Department of Natural Resources, Mines and Energy

Great Artesian Basin and Other Regional Aquifers

Water Management Protocol

September 2017
Amended December 2019
(Revision 1)

Queensland Government

This publication has been compiled by Water Policy, Department of Natural Resources, Mines and Energy.

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Chapter 1—Preliminary

1. Title

This water management protocol may be cited as the Great Artesian Basin and Other Regional Aquifers water management protocol 2017 (this protocol).

2. Commencement

(1) The following provisions were amended in December 2019 and commence on the first business day after Revision 1 of this protocol is made and is available on the department's website—
   (a) Section 43;
   (b) Sections 53, 54, 55 and 59;
   (c) Attachment 6.

(2) The remaining provisions commenced on 2 September 2017.

3. Purpose of this protocol

This protocol implements parts of the Water Plan (Great Artesian Basin and Other Regional Aquifers) 2017 (the plan).

4. Interpretation of words used in this protocol

The dictionary in Attachment 1 defines particular terms used in this protocol. Other terms are also defined at the beginning of some chapters, in relation to those chapters only.

5. Protocol area

This protocol applies to the area shown as the plan area,[1] on the map in Schedule 1 of the plan.[2]

6. Water to which this protocol applies

This protocol applies to the water to which the plan applies.[3]

7. Addressing the plan outcomes

Attachment 7 lists the outcomes of the plan and how this protocol and other documents address those outcomes.

[1] The exact location of the boundaries of the plan area, groundwater units, groundwater sub-areas and zones are held in digital electronic form by the department and may be accessed, free of charge, at each office of the department. The location of a boundary may also be inspected through the interactive online tool called the Queensland Globe.

[2] This map is also shown in Attachment 2 of this protocol.

[3] The plan applies to the following water in or from the groundwater units in the plan area—
(a) underground water;
(b) water in springs.

Chapter 2—Zones

8. Application of chapter 2
This chapter declares zones for the purpose of section 10 of the plan

9. Declaration of zones
The areas of groundwater units identified in Attachment 3 are declared to be zones for the purpose of section 10 of the plan.[4]

10. Limits for zones
Limits on water licence relocations in zones are established in Chapter 5 of this protocol. Limits on seasonal water assignments in zones are established in Chapter 7 of this protocol.[5]

[4] The exact location of the boundaries of the plan area, groundwater units, groundwater sub-areas and zones are held in digital electronic form by the department and may be accessed, free of charge, at each office of the department. The location of a boundary may also be inspected through the interactive online tool called the Queensland Globe.

[5] In addition to these limits, Section 18 of the plan states that water may not be granted from an unallocated water reserve in a zone declared under a water management protocol.

Chapter 3—Protection of flows to groundwater-dependent ecosystems

Part 1: Preliminary

11. Application of chapter 3

This chapter sets out a framework for implementing Part 4 Division 5 of the plan to protect the flow of water to groundwater-dependent ecosystems.

12. Definitions for chapter 3

For the purpose of this chapter, the following definitions apply –

Cumulative drawdown is defined in the plan as follows: cumulative drawdown, for a groundwater-dependent ecosystem, means the sum of the long-term drawdowns for the ecosystem of the decisions made about water licences, and the water licences cancelled or surrendered, on or after—

(a) for the Yelarbon Desert groundwater-dependent ecosystem and the groundwater-dependent ecosystems connected to the Betts Creek beds, Normanton and Winton Mackunda groundwater units and the Cape Rolling Downs groundwater sub-area—the commencement; or otherwise—

(b) 23 February 2007.

The plan also uses the term, cumulative drawdown, in relation to particular persons authorised to take water without a licence:

(a) In section 26 (for stock and domestic purposes); and

(b) In section 28 (for prescribed activities and projects for the economic or social benefit of Aboriginal peoples or Torres Strait Islanders).

This protocol uses the term, cumulative drawdown, in relation to decisions made about water licences; water licences that are cancelled or surrendered; and particular persons authorised to take water without a licence in sections 26 and 28 of the plan.[6]

Decision about a water licence, includes the list of decision types in section 40 of the plan,[7] with the exception of licence amendments made under section 50 of the plan.[8]

Distance, is a distance between a groundwater-dependent ecosystem and a location of take, which applies when the groundwater-dependent ecosystem is connected to the same groundwater unit from which take is proposed to be granted.

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[6] Section 58 of the plan states that the water management protocol must address ways for the chief executive to, for a groundwater-dependent ecosystem, estimate the cumulative drawdown, or otherwise be satisfied the cumulative drawdown after making a particular decision or a particular taking of water is less than 0.4m, for sections 26(2)(b), 28(2)(c), and 41 of the plan.

[7] Part 4 Division 5 of the plan applies to a decision to—
(a) grant a water licence to take water from an unallocated water reserve; or
(b) grant a water licence to take water for stock or domestic purposes; or
(c) grant a seasonal water assignment for a water licence; or
(d) amend or relocate a water licence.
However, it does not apply to a decision to grant a water licence under section 54 of the plan, to take a percentage of the volume of saved water, or a decision to grant a water licence under section 68 of the plan to a person authorised to continue taking water.

8 Section 50 of the plan provides for licence amendments to allow water to be taken from a bore without a watertight delivery system for the purpose of sustaining, or contributing to sustaining, culturally or environmentally significant values that existed on 2 September 2017.

Groundwater unit connected to a groundwater-dependent ecosystem is a groundwater unit that contains a source aquifer for the ecosystem. Where source aquifer(s) for a groundwater-dependent ecosystem have not been identified, all groundwater units that exist below that ecosystem are a groundwater unit connected to a groundwater-dependent ecosystem, for that ecosystem.

High volume seasonal water assignment is where a seasonal water assignment occurs in the following circumstances –

(a) The volume of water assigned is more than 100 megalitres; or

(b) The volume of water assigned to an assignee over a period of three consecutive water years totals more than 200 megalitres at the same location.

Long-term drawdown is defined in the plan as follows: long-term drawdown, for a groundwater-dependent ecosystem for a decision about a water licence or the cancellation or surrender of a water licence, means an estimate of the change, in metres, in groundwater pressure underneath the groundwater-dependent ecosystem resulting from—

(a) Making the decision; or

(b) The water licence being cancelled or surrendered.

This protocol also uses the term, long-term drawdown, in relation to particular persons authorised to take water without a licence in sections 26 and 28 of the plan.

Lower unit is a groundwater unit connected to a groundwater-dependent ecosystem that is not the shallowest groundwater unit at the location of that ecosystem.

Proposed additional take of water, is the proposed annual take of water, additional to any existing authorised take of water, in megalitres per water year, from a proposed location.[9]

Upper unit is a groundwater unit connected to a groundwater-dependent ecosystem that is the shallowest groundwater unit at the location of that ecosystem.

Part 2: Estimating cumulative drawdown and ensuring it is less than 0.4 metres, for section 41 of the plan

13. The groundwater-dependent ecosystems register

(1) The chief executive must maintain a register of the groundwater-dependent ecosystems that support significant cultural or environmental values within the plan area.

(2) The register must contain –

(a) Groundwater-dependent ecosystem locations;

(b) Names of the groundwater units connected to each groundwater-dependent ecosystem, and whether for that ecosystem, the groundwater unit is a lower unit or an upper unit;

(c) The cumulative drawdown for each groundwater-dependent ecosystem.

(3) Provided the chief executive records within the register the reasons for doing so, the register may be amended at any time –

(a) To add or remove groundwater-dependent ecosystems; or

(b) To better record details relevant to the flow of water to groundwater-dependent ecosystems.

(4) Where the cumulative drawdown is affected by a decision, licence cancellation, or licence surrender, the chief executive must amend the cumulative drawdown for groundwater-dependent ecosystems as soon as practicable after:

[9] For example, if a water user currently holds a water licence for 100ML, and is proposing to take an additional 50ML per year, through water licence relocation, grant of unallocated water, or seasonal water assignment, equating to a total annual take of 150ML per year, the proposed additional take of water is 50ML.

(a) a decision about a water licence or seasonal water assignment is made;

(b) a water licence is surrendered or cancelled;

(c) the end of the water year for seasonal water assignments.

(5) Despite subsection (4), the chief executive must not amend the cumulative drawdown because of water licence amendments resulting from the installation of controlled bores or watertight delivery systems.

14. Details of decisions made

The chief executive must maintain a record of the details of decisions made about water licences and seasonal water assignments that affect the cumulative drawdown for groundwater-dependent ecosystems.

