteria for assessment of tender bids; and
 - (e) any other information that may be necessary.
- (3) The invitation may state a maximum volume of water that can be granted to a bidder.
- (4) The tender bid must be-
 - (a) submitted in the approved form;
 - (b) in response to the invitation under subsection (1);
 - (c) accompanied by a prescribed fee; and
 - (d) in accordance with the registration details.

27. Assessing tender bids

- (1) In assessing whether to accept or refuse tender bids for the unallocated water, and in proposing conditions for the water licence, the chief executive must consider-
 - (a) the tender bid and additional information given in relation to the bid;
 - (b) availability of unallocated water in the management area and the management unit;
 - (b) consistency of the proposed taking of water with the water resource plan and this plan.
- (2) The chief executive must assess each tender bid having regard to the criteria under section 26 (2).
- (3) At any time during the assessment the chief executive may require additional information from the bidder in relation to the assessment within a stipulated timeframe.
- (4) If the bidder fails without a reasonable excuse to provide information as requested under subsection (3) and within the stipulated timeframe, then the tender bid is rejected.

28. Deciding tender bids

- (1) After assessment of tender bids, under section 27, the chief executive must either-
 - (a) advise the bidder of proposed conditions for the proposed water licence and a date by which the bidder must send a written consent accepting the proposed conditions; or
 - (b) reject the tender bid and give the bidder a notice stating the decision.
- (2) If the bidder does not consent to the proposed conditions within a stipulated timeframe then the chief executive must refuse the tender bid and give the bidder a notice stating the decision.
- (3) If the chief executive is satisfied that the proposed water licence could be granted to the bidder (the *proposed licensee*) then the chief executive must make a decision on granting the water licence in accordance with Part 3 of this chapter.

Part 3: Decision on granting of a water licence

29. Scope of Part 3.

This part outlines a process for finalising the conditions and granting of a water licence to proposed licensee.

30. Public notification of proposed water licence

- (1) After deciding on a proposed water licence under section 24 or 28, the chief executive may publish a notice of a proposal to grant the water licence.
- (2) The notice must state-
 - (a) the details of the proposed water licence or where the details can be obtained; and
 - (b) a date by which a submission can be made regarding the granting of the proposed water licence.
- (3) A submission can be made by any person regarding the granting of a proposed water licence.

31. Review of submissions

The chief executive must refer all properly made submissions about the proposed water licences to a referral panel, established under section 1004 of the Act, to seek the panel recommendations regarding the proposed granting of water licences.

32. Deciding to grant a water licence

- (1) In deciding whether to grant a water licence, and set conditions on the licence, the chief executive must consider-
 - (a) all properly made submissions;
 - (b) recommendations of the referral panel; and
 - (c) any other matter that the chief executive considers appropriate.
- (2) Having considered the information in subsection (1), the chief executive must -
 - (a) grant the water licence under section 33; or
 - (b) not grant the proposed water licence.

33. Granting of a water licence and notification of decision

- (1) After the payment is received for volume of water to be granted in accordance with the relevant fixed price or tender price, the chief executive must grant the water licence to the proposed licensee under section 212 of the Act.
- (2) If the chief executive decides not to grant the proposed water licence then the chief executive must give the proposed licensee a notice stating the decision.
- (3) Use of water under the water licence granted in this section requires a Land and Water Management Plan if the water is to be used for irrigation.

34. Amendment to the plan to grant water licences

- (1) If the chief executive decides to amend this plan to provide for granting of a proposed water licence then sections 30 to 33 do not apply.
- (2) The chief executive must receive the payment for volume of water in accordance with the relevant fixed price or tender price before granting a water licence under this section.

Chapter 3 – Protection of flow to springs and baseflow to watercourses

35. Scope of Chapter 3

- (1) This chapter specifies, in accordance with section 31 of the water resource plan, criteria to protect the flow of water to springs.
- (2) For the purpose of this chapter the following definitions apply-

spring is a recharge spring, a discharge spring, or a watercourse spring.

watercourse spring is a part of a watercourse, if water to which this plan applies enters the part of the watercourse through its bed or banks, to become baseflow in the watercourse.

discharge spring is a spring supplied by underground water from an aquifer that in the vicinity of the spring is a confined aquifer.

recharge spring is a spring supplied by underground water from an aquifer or aquifers that in the vicinity of the spring are not confined aquifers. Recharge springs are found in areas where water enters and recharges the aquifers in the Basin.

decision about a water licence means a decision to grant a water licence from the unallocated water reserves or to relocate, amend, or cancel a water licence, if the decision could change the flow of water to springs.

spring factor for a spring recorded in the spring register, is the estimation of the impact beneath the spring on subartesian water levels or artesian pressure, associated with a decision about a water licence or a licence surrender, in millimetres head of water, made using Attachments D-1 and D-2.

cumulative spring factor is the sum of spring factors for a spring due to all decisions made about water licences and water licences surrendered after the commencement of this plan.

