



New South Wales

Water Sharing Plan for the Macquarie-Castlereagh Groundwater Sources 2019

under the

Water Management Act 2000

I, Niall Blair, the Minister for Regional Water, do, by this Order, in pursuance of section 50 of the *Water Management Act 2000*, make the following Minister's Plan, being the *Water Sharing Plan for the Macquarie-Castlereagh Groundwater Sources 2019*.

Dated this day of 2019.

Minister for Regional Water

Explanatory notes

This Plan replaces the *Water Sharing Plan for the Castlereagh River Unregulated and Alluvial Water Sources 2011* in relation to the Castlereagh Alluvial Groundwater Source, the *Water Sharing Plan for the Macquarie Bogan Unregulated and Alluvial Water Sources 2012* in relation to the Bell Alluvial, Cudgegong Alluvial, Talbragar Alluvial and Upper Macquarie Alluvial Groundwater Sources, and the *Water Sharing Plan for the Lower Macquarie Groundwater Sources 2003* in relation to the Lower Macquarie Zone 1, Lower Macquarie Zone 2, Lower Macquarie Zone 3, Lower Macquarie Zone 4, Lower Macquarie Zone 5 and Lower Macquarie Zone 6 Groundwater Sources.

This Order is made under section 50 of the *Water Management Act 2000*. The concurrence of the Minister for the Environment was obtained prior to the making of this Order.

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Water Sharing Plan for the Macquarie-Castlereagh Groundwater Sources 2019

Notes.

- 1 In accordance with section 48 of the *Water Management Act 2000*, the Minister must take all reasonable steps to give effect to the provisions of this Plan when exercising functions under the Act.
- 2 The Minister may amend this Plan at any time under section 45 of the *Water Management Act 2000*, including if satisfied it is in the public interest to do so, or in such circumstances, in relation to such matters and to such extent as Part 12 of this Plan provides.

Part 1 Introduction

1 Name of Plan

This Plan is the *Water Sharing Plan for the Macquarie-Castlereagh Groundwater Sources 2019 (this Plan)*.

2 Nature and status of Plan

- (1) This Plan is made under section 50 of the *Water Management Act 2000 (the Act)*.
- (2) This Plan is a replacement management plan for the purposes of subsection 43A (6) of the Act in relation to the Lower Macquarie Zone 1 Groundwater Source, Lower Macquarie Zone 2 Groundwater Source, Lower Macquarie Zone 3 Groundwater Source, Lower Macquarie Zone 4 Groundwater Source, Lower Macquarie Zone 5 Groundwater Source and Lower Macquarie Zone 6 Groundwater Source and replaces the *Water Sharing Plan for the Lower Macquarie Groundwater Sources 2003*.
- (3) This Plan is a plan for water sharing and generally deals with the matters set out in sections 20 and 21 of the Act, as well as other sections of the Act.

Note. Where a provision of this Plan is made under another section of the Act, the section is referred to in the notes to this Plan.

3 Commencement

This Plan commences on 1 July 2019.

Notes.

- 1 In accordance with section 43 of the Act, this Plan will have effect for 10 years from 1 July 2019.
- 2 The Minister may extend this Plan for a further period of 10 years after it is due to expire, in accordance with section 43A of the Act.
- 3 Under the Intergovernmental Agreement on Implementing Water Reform in the Murray-Darling Basin and the associated National Partnership Agreement, NSW has agreed to develop water resource plans for Murray-Darling Basin water resources that are consistent with the requirements of the Commonwealth's *Basin Plan 2012*, made under the *Water Act 2007* of the Commonwealth. The water resource plan for the Macquarie-Castlereagh Alluvium water resource plan area (GW12) commences on 1 July 2019. Clauses of this Plan are included as part of that water resource plan.

4 Application of Plan

- (1) This Plan applies to the following groundwater sources (*the groundwater sources*) within the Central West Water Management Area and Macquarie Water Management Area:
 - (a) Macquarie-Castlereagh Alluvial Groundwater Sources:
 - (i) Bell Alluvial Groundwater Source,
 - (ii) Castlereagh Alluvial Groundwater Source,
 - (iii) Cudgegong Alluvial Groundwater Source,
 - (iv) Lower Macquarie Zone 1 Groundwater Source,
 - (v) Lower Macquarie Zone 2 Groundwater Source,
 - (vi) Lower Macquarie Zone 6 Groundwater Source,
 - (vii) Talbragar Alluvial Groundwater Source, and
 - (viii) Upper Macquarie Alluvial Groundwater Source.
 - (b) Lower Macquarie Zone 3 Groundwater Source,
 - (c) Lower Macquarie Zone 4 Groundwater Source, and
 - (d) Lower Macquarie Zone 5 Groundwater Source.

Notes.

- 1 The Central West Water Management Area was constituted by Ministerial order made under section 11 of the Act and published in the NSW Government Gazette No 180 on 23 November 2001 at page 9389.
 - 2 Until this Plan commenced, the *Water Sharing Plan for the Castlereagh River Unregulated and Alluvial Water Sources 2011* applied to the Castlereagh Alluvial Groundwater Source, the *Water Sharing Plan for the Macquarie Bogan Unregulated and Alluvial Water Sources 2012* applied to the Bell, Cudgegong, Talbragar and Upper Macquarie Alluvial Groundwater Sources, and the *Water Sharing Plan for the Lower Macquarie Groundwater Sources 2003* applied to Lower Macquarie Zones 1, 2, 3, 4, 5 and 6 Groundwater Sources.
 - 3 The Lower Macquarie Zone 3, Zone 4 and Zone 5 Groundwater Sources form part of the Great Artesian Basin.
- (2) The boundaries of the groundwater sources are depicted on the Plan Map called *Plan Map (WSP049_Version 1) Water Sharing Plan for the Macquarie-Castlereagh Groundwater Sources 2019* (the **Plan Map**), published on the NSW legislation website.
- Note.** The Plan Map is part of this Plan. An overview of the Plan Map is shown in Appendix 1. Copies of the Plan Map may be inspected at the offices listed in Schedule 3 and are available on the NSW legislation website.
- (3) The Macquarie-Castlereagh Alluvial Groundwater Sources include all water within unconsolidated alluvial sediments below the surface of the ground, within the boundaries of the groundwater sources shown on the Plan Map.
- Note.** *Unconsolidated alluvial sediments* is defined in the Dictionary.
- (4) The Lower Macquarie Zone 3, Lower Macquarie Zone 4 and Lower Macquarie Zone 5 Groundwater Sources include all water contained within rocks of Cretaceous and Jurassic age below the surface of the ground, within the boundaries of the groundwater sources shown on the Plan Map.

5 Management zones

- (1) For the purposes of this Plan, the Cudgegong Alluvial Groundwater Source is divided into the following management zones:
 - (a) Cudgegong Alluvial Management Zone, and
 - (b) Lawsons Creek Alluvial Management Zone.

Note. *Management zone* is defined in the Dictionary.

- (2) The boundaries of the management zones in subclause (1) are shown on the Plan Map.

6 Interpretation

- (1) Unless otherwise defined in this Plan, words and expressions that are defined in the Act or in the regulations made under the Act have the same meaning in this Plan.
- (2) Words and expressions that are defined in the Dictionary to this Plan have the meanings set out in the Dictionary.
- (3) Unless otherwise specified in this Plan, a clause that applies to a category of access licence also applies to any subcategories of that category of access licence.
- (4) The Dictionary and Schedules to this Plan form part of this Plan.
- (5) The Plan Map and the GDE Map form part of this Plan.
- (6) Notes in the text of this Plan do not form part of this Plan.
- (7) Appendices to this Plan do not form part of this Plan.

Part 2 Vision, objectives, strategies and performance indicators

Note. This Part is made in accordance with section 35 (1) of the Act.

7 Acknowledgement

Respect is paid to the Traditional Owners of this Country, who are acknowledged as the first natural resource managers within the area to which this Plan applies.

8 Vision statement

The vision for this Plan is to provide for the following:

- (a) the protection of the condition of the groundwater sources and their dependent ecosystems,
- (b) the continuing productive extraction of groundwater for economic benefit,
- (c) the social and cultural benefits to urban and rural communities that result from groundwater extraction,
- (d) the spiritual, social, customary and economic benefits to Aboriginal communities that result from groundwater extraction.

9 Environmental Objectives

- (1) The broad environmental objective of this Plan is to protect the condition of the groundwater sources and their groundwater-dependent ecosystems over the term of this Plan.

Note. *Groundwater-dependent ecosystems* is defined in the Dictionary and an overview of the GDE Map is shown in Appendix 2.

- (2) The targeted environmental objectives of this Plan are as follows:
 - (a) to protect the extent and condition of high priority groundwater-dependent ecosystems that rely on the groundwater sources,

- (b) to contribute to the maintenance of salinity levels (total dissolved solids) that support groundwater-dependent ecosystems that rely on the groundwater sources,

Note. *Total dissolved solids* is defined in the Dictionary.

- (c) to contribute to the prevention of structural damage to aquifers of the groundwater sources resulting from groundwater extraction.

Note. *Structural damage to an aquifer* is defined in the Dictionary

- (3) The strategies for reaching the environmental objectives of this Plan are the following:

- (a) to reserve all water in excess of the long-term average annual extraction limits for the environment,

Note. Part 4 of this Plan reserves for the environment all water remaining above the long-term average annual extraction limits for the groundwater source. These rules contribute to all the objectives in subclause (2).

- (b) to manage extractions under access licences and basic landholder rights within the long-term average annual extraction limits,

Note. Part 6 of this Plan manages extraction of groundwater within the long-term average annual extraction limits for the groundwater sources. These rules contribute to the objectives in subclause (2).

- (c) to manage the construction and use of water supply works to minimise impacts on high priority groundwater dependent ecosystems and groundwater quality.