15. A method for estimating long-term drawdown when estimating cumulative drawdown

(1) Long-term drawdown may be estimated using the following formula –

LTD = PAT x LTDM ÷ 1000

Where: **LTD** = Long-term drawdown, in metres
PAT = Proposed additional take of water, in megalitres per water year
LTDM = Long-term drawdown multiplier

(2) The long-term drawdown must be assigned a positive value where there is a predicted reduction in groundwater pressure or groundwater levels below a groundwater-dependent ecosystem.

(3) The long-term drawdown must be assigned a negative value where there is a predicted increase in groundwater pressure or groundwater levels below a groundwater-dependent ecosystem.

(4) The long-term drawdown multiplier to use for estimating the long-term drawdown is determined using either Attachment 4.1 for a take of water in an upper unit, or Attachment 4.2 for a take of water in a lower unit, based on –
(a) the groundwater unit in which the proposed additional take of water is located;
(b) the distance between a groundwater-dependent ecosystem and the location of a proposed additional take of water.

(5) Where the actual distance between a groundwater-dependent ecosystem and the location of a proposed additional take of water is not shown in Attachment 4.1 or 4.2, the long-term drawdown multiplier must be determined on a pro-rata basis, using the distances that are shown in the attachments that are closest to the actual distance.

(6) The long-term drawdown multiplier is zero for:
(a) upper units, for all distances greater than 240 kilometres;
(b) lower units, for all distances greater than 710 kilometres.

16. Alternative methods for estimating long-term drawdown or the cumulative drawdown at groundwater-dependent ecosystems

(1) The chief executive may estimate long-term drawdown or the cumulative drawdown by undertaking a hydrogeological assessment that includes the results of appropriately conducted studies. These studies may include, but need not be restricted to, groundwater flow modelling, analytical methods, or similar.

(2) The period covered by such an assessment needs to be at least one hundred years from the commencement of the proposed additional take of water.

(3) The chief executive may also consider such assessments undertaken for or by applicants for a decision listed in section 40 of the plan.[10]

17. Granting water licences for stock or domestic purposes

(1) For a groundwater unit connected to a groundwater-dependent ecosystem, the chief executive may grant a water licence for stock or domestic purposes in that groundwater unit if: [11]
   (a) the take of water under that licence is located at least 5 kilometres from all groundwater-dependent ecosystems connected to that groundwater unit; or
   (b) The cumulative drawdown that would result from granting the licence is less than 0.4 metres at all groundwater dependent ecosystems connected to that groundwater unit.[12]

(2) Section (1)(a) relates to the chief executive being otherwise satisfied that the cumulative drawdown, after making a decision, would be less than 0.4 metres, for section 58(2)(a)(ii) of the plan.

(3) When estimating the long-term drawdown for section (1)(b), the proposed additional take of water to be used in the estimate is to be calculated based on the following:
   (a) The area of the land attached to the water licence, its land use, grazing potential, and stock carrying capacity, assuming the stock carrying capacity is fully utilised; and
   (b) The availability of alternate water supplies, such as surface water and other groundwater sources, for stock or domestic purposes.

18. Granting seasonal water assignments

(1) For a groundwater unit connected to a groundwater-dependent ecosystem, the chief executive may grant a seasonal water assignment in that groundwater unit if:[13]
   (a) it is not a high volume seasonal water assignment; or

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[10] Section 43 of the plan states that, an applicant for a decision listed in section 40 of the plan, may be required by the chief executive to—
(a) investigate the likely impact the proposed taking of water may have on the following—
   (i) the flow of water to groundwater-dependent ecosystems;
   (ii) groundwater pressure and levels;
   (iii) existing water licences and statutory authorisations to take or interfere with water; and
(b) carry out—
   (i) studies relating to the relevant groundwater-dependent ecosystems and the groundwater units connected to the ecosystems; or
   (ii) a hydrogeological assessment.

[11] Section 41 of the plan states that the chief executive must not make certain decisions (the decisions are listed in section 40 of the plan and include granting licences for stock or domestic purposes and seasonal water assignments) unless the cumulative drawdown for groundwater-dependent ecosystems, after making the decision, would be less than 0.4 metres.

[12] This potentially allows stock or domestic licences to be granted within 5km of a groundwater-dependent ecosystem, provided the plan requirement for cumulative drawdown is satisfied.

[13] Section 41 of the plan states that the chief executive must not make certain decisions (the decisions are listed in section 40 of the plan and include granting licences for stock or domestic purposes and seasonal water assignments) unless the cumulative drawdown for groundwater-dependent ecosystems, after making the decision, would be less than 0.4 metres.

(b) The cumulative drawdown that would result from granting the seasonal water assignment is less than 0.4 metres at all groundwater dependent ecosystems connected to that groundwater unit.[14]

(2) Section (1)(a) relates to the chief executive being otherwise satisfied that the cumulative drawdown, after making a decision, would be less than 0.4 metres, for section 58(2)(a)(ii) of the plan.

19. General restrictions for existing water licences near groundwater-dependent ecosystems

For an existing water licence that authorises water to be taken from a groundwater unit connected to a groundwater-dependent ecosystem, at a location within a distance of 5 kilometres of that groundwater-dependent ecosystem, the chief executive –

(1) Must not make a decision that would result in water being taken from a location closer to that groundwater-dependent ecosystem;

(2) May give the licensee notice under the Water 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 this section; and

(3) Must not make a decision under subsection (2) to the extent the amendment would limit a licensee's ability to take water from an existing water bore.

20. Other decisions about water licences

(1) This section applies to a decision about a water licence not covered in sections 17, 18, or 19 of this protocol, if the decision is associated with a groundwater unit connected to a groundwater-dependent ecosystem;

(2) Before making the decision, the chief executive must use a process described in this chapter to estimate the long-term drawdown when estimating the cumulative drawdowns for groundwater-dependent ecosystems, and be satisfied the cumulative drawdowns, after making the decision, would be less than 0.4 metres.[15]

Part 3: Ensuring cumulative drawdown is less than 0.4 metres for takes of water authorised under sections 26 and 28 of the plan

21. Application of this part

This part relates to the chief executive being satisfied that cumulative drawdown would be less than 0.4 metres, for takes of water that the plan authorises under sections 26 and 28, without a water licence, water permit, or seasonal water assignment notice.[16]

[14] This potentially allows high volume seasonal water assignments to be granted, provided the plan requirement for cumulative drawdown is satisfied.

[15] Section 41 of the plan states that the chief executive must not make certain decisions (the decisions are listed in section 40 of the plan and include granting licences for stock or domestic purposes and seasonal water assignments) unless the cumulative drawdown for groundwater-dependent ecosystems, after making the decision, would be less than 0.4 metres.

[16] Sections 26 and 28 of the plan authorise water to be taken in accordance with the requirements of this protocol, for:

(1) Domestic purposes in the plan area, or stock purposes in those groundwater units and sub-areas identified in the plan, and from a water bore with a watertight delivery system (section 26 of the plan);

(2) A prescribed activity under the Water Regulation 2016, or a project for the economic or social benefit of Aboriginal peoples or Torres Strait Islanders, where the maximum take of water is 2ML during a water year, from a water bore that is controlled (section 28 of the plan).

Takes of water for stock or domestic purposes that commenced before 2 September 2017 do not need to satisfy the requirements of this part of the protocol.

22. Takes of water authorised under sections 26 and 28 of the plan must be at least 5 km from connected groundwater-dependent ecosystems

(1) Taking water from a groundwater unit using a water bore that is located at least 5 kilometres from any groundwater-dependent ecosystem connected to that groundwater unit, satisfies the plan requirement that cumulative drawdown will be less than 0.4 metres;

(2) Section (1) relates to the chief executive being otherwise satisfied that the cumulative drawdown, after a particular taking of water, would be less than 0.4 metres, for section 58(2)(a)(ii) of the plan.

Chapter 4—Protection of existing licences and particular authorisations

Part 1: Preliminary

23. Application of chapter 4

This chapter sets out a framework for implementing Part 4 Division 5 of the plan to protect existing licences and particular authorisations to take water. [17]

24. Definitions for chapter 4

For the purpose of this chapter, the following definitions apply –

Decision about a water licence, includes the list of decision types in section 40 of the plan,[18] with the exception of licence amendments made under section 50 of the plan.[19]

Existing take is the taking of water from the following that is authorised at the time a decision about a water licence is made –

(a) From a location under a water licence; and

(b) From a particular authorisation.[20]

High volume seasonal water assignment is where a seasonal water assignment occurs in the following circumstances –

(a) The volume of water assigned is more than 100 megalitres; or

(b) The volume of water assigned to an assignee over a period of three consecutive water years totals more than 200 megalitres at the same location.