36. The spring register

- (1) The chief executive must maintain a register of the springs within the plan area that support significant cultural and environmental values.
- (2) The register must contain-
 - (a) spring locations;
 - (b) details of whether the spring is a discharge, recharge, or watercourse spring;
 - (c) names of the management units connected to each spring;
 - (d) details of decisions made about water licences within management units connected to a spring; and
 - (e) the cumulative spring factor for each spring.
- (3) Provided the chief executive records within the register the reasons for doing so, the register may be amended at any time–
 - (a) to record details of springs that have not previously been recorded in the register; or
 - (b) to better record details relevant to the flow of water to springs.

- (4) The chief executive must amend the cumulative spring factors for relevant springs as soon as practicable after a decision about a water licence is made and as soon as practicable after a water licence is surrendered.
- (5) Despite subsection (4), the chief executive must not amend the cumulative spring factor because of water licence amendments resulting from repair of uncontrolled bores, and replacement of bore drains, with piped stock water distribution systems carried out under the Great Artesian Basin Sustainability Initiative.

37. Connection of management units to springs

- (1) A management unit is connected to a discharge spring-
 - (a) if it underlies the discharge spring; or
 - (b) if it is a continuation of a management unit underlying the spring
- (2) A management unit is connected to a recharge spring, or watercourse spring-
 - (a) if it is the uppermost management unit underlying the recharge or watercourse spring; or
 - (b) if it is a continuation of the uppermost management unit underlying the spring
- (3) Despite subsection (1) or (2) and having regard to the available relevant information, the chief executive may, at any time, decide that a management unit is not connected to a spring.

38. General restrictions near springs for management units connected to springs

- (1) For a management unit connected to a spring, the chief executive must not make a decision about a water licence that would increase the amount of water that can be taken from within 5 km of that spring.
- (2) For a water licence that authorises water to be taken from a management unit connected to a spring, at a location within 5km of that spring, the chief executive -
 - (a) must not make a decision that would result in water being taken from a location closer to that spring;
 - (b) may give the licensee notice under section 218 of the Act to show cause as to why the water licence should not be amended to specify the location from which water may be taken under the water licence, to be consistent with subsections (1) and (2)(a); and
 - (c) must not make a decision under subsection (2) (b) to the extent the amendment would limit a licensee's ability to take water from an existing water bore.

39. Decisions in accordance with spring factor

- (1) This section applies to a decision about a water licence if the decision is associated with a management unit connected to a spring.
- (2) Before making the decision, the chief executive must use Attachment D-1 and Attachment D-2 to determine the spring factor for each spring.
- (3) Subject to section 38, the chief executive may make a decision about a water licence if-
 - (a) the decision does not result in the cumulative spring factor for the spring exceeding 400 millimetres; or
 - (b) the decision is about taking water for stock watering or domestic purposes from a location more than 5 km from any spring.

40. Other decisions for management units connected to springs

- (1) Despite sections 38 and 39 the chief executive may make a decision about a water licence if the chief executive is satisfied that the proposed decision will not negatively impact on the outcomes of the water resource plan.

- (2) To satisfy the chief executive in relation to subsection (1), the person seeking the decision may need to carry out studies in relation to relevant springs, and management units connected to those springs, located in the water resource plan area.

Chapter 4 – Criteria for protection of existing entitlements

41. Scope of Chapter 4

- (1) This chapter sets out the criteria to achieve outcomes stated in section 8(b) of the water resource plan.
- (2) For the purpose of this chapter the following definitions apply-

decision about a water licence means a decision to grant a water licence from the unallocated water, relocate or amend a water licence or to grant a water licence for stock or domestic purposes.

proposed take, in relation to a decision about a water licence, is the proposed take of water, in megalitres per year, from a proposed location.

existing take is the authorised taking of water from a location under a water licence that exists at the time a decision about a water licence is made.

separation distance is a distance between locations of the proposed take of water and an existing take of water, where the existing take of water and the proposed take of water are from the same management unit, or management units that are in continuity.

minimum separation distance is as determined from Attachment D-1 and D-3 for a combination of proposed and existing take.