Note. Part 9 sets rules that manage the location, construction and use of water supply works to prevent impacts on groundwater-dependent ecosystems and from sources of saline and contaminated water. These rules contribute to objectives in subclause (2).

- (4) The performance indicators used to measure the success of the strategies for reaching the broad and targeted environmental objectives in this clause are the following:

- (a) the extent and recorded condition of high priority groundwater-dependent ecosystems,
- (b) the recorded condition of target populations of high priority groundwater-dependent native vegetation,
- (c) the recorded values of salinity levels (total dissolved solids).

- (5) In evaluating the effectiveness of the strategies in meeting the objectives in this clause, consideration will be given to the following:
 - (a) the extent to which the strategies described in subclause (3) have been implemented and complied with,
 - (b) the extent to which the strategies in subclause (3) have resulted in groundwater levels that support achievement of the targeted environmental objectives,
 - (c) the extent to which changes in the performance indicators can be effectively attributed to the strategies in subclause (3) and rules in this Plan,
 - (d) the extent to which external influences on these water sources during the term of this Plan have affected progress toward achieving the broad and targeted objectives.

10 Economic Objectives

- (1) The broad economic objective of this Plan is to provide access to groundwater to optimise economic benefits for groundwater-dependent economic activities and local economies.
- (2) The targeted economic objectives of this Plan are as follows:
 - (a) to maintain access to groundwater in the long term for groundwater-dependent economic activities,
 - (b) to provide groundwater trading opportunities for groundwater-dependent economic activities,
Note. Trading is a generic term referring to dealings under Division 4 of Part 2 of the Act.
 - (c) where possible, to provide for flexibility of access to groundwater,
 - (d) to contribute to the maintenance of groundwater salinity levels (total dissolved solids) within ranges that maintain a beneficial use category that supports groundwater-dependent economic activity.
- (3) The strategies for reaching the economic objectives of this Plan are the following:

- (a) to manage extractions to the long-term average annual extraction limits,

Note. The application of the long-term average annual extraction limits and the assessment and compliance rules in Part 6 of this Plan contribute to the objective in subclause (2) (b).

- (b) to manage groundwater access to reflect individual access licence account rules for different categories of access licences,

Note. The account management rules in Part 8, including the limits on the amount of water that may be carried over from one water year to the next, and on the volume of water that can be taken in any water year, provide flexibility for water users and contribute to the objectives in subclause (2) (c).

- (c) to provide for trade of water allocations and entitlements within the groundwater sources, subject to assessment of local impacts.

Note. The rules in Part 10 of this Plan permit a variety of dealings within environmental and resource constraints, including permanent trade of aquifer access licences, trade of water allocations, and movement of extraction from one location to another.

- (4) The performance indicators used to measure the success of the strategies for reaching the broad and targeted economic objectives in this clause are the following:

- (a) in relation to access licences subject to dealings under sections 71M and 71Q of the Act:

- (i) the annual total volume of share components transferred or assigned, and
(ii) the weighted average price of share components transferred or assigned,

Notes.

1 These types of dealings involve the permanent trade of all or part of access licences.

2 **Weighted average price** is defined in the Dictionary.

- (b) in relation to access licences subject to term transfer dealings under section 71N of the Act:

- (i) the annual total volume of share components transferred for a term, and
(ii) the weighted average price of term transfers,

Note. This type of dealing involves the trade of all or part of and access licence for a specified term. This is akin to a lease of the access licence rights.

- (c) in relation to water allocation assignment dealings under section 71T of the Act:
 - (i) the annual total water allocation assigned, and
 - (ii) the weighted average price of allocation assigned,

Note. This type of dealing involves the trade of water allocations from one account of an access licence to another.
- (d) the recorded values of salinity levels (total dissolved solids).
- (5) In evaluating the effectiveness of the strategies in meeting the objectives in this clause, consideration will be given to the following:
 - (a) the extent to which the strategies described in subclause (3) have been implemented and complied with,
 - (b) the extent to which the changes in the performance indicators can be attributed to the strategies in subclause (3) and rules in this Plan,
 - (c) the extent to which the external influences on economic activities dependent on the groundwater sources during the term of this Plan have affected progress toward achieving the broad and targeted objectives.

11 Social and cultural objectives

- (1) The broad social and cultural objective of this Plan is to provide access to groundwater to support groundwater-dependent social, cultural and heritage values.
- (2) The targeted social and cultural objectives of this Plan are as follows:
 - (a) to provide for access to water for basic landholder rights, town water supply and licensed domestic and stock purposes,
 - (b) to provide for access to water for groundwater-dependent cultural, heritage and community purposes,
 - (c) to contribute to the maintenance of groundwater salinity (total dissolved solids) within ranges that maintain a beneficial use category that supports groundwater-dependent communities.

(3) The strategies for reaching the social and cultural objectives of this Plan are the following:

(a) to manage access to groundwater for basic landholder rights, town water supply, and for licensed domestic and stock purposes,

Note. The rules in Parts 5, 6 and 7 of this Plan ensure that water is available for basic landholder rights, town water supply and licensed domestic and stock purposes. These rules contribute to all the objectives in subclause (2).

(b) to manage the construction and use of water supply works to minimise impacts on groundwater quality.

Note. Part 9 sets rules that manage the location, construction and use of water supply works to prevent contamination impacts on groundwater quality. These rules contribute to the objectives in subclause (2) (c).

(4) The performance indicators used to measure the success of the strategies for reaching the broad and targeted social and cultural objectives in this clause are the following:

(a) the extent to which domestic and stock basic landholder rights, and licensed domestic and stock requirements have been met,

(b) the extent to which major utility and local utility access licence requirements have been met,

(c) the recorded values of salinity levels (total dissolved solids).

(5) In evaluating the effectiveness of the strategies in meeting the objectives in this clause, consideration will be given to the following:

(a) the extent to which the strategies described in subclause (3) have been implemented and complied with,

(b) the extent to which the changes in the performance indicators can be attributed to the strategies in subclause (3) and rules in this Plan,

(c) the extent to which the external influences on social and cultural activities dependent on the groundwater sources during the term of this Plan have affected progress toward achieving the broad and targeted objectives.

Note. External influences may include trends in urban, agricultural and industrial development, social or cultural behaviour, climate and changes in policy or regulation.

12 Aboriginal cultural objectives

- (1) The broad Aboriginal cultural objective of this Plan is to provide access to groundwater to support the spiritual, social, customary and economic values and purposes of groundwater by Aboriginal people.
- (2) The targeted Aboriginal cultural objectives of this Plan are as follows:
 - (a) to provide access to groundwater in the exercise of native title rights,
 - (b) to provide access to groundwater for Aboriginal cultural purposes,
 - (c) to protect identified groundwater-dependent culturally significant areas,
 - (d) to contribute to the maintenance of groundwater salinity (total dissolved solids) within existing ranges that support groundwater-dependent Aboriginal cultural values and uses.

Note. Determinations of native title in relation to the groundwater sources may be made under the *Native Title Act 1993* of the Commonwealth.

- (3) The strategies for reaching the Aboriginal cultural objectives of this Plan are the following:
 - (a) to manage access to groundwater consistently with the exercise of native title rights,
 - (b) to manage access to groundwater for Aboriginal cultural values and purposes,

Note. The rules in Part 7 of this Plan provide opportunities for Aboriginal people to access water by allowing for the granting of an access licence of the subcategory 'Aboriginal cultural'. This rule contributes to the objective in subclause (2) (b) and (c).

- (c) to manage extractions under access licences and basic landholder rights within the long-term average annual extraction limits,

Note. Part 6 of this Plan manages extraction of groundwater within the long-term average annual extraction limits for the groundwater sources. This helps to protect any culturally significant areas from damage associated with long term declines in water levels. These rules contribute to all the objectives in subclause (2).

- (d) to manage the construction and use of water supply works to minimise impacts on groundwater quality,

Note. Part 9 sets rules that manage the location, construction and use of water supply works to prevent impacts from sources of saline and contaminated water. These rules contribute to the objectives in subclause (2) (c) and (d).

- (e) to manage the construction and use of water supply works to minimise impacts on groundwater-dependent culturally significant areas.

Note. Part 9 sets rules that manage the location, construction and use of water supply works to prevent impacts on culturally significant areas and from sources of saline and contaminated water. These rules contribute to the objectives in subclause (2) (c) and (d).

- (4) The performance indicators used to measure the success of the strategies for reaching the broad and targeted Aboriginal cultural objectives in this clause are the following:
 - (a) the extent to which native title rights are able to be exercised, consistently with any determination of native title,
 - (b) the number of aquifer (subcategory “Aboriginal cultural”) access licences,
 - (c) the recorded values of salinity levels (total dissolved solids),
 - (d) the extent to which Aboriginal people consider the operation of this Plan to be beneficial to meeting their needs for groundwater-dependent cultural purposes and values.
- (5) In evaluating the effectiveness of the strategies in meeting the objectives in this clause, consideration will be given to the following:
 - (a) the extent to which the strategies described in subclause (3) have been implemented and complied with,
 - (b) the extent to which the strategies in subclause (3) have resulted in groundwater levels that support achievement of the targeted Aboriginal cultural objectives,
 - (c) the extent to which the changes in the performance indicators can be attributed to the strategies in subclause (3) and rules in this Plan, and
 - (d) the extent to which the external influences on Aboriginal cultural values and activities dependent on the groundwater sources during the term of this Plan have affected progress toward achieving the broad and targeted objectives.