Minimum separation distance is as determined from section 26 of this protocol.

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[17] **Particular authorisation**, is defined in the plan as a statutory authorisation to take or interfere with water from—
(a) the following groundwater units—
- Betts Creek beds
- Normanton
- Winton Mackunda

(b) the Cape Rolling Downs groundwater sub-area.

[18] Part 4 Division 5 of the plan applies to a decision to—
(a) grant a water licence to take water from an unallocated water reserve; or
(b) grant a water licence to take water for stock or domestic purposes; or
(c) grant a seasonal water assignment for a water licence; or
(d) amend or relocate a water licence.
However, it does not apply to a decision to grant a water licence under section 54 of the plan, to take a percentage of the volume of saved water, or a decision to grant a water licence under section 68 of the plan to a person authorised to continue taking water.

[19] Section 50 of the plan provides for licence amendments to allow water to be taken from a bore without a watertight delivery system for the purpose of sustaining, or contributing to sustaining, culturally or environmentally significant values that existed on 2 September 2017.

[20] **Particular authorisation**, is defined in the plan as a statutory authorisation to take or interfere with water from—
(a) the following groundwater units—
- Betts Creek beds
- Normanton
- Winton Mackunda

(b) the Cape Rolling Downs groundwater sub-area.

Proposed take, in relation to a decision about a water licence, is the proposed annual take of water, including any currently granted take of water, in megalitres per water year, from a proposed location.[21]

Separation distance is the distance between the locations of a 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 groundwater unit.

Part 2: Estimating drawdown and ensuring it is less than the maximum drawdown, for section 42 of the plan

25. The locations of existing takes of water

(1) The location of an existing take of water for a particular authorisation, is the location of water bore(s) relevant to the authorisation for that take of water, as identified in the department's Groundwater Database.

(2) The location of an existing take of water for a water licence, is:
   (a) the location of the water bore(s) linked to the water licence, as determined by the chief executive; or
   (b) where no bores are linked to the water licence, a location within the parcel(s) of land on which the water licence authorises water to be taken, as determined by the chief executive.

26. A method for being satisfied that the drawdown at a location will not exceed the maximum drawdown

(1) The minimum separation distance for a decision about a water licence, or seasonal water assignment, in a groundwater unit or sub-area shown in a row of column 1 of the table in Attachment 5, is the distance, in kilometres, shown in the corresponding row of column 2 for the proposed take of water, in megalitres per year.

(2) Where the actual proposed take of water is not shown in the table in Attachment 5, the minimum separation distance must be determined on a pro-rata basis using the proposed take volumes that are shown in the table that are closest to the actual proposed take volume.

(3) If the distance between the proposed take of water and an existing take of water in the groundwater unit, is equal to or greater than the minimum separation distance for the decision, the chief executive may be satisfied that the drawdown at the location of the existing take of water will be less than the maximum drawdown.

(4) This section may only be used for decisions involving proposed take volumes less than 10,000 megalitres per year.

[21] For example, if a water user currently holds a water licence for 100ML, and is proposing to take an additional 50ML per year from the same location, through water licence relocation, seasonal water assignment, or the grant of unallocated water, equating to a total annual take of 150ML per year, the proposed take is 150ML.

27. Alternative methods for being satisfied that the drawdown at a location will not exceed the maximum drawdown

(1) The chief executive may estimate the drawdown at a location by undertaking a hydrogeological assessment that includes the results of appropriately conducted studies. These studies can include, but need not be restricted to, groundwater flow modelling, analytical methods, or similar.

(2) The period covered by such an assessment needs to be at least one hundred years from the commencement of the proposed take of water.

(3) The chief executive may also consider such assessments undertaken for or by applicants for a decision listed in section 40 of the plan.[22]

28. Granting water licences for stock or domestic purposes

(1) The chief executive may grant a water licence for stock or domestic purposes in a groundwater unit if: [23]
   (a) the location of take for the licence is at least 300 metres from existing takes of water in that groundwater unit; or
   (b) The drawdown due to the proposed take of water, that would result from granting the licence, is less than 5 metres at all existing takes of water in that groundwater unit.[24]

(2) Section (1)(a) relates to the chief executive being otherwise satisfied that the drawdown at a location, after making a decision, would be less than the maximum drawdown, for section 58(2)(b)(ii) of the plan.

(3) When estimating the drawdown for section (1)(b), the proposed take of water to be used in the estimate is to be calculated based on the following:
   (a) The area of the land attached to the water licence, its land use, grazing potential, and stock carrying capacity, assuming the stock carrying capacity is fully utilised; and
   (b) The availability of alternate water supplies, such as surface water and other groundwater sources, for stock or domestic purposes.

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[22] Section 43 of the plan allows the chief executive to require the applicant for a decision listed in section 40 of the plan to—

(a) investigate the likely impact the proposed taking of water may have on the following—
   (i) the flow of water to groundwater-dependent ecosystems;
   (ii) groundwater pressure and levels;
   (iii) existing water licences and statutory authorisations to take or interfere with water; and

(b) carry out—
   (i) studies relating to the relevant groundwater-dependent ecosystems and the groundwater units connected to the ecosystems; or
   (ii) a hydrogeological assessment.

[23] Section 42 of the plan states that the chief executive must not make certain decisions (the decisions are listed in section 40 of the plan and include granting licences for stock or domestic purposes and seasonal water assignments) unless the drawdown at a location from which water may be taken under an existing water licence or particular authorisation, after making the decision, would be less than the maximum drawdown. Maximum drawdown, in the plan, means a drawdown of 5 metres.

[24] This potentially allows stock or domestic licences to be granted within 300 metres of an existing take of water, provided the plan requirement for drawdown is satisfied.

29. Granting seasonal water assignments

(1) The chief executive may grant a seasonal water assignment in a groundwater unit if:[25]
   (a) it is not a high volume seasonal water assignment; or
   (b) The drawdown due to the proposed take of water, that would result from granting the assignment, is less than 5 metres at all existing takes of water in that groundwater unit.[26]

2) Section (1)(a) relates to the chief executive being otherwise satisfied that the drawdown at a location, after making a decision, would be less than the maximum drawdown, for section 58(2)(b)(ii) of the plan.

30. Other decisions about water licences.

(1) This section applies to a decision about a water licence in a groundwater unit, not covered in sections 28 or 29 of this protocol.

(2) Before making the decision, the chief executive must use a process described in this chapter to estimate the drawdown at the locations of existing take in the groundwater unit, and be satisfied the drawdowns are less than the maximum drawdown.[27]

[25] Section 42 of the plan states that the chief executive must not make certain decisions (the decisions are listed in section 40 of the plan and include granting licences for stock or domestic purposes and seasonal water assignments) unless the drawdown at a location from which water may be taken under an existing water licence or particular authorisation, after making the decision, would be less than the maximum drawdown. Maximum drawdown, in the plan, means a drawdown of 5 metres.

[26] This potentially allows high volume seasonal water assignments within 300 metres of an existing take of water, provided the plan requirement for drawdown is satisfied.

[27] Section 42 of the plan states that the chief executive must not make certain decisions (the decisions are listed in section 40 of the plan and include granting licences for stock or domestic purposes and seasonal water assignments) unless the drawdown at a location from which water may be taken under an existing water licence or particular authorisation, after making the decision, would be less than the maximum drawdown. Maximum drawdown, in the plan, means a drawdown of 5 metres.

Part 3: Ensuring drawdown is less than the maximum drawdown for takes of water authorised under sections 26 and 28 of the plan

31. Application of this part

This part relates to the chief executive being satisfied that drawdown at the locations of existing take in a groundwater unit, will be less than the maximum drawdown, for takes of water that the plan authorises under sections 26 and 28, without a water licence, water permit, or seasonal water assignment notice.[28]

32. Take of water authorised under sections 26 and 28 of the plan must be at least 300 metres from existing takes of water

(1) Taking water from a groundwater unit using a water bore that is located at least 300 metres from any existing take of water within the same groundwater unit, satisfies the plan requirement that drawdown would be less than the maximum drawdown.

(2) Section (1) relates to the chief executive being otherwise satisfied that the drawdown at a location, after a particular taking of water, would be less than the maximum drawdown, for section 58(2)(b)(ii) of the plan.