42. Decision in accordance with separation distance

- (1) This section applies to a decision about a water licence.
- (2) Before making a decision, the chief executive must use Attachment D-1 and Attachment D-3 to determine the minimum separation distances for all relevant proposed and existing take of water.
- (3) The chief executive may make a decision about a water licence if the decision results in a separation distance being equal to, or greater than, the minimum separation distance.

43. Other decisions

- (1) This section applies despite section 42.
- (2) The chief executive may make a decision about a water licence if the person seeking the decision demonstrates, to the satisfaction of the chief executive, that the proposed decision will not negatively impact on the outcomes of the water resource plan.
- (3) To satisfy the chief executive in relation to subsection 2, the person seeking the decision may need to carry out a hydrogeological assessment.

Chapter 5 – Initialisation arrangements for existing town water supply

44. Scope of Chapter 5

- (1) This Chapter applies to water being taken for town water supplies in accordance with section 28(1) of the water resource plan.
- (2) For the purpose of this chapter town water supply does not include the supply of water for stock watering.

45. Initialisation process for existing town water supply at the commencement of the plan

- (1) In accordance with section 28 of the water resource plan the chief executive must grant water licences, under section 212 of the Act, to replace existing authorisations in accordance with Attachment E.
- (2) The volumetric limit listed in Attachment E is the total volumetric limit from all management units.

Chapter 6 – Relocation of water licences

46. Scope of Chapter 6

- (1) This chapter provides the rules for relocation of a water licence.
- (2) For the purpose of this chapter the following definitions apply-

original water licence means a water licence proposed to be relocated.

proposed water licence means the water licence that would be granted or amended to give effect to the proposal to relocate the original water licence.

47. Rules for relocation

- (1) The original water licence can only be relocated if it states a volumetric limit.
- (2) Relocation must not increase the total volume of water that may be taken under the original water licence.
- (3) Relocation must be consistent with-
 - (a) the criteria for protection of the flow of water to springs and baseflow to watercourses under chapter 3 of this plan; and
 - (b) the criteria for protection of existing entitlements under chapter 4.
- (4) Relocation must not result in a change to –
 - (a) the management area from which the water may be taken; or
 - (b) the management unit from which the water may be taken.
- (5) The chief executive must refuse an application in relation to the relocation of an original water licence if the application includes a change in the purpose for which water may be taken under the original water licence, if the original water licence was granted for any of the following purposes-
 - (a) town water supply; or
 - (b) a specific project - for the duration of that project; or
 - (c) from the state reserve.
- (6) The chief executive may delay dealing with an application in relation to relocation of a water licence if dealing with the application would unreasonably interfere with a process for the granting of unallocated water in a management area.
- (7) Use of water under the proposed water licence requires a Land and Water Management Plan, if the water is to be used for irrigation.

Chapter 7 – Water sharing rules and seasonal water assignment rules

48. Scope of chapter 7

- (1) This chapter defines the water sharing and seasonal water assignment rules for water licences.
- (2) For the purpose of this chapter the following definitions apply –

assignee means the person receiving the benefit of the water that is seasonally assigned

volumetric limit (VL) means the volume of water stated on the water licence that may be taken during a water year

carry over water (CO) means the volume of unused volumetric limit at the end of the water year

maximum authorised volume (MAV) means the total volume of water able to be taken by a licensee in a single water year and includes the volumetric limit and any carryover water

seasonal water assignment means the temporary assignment of all or part of the volumetric limit, under a water licence, from the licensee to another person (the assignee) within a water year.

49. When rules apply

Water sharing rules and seasonal water assignment rules only apply to -

- (3) Water licences that state a volumetric limit;
- (4) Metered entitlements specified in schedule 15A of the *Water Regulation 2002*

Part 1: Water sharing rules

50. Water sharing rules

Water sharing rules –

- (1) describe the arrangements through which access to water taken under a water licence is managed;
- (2) define the rules for calculating the maximum authorised volume; and
- (3) establish requirements to account for water taken under the water sharing rules.

51. Calculating maximum authorised volume

- (1) The maximum authorised volume is calculated using the following formula:

$$\mathbf{MAV = VL + CO}$$

Where: **MAV** = maximum authorised volume
VL = volumetric limit
CO = carry over (if available)

- (2) At the beginning of any water year carry over water is limited to a volume of water equal to, or less than, two times the volumetric limit.