Part 3 Bulk access regime

13 Bulk access regime

- (1) This Plan establishes a bulk access regime for the extraction of water under access licences, having regard to the following:
 - (a) the environmental water rules established under Part 4 of this Plan,
 - (b) the requirements for water for basic landholder rights identified in Division 2 of Part 5 of this Plan,
 - (c) the requirements for water for extraction under access licences identified in Division 3 of Part 5 of this Plan,
 - (d) the access licence dealing rules established under Part 10 of this Plan.
- (2) The bulk access regime:
 - (a) recognises and is consistent with the limits on the availability of water set in relation to the groundwater sources contained in Division 1 of Part 6 of this Plan,
 - (b) establishes rules, according to which:
 - (i) access licences are to be granted and managed, contained in Parts 6 and 7 of this Plan, and
 - (ii) available water determinations are to be made, contained in Division 2 of Part 6 of this Plan,
 - (c) recognises the effect of climatic variability on the availability of water as described in clause 14,
 - (d) establishes rules with respect to the priorities according to which water allocations are to be adjusted as a consequence of any reduction in the availability of water due to an increase in average annual extraction against the

long-term average annual extraction limit contained in Division 1 of Part 6 of this Plan,

- (e) contains provisions with respect to the conditions that must be imposed as mandatory conditions on access licences in Division 2 of Part 11 of this Plan, and
- (f) recognises and is consistent with the water management principles set out in section 5 of the Act.

14 Climatic variability

Division 1 of Part 6 of this Plan recognises the effects of climatic variability on groundwater levels by including provisions that manage the sharing of water within the limits of water availability on a long-term average annual basis.

Note. Other statutory tools are available to manage for climatic variability within a water source, for example, temporary water restrictions under section 324 of the Act.

Part 4 Planned environmental water provisions

Note. This Part is made in accordance with sections 8 and 20 of the Act.

15 General

This Part contains environmental water rules to commit, identify, establish and maintain planned environmental water.

Note. In accordance with the Act, *planned environmental water* is water that is committed by management plans for fundamental ecosystem health or other specified environmental purposes, either generally or at specified times or in specified circumstances and that cannot, to the extent committed, be taken or used for any other purpose.

16 Commitment and identification of planned environmental water

Water is committed and identified as planned environmental water by reference to the following:

- (a) a physical presence of water in the groundwater sources,
- (b) the water that is not committed after the commitments to basic landholder rights and for sharing and extraction under any other rights have been met.

17 Establishment and maintenance of planned environmental water

- (1) Planned environmental water is established in each of the groundwater sources as follows:

- (a) the physical presence of water in the groundwater source over the long term excluding the amount of water that can be taken under basic landholder rights and access licences in accordance with the rules specified in Parts 6 and 8 of this Plan,

Note. Groundwater sources generally store large volumes of water that may be accumulated over thousands of years. This stored water is also replenished from time to time by rainfall, river and flood flows, and throughflow from other groundwater sources. The rules in Part 6 of this Plan ensure that there will be water remaining in the groundwater sources over the long term by maintaining compliance with the long-term average annual extraction limits. The long-term average annual extraction limits specified in Part 6 of this Plan represents a small fraction of the water in the groundwater sources. The remaining water is planned environmental water.

- (b) the water that is not committed after water has been taken under basic landholder rights and access licences, and cannot be carried over from one water year to the next in accordance with the rules specified in Parts 6 and 8 of this Plan.

Note. The rules in Part 8 of this Plan limit the amount of water allocation in a water allocation account for an access licence that can be taken from the groundwater sources in any one water year and, if so permitted by Part 8, that can be carried over between one water year and the next. In addition to the water provided for in subclause (1) (a), subclause (1) (b) commits any unused water allocations that cannot be 'carried over' for use in subsequent water years as planned environmental water.

- (2) The planned environmental water established under subclause (1) is maintained by the rules specified in Parts 6 and 8 of this Plan.

Part 5 Requirements for water

Division 1 General

18 Application

- (1) This Part identifies the requirements for water under basic landholder rights (Division 2) and for extraction under access licences (Division 3).
- (2) The volumes of water specified in this Part represent the estimated requirements for water to satisfy basic landholder rights and the total volumes or unit shares specified in the share components of all access licences on commencement of this Plan.
- (3) This Plan recognises that requirements for water in connection with basic landholder rights in the groundwater sources and the total share components of all access licences authorised to extract water from the groundwater sources may change during the term of this Plan.

Notes.

- 1 The total share components of access licences in the groundwater sources may change during the term of this Plan as a result of:
 - (a) the grant, surrender or cancellation of access licences in the groundwater sources, or
 - (b) the variation of local water utility licences under section 66 of the Act.
- 2 This Plan manages changes in basic landholder rights and total share components of all access licences by having provisions in Division 1 of Part 6 which manage the sharing of water within the limits of water availability.
- 3 Inherent water quality and land use activities may result in the groundwater quality being unsuitable for some purposes or uses. Groundwater should not be consumed or otherwise used without first being tested and, if necessary, appropriately treated to ensure it is fit for purpose. Such testing and treatment is the responsibility of the water user.

Division 2 Requirements for water for basic landholder rights

Note. Under Part 1 of Chapter 3 of the Act, basic landholder rights to take groundwater may be exercised without the need for an access licence or water use approval, although a water supply work approval is still required to construct a water bore.

19 Domestic and stock rights

At the commencement of this Plan, the water requirements of persons entitled to domestic and stock rights are estimated to total 1,916 megalitres per year (*ML/year*) and are distributed as follows:

- (a) 6 ML/year in the Bell Alluvial Groundwater Source,
- (b) 84 ML/year in the Castlereagh Alluvial Groundwater Source
- (c) 27 ML/year in the Cudgegong Alluvial Groundwater Source,
- (e) 132 ML/year in the Lower Macquarie Zone 1 Groundwater Source,
- (f) 151 ML/year in the Lower Macquarie Zone 2 Groundwater Source,
- (g) 402 ML/year in the Lower Macquarie Zone 3 Groundwater Source,
- (h) 226 ML/year in the Lower Macquarie Zone 4 Groundwater Source,
- (i) 473 ML/year in the Lower Macquarie Zone 5 Groundwater Source,
- (j) 42 ML/year in the Lower Macquarie Zone 6 Groundwater Source,
- (k) 69 ML/year in the Talbragar Alluvial Groundwater Source, and
- (l) 304 ML/year in the Upper Macquarie Alluvial Groundwater Source.

Notes.

- 1 Domestic and stock rights are set out in section 52 of the Act and must be exercised in accordance with any mandatory guidelines established under the Act with respect to the taking and use of water for domestic consumption or stock watering.
- 2 Under section 331 of the Act, the Minister may direct the holder of a domestic and stock right to take specified measures to protect the environment, to preserve basic landholder rights or to overcome a threat to public health.
- 3 The volumes set out in this clause are separate from any volumes of water authorised under an access licence for domestic and stock purposes.

20 Native title rights

On the commencement of this Plan, no determinations of native title have been made in relation to the groundwater sources under the *Native Title Act 1993* of the

Commonwealth. Therefore, on the commencement of this Plan, no water requirements have been identified for native title holders.

Notes.

- 1 **Native title holder** is defined in the Act, in relation to any waters, as a person who holds native title rights in relation to those waters pursuant to a determination under the *Native Title Act 1993* of the Commonwealth.
- 2 A determination of native title may be made during the term of this Plan under the *Native Title Act 1993* of the Commonwealth.

Division 3 Requirements for water for extraction under access licences

21 Share components of domestic and stock access licences

On the commencement of this Plan, it is estimated that the share components of domestic and stock access licences total 0 ML/year.

22 Share components of local water utility access licences

On the commencement of this Plan, it is estimated that the share components of local water utility access licences total 6,546 ML/year and are distributed as follows:

- (a) 70 ML/year in the Bell Alluvial Groundwater Source,
- (b) 3,000 ML/year in the Cudgegong Alluvial Groundwater Source,
- (c) 2,000 ML/year in the Lower Macquarie Zone 1 Groundwater Source,
- (d) 350 ML/year in the Lower Macquarie Zone 3 Groundwater Source,
- (e) 656 ML/year in the Talbragar Alluvial Groundwater Source,
- (f) 470 ML/year in the Upper Macquarie Alluvial Groundwater Source, and
- (g) 0 ML/year in all other groundwater sources.

23 Share components of aquifer access licences

- (1) On the commencement of this Plan, it is estimated that the share components of aquifer access licences total 105,529 unit shares and are distributed as follows:
 - (a) 4,693 unit shares in the Bell Alluvial Groundwater Source,

- (b) 583 unit shares in the Castlereagh Alluvial Groundwater Source,
- (c) 1,828 unit shares in the Cudgegong Alluvial Groundwater Source,
- (d) 19,680 unit shares in the Lower Macquarie Zone 1 Groundwater Source,
- (e) 22,608 unit shares in the Lower Macquarie Zone 2 Groundwater Source,
- (f) 8,264 unit shares in the Lower Macquarie Zone 3 Groundwater Source,
- (g) 5,103 unit shares in the Lower Macquarie Zone 4 Groundwater Source,
- (h) 2,477 unit shares in the Lower Macquarie Zone 5 Groundwater Source,
- (i) 7,243 unit shares in the Lower Macquarie Zone 6 Groundwater Source,
- (j) 5,355 unit shares in the Talbragar Alluvial Groundwater Source, and
- (k) 27,695 unit shares in the Upper Macquarie Alluvial Groundwater Source.

24 Share components of aquifer (high security) access licences

On the commencement of this Plan, it is estimated that the share components of aquifer (high security) access licences total 8,995 unit shares and are distributed as follows:

- (a) 8,995 unit shares in the Cudgegong Alluvial Groundwater Source, and
- (b) 0 unit shares in all other groundwater sources.

Part 6 Limits to the availability of water

Division 1 Extraction limits

25 Volume of the long-term average annual extraction limits

- (1) The long-term average annual extraction limit for the Bell Alluvial Groundwater Source is 3,299 ML/year.