[28] Sections 26 and 28 of the plan authorise water to be taken in accordance with the requirements of this protocol, for:

(a) Domestic purposes in the plan area, or stock purposes in those groundwater units and sub-areas identified in the plan, and from a water bore with a watertight delivery system (section 26 of the plan);

(b) A prescribed activity under the Water Regulation 2016, or a project for the economic or social benefit of Aboriginal peoples or Torres Strait Islanders, where the maximum take of water is 2ML during a water year, from a water bore that is controlled (section 28 of the plan).

Takes of water for stock or domestic purposes that commenced before 2 September 2017 do not need to satisfy the requirements of this part of the protocol.

Chapter 5—Rules for relocating a water licence

Part 1: Preliminary

33. Application of chapter 5

This chapter specifies the rules for relocating a water licence.

34. Licence amendments to facilitate make good agreements

The rules in this chapter do not apply to water licences that are amended under Part 5 Division 4 of the plan to facilitate make good agreements.[29]

35. Definitions for chapter 5

For the purpose of this chapter the following definitions apply–

Groundwater sub-area: Includes the sub-areas as described in section 9 of the plan, but also for this chapter includes the following groundwater units (they do not contain any sub-areas):

(a) Bulimba Formation groundwater unit

(b) Laura Gilbert River equivalents groundwater unit

(c) Laura Rolling Downs groundwater unit

(d) Mooga groundwater unit

(e) Mulgildie North Hutton groundwater unit

(f) Normanton groundwater unit

(g) Wyaaba beds groundwater unit.

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.

36. Chief executive may delay dealing with an application to relocate

The chief executive may delay dealing with an application to relocate a water licence if dealing with the application would unreasonably interfere with a process for granting unallocated water.

Part 2: General rules for relocation

37. Relocation must be consistent with Part 4 Division 5 of the plan

Relocation must be consistent with Part 4 Division 5 of the plan and chapters 3 and 4 of this protocol.

38. Relocation may not occur if it includes a change in certain purposes

Part or all of a water licence granted for any of the following purposes, may not be relocated if the relocation includes a change in the purpose for which water may be taken –

(1) Town water supply

(2) A specific project—for the duration of that project

(3) From the State reserve

(4) From the Aboriginal peoples and Torres Strait Islander economic reserve.

[29] Part 5 Division 4 of the plan allows some licences to be amended if the change will facilitate compliance with certain make good obligations. See sections 56 and 57 of the plan.

39. Original and proposed licences to be volumetric

The relocation of a water licence can only occur if both the original and relocated water licences state a volumetric limit.

40. Original water licence to be metered

(1) The relocation of a water licence can only occur if the original water licence:

(a) Is a declared metered entitlement specified in the Water Regulation 2016; or

(b) Has been granted with conditions requiring the take of water under the licence to be metered; or

(c) Is amended at the time of the relocation to have conditions requiring the take of water under the licence to be metered.

(2) Section (1) does not apply if the total volumetric limit for the original water licence is being relocated.

41. Proposed water licence to be metered

The relocation of a water licence can only occur if the proposed water licence:

(1) Is a declared metered entitlement specified in the Water Regulation 2016, or

(2) Is granted with conditions requiring the take of water under the licence to be metered.

Part 3: Other rules for relocation

42. Additional rules for relocating to an area of a groundwater unit that is within a zone

(1) This section establishes additional rules for relocating a water licence to an area of a groundwater unit that is within a zone.

(2) Relocation is not permitted from outside a zone into a zone.

(3) Relocation is permitted within a groundwater unit from one part of a zone to another part of the same zone, and this may occur across a sub-area boundary.

43. Additional rules for relocating to an area of a groundwater unit that is not within a zone

(1) This section establishes additional rules for relocating a water licence to an area of a groundwater unit that is not within a zone.

(2) Part or all of a water licence may be relocated only if the relocation is –

(a) Within any groundwater sub-area; or

(b) Into a groundwater sub-area listed in a row of column 2 of Attachment 6; and

(c) Out of any groundwater sub-area listed in the same row of column 3 of Attachment 6.

Chapter 6—Water sharing rules

Part 1: Preliminary

44. Application of chapter 6

This chapter specifies the water sharing rules for water licences.

45. Definitions for chapter 6

For the purpose of this chapter the following definitions apply–

Carry over water means the volume of unused volumetric limit at the end of a water year.

Maximum authorised volume means the total volume of water able to be taken by a licensee in a single water year and includes the volumetric limit,[30] any seasonal water assignment, and any carryover water.

Part 2: Water sharing rules

46. Water sharing rules

(1) The water sharing rules apply to water licences that state a volumetric limit and either:
   (a) Are declared metered entitlements specified in the Water Regulation 2016; or
   (b) Have been granted with conditions requiring the take of water under the licence to be metered.

(2) Water sharing rules—
   (a) Describe the arrangements through which access to water taken under a water licence is managed;
   (b) Define the rules for calculating the maximum authorised volume; and
   (c) Establish requirements to account for water taken under the water sharing rules.

47. Calculating maximum authorised volume

The maximum authorised volume for a water year is calculated using the following formula:

MAV = VL + SA + CO

Where: **MAV** = Maximum authorised volume
VL = Volumetric limit
SA = Seasonal assignment (if available)
CO = Carryover water (if available)

48. Limit on water taken as carry over

For any water year, the combined take of volumetric limit and carry over water is limited to a maximum volume of water equal to two times the volumetric limit.

49. Water accounting for water sharing rules

(1) Unused volumetric limit becomes carry over water at the beginning of the new water year.

(2) Carry over water can accumulate from any number of previous water years to a maximum volume equal to the volumetric limit.

(3) Each licensee is required to limit their water use to be 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) Seasonal water assignment (if available)
   (c) Carry over (if available).

[30] The plan states that ***volumetric limit***, for a water licence, means the maximum volume of water, in megalitres, that may be taken under the licence during a water year.

50. Initialisation of water sharing rules

(1) The chief executive will determine the maximum authorised volume under the water sharing rules, for the current water year, as soon as practicable after a water licence that states a volumetric limit either:
   (a) becomes a metered entitlement; or
   (b) is granted or amended with conditions requiring the take of water to be metered.

(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.

Chapter 7—Seasonal water assignment rules

Part 1: Preliminary

51. Application of chapter 7

This chapter specifies the seasonal water assignment rules for water licences. [31]

52. Definitions for chapter 7

For the purpose of this chapter the following definitions apply–

Assignee means the person receiving the benefit of the water that is seasonally assigned.

Assignor means the person seasonally assigning their water.

Groundwater sub-area: Includes the sub-areas as described in section 9 of the plan, but also for this chapter includes the following groundwater units (they do not contain any sub-areas):

(a) Bulimba Formation groundwater unit

(b) Laura Gilbert River equivalents groundwater unit

(c) Laura Rolling Downs groundwater unit

(d) Mooga groundwater unit

(e) Mulgildie North Hutton groundwater unit

(f) Normanton groundwater unit

(g) Wyaaba beds groundwater unit.

Part 2: Seasonal water assignment rules

53. Assignor water licence must state a volumetric limit

The seasonal water assignment of a water licence can only occur if the water licence held by the assignor states a volumetric limit.

54. Assignor's water licence and the assignee's authorisation to be metered

The seasonal water assignment of a water licence can only occur if the assignor's water licence and the assignee's authorisation are either–

(1) A declared metered entitlement specified in the Water Regulation 2016; or

(2) Conditioned to require metering of the take of water under the licence or seasonal water assignment notice.

55. Meter readings to be provided by assignee and assignor

The seasonal water assignment of a water licence can only occur if, prior to the assignment, the assignor and assignee both provide details of the works, meter details, and meter readings for all meters related to any authorisation used to take water, and authorisations that have the potential to be used to take water after the assignment.

56. Carry over cannot be assigned

Carryover water cannot be seasonally assigned.

[31] The Water Act states that ***seasonal water assignment***, for a water licence, means the assignment by the holder of the licence of the benefit under the licence to another person, for a water year, of all or part of the water that may be taken under the licence.

57. Protecting existing licences, particular authorisations, and ecosystems

Seasonal water assignments must be consistent with Part 4 Division 5 of the plan and –

(1) Chapter 3 of this protocol to protect flows to groundwater-dependent ecosystems; and

(2) Chapter 4 of this protocol to protect flows to existing licences and particular authorisations.

58. Additional rules for assigning to an area of a groundwater unit that is within a zone

(1) This section establishes additional rules for seasonal water assignment to an area of a groundwater unit that is within a zone.

(2) Seasonal assignment is not permitted from outside a zone into a zone.