52. Initialisation of water sharing rules

- (1) As soon as practicable after a water licence becomes a metered entitlement, the chief executive will determine the maximum authorised volume, under the water sharing rules, for the current water year.
- (2) The chief executive will notify the licensee of the volume of water available to be taken for the remainder of the current water year under the water sharing rules.
- (3) The chief executive may request further information from the licensee about prior water use before determining the maximum authorised volume for the current water year.

Part 2: Seasonal water assignments

53. Seasonal water assignment rules

- (1) Carryover water cannot be seasonally assigned.
- (2) A seasonal water assignment must not allow the taking of the assigned water from a different management area or management unit.
- (3) For any water year, the maximum volume that can be assigned to an assignee for a single management unit, within the assignees land, is 100 ML.
- (4) Subsection (3) does not apply if an applicant shows, to the satisfaction of the chief executive, that the impacts associated with assignment of the volume of water to which the application relates, can be managed.
- (5) To satisfy the chief executive in relation to subsection (4) the applicant may need to carry out a hydrogeological assessment, including the construction of a numerical model.

Part 3: Water accounting

54. Water accounting

- (1) Unused volumetric limit becomes carry over water at the beginning of the new water year.
- (2) Carry over water can accumulate to a maximum volume of twice (2x) the volumetric limit.
- (3) Each licensee is required to maintain their water use to within the maximum authorised volume.
- (4) For each water year, water taken under these rules is taken to be used in the following order-
 - (a) Volumetric limit
 - (b) Carry over (if available)
 - (c) Seasonal water assignment (if available)

Chapter 8 – Monitoring, assessment & reporting

55. Scope of Chapter 8

This chapter outlines a framework for monitoring and reporting requirements for the purpose of Part 5 of the water resource plan.

Part 1: Monitoring artesian water pressure and subartesian water levels

56. Pressure monitoring network

- (1) A pressure monitoring network is a group of artesian and subartesian bores in which parameters stated in section 57 are measured.
- (2) The chief executive may identify-
 - (a) a pressure monitoring network to assess pressure distribution across the whole or part of the plan area for one or more management units (the *system monitoring network*);
 - (b) a pressure monitoring network to assess local impacts (the *impact monitoring network*)-
 - i. of taking of water in an area; or
 - ii. on the flow of water to springs and baseflow to watercourses.
- (3) In identifying a pressure monitoring network, the chief executive-
 - (a) must not include a bore if the bore does not represent pressure conditions in a single management unit; and
 - (b) where practicable, use bores that have been monitored in the past.
- (4) When identifying the system monitoring network the chief executive must, where appropriate, consult with others states that share the resource.
- (5) The pressure monitoring network may include any existing bore, whether in use or not.
- (6) The chief executive must maintain a register of bores in the pressure monitoring network.
- (7) The chief executive must review the monitoring network from time to time, adding or removing bores according to need.

57. Monitoring parameters

- (1) For bores in the pressure monitoring network, the chief executive must measure and record-
 - (a) water pressure in artesian bore;
 - (b) water level in subartesian bores;
 - (c) flow of water from artesian bores;
 - (d) temperature and electrical conductivity; and
 - (e) date and time at which the measurements are take
- (2) The chief executive may collect any additional record or information necessary for the purpose of this part.

58. Monitoring frequency

- (1) The monitoring frequency for-
 - (a) system monitoring network is once every three years; and
 - (b) impact monitoring network is as determined by the chief executive.

Part 2: Spring monitoring

59. Spring monitoring network

- (1) The chief executive must establish a spring monitoring network for the collection of data that can indicate trends in the flow of water to springs.
- (2) In identifying springs to be included in the spring monitoring network, the chief executive may consider-
 - (a) the potential for reduced flow as a result of further take of water from an activity in the plan area;
 - (b) the recovery of pressure as a result of management strategies and programs in the plan area; and
 - (c) known ecological and cultural values associated with spring groups.
- (3) The chief executive must maintain a register of the spring monitoring network.
- (4) Considering the information collected through the spring monitoring network and any other relevant information, the chief executive may change the spring monitoring network at anytime.