Note. The long-term average annual extraction limit for the Bell Alluvial Groundwater Source equates to the sustainable diversion limit (**SDL**) for the Bell Valley Alluvium SDL Resource Unit (GS11) specified in Schedule 4 of the *Basin Plan 2012*.

- (2) The long-term average annual extraction limit for the Castlereagh Alluvial Groundwater Source is 621 ML/year.

Note. The long-term average annual extraction limit for the Castlereagh Alluvial Groundwater Source equates to the SDL for the Castlereagh Alluvium SDL Resource Unit (GS14) specified in Schedule 4 of the *Basin Plan 2012*.

- (3) The long-term average annual extraction limit for the Cudgegong Alluvial Groundwater Source is 2,533 ML/year.

Note. The long-term average annual extraction limit for the Cudgegong Alluvial Groundwater Source equates to the SDL for the Cudgegong Alluvium SDL Resource Unit (GS16) specified in Schedule 4 of the *Basin Plan 2012*.

- (4) The long-term average annual extraction limit for the Lower Macquarie Zone 1 groundwater source is 21,807 ML/year.

- (5) The long-term average annual extraction limit for the Lower Macquarie Zone 2 groundwater source is 22,761 ML/year.

- (6) The long-term average annual extraction limit for the Lower Macquarie Zone 3 groundwater source is 9,752 ML/year.

- (7) The long-term average annual extraction limit for the Lower Macquarie Zone 4 groundwater source is 5,326 ML/year.

- (8) The long-term average annual extraction limit for the Lower Macquarie Zone 5 groundwater source is 2,871 ML/year.

- (9) The long-term average annual extraction limit for the Lower Macquarie Zone 6 groundwater source is 8,202 ML/year.

Notes.

- 1 The groundwater sources specified in subclauses (6), (7) and (8) form part of the Great Artesian Basin and therefore are not covered by the *Basin Plan 2012*.
- 2 The combined long-term average annual extraction limits for the groundwater sources specified in subclauses (4), (5), and (9) equate to the SDL for the Lower Macquarie Alluvium SDL Resource Unit (GS26) specified in Schedule 4 of the *Basin Plan 2012*.

- (10) The long-term average annual extraction limit for the Talbragar Alluvial Groundwater Source is 3,473 ML/year.

Note. The long-term average annual extraction limit for the Talbragar Alluvial Groundwater Source equates to the SDL for the Coolaburragundy-Talbragar Alluvium SDL Resource Unit (GS15) specified in Schedule 4 of the *Basin Plan 2012*.

- (11) The long-term average annual extraction limit for the Upper Macquarie Alluvial Groundwater Source is 17,935 ML/year.

Note. The long-term average annual extraction limit for the Upper Macquarie Alluvial Groundwater Source equates to the SDL for the Upper Macquarie Alluvium SDL Resource Unit (GS45) specified in Schedule 4 of the *Basin Plan 2012*.

26 Calculation of annual extraction

At the end of each water year, the volume of water taken during that water year under the following must be determined for each of the groundwater sources:

- (a) all categories of access licences,
- (b) basic landholder rights.

Note. The volume of water taken in any water year under basic landholder rights is assumed to be the volumes specified in Division 2 of Part 5 of this Plan.

27 Assessment of compliance with extraction limits

After the end of each water year, the following assessments of compliance with extraction limits are to be conducted:

- (a) an assessment of compliance with the long-term average annual extraction limits in accordance with clause 28 for each of the groundwater sources,

- (b) an assessment of compliance with the Basin Plan long-term annual diversion limit in accordance with clause 29 for each of the groundwater sources, except Lower Macquarie Zone 3, Lower Macquarie Zone 4 and Lower Macquarie Zone 5 Groundwater Sources.

Note. The Lower Macquarie Zone 3, Lower Macquarie Zone 4 and Lower Macquarie Zone 5 Groundwater Sources form part of the Great Artesian Basin and therefore are not covered by the *Basin Plan 2012*.

28 Assessment of compliance with long-term average annual extraction limits

- (1) An assessment under this clause is to compare the long-term average annual extraction limit established under clause 25 for each of the groundwater sources against the average of the annual extractions in the preceding five water years as determined under clause 26 for the respective groundwater source.
- (2) There is non-compliance with a long-term average annual extraction limit if the average of annual extractions from the groundwater source in the preceding five water years exceeds the relevant long-term average annual extraction limit specified in clause 25 by the following:
- (a) 10% or more for the Bell Alluvial Groundwater Source,
 - (b) 5% or more for the Castlereagh Alluvial Groundwater Source,
 - (c) 10% or more for the Cudgegong Alluvial Groundwater Source,
 - (e) 5% or more for the Lower Macquarie Zone 1 Groundwater Source,
 - (f) 5% or more for the Lower Macquarie Zone 2 Groundwater Source,
 - (g) 5% or more for the Lower Macquarie Zone 3 Groundwater Source,
 - (h) 5% or more for the Lower Macquarie Zone 4 Groundwater Source,
 - (i) 5% or more for the Lower Macquarie Zone 5 Groundwater Source,
 - (j) 5% or more for the Lower Macquarie Zone 6 Groundwater Source,
 - (d) 10% or more for the Talbragar Alluvial Groundwater Source,

- (e) 10% or more for the Upper Macquarie Alluvial Groundwater Source.
- (3) An assessment under this clause is to commence in the first water year in which this Plan has effect.

Note. The effect of this subclause is that the assessments referred to in this clause will include water years prior to the commencement of this Plan.

29 Assessment of compliance with Basin Plan long-term annual diversion limit

- (1) An assessment of compliance with a long-term annual diversion limit is to be conducted for the Macquarie-Castlereagh Alluvial Groundwater Sources in accordance with the processes set out in Division 3 of Part 4 of Chapter 6 of the Basin Plan.

Note. *Basin Plan* is defined in the Dictionary.

- (2) For the purpose of an assessment under subclause (1):
 - (a) the annual permitted take for each of the following groundwater sources is to be the long-term average annual extraction limits specified for that groundwater source in clause 25:
 - (i) Bell Alluvial Groundwater Source,
 - (ii) Castlereagh Alluvial Groundwater Source,
 - (iii) Talbragar Alluvial Groundwater Source.

Note. *Annual permitted take* is defined in the Dictionary.

- (b) there is a single annual permitted take for the Lower Macquarie Zone 1, Lower Macquarie Zone 2 and Lower Macquarie Zone 6 Groundwater Sources, being the sum of the long-term average annual extraction limits specified for those groundwater sources in clause 25, and
- (c) the annual permitted take for the Cudgegong Alluvial Groundwater Source and Upper Macquarie Alluvial Groundwater Source is to be the long-term average annual extraction limit for each of those groundwater sources specified in clause 25, as varied each water year based on the deviation of actual rainfall in

that water year from average annual rainfall, in accordance with a process determined by the Minister, subject to subclause (5):

- (i) measured at Mudgee, for the Cudgegong Alluvial Groundwater Source, and
- (ii) measured at Dubbo, for the Upper Macquarie Alluvial Groundwater Source.

Note. This climate adjusted annual permitted take limit recognises that in dry years extraction will generally exceed the long-term average annual extraction limit, and in wet years it will be less.

- (3) The variation in annual permitted take each water year made under subclause (2)(c) must not be more than:

$$0.2 \times (A - B)$$

- (4) In this clause:

A means the long-term average annual extraction limit for the Cudgegong Alluvial Groundwater Source specified in clause 25 (3) or the long-term average annual extraction limit for the Upper Macquarie Alluvial Groundwater Source specified in clause 25 (11), respectively.

B means the water requirements of persons exercising basic landholder rights in the Cudgegong Alluvial Groundwater Source or Upper Macquarie Alluvial Groundwater Source, respectively, specified in Division 2 of Part 5 of this Plan.

30 Compliance with limits

- (1) If an assessment under either clause 28 or 29 demonstrates that there is non-compliance with a limit, the Minister may, in relation to the relevant groundwater source or groundwater sources, do any one or more of the following:
 - (a) reduce the total water account debit for aquifer access licences under clause 37 for the following water year,
 - (b) reduce the total water account debit for aquifer (high security) access licences under clause 37 for the following water year,

- (c) reduce the available water determinations made under clause 34 for aquifer access licences for the following water year,
- (d) reduce the available water determinations made under clause 35 for aquifer (high security) access licences for the following water year.

Note. *Water account debit* has the meaning set out in clause 37.

- (2) Any reduction under subclause (1) is to be to the extent the Minister considers necessary to return average annual extractions in the relevant groundwater source to the long-term average annual extraction limit specified in clause 25 for that groundwater source, or to meet the requirements of Division 3 of Part 4 of Chapter 6 of the Basin Plan (as relevant).

Division 2 Available water determinations

Note. When making an available water determination at the commencement of a water year, the Minister may make known total water account debits for aquifer access licences and aquifer (high security) access licences under clause 37 for that water year, as determined under Division 1 of this Part.

31 General

- (1) Available water determinations for access licences with share components that specify any one of the groundwater sources are to be expressed as either:
 - (a) a percentage of the share component for access licences where share components are specified as ML/year, or
 - (b) megalitres per unit share for access licences where share components are specified as a number of unit shares.
- (2) The sum of available water determinations made for any access licence must not, in any water year, exceed the following:
 - (a) for any access licence where share components are specified as ML/year—100% of the access licence share component, or
 - (b) for any access licence where share components are specified as a number of unit shares—1 megalitre (*ML*) per unit share of the access licence share component.

32 Available water determinations for domestic and stock access licences

Unless the Minister otherwise determines, at the commencement of each water year an available water determination of 100% of the access licence share component is to be made for domestic and stock access licences.

33 Available water determinations for local water utility access licences

Unless the Minister otherwise determines, at the commencement of each water year an available water determination of 100% of the access licence share component is to be made for local water utility access licences.