(3) Seasonal assignment is permitted within a groundwater unit from one part of a zone to another part of the same zone, and this may occur across a sub-area boundary.

59. Additional rules for assigning to an area of a groundwater unit that is not within a zone

(1) This section establishes additional rules for seasonal water assignment to an area of a groundwater unit that is not within a zone.

(2) Part or all of a water licence may be seasonally assigned only if the seasonal assignment is –

  (a) Within any groundwater sub-area; or

  (b) Into a groundwater sub-area listed in a row of column 2 of Attachment 6; and

  (c) Out of any groundwater sub-area listed in the same row of column 3 of Attachment 6.

Chapter 8—Monitoring and reporting requirements

Part 1: Preliminary

60. Application of Chapter 8

This chapter sets out the monitoring and reporting that is required to support performance assessments of the plan.

61. Monitoring requirements and safety

Requirements for monitoring undertaken under this protocol do not apply in situations where meeting the requirements would be unsafe to a person or persons.

62. Metering

A meter, which complies with the standards approved by the Chief Executive, must be used to measure the volume of water taken under a water licence:

(1) If required as a condition of a water licence; or
(2) From the day the water licences are declared to be metered entitlements under the Water Regulation 2016; and in the circumstances mentioned in the Water Regulation 2016.

Part 2: Monitoring

63. Groundwater pressure, groundwater level, and water quality monitoring

(1) The chief executive must monitor changes in groundwater pressure and levels for bores in the department's Great Artesian Basin Ambient Network.[32]

(2) The chief executive must measure and record the following parameters –

(a) Water pressure;

(b) Water level;

(c) Flow of water;

(d) Temperature and electrical conductivity; and

(e) Date and time at which the measurements are taken.

(3) The chief executive must review the monitoring network at least once every five years.

64. Groundwater-dependent ecosystems monitoring

(1) The chief executive must use its groundwater-dependent ecosystem monitoring network to collect data suitable for indicating trends in the flow of water to groundwater-dependent ecosystems.

(2) The groundwater-dependent ecosystem monitoring network is to include Abercorn Springs, Elizabeth Springs, Edgbaston Springs, Moorabinda Springs, Spring Rock Springs, and Yowah Creek spring complexes.

(3) The chief executive must monitor the groundwater-dependent ecosystems in the network at least once every three years.

(4) The chief executive must review the network at least once every five years.

[32] The bores in the Great Artesian Basin Ambient Network can be viewed on the department's website

Part 3: Assessment and reporting

65. Assessment

(1) The chief executive must make ongoing assessments of the monitoring data collected under Part 2 to–

(a) Ensure that the outcomes of the plan are not compromised; and

(b) Assist in the review of the effectiveness of the strategies in the plan and protocol; and

(c) Improve understanding of the water resources in the plan area; and

(d) Assist the Minister in preparing a report as required under the Water Regulation 2016.

(2) In making assessments the chief executive should consider –

(a) Water use in the plan area, including –

i. accounting for water use authorised to occur without an entitlement;

ii. metered and unmetered water use occurring under an entitlement;

iii. the number and status of water bores;[33]

iv. the progress of replacing uncontrolled bores and bore drains with watertight delivery systems.

(b) The demand for and availability of water entitlements, including –

i. information on the interest in and granting of unallocated water;

ii. information on the number of licences and the volume of water licences relocated or seasonally assigned;

iii. any barriers in the plan to accessing water entitlements;

iv. information on the availability of water for social and cultural purposes.

(c) The cumulative drawdown at groundwater-dependent ecosystems;

(d) Any other matters the chief executive may wish to consider.

66. Analysis of monitoring data

The chief executive must, at least every five years, publish an analysis of;

(1) Any information considered under this Part; and

(2) The monitoring data collected under Part 2.

[33] The Groundwater Database records the status of water bore facilities as one of the following: Abandoned and destroyed; Abandoned but still usable; Existing; and Proposed.

Attachment 1—Dictionary

Authorisation: See definition in the plan.[34]

Chief executive: The chief executive officer of the department responsible for administering chapter 2 of the *Water Act 2000*.

Department: The department responsible for administering chapter 2 of the *Water Act 2000*.

Groundwater-dependent ecosystem, see definition in section 5 of the plan.[35]

Groundwater unit: Is as described in the plan.

Groundwater sub-area: Is as described in the plan. Chapters 5 and 7 have specific definitions for those chapters.

The Plan: The Water Plan (Great Artesian Basin and Other Regional Aquifers) 2017.

Water Act: Is the *Water Act 2000*.

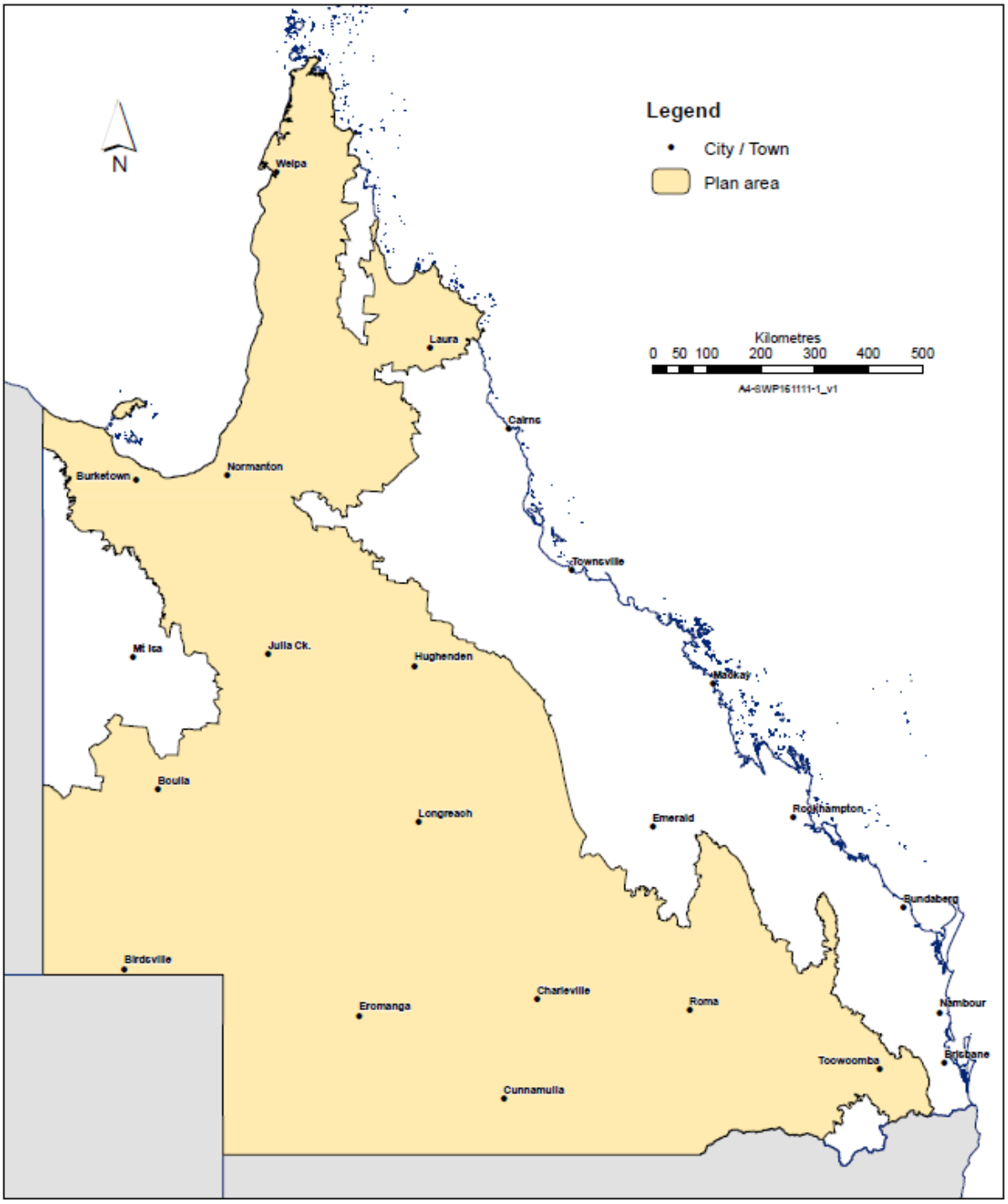
Water Management Protocol (this protocol): The Great Artesian Basin and Other Regional Aquifers Water Management Protocol

Zone means an area within a groundwater unit declared in chapter 2.

[34] **Authorisation** means each of the following –
(1) a water licence;
(2) a water permit;
(3) a statutory authorisation to take or interfere with water.