60. Monitoring parameters

- (1) For springs in a spring monitoring network, the chief executive must where relevant measure and collect records of-
 - (a) the extent of the wetted area of springs;
 - (b) the flow of water from springs;
 - (c) the flow of water in watercourses; and
 - (d) the date and time at which the measurements are collected.
- (2) Measurements under subsection (1) may not be limited to the spring monitoring network.
- (3) The chief executive may collect any additional records or information necessary for the purpose of this part.

61. Monitoring frequency

Spring monitoring will occur at least once in three years.

Part 3: Water use monitoring

Division 1: Measuring Devices

62. Metering

- (1) Metering of the taking of water to which this plan applies must be in accordance with the arrangements prescribed by regulation made under the *Act*.
- (2) Metering of the taking of water to which this plan applies must be in accordance with the *Metering of Water Extractions Policy*.

Part 4: Assessment and reporting

63. Assessment and reporting

- (1) The chief executive must make an ongoing assessment of the monitoring data that is measured and collected under this chapter -
 - (a) to ensure that the outcomes of the water resource plan are not compromised; and
 - (b) to improve understanding of the Basin.
- (2) The assessment may be used to assist the Minister in preparing a report under section 37 of the water resource plan.

Chapter 9 – Dealing with water licences

64. Scope of Chapter 9

- (1) This chapter deals with decisions about existing and new applications for water licences, water from surrendered, cancelled or expired water licences and replacing and amending existing water licences under the water resource plan.
- (2) For the purpose of this chapter the following definitions apply-

supplementary water licence means the irrigated area is irrigated using water from other sources and water to which the water resource plan applies supplements the other sources.

total resource means water to which this plan applies, that is, water from the Great Artesian Basin

other water sources means water other than water to which this plan applies.

Part 1: Existing and new water licence applications

65. Existing water licence applications

- (1) This section applies to each application for a water licence made under Section 206 of the Act if granting the application would increase the average amount of water that may be taken.
- (2) This part applies even if the application was made before the commencement of the water resource plan;
- (3) This part does not apply to applications made under Section 221 of the Act.

66. Applications to be refused

The chief executive must refuse an application to which this part applies, under Section 209 of the Act, unless the water resource plan or this plan provides for dealing with the application.

67. Applications not accepted

Applications for water licences must not be accepted unless the water resource plan or this plan provides for accepting and dealing with the application.

Part 2: Surrendered, cancelled or expired water licences

68. Water from surrendered, cancelled or expired water licences

- (1) If a water licence is surrendered, cancelled or expires then the volumetric limit associated with that water licence may be regarded as unallocated for the purpose of chapter 2 of this plan.
- (2) No refunds or compensation of any sort will be payable as a result of the surrender, cancellation or expiry of a water licence

Part 3: Replacing and amending existing authorisations

69. Replacing existing authorisations

The chief executive may in consultation with the licensee, under section 33 of the water resource plan, grant a licence, or licences, to replace a particular authority to take water if the taking of water is inconsistent with the water resource plan.

70. Amending water licence to state a volume as a result of dealings under Section 15 of the water resource plan

- (1) In amending a water licence to set a volumetric limit, in accordance with section 34 of the water resource plan, the chief executive must have regard to-
 - (a) the total resource, available to all water licence holders; and
 - (b) the water licence holders share of the total resource available to all water licence holders represented by, for example, the area of irrigation authorised by the water licence.
- (2) If the water licence states a condition that the water taken under the water licence is for supplementary irrigation the chief executive must have regard to the proportion of water obtained under the water licence and the proportion of water obtained from other water sources at the commencement of the water resource plan.

Chapter 10 – Amendments to the resource operations plan

Part 1: Amendments not requiring public notification

71. Scope of part 1

This part describes those amendments that may be made to this plan under Section 106(b) of the Act.

72. Amendments under subsection 106(b) of the Act

The chief executive may under Subsection 106(b) of the Act —

- (a) make an amendment that is necessary to implement an amendment to the water resource plan made under Section 57(b) of the Act;
- (b) amend the process for dealing with unallocated water under Chapter 2 of this plan;
- (c) amend the criteria for protection of flow to springs and baseflow to watercourses under Chapter 3 of this plan;
- (d) amend the criteria for protection of existing entitlements under Chapter 4 of this plan;
- (e) amend attachment E of this plan to include a town that is taking water for town water supply purposes that is consistent with Chapter 5 of this plan;
- (f) make an amendment to provide for increased or additional monitoring requirements if further information is required; and
- (g) make an amendment to provide for a reduction or removal of state monitoring requirements if no further information or benefit is gained from the continuation of monitoring arrangements.