34 Available water determinations for aquifer access licences

- (1) Unless the Minister otherwise determines, at the commencement of each water year an available water determination is to be made for aquifer access licences of 1ML per unit of share component.
- (2) Further available water determinations for aquifer access licences may be made if the available water determination made under subclause (1) is less than 1 ML per unit of share component.

35 Available water determinations for aquifer (high security) access licences

- (1) Unless the Minister otherwise determines, at the commencement of each water year an available water determination is to be made for aquifer (high security) access licences in the Cudgegong Alluvial Groundwater Source of the following:
 - (a) 0.4 ML per unit of share component for aquifer (high security) access licences, plus
 - (b) 60% of the available water determination made for regulated river (high security) access licences in the Macquarie and Cudgegong Regulated Rivers Water Source to which the *Water Sharing Plan for the Macquarie and Cudgegong Regulated Rivers Water Source 2016* (or any relevant replacement of that plan) applies,
- (2) Further available water determinations for aquifer (high security) access licences may be made if additional available water determinations are made for regulated river

(high security) access licences in the Macquarie and Cudgegong Regulated Rivers Water Source to which the *Water Sharing Plan for the Macquarie and Cudgegong Regulated Rivers Water Source 2016* (or any relevant replacement of that plan) applies.

- (3) Unless the Minister otherwise determines, available water determinations made under subclause (2) are to be equal to 60% of the available water determination made for regulated river (high security) access licences in the Macquarie and Cudgegong Regulated Rivers Water Source to which the *Water Sharing Plan for the Macquarie and Cudgegong Regulated Rivers Water Source 2016* (or any relevant replacement of that plan) applies.

Part 7 Rules for granting access licences

Notes.

- 1 This Part is made in accordance with sections 20 (2) (b), 61 and 63 of the Act.
- 2 Access licences granted in the groundwater sources will be subject to mandatory conditions imposed by this Plan, the regulations and the Act, and may also be subject to discretionary conditions.

36 Specific purpose access licences

Note. Section 61 of the Act allows for the granting of specific purpose access licences under the regulations and the relevant water sharing plan.

- (1) The Minister must not grant a specific purpose access licence unless satisfied that the share and extraction components of the access licence are the minimum required for the proposed use.
- (2) An application may not be made for an access licence of the subcategory “Aboriginal cultural” if the share component of the proposed access licence is more than 10 ML/year.
- (3) An access licence of the subcategory “Aboriginal cultural” may only be granted for the taking of water by an Aboriginal person or Aboriginal community for any personal, domestic or communal purpose, including drinking, food preparation, washing, manufacturing traditional artefacts, watering domestic gardens, cultural teaching, hunting, fishing, gathering and for recreational, cultural and ceremonial purposes.

Note. *Aboriginal person* is defined in the Dictionary.

Part 8 Rules for operating water accounts

Notes.

- 1 Section 85 of the Act provides for the keeping of water allocation accounts for access licences. The rules in this Part restrict the water that may be taken under or assigned from an access licence over a specified period of time, and the unused water allocations in water allocation accounts that may be carried over from one water year to the next. These restrictions are in addition to any other limits on access licences for the taking or assignment of water. It is an offence under section 60C of the Act to take water under an access licence for which there is no or insufficient water allocation.
- 2 This Part is made in accordance with section 21 (c) of the Act.

37 Water allocation account debits or withdrawals

- (1) A *water account debit* means any water allocation that is taken, assigned under section 71T of the Act, or otherwise debited or withdrawn, from a water allocation account.
- (2) For domestic and stock access licences and local water utility access licences, the total water account debit in any water year must not exceed:
 - (a) the sum of water allocations credited to the water allocation account for the access licence from available water determinations in that water year,
 - (b) plus any water allocations assigned to the water allocation account for the access licence under section 71T of the Act in that water year,
 - (c) plus any water allocations recredited to the water allocation account for the access licence in accordance with section 76 of the Act in that water year.
- (3) For aquifer access licences in the Bell Alluvial, Castlereagh Alluvial, Talbragar Alluvial and Upper Macquarie Alluvial Groundwater Sources, the total water account debit in any water year must not exceed the following:
 - (a) the sum of water allocations credited to the water allocation account for the access licence from available water determinations in that water year,
 - (b) plus any water allocations assigned to the water allocation account for the aquifer access licence under section 71T of the Act in that water year,

- (c) plus any water allocations recredited to the water allocation account for the aquifer access licence in accordance with section 76 of the Act in that water year.
- (4) For aquifer access licences in the Lower Macquarie Zone 1, Lower Macquarie Zone 2, Lower Macquarie Zone 3, Lower Macquarie Zone 4, Lower Macquarie Zone 5 and Lower Macquarie Zone 6 Groundwater Sources in any water year, the total water account debit must not exceed the following:
- (a) 1.44 ML per unit share of the access licence share component (or such lower amount that reflects reductions made in accordance with Division 1 of Part 6 of this Plan),
 - (b) plus any water allocations assigned to the water allocation account for the aquifer access licence under section 71T of the Act in that water year,
 - (c) plus any water allocations recredited to the water allocation account for the aquifer access licence in accordance with section 76 of the Act in that water year.
- (5) For aquifer (high security) access licences in the Cudgegong Alluvial Groundwater Source, the total water account debit in any water year must not exceed the following:
- (a) the sum of water allocations credited to the water allocation account for the access licence from available water determinations in that water year,
 - (b) plus any water allocations assigned to the water allocation account for the aquifer access licence under section 71T of the Act in that water year,
 - (c) plus any water allocations recredited to the water allocation account for the aquifer access licence in accordance with section 76 of the Act in that water year.

38 Carryover limits

- (1) For domestic and stock access licences and local water utility access licences, water allocations remaining in the water allocation account must not be carried over from one water year to the next water year.

- (2) For aquifer access licences in the Bell Alluvial, Castlereagh Alluvial, Talbragar Alluvial and Upper Macquarie Alluvial Groundwater Sources, any water allocations remaining in the water allocation account must not be carried over from one water year to the next water year.
- (3) For aquifer access licences in Lower Macquarie Zone 1, Lower Macquarie Zone 2, Lower Macquarie Zone 3, Lower Macquarie Zone 4, Lower Macquarie Zone 5 and Lower Macquarie Zone 6 Groundwater Sources, any water allocations remaining in the water allocation account is to be carried over from one water year to the next water year, up to a maximum of 0.62 ML per unit share of the access licence share component.
- (4) For aquifer (high security) access licences in the Cudgegong Alluvial Groundwater Source any water allocations remaining in the water allocation account must not be carried over from one water year to the next water year.

Part 9 Rules for water supply work approvals

Note. This Part is made in accordance with sections 5, 21 and 95 of the Act.

39 General

- (1) A reference in this Part to a water supply work being located within a specified distance includes a reference to a water supply work that is proposed to be located within a specified distance.
- (2) In addition to the matters listed in section 97 (2) of the Act, the Minister must not grant a water supply work approval unless satisfied that adequate arrangements are in place to ensure that, as a consequence of the grant or amendment of the approval, there is:
 - (a) no more than minimal effect on the ability of a person to take water using an existing approved water supply work and any associated access licences, and
 - (b) no more than minimal harm to public health and safety or to a groundwater-dependent culturally sensitive area.
- (3) The Minister must not amend a water supply work approval unless satisfied of the matters listed in subclause (2) and section 97 (2) of the Act.

Notes.

New approvals

- 1 Division 2 of Part 3 of Chapter 3 of the Act sets out the process for applications for, and granting of, approvals.
- 2 Section 97 (2) of the Act provides that the Minister may only grant a water supply work approval if satisfied that adequate arrangements are in place to ensure that no more than minimal harm will be done to any water source, or its dependent ecosystems, as a consequence of the construction or use of the proposed water supply work.
- 3 Section 96 (b) of the Act specifies that the Minister may take into account any matters the Minister considers relevant in determining an application for a water supply work approval. Under section 92 (5), the Minister may require an applicant to provide any additional information the Minister considers relevant to determining the application. This may include, for example, hydrogeological studies, hydrogeochemical studies or ecological studies.

Amendment of approvals

- 4 Section 107 of the Act provides for the amendment of approvals.

Conditions of approvals

- 5 The Minister may grant a water supply work approval subject to conditions, as provided in sections 95 and 100 of the Act.
- 6 In addition, the Minister may impose or vary conditions on a water supply work approval at any time as the Minister thinks fit, under section 102 of the Act. These conditions may limit the volume or rate of extraction from a water supply work approval if the Minister considers appropriate.

Other limits on volumes or rates of extraction

- 7 The Minister may also limit the volumes or rates of extraction from existing water supply work approvals in the following ways:
- (a) for all water supply works within a specified area, by an order made under section 324 of the Act,
 - (b) for existing water supply works used solely for basic landholder rights, by an order made under section 331 of the Act.

Provisions in this Part

- 8 This Part specifies rules in addition to those in the Act about when, and how, the Minister may grant or amend a water supply work approval.

40 Rules to minimise interference between water supply works

- (1) A water supply work approval must not be granted or amended in the Castlereagh Alluvial Groundwater Source if located within:
- (a) 200 metres of a water supply work located on another landholding that is authorised to take water from the same groundwater source for basic landholder rights only, or
 - (b) 100 metres of the boundary of the landholding on which the water supply work is located, unless the owner of the landholding adjoining the boundary has provided consent in writing, or
 - (c) 400 metres of a water supply work located on another landholding that is nominated by another access licence to take water from the same groundwater source, or
 - (d) 500 metres of a water supply work that is nominated by a local water utility access licence or a major utility access licence to take water from the same

groundwater source, unless the holder of the local water utility access licence has provided consent in writing, or

- (e) 100 metres of a Government observation or monitoring bore.