[35] A **groundwater-dependent ecosystem** is the ecosystem of a spring or watercourse that is maintained by water that flows naturally from a groundwater unit in the plan area. Also, the ecosystem of the Yelarbon Desert is a groundwater-dependent ecosystem.

Attachment 2—Water Plan (Great Artesian Basin and Other Regional Aquifers) 2017 – the plan area

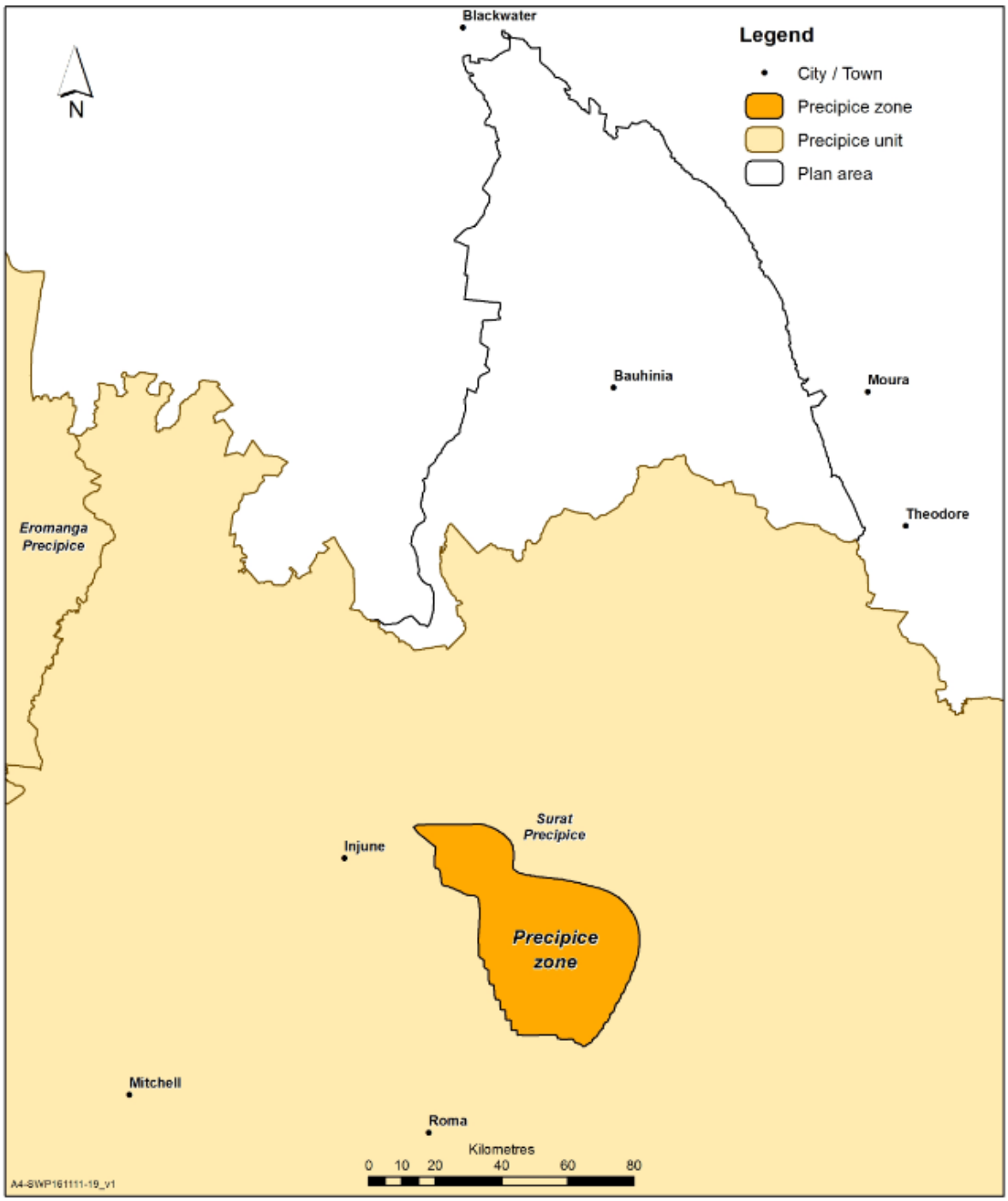


Attachment 3—Water management protocol zones

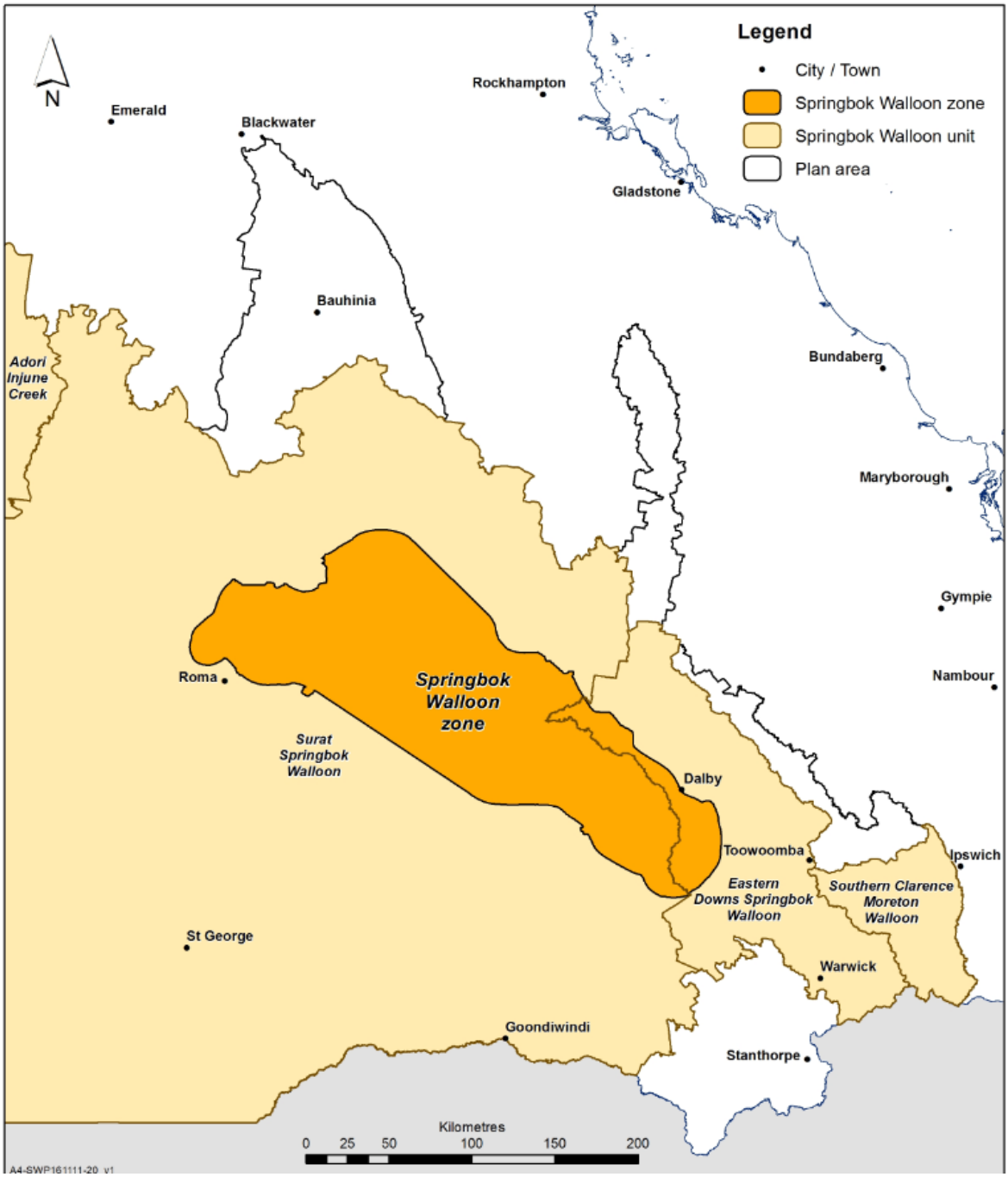
The areas identified in this attachment are zones for the purpose of section 10 of the plan – see chapter 2 of this protocol.