Part 2: Amendments requiring public notification

73. Scope of part 2

This part describes those amendments that may be made to this plan under Section 105(5)(b) of the Act.

74. Amendments under the Subsection 105(5)(b) of the Act

The chief executive may under Subsection 105(5)(b) of the Act –

- (a) amend the plan to state licences granted as a result of the release of unallocated water under chapter 2 this plan;
- (b) amend the rules for relocation of water licences under Chapter 6 of this plan;
- (c) provide for amendment of water licences to state a volumetric limit;
- (d) amend the water sharing rules and seasonal assignment rules under Chapter 7 of this plan;
- (e) make an amendment to Section 19 of this plan about the availability of unallocated water from the state reserve in a management area.

Chapter 11 – Implementation

75. Commencement of the plan

- (1) The plan will be implemented from the date of it is approved by the Governor-in-Council and is notified in the Queensland *Government Gazette*.
- (2) The chief executive may approve interim administrative arrangements for the implementation of matters dealt with in this plan.

76. Implementation of water sharing rules

- (1) A licensee who, immediately before the commencement of this plan, operated under the ‘Great Artesian Basin’ Water Sharing Rules defined under Section 64 of the *Water Regulation 2002* must manage the taking of water under water licence so that within five (5) years of the commencement of the plan the taking of water under the water licence complies with the water sharing rules of this plan.
- (2) Subsection (1) does not apply if a licensee submits an alternative proposal to the chief executive, and the proposal is approved by the chief executive.

Glossary

Act: Is the *Water Act 2000*.

Basin: Means the Queensland section of the Great Artesian Basin.

Chief executive: The chief executive officer of the department responsible for administering the *Water Act 2000*.

Confined aquifer: An aquifer that is overlain and underlain by impervious layers. The water level in bores tapping confined aquifers rises within the bore to a level above the top of the aquifer, and may result in an artesian or subartesian bore. Confined aquifers tend to occur in the central and deeper parts of the Basin.

Department: The department responsible for administering the *Water Act 2000*.

Discharge spring: A spring supplied by underground water from an aquifer that, in the vicinity of the spring, is a confined aquifer.

Great Artesian Basin Sustainability Initiative: means the agreement between the State and Commonwealth to subsidise the repair of uncontrolled bores and replace bore drains with piped distribution systems.

Management area: Management areas are based on hydrological, geological, water demand and recharge and discharge characteristics. The geographic locations of management areas are described in Attachments B1 to B25.

Management unit: Each identifiable aquifer in a management area is a management unit. A management unit will include more than one aquifer if hydraulically connected. For example 'Surat East 3' encompasses both the Hutton Sandstone and Evergreen Formation.

Recharge spring: A spring supplied by underground water from an aquifer or aquifers that in the vicinity of the spring are not confined aquifers.

Relocation of a water licence means one or more of the following-

- (a) The transfer of a water licence made in accordance with the regulation under the provisions of section 223 of the *Water Act 2000* so that the water licence attaches to other land; or
- (b) Amendment of a water licence if the amendment results in a change in location from which water could be taken.

Resource Operations Plan (the plan): The *Great Artesian Basin Resource Operations Plan 2006*.

Storativity: Is the volume of water released or taken into storage per unit plan area of aquifer per unit change of head. It is a dimensionless value.

Transmissivity: Is the parameter used to indicate the ease of groundwater flow through a metre width of aquifer section.

Water Resource Plan (the water resource plan): The *Water Resource (Great Artesian Basin) Plan 2006*.

Water year: The period from 1 July to 30 June in the following year.

ATTACHMENTS

A: Map of plan area

B1-25: Management areas

<ol style="list-style-type: none">1. Cape2. Laura3. Gulf4. Gulf East5. Carpentaria6. Carpentaria East7. Flinders8. Flinders East9. Western Carlo10. North West11. Barcaldine West12. Barcaldine North13. Barcaldine East	<ol style="list-style-type: none">14. Barcaldine South15. Western16. Central17. Warrego West18. Warrego East19. Surat20. Surat North21. Surat East22. Mimosa23. Mulgildie24. Eastern Downs25. Clarence Moreton
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C: Linkages between water resource plan outcomes and resource operations plan provisions

D: 1-3 Assessment tables for protection of flow to springs and existing entitlements

E: Volumetric limits for town water supply

ATTACHMENT: A

Map of Resource Operations Plan area is the same as GAB plan area