Note. Government observation or monitoring bore is defined in the Dictionary.

- (2) A water supply work approval must not be granted or amended in the Bell Alluvial, Cudgegong Alluvial, Talbragar Alluvial or Upper Macquarie Alluvial Groundwater Sources if located within:

- (a) 200 metres of a water supply work located on another landholding that is authorised to take water from the same groundwater source for basic landholder rights only, or
- (b) 100 metres of the boundary of the landholding on which the water supply work is located, unless the owner of the landholding adjoining the boundary has provided consent in writing, or
- (c) 200 metres of a water supply work located on another landholding that is nominated by another access licence to take water from the same groundwater source, or
- (d) 500 metres of a water supply work that is nominated by a local water utility access licence or a major utility access licence to take water from the same groundwater source, unless the holder of the local water utility access licence has provided consent in writing, or
- (e) 100 metres of a Government observation or monitoring bore.

- (3) A water supply work approval must not be granted or amended in the Lower Macquarie Zone 1, Lower Macquarie Zone 2 or Lower Macquarie Zone 6 Groundwater Sources if located within:

- (a) 400 metres of a water supply work located on another landholding that is authorised to take water from the same groundwater source for basic landholder rights only, or

- (b) 200 metres from the boundary of the landholding on which the water supply work is located, unless the owner of the landholding adjoining the boundary has provided consent in writing, or
 - (c) 1,000 metres of a water supply work located on another landholding that is nominated by another access licence to take water from the same groundwater source, if authorised to take up to and including 1,000 ML/year, or
 - (d) 2,000 metres of a water supply work located on another landholding that is nominated by another access licence to take water from the same groundwater source, if authorised to take more than 1,000 ML/year but no more than 2,000 ML/year, or
 - (e) 3,000 metres of a water supply work located on another landholding that is nominated by another access licence to take water from the same groundwater source, if authorised to take more than 2,000 ML/year, or
 - (f) 600 metres of a water supply work that is nominated by a local water utility access licence or a major utility access licence to take water from the same groundwater source, unless the holder of the local water utility access licence or major utility access licence has provided consent in writing, or
 - (g) 500 metres of a Government observation or monitoring bore.
- (4) A water supply work approval must not be granted or amended in the Lower Macquarie Zone 3, Lower Macquarie Zone 4 or Lower Macquarie Zone 5 Groundwater Sources if located within:
- (a) 400 metres of a water supply work located on another landholding that is authorised to take water from the same groundwater source for basic landholder rights only, or
 - (b) 200 metres from the boundary of the landholding on which the water supply work is located, unless the owner of the landholding adjoining the boundary has provided consent in writing, or

- (c) 1,000 metres of a water supply work located on another landholding that is nominated by another access licence to take water from the same groundwater source, if authorised to take up to and including 500 ML/year, or
 - (d) 2,500 metres of a water supply work located on another landholding that is nominated by another access licence to take water from the same groundwater source, if authorised to take more than 500 ML/year but no more than 1,000 ML/year, or
 - (e) 3,500 metres of a water supply work located on another landholding that is nominated by another access licence to take water from the same groundwater source, if authorised to take more than 1,000 ML/year but no more than 1,500 ML/year, or
 - (f) 4,000 metres of a water supply work located on another landholding that is nominated by another access licence to take water from the same groundwater source, if authorised to take more than 1,500 ML/year, or
 - (g) 600 metres of a water supply work that is nominated by a local water utility access licence or a major utility access licence to take water from the same groundwater source, unless the holder of the local water utility access licence or major utility access licence has provided consent in writing, or
 - (h) 500 metres of a Government observation or monitoring bore.
- (5) The location restrictions specified in subclauses (1), (2), (3) and (4) do not apply to the granting or amending of a water supply work approval if the Minister is satisfied of any of the following:
- (a) that the water supply work is a replacement groundwater work,
 - (b) that the water supply work is for the purpose of monitoring, environmental remediation activities or emergency services,
 - (c) that the location of the water supply work at a lesser distance than those specified in subclauses (1) to (4) would result in no more than minimal effect on the ability of a person to take water using an existing approved water supply work and any associated access licences.

Note. *Replacement groundwater work* is defined in the Dictionary.

Minister's note.

Stakeholder feedback is sought, in particular, on the distance rules proposed in subclauses (3) & (4) above and clause 41 below, as they are either variations of the distance rules in the current water sharing plan or are included because no equivalent rules exist in the current plan.

Note that the policy aim is to, as far as possible, standardise the application of distance rules across NSW groundwater sources, acknowledging that specific distances will need to vary on a valley by valley basis to take account of the unique characteristics of each area.

41 Rules for water supply works located near contamination sources

- (1) A water supply work approval must not be granted or amended if the water supply work is located:
- (a) within 500 metres of a contamination source listed in Schedule 1, or
 - (b) within 250 metres of the edge of a plume associated with a contamination source listed in Schedule 1, or
 - (c) between 250 metres and 500 metres from the edge of a plume associated with a contamination source listed in Schedule 1, unless the Minister is satisfied that no drawdown will occur within 250 metres of that plume.

Note. *Drawdown* is defined in the Dictionary.

- (2) The location restrictions specified in subclause (1) do not apply to the granting or amending of a water supply work approval if the Minister is satisfied that:
- (a) the location of the water supply work is adequate to protect the groundwater source, the environment and public health and safety, or
 - (b) the water supply work is for the purpose of monitoring, environmental remediation activities or emergency services.
- (3) A water supply work approval for a water supply work located within 250 metres of an on-site sewage disposal system may only be granted or amended if the water supply work is:

- (a) constructed with cement grout between the bore casing and the borehole annulus to a minimum depth of 20 metres from the ground surface, and
- (b) located at sufficient distance from the on-site sewage disposal system to prevent migration of septic contamination in the aquifer.

Note. *Borehole annulus* is defined in the Dictionary.

- (4) The depth requirement in subclause (3) (a) may be modified if the Minister is satisfied that adequate arrangements are in place to protect the groundwater source, the environment and public health and safety.

42 Rules for water supply works located near groundwater-dependent ecosystems

- (1) High priority groundwater-dependent ecosystems within the groundwater sources are shown on the map called *High Priority Groundwater-Dependent Ecosystem Map (GDE016_Version 1)*, *Water Sharing Plan for the Macquarie-Castlereagh Groundwater Sources 2019 (the GDE Map)* published on the NSW legislation website.

Note. The GDE Map is part of this Plan. An overview of the GDE Map is shown in Appendix 2. Copies of the GDE Map may be inspected at the offices listed in Schedule 3 and are available on the NSW legislation website.

- (2) A water supply work approval must not be granted or amended for the following water supply works:
 - (a) a water supply work that is located within 40 metres of the top of the high bank of a river,
 - (b) a water supply work for basic landholder rights that is located within 100 metres of any other high priority groundwater-dependent ecosystem shown on the GDE Map,
 - (c) a water supply work, other than solely for basic landholder rights, that is located within 200 metres of any other high priority groundwater-dependent ecosystem shown on the GDE Map.

- (3) Subclause (2) does not apply to the granting or amending of a water supply work approval if the Minister is satisfied of any of the following:
- (a) that the water supply work is for the purpose of monitoring, environmental remediation activities or emergency services,
 - (b) that the water supply work is a replacement groundwater work,
 - (c) that the location of the water supply work is at a distance that would result in no more than minimal change in existing drawdown at the edge of any high priority groundwater-dependent ecosystem shown on the GDE Map.

43 Rules for water supply works located near groundwater-dependent culturally significant areas

- (1) A water supply work approval must not be granted or amended if located within:
- (a) 100 metres of a groundwater-dependent culturally significant area, for a water supply work that will be used take water for basic landholder rights only, or
 - (b) 200 metres of a groundwater-dependent culturally significant area, for a water supply work that is intended to be nominated by an access licence.

Note. Groundwater-dependent culturally significant areas may be identified during the term of this Plan. The full list of potential groundwater-dependent culturally significant areas will be considered by staff in the assessment of any application for a water supply work approval within the area of this Plan.

- (2) The location restrictions specified in subclause (1) do not apply to the granting or amending of a water supply work approval if the Minister is satisfied of any of the following:
- (a) that the water supply work is for the purpose of monitoring, environmental remediation activities or emergency services,
 - (b) that the water supply work is a replacement groundwater work,
 - (c) that the location of the water supply work at a lesser distance will result in no more than minimal impact on groundwater-dependent culturally significant areas.

44 Replacement groundwater works

- (1) For the purposes of this Plan, *replacement groundwater work* means a water supply work that will replace an existing water supply work where:
- (a) the existing water supply work is authorised by a water supply work approval under the Act, and
 - (b) the replacement groundwater work is to be constructed to extract water:
 - (i) from the same groundwater source as the existing water supply work, and
 - (ii) from the same depth as the existing water supply work, and
 - (c) the replacement groundwater work is to be located:
 - (i) within 20 metres of the existing water supply work, and
 - (ii) no closer to the high bank of the river, if the existing water supply work is located within 40 metres of the high bank of a river, and
 - (d) the replacement groundwater work will not have a greater internal diameter or excavation footprint than the existing water supply work, except where the internal diameter of the casing of the existing water supply work is:
 - (i) no longer manufactured, in which case the internal diameter of the replacement water supply work is to be no greater than 120% of the internal diameter of the existing water supply work it replaces, or
 - (ii) less than 100 millimetres, in which case the internal diameter of the replacement water supply work may be increased to 100 millimetres.

Note. *Internal diameter* and *excavation footprint* are defined in the Dictionary.