Hutton zone

Precipice zone



Springbok Walloon zone



Attachment 4.1—Long-term drawdown multipliers for upper units

Column 1	Column 2																
	Distance (kilometres)																
Groundwater unit/ groundwater sub-area	0.001	0.1	1	5	10	20	40	50	80	100	120	140	160	180	200	220	240
• Betts Creek beds (all sub-areas) • Cadna-owie (all sub-areas) • Clematis (all sub-areas) • Gubberamunda • Laura Rolling Downs • Mooga • Normanton • Rolling Downs (all sub-areas) • Winton Mackunda (all sub-areas)	412.11943	211.45334	111.19368	42.81407	17.64963	2.65457	0.01436	0	0	0	0	0	0	0	0	0	0
• Eromanga Hutton • Wyaaba beds	21.79383	12.67262	8.11216	4.92812	3.56674	2.23919	1.03759	0.71437	0.21888	0.09123	0.03489	0.01214	0.00382	0.00109	0.00028	0.00007	0

Column 1	Column 2																
Groundwater unit/ groundwater sub-area	Distance (kilometres)																
	0.001	0.1	1	5	10	20	40	50	80	100	120	140	160	180	200	220	240
• Carpentaria South Gilbert River Aquifer • Crows Nest Marburg • Eastern Downs Marburg • Eastern Downs Springbok Walloon • Eromanga South Hooray • Eromanga West Hooray • Gatton Esk Road Marburg • Gulf Gilbert River Aquifer • Laura Gilbert River equivalents • Mulgildie North Hutton • Murphys Creek Marburg • Precipice (all sub-areas) • Southern Clarence Moreton Marburg • Southern Clarence Moreton Walloon • Surat Hutton • Surat Springbok Walloon	89.43689	49.30355	29.23982	15.28508	9.46340	4.24556	0.81688	0.32012	0.01040	0.00060	0	0	0	0	0	0	0
• Adori Injune Creek • Bulimba Formation • Cape Gilbert River Aquifer • Eromanga East Hooray • Eromanga North Hooray	42.21479	23.97236	14.85175	8.49105	5.79106	3.22318	1.11404	0.64051	0.09805	0.02245	0.00420	0.000637	0.00012	0	0	0	0

Attachment 4.2—Long-term drawdown multipliers for lower units

Column 1	Column 2																								
Groundwater unit/ groundwater sub-area	Distance (kilometres)																								
	0.001	0.1	1	5	10	20	40	50	80	100	120	140	160	180	200	220	240	260	280	320	360	400	500	600	710
• Betts Creek beds (all sub-areas) • Cadna-owie (all sub-areas) • Clematis (all sub-areas) • Gubberamunda • Laura Rolling Downs • Mooga • Normanton • Rolling Downs (all sub-areas) • Winton Mackunda (all sub-areas)	462.28614	261.61938	161.29334	91.34185	61.69177	33.63256	11.02257	6.12721	0.82102	0.16721	0.02721	0.00350	0	0	0	0	0	0	0	0	0	0	0	0	0
• Eromanga Hutton • Wyaaba beds	24.07414	14.95292	10.39233	7.20497	5.83324	4.46497	3.11043	2.68211	1.80925	1.41936	1.11998	0.88506	0.69853	0.54956	0.43042	0.33524	0.25945	0.19940	0.15209	0.08636	0.04736	0.02504	0.00428	0.00057	0

Column 1	Column 2																								
Groundwater unit/ groundwater sub-area	Distance (kilometres)																								
	0.001	0.1	1	5	10	20	40	50	80	100	120	140	160	180	200	220	240	260	280	320	360	400	500	600	710
• Carpentaria South Gilbert River Aquifer • Crows Nest Marburg • Eastern Downs Marburg • Eastern Downs Springbok Walloon • Eromanga South Hooray • Eromanga West Hooray • Gatton Esk Road Marburg • Gulf Gilbert River Aquifer • Laura Gilbert River equivalents • Mulgildie North Hutton • Murphys Creek Marburg • Precipice (all sub-areas) • Southern Clarence Moreton Marburg • Southern Clarence Moreton Walloon • Surat Hutton • Surat Springbok Walloon	99.47023	59.33687	39.27048	25.25164	19.23328	13.28132	7.58660	5.89239	2.80004	1.67760	0.97932	0.55360	0.30184	0.15824	0.07960	0.03832	0.01764	0.00776	0.00328	0.00048	0	0	0	0	0
• Adori Injune Creek • Bulimba Formation • Cape Gilbert River Aquifer • Eromanga East Hooray • Eromanga North Hooray	46.77540	28.53296	19.41180	13.03782	10.29668	7.56933	4.89638	4.06617	2.42882	1.74072	1.24416	0.88245	0.61913	0.42872	0.29251	0.19640	0.12963	0.08404	0.05348	0.02043	0.00720	0.00233	0.00012	0	0

Attachment 5—Minimum separation distances (kilometres)

Column 1	Column 2																		
	Proposed take of water (megalitres per year)																		
Groundwater units/ groundwater sub-area	**≤ 2**	**5**	**10**	**25**	**50**	**75**	**100**	**125**	**150**	**250**	**350**	**450**	**750**	**1500**	**2500**	**3500**	**4500**	**6000**	**7500**	**10000**
• Betts Creek beds (all sub-areas) • Cadna-owie (all sub-areas) • Clematis (all sub-areas) • Gubberamunda • Laura Rolling Downs • Mooga • Normanton • Rolling Downs (all sub-areas) • Winton Mackunda (all sub-areas)	0.3	0.5	0.6	1.0	4.1	8.9	13.3	17	20.2	29.4	35.5	39.9	48.6	59.8	67.5	72.4	75.9	79.8	82.8	86.6
• Eromanga Hutton • Wyaaba beds	0.1	0.1	0.2	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.9	1.0	6.6	35.7	72.0	99.5	120.7	145.1	164.0	187.8

Column 1	Column 2																		
Groundwater units/ groundwater sub-area	Proposed take of water (megalitres per year)																		
	≤ 2	5	10	25	50	75	100	125	150	250	350	450	750	1500	2500	3500	4500	6000	7500	10000
• Carpentaria South Gilbert River Aquifer • Crows Nest Marburg • Eastern Downs Marburg • Eastern Downs Springbok Walloon • Eromanga South Hooray • Eromanga West Hooray • Gatton Esk Road Marburg • Gulf Gilbert River Aquifer • Laura Gilbert River equivalents • Mulgildie North Hutton • Murphys Creek Marburg • Precipice (all sub-areas) • Southern Clarence Moreton Marburg • Southern Clarence Moreton Walloon • Surat Hutton • Surat Springbok Walloon	0.2	0.2	0.3	0.5	0.6	0.8	0.9	1.0	2.0	9.2	17.8	25.9	45.1	73.1	93.3	106.1	115.5	125.8	133.7	143.5
• Adori Injune Creek • Bulimba Formation • Cape Gilbert River Aquifer • Eromanga East Hooray • Eromanga North Hooray	0.2	0.3	0.4	0.6	0.9	1.1	1.2	1.4	1.5	1.9	3.7	8.2	25.3	61.3	91.7	111.9	126.7	143.3	155.9	171.8

Attachment 6—Permitted water licence relocations and seasonal water assignments

Column 1	Column 2 (buyer)	Column 3 (seller)
Groundwater unit	**Groundwater sub-area**	**Groundwater sub-area**
Bulimba Formation	Bulimba Formation	• Wyaaba beds
Laura Gilbert River equivalents	Laura Gilbert River equivalents	• Laura Rolling Downs
Rolling Downs	Gulf Rolling Downs	• Wyaaba beds • Bulimba Formation • Normanton • Carpentaria South Wallumbilla • Eromanga Wallumbilla • Surat Wallumbilla
	Carpentaria South Wallumbilla	• Normanton • Eromanga Wallumbilla • Surat Wallumbilla
	Eromanga Wallumbilla	• Surat Wallumbilla
Cadna-owie	Bungil	• Surat Wallumbilla
	Eromanga Cadna-owie	• Eromanga Wallumbilla • Surat Wallumbilla • Bungil
Mooga	Mooga	• Surat Wallumbilla • Bungil
Hooray	Gulf Gilbert River Aquifer	• Wyaaba beds • Bulimba Formation • Gulf Rolling Downs • Normanton • Carpentaria South Wallumbilla • Carpentaria South Gilbert River Aquifer • Eromanga Wallumbilla • Eromanga Cadna-owie • Eromanga East Hooray • Eromanga North Hooray • Eromanga South Hooray • Eromanga West Hooray • Surat Wallumbilla • Bungil • Mooga • Gubberamunda
	Carpentaria South Gilbert River Aquifer	• Normanton • Carpentaria South Wallumbilla • Eromanga Wallumbilla • Eromanga Cadna-owie • Eromanga East Hooray • Eromanga North Hooray • Eromanga South Hooray • Eromanga West Hooray • Surat Wallumbilla • Bungil • Mooga • Gubberamunda