- (2) The Minister may alter the depth and location requirements in subclauses (1) (b) (ii) and (1) (d) (i) on a case by case basis if satisfied that doing so will result in:
- (a) no greater impact on a groundwater source, a high priority groundwater-dependent ecosystem, public health and safety, or a groundwater dependent culturally significant area, and

- (b) no more than minimal additional effect on the ability of a person to take water using an existing approved water supply work and any associated access licences.

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Part 10 Access licence dealing rules

Notes.

- 1 Access licence dealings in the groundwater sources are subject to the provisions of the Act, the regulations, any access licence dealing principles established by order made under section 71Z of the Act and the access licence dealing rules established under this Part.
- 2 At the commencement of this Plan the *Access Licence Dealing Principles Order 2004* applies. The access licence dealing principles prevail over the access licence dealing rules in this Plan to the extent of any inconsistency, as provided under section 71Z (3) of the Act.
- 3 Management zones in the Cudgegong Alluvial Groundwater Source are shown on the Overview of Plan Map in Appendix 1.
- 4 An application for a dealing may be refused or conditions may be applied on access licences or water supply work approvals at the time of a dealing to give effect to the provisions of Part 9 of this Plan.

Minister's note.

Existing trade rules in the *Water Sharing Plan for the Lower Macquarie Groundwater Sources 2003* prohibit trade from the Lower Macquarie Zone 3, Zone 4 or Zone 5 Groundwater Sources into the Lower Macquarie Zone 1, Zone 2 or Zone 6 Groundwater Sources.

Trade from the Lower Macquarie Zone 1, Zone 2 or Zone 6 Groundwater Sources into the Lower Macquarie Zone 3, Zone 4 or Zone 5 Groundwater Sources has not occurred due to existing restrictions on an increase in share components.

It is proposed to formalise the current situation by prohibiting trade from the Lower Macquarie Zone 1, Zone 2 or Zone 6 Groundwater Sources into the Lower Macquarie Zone 3, Zone 4 or Zone 5 Groundwater Sources - see clauses 46(2)(b), 47(2)(b) and 49(2)(a) below.

Your views are sought on this issue.

45 Conversion of access licence to new category

Dealings under section 71O of the Act are prohibited.

46 Assignment of rights dealings

- (1) Dealings under section 71Q of the Act are prohibited if the dealing involves an assignment of rights between different management zones in the Cudgegong Alluvial Groundwater Source.

- (2) Dealings under section 71Q of the Act between different groundwater sources are prohibited if the dealing involves any of the following:
- (a) the assignment of rights from an access licence with a share component that specifies the Lower Macquarie Zone 3 Groundwater Source, Lower Macquarie Zone 4 Groundwater Source or Lower Macquarie Zone 5 Groundwater Source to an access licence with a share component that specifies the Lower Macquarie Zone 1 Groundwater Source, Lower Macquarie Zone 2 Groundwater Source or Lower Macquarie Zone 6 Groundwater Source,
 - (b) the assignment of rights from an access licence with a share component that specifies the Lower Macquarie Zone 1 Groundwater Source, Lower Macquarie Zone 2 Groundwater Source or Lower Macquarie Zone 6 Groundwater Source to an access licence with a share component that specifies the Lower Macquarie Zone 3 Groundwater Source, Lower Macquarie Zone 4 Groundwater Source or Lower Macquarie Zone 5 Groundwater Source,
 - (c) the assignment of rights to or from an access licence with a share component that specifies one of the following groundwater sources:
 - (i) Bell Alluvial Groundwater Source,
 - (ii) Castlereagh Alluvial Groundwater Source,
 - (iii) Cudgegong Alluvial Groundwater Source,
 - (iv) Talbragar Alluvial Groundwater Source,
 - (v) Upper Macquarie Alluvial Groundwater Source,
 - (d) the assignment of rights to an access licence with a share component that specifies one of the following groundwater sources if it would cause the sum of the share components of all access licences in that groundwater source to exceed the following volumes:
 - (i) 21,675 ML in the Lower Macquarie Zone 1 Groundwater Source,
 - (ii) 22,610 ML in the Lower Macquarie Zone 2 Groundwater Source,

- (iii) 9,350 ML in the Lower Macquarie Zone 3 Groundwater Source,
- (iv) 5,100 ML in the Lower Macquarie Zone 4 Groundwater Source,
- (v) 2,398 ML in the Lower Macquarie Zone 5 Groundwater Source,
- (vi) 8,160 ML in the Lower Macquarie Zone 6 Groundwater Source.

47 Amendment of share components dealings (change of water source)

- (1) In a dealing under section 71R of the Act, the share component of a new access licence must equal the share component of the cancelled licence.
- (2) Dealings under section 71R of the Act are prohibited if the dealing involves any of the following:
 - (a) the granting of an access licence with a share component that specifies the Lower Macquarie Zone 3 Groundwater Source, Lower Macquarie Zone 4 Groundwater Source or Lower Macquarie Zone 5 Groundwater Source, following the cancellation of an access licence with a share component that specifies the Lower Macquarie Zone 1 Groundwater Source, Lower Macquarie Zone 2 Groundwater Source or Lower Macquarie Zone 6 Groundwater Source,
 - (b) the granting of an access licence with a share component that specifies the Lower Macquarie Zone 1 Groundwater Source, Lower Macquarie Zone 2 Groundwater Source or Lower Macquarie Zone 6 Groundwater Source following the cancellation of an access licence with a share component that specifies the Lower Macquarie Zone 3 Groundwater Source, Lower Macquarie Zone 4 Groundwater Source or Lower Macquarie Zone 5 Groundwater Source,
 - (c) the granting of a new access licence or the cancellation of an access licence with a share component that specifies one of the following groundwater sources:
 - (i) Bell Alluvial Groundwater Source,
 - (ii) Castlereagh Alluvial Groundwater Source,
 - (iii) Cudgegong Alluvial Groundwater Source,

- (iv) Talbragar Alluvial Groundwater Source,
- (v) Upper Macquarie Alluvial Groundwater Source,
- (d) the granting of a new access licence with a share component that specifies one of the following groundwater sources if it would cause the sum of the share components of all access licences in that groundwater source to exceed the following volumes:
 - (i) 21,675 ML in the Lower Macquarie Zone 1 Groundwater Source,
 - (ii) 22,610 ML in the Lower Macquarie Zone 2 Groundwater Source,
 - (iii) 9,350 ML in the Lower Macquarie Zone 3 Groundwater Source,
 - (iv) 5,100 ML in the Lower Macquarie Zone 4 Groundwater Source,
 - (v) 2,398 ML in the Lower Macquarie Zone 5 Groundwater Source,
 - (vi) 8,160 ML in the Lower Macquarie Zone 6 Groundwater Source.

48 Amendment of extraction component dealings

Dealings under section 71S of the Act are prohibited if the dealing involves an access licence with an extraction component that specifies one of the management zones in the Cudgegong Alluvial Groundwater Source being varied to specify another management zone in the Cudgegong Alluvial Groundwater Source.

49 Assignment of water allocations dealings

- (1) Dealings under section 71T of the Act are prohibited if the dealing involves an assignment of water allocation between different management zones in the Cudgegong Alluvial Groundwater Source.
- (2) Dealings under section 71T of the Act between different groundwater sources are prohibited if the dealing involves any of the following:
 - (a) the assignment of water allocation from an access licence with a share component that specifies the Lower Macquarie Zone 1 Groundwater Source, Lower Macquarie Zone 2 Groundwater Source or Lower Macquarie Zone 6

Groundwater Source to an access licence with a share component that specifies the Lower Macquarie Zone 3 Groundwater Source, Lower Macquarie Zone 4 Groundwater Source or Lower Macquarie Zone 5 Groundwater Source,

- (b) the assignment of water allocation from an access licence with a share component that specifies the Lower Macquarie Zone 3 Groundwater Source, Lower Macquarie Zone 4 Groundwater Source or Lower Macquarie Zone 5 Groundwater Source to an access licence with a share component that specifies the Lower Macquarie Zone 1 Groundwater Source, Lower Macquarie Zone 2 Groundwater Source or Lower Macquarie Zone 6 Groundwater Source,
- (c) the assignment of water allocation to or from an access licence with a share component that specifies one of the following groundwater sources:
 - (i) Bell Alluvial Groundwater Source,
 - (ii) Castlereagh Alluvial Groundwater Source,
 - (iii) Cudgegong Alluvial Groundwater Source,
 - (iv) Talbragar Alluvial Groundwater Source,
 - (v) Upper Macquarie Alluvial Groundwater Source,
- (d) the assignment of water allocation to an access licence with a share component that specifies one of the following groundwater sources if it would cause the sum of the share components of all access licences in that groundwater source to exceed the following volumes:
 - (i) 21,675 ML in the Lower Macquarie Zone 1 Groundwater Source,
 - (ii) 22,610 ML in the Lower Macquarie Zone 2 Groundwater Source,
 - (iii) 9,350 ML in the Lower Macquarie Zone 3 Groundwater Source,
 - (iv) 5,100 ML in the Lower Macquarie Zone 4 Groundwater Source,
 - (v) 2,398 ML in the Lower Macquarie Zone 5 Groundwater Source,
 - (vi) 8,160 ML in the Lower Macquarie Zone 6 Groundwater Source.

50 Nomination of water supply works dealings

Dealings under section 71W of the Act are prohibited if the dealing involves:

- (a) an access licence which nominates a water supply work located in one of the management zones in the Cudgegong Alluvial Groundwater Source being amended to nominate a water supply work located in another management zone in the Cudgegong Alluvial Groundwater Source, or
- (b) an access licence being amended to nominate a water supply work located in a different water source to that specified in the share component of the access licence.

Part 11 Mandatory conditions

Division 1 General

51 General

- (1) For the purposes of this Part:
- (a) requirement to notify the Minister in writing is only satisfied by sending written notice to an address listed in Schedule 3 of this Plan or to the email address for enquiries on the Department's website, and
 - (b) if the holder of a water supply work approval is the same person as the holder of the access licence under which water is proposed to be taken, it is not necessary to maintain two separate logbooks and all the required information can be kept in one logbook.