Column 1	Column 2 (buyer)	Column 3 (seller)
Groundwater unit	**Groundwater sub-area**	**Groundwater sub-area**
	Eromanga East Hooray	• Eromanga Wallumbilla • Eromanga Cadna-owie • Eromanga North Hooray • Eromanga South Hooray • Eromanga West Hooray • Surat Wallumbilla • Bungil • Mooga • Gubberamunda
	Eromanga North Hooray	• Eromanga Wallumbilla • Eromanga Cadna-owie • Eromanga East Hooray • Eromanga South Hooray • Eromanga West Hooray • Surat Wallumbilla • Bungil • Mooga • Gubberamunda
	Eromanga South Hooray	• Eromanga Wallumbilla • Eromanga Cadna-owie • Eromanga East Hooray • Eromanga North Hooray • Eromanga West Hooray • Surat Wallumbilla • Bungil • Mooga • Gubberamunda
	Eromanga West Hooray	• Eromanga Wallumbilla • Eromanga Cadna-owie • Eromanga East Hooray • Eromanga North Hooray • Eromanga South Hooray • Surat Wallumbilla • Bungil • Mooga • Gubberamunda
Springbok Walloon	Adori Injune Creek	• Eromanga Wallumbilla • Eromanga Cadna-owie • Eromanga East Hooray • Eromanga North Hooray • Eromanga South Hooray • Eromanga West Hooray • Surat Wallumbilla • Bungil • Mooga • Gubberamunda • Surat Springbok Walloon • Eastern Downs Springbok Walloon
	Surat Springbok Walloon	• Eastern Downs Springbok Walloon
	Southern Clarence Moreton Walloon	• Eastern Downs Springbok Walloon

Column 1	Column 2 (buyer)	Column 3 (seller)
Groundwater unit	**Groundwater sub-area**	**Groundwater sub-area**
Hutton	Eromanga Hutton	• Eromanga Wallumbilla • Eromanga Cadna-owie • Eromanga East Hooray • Eromanga North Hooray • Eromanga South Hooray • Eromanga West Hooray • Adori Injune Creek • Surat Wallumbilla • Bungil • Mooga • Gubberamunda • Surat Springbok Walloon • Surat Hutton • Eastern Downs Springbok Walloon • Eastern Downs Marburg
	Surat Hutton	• Eastern Downs Marburg
	Southern Clarence Moreton Marburg	• Southern Clarence Moreton Walloon • Eastern Downs Springbok Walloon • Eastern Downs Marburg
	Crows Nest Marburg	• Eastern Downs Marburg
Precipice	Eromanga Precipice	• Eromanga Wallumbilla • Eromanga Cadna-owie • Eromanga East Hooray • Eromanga North Hooray • Eromanga South Hooray • Eromanga West Hooray • Adori Injune Creek • Eromanga Hutton • Surat Wallumbilla • Bungil • Mooga • Gubberamunda • Surat Springbok Walloon • Surat Hutton • Surat Precipice • Eastern Downs Springbok Walloon • Eastern Downs Marburg • Eastern Downs Precipice
	Surat Precipice	• Surat Wallumbilla • Bungil • Mooga • Gubberamunda • Surat Springbok Walloon • Surat Hutton • Eastern Downs Springbok Walloon • Eastern Downs Marburg • Eastern Downs Precipice
	Eastern Downs Precipice	• Eastern Downs Springbok Walloon • Eastern Downs Marburg
	Crows Nest Woogaroo	• Crows Nest Marburg • Eastern Downs Springbok Walloon • Eastern Downs Marburg • Eastern Downs Precipice

Column 1	Column 2 (buyer)	Column 3 (seller)
Groundwater unit	**Groundwater sub-area**	**Groundwater sub-area**
	Southern Clarence Moreton Woogaroo	• Southern Clarence Moreton Walloon • Southern Clarence Moreton Marburg Eastern Downs Springbok Walloon • Eastern Downs Marburg • Eastern Downs Precipice
Clematis	Bowen Clematis	• Eromanga Wallumbilla • Eromanga Cadna-owie • Eromanga East Hooray • Eromanga North Hooray • Eromanga South Hooray • Eromanga West Hooray • Adori Injune Creek • Eromanga Hutton • Eromanga Precipice • Surat Wallumbilla • Bungil • Mooga • Gubberamunda • Surat Springbok Walloon • Surat Hutton • Surat Precipice • Eastern Downs Springbok Walloon • Eastern Downs Marburg • Eastern Downs Precipice • Galilee Clematis
	Galilee Clematis	• Eromanga Wallumbilla • Eromanga Cadna-owie • Eromanga East Hooray • Eromanga North Hooray • Eromanga South Hooray • Eromanga West Hooray • Adori Injune Creek • Eromanga Hutton • Eromanga Precipice • Surat Wallumbilla • Bungil • Mooga • Gubberamunda • Surat Springbok Walloon • Surat Hutton • Surat Precipice • Eastern Downs Springbok Walloon • Eastern Downs Marburg • Eastern Downs Precipice • Bowen Clematis

Attachment 7—Links with the Water Plan (Great Artesian Basin and Other Regional Aquifers) 2017

Outcomes of the plan	Provision of the plan or Water Management Protocol
Water is to be managed and allocated in a way that –	
a) Seeks to achieve a sustainable balance between the following outcomes –	
i) to protect the flow of water to groundwater-dependent ecosystems that support significant cultural or environmental values;	• Cumulative drawdown for a groundwater-dependent ecosystem must be less than 0.4 metres (Plan section 41) • Cumulative drawdown criteria (Protocol Chapter 3) • Monitoring and reporting requirements (Protocol Chapter 8)
ii) to protect the continued use of authorisations to take or interfere with water;	• No unallocated water to be released in zones (Plan section 18) • Maximum drawdown to protect existing water licences and particular authorisations (Plan section 42) • Limited licence relocations and seasonal water assignments in zones (Protocol Chapters 2, 5 and 7) • Maximum drawdown criteria (Protocol Chapter 4) • Water pressure and water level monitoring (Protocol Chapter 8)

Outcomes of the plan	Provision of the plan or Water Management Protocol
iii) to maintain, and if practicable increase, water pressure in aquifers to preserve the supply of water to bores;	• No unallocated water to be released in zones (Plan section 18) • Restoring and maintaining groundwater pressure (Plan Part 4 Division 4) • Cumulative drawdown for a groundwater-dependent ecosystem must be less than 0.4 metres (Plan section 41) • Maximum drawdown to protect existing water licences and particular authorisations (Plan section 42) • Limited licence relocations and seasonal water assignments in zones (Protocol Chapters 2, 5 and 7) • Cumulative drawdown criteria (Protocol Chapter 3) • Maximum drawdown criteria (Protocol Chapter 4) • Water pressure and water level monitoring (Protocol Chapter 8)
iv) to make water available for future development and social and cultural activities that depend on water, including for the aspirations of Aboriginal peoples and Torres Strait Islanders;	• Unallocated water volumes (Plan Part 4 Division 2) • Limitations on taking or interfering with water (Plan Part 4 Division 3) • Applications to amend water licences that require watertight delivery systems (Plan Part 5 Division 2) • Granting water licences for saved water from bore works (Plan Part 5 Division 3) • Facilitating make good obligations and make good conditions (Plan Part 5 Division 4) • Rules for relocating a water licence (Protocol Chapter 5) • Water sharing rules and seasonal water assignment rules (Protocol Chapters 6 and 7) • Monitoring and reporting requirements (Protocol Chapter 8)

Outcomes of the plan	Provision of the plan or Water Management Protocol
v) to encourage the efficient use of water by requiring water bores to have watertight delivery systems or be controlled.	• Restoring and maintaining groundwater pressure (Plan Part 4 Division 4) • Granting water licences for saved water from bore works (Plan Part 5 Division 3) • Monitoring and reporting requirements (Protocol Chapter 8)
vi) to facilitate the operation of efficient water markets and opportunities for the temporary or permanent movement of water; and	• Requiring water licences to state volumetric limits (Plan Part 4 Division 6) • Rules for relocating a water licence (Protocol Chapter 5) • Seasonal water assignment rules (Protocol Chapter 7) • Monitoring and reporting requirements (Protocol Chapter 8)
b) Recognises the state of aquifers and groundwater-dependent ecosystems has changed because of the taking of, and interfering with, water.	