Notes.

- 1 At the commencement of this Plan, the email address for enquiries on the Department's website is water.enquiries@dpi.nsw.gov.au.
- 2 **Logbook** is defined in the Dictionary.

- (2) In this Part a *metered water supply work with a data logger* means a water supply work with:
- (a) a meter that complies with Australian Standard AS 4747, *Meters for non-urban water supply*, as that document is updated or replaced from time to time, and
 - (b) a data logger.

Ministers note.

It is proposed to remove from water sharing plans all clauses that provide for mandatory conditions to be imposed in relation to metering and logbooks. Instead, these conditions will be imposed by regulations. Consultation on the proposed regulations is occurring in 2018.

Division 2 Access licences

Note. This Division is made in accordance with sections 17 (c), 20 and 66 of the Act.

52 General conditions

- (1) The following conditions must be imposed on each access licence:
 - (a) the total water account debit for the access licence must not exceed the amount specified in clause 37 for the access licence,

Note. *Water account debit* means any water allocation that is taken, assigned under section 71T of the Act, or otherwise debited or withdrawn, from a water allocation account.
 - (b) upon becoming aware of a breach of any condition of the access licence, the licence holder must:
 - (i) notify the Minister as soon as practicable, and
 - (ii) if the notification under subparagraph (i) is not in writing, confirm this notification in writing within seven days of becoming aware of the breach.
- (2) An access licence associated with an approved EP&A Act development must have conditions imposed to ensure that, as a consequence of the take of water under the access licence, there will be:
 - (a) no more than minimal harm to any water source or its dependent ecosystems, and
 - (a) no more than minimal effect on the ability of a person to take water using an existing approved water supply work and any associated access licences, and
 - (c) no more than minimal harm to public health and safety, or to a groundwater-dependent culturally sensitive area.

Note. *Approved EP&A Act development* is defined in the Dictionary.

53 Record keeping conditions

- (1) This clause applies to an access licence unless the licence nominates only a metered water supply work with a data logger.
- (2) The following conditions must be imposed on an access licence to which this clause applies:
 - (a) the licence holder must record the following information in a logbook:
 - (i) each date and start and end time during which water was taken under the licence,
 - (ii) the volume of water taken on that date,
 - (iii) the water supply work approval number of the water supply work used to take the water on that date,
 - (iv) the purpose or purposes for which the water was taken on that date,
 - (v) the volume of water taken in a water year compared with the water account debit permitted under clause 37 for the licence,
 - (b) the licence holder must retain the information required to be recorded in the logbook for five years from the date to which that information relates.

Division 3 Water supply work approvals

Note. This Division is made in accordance with sections 17 (c) and 100 of the Act.

54 General

The conditions set out in this Division must be imposed on each water supply work approval.

55 General conditions

- (1) The approval holder, upon becoming aware of a breach of any condition of the approval, must:

- (a) notify the Minister as soon as practicable, and
 - (b) if the notification under subclause (a) was not in writing, confirm this notification in writing within seven days of becoming aware of the breach.
- (2) A water supply work approval for the purpose of monitoring, an environmental remediation activity or emergency services must be used only for that purpose.

56 Metering conditions

- (1) The approval holder must install metering equipment that complies with Australian Standard AS 4747, *Meters for non-urban water supply*, as in force from time to time.
- (2) The approval holder must ensure the following:
 - (a) that the metering equipment accurately measures and records the flow of all water taken through each water supply work,
 - (b) that the metering equipment is operated and maintained in a proper and efficient manner at all times, and
 - (c) compliance with any other requirements as to type, standard or other criteria for the metering equipment directed by the Minister.

Note. The Minister may also direct a landholder or person to install, replace or properly maintain metering equipment under section 326 of the Act.

57 Record keeping conditions

- (1) This clause applies to every water supply work approval unless either of the following applies:
 - (a) the water supply work approval applies only to a metered water supply work with a data logger,
 - (b) the work is used for the purpose of taking water under basic landholder rights only.
- (2) Conditions must be imposed on every water supply work approval to which this clause applies which provides that the approval holder must:

- (a) record the following information in a logbook:
 - (i) each date and start and end time during which water was taken using the water supply work,
 - (ii) the volume of water taken on that date,
 - (iii) the access licence under which water was taken on that date or, if water was taken under some other authority (such as basic landholder rights), the authority under which water was taken,
 - (iv) the purpose or purposes for which the water was taken on that date,
 - (v) details of any cropping carried out using the water taken through the water supply work including the type of crop, area cropped and dates of planting and harvesting,
 - (vi) if metering equipment has been installed for use in connection with the water supply work, the meter reading before water is taken,
 - (vii) if metering equipment has not been installed for use in connection with the water supply work, details of all pumping activities for the water supply work including pump running hours, pump power usage or pump fuel usage, pump start and stop times and pump capacity per unit of time, and
- (b) retain the information recorded in the logbook for five years from the date to which that information relates.

58 Water supply work construction conditions

- (1) The approval holder must ensure that the water supply work is constructed in such a way that the work:
 - (a) is situated in the location specified in the application for the work, and
 - (b) is screened in the groundwater source specified in the share component of the access licence that nominates the work, and

- (c) is sealed off from all other water sources, and
 - (d) complies with the construction standards for that type of bore prescribed in the *Minimum Construction Requirements for Water Bores in Australia*, and
Note. *Minimum Construction Requirements for Water Bores in Australia* is defined in the Dictionary.
 - (e) prevents contamination of the aquifer and between aquifers, and
 - (f) prevents the flow of saline water between aquifers.
- (2) If contaminated water is encountered above or below the aquifer targeted for water supply during the construction of the water supply work, the approval holder must do the following:
- (a) notify the Minister within 48 hours of becoming aware of the contaminated water,
 - (b) take all reasonable steps to minimise contamination and environmental harm,
 - (c) ensure that the contaminated water is sealed off by inserting casing to a depth sufficient to exclude the contaminated water from the water supply work,
 - (d) if directed by the Minister, place an impermeable seal between the casing and the walls of the water supply work from the bottom of the casing to ground level as directed by the Minister,
 - (e) comply with any other written requirements specified by the Minister, which may include a requirement to provide a report in a specified form detailing the quality of any water obtained using the water supply work.
- (3) The approval holder cannot use the water supply work unless construction of the water supply work is completed within three years of the date that the approval was granted.
- (4) A water supply work approval for a replacement groundwater work must impose conditions which give effect to clauses 44 (1) (b) and (d).

59 Water quality condition

If directed by the Minister by notice in writing, the approval holder must provide a report in the form specified in the notice detailing the quality of any water obtained using the water supply work, within the timeframe (if any) specified in the written notice.

Notes.

- 1 An approval holder is responsible for monitoring water quality from the water supply work to ensure it is suitable for its intended purpose for the duration of the approval.
- 2 Inherent water quality and land use activities may make the water in some areas unsuitable for use. Water from the groundwater sources should not be used without first being tested and, if necessary, appropriately treated to ensure it is fit for purpose. Such testing and treatment are the responsibility of the water user.

60 Water supply work decommissioning condition

- (1) A water supply work that is no longer intended to be used must be decommissioned in accordance with this condition.
- (2) The approval holder must notify the Minister in writing of any intention to decommission the water supply work at least 60 days before commencing decommissioning. The notice must include a work plan for decommissioning in accordance with the *Minimum Construction Requirements for Water Bores in Australia*.
- (3) The approval holder must comply with any notice from the Minister received within 60 days of the notice in subclause (2) stating that the water supply work:
 - (a) must not be decommissioned, or
 - (b) must be decommissioned in accordance with other requirements specified in the notice.
- (4) Unless subclause (3) applies, the approval holder must comply with the work plan referred to in subclause (2).

- (5) Within 60 days of the water supply work being decommissioned, the approval holder must notify the Minister in writing that the water supply work has been decommissioned and provide the name of the driller who decommissioned the work.

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Part 12 Amendment of this Plan

Notes.

- 1 This Part sets out the amendments authorised by this Plan.
- 2 For the purposes of section 87 of the Act, the initial period for:
 - (a) the Castlereagh Alluvial Groundwater Source expires on 30 June 2022,
 - (b) the Bell, Cudgegong, Talbragar and Upper Macquarie Alluvial Groundwater Sources expire on 30 June 2023, and
 - (b) the Lower Macquarie Groundwater Source expired before the commencement of this Plan.

61 Part 1

Part 1 may be amended to do any of the following:

- (a) apply this Plan to new or additional groundwater sources or water management areas (including part thereof), or modify (including to amend the boundaries) or remove an existing groundwater source or water management area (including part thereof) from this Plan,
- (b) add, remove or modify a management zone, including the water sources to which a management zone applies and the boundaries of such a zone,
- (c) amend the Plan Map.

62 Part 7

Part 7 may be amended to establish or amend a limit for the granting of aquifer (subcategory “Aboriginal community development”) access licences in the groundwater sources.

63 Part 9

Part 9 may be amended to amend the GDE Map.

64 Part 11

Part 11 may be amended to do any of the following:

- (a) specify different standards or requirements for the construction or decommissioning of water supply works,
- (b) amend the rules in relation to metering and record keeping including in relation to requirements for logbooks.

65 Dictionary

The Dictionary may be amended to add, modify or remove a definition.

66 Schedules

- (1) Schedule 1 may be amended to add or remove a contamination source.
- (2) Schedule 3 may be amended to add or remove an office.

67 Other amendments (general)

- (1) This Plan may be amended to include rules for the following:
 - (a) managed aquifer recharge,
Note. Managed aquifer recharge schemes involve taking water such as recycled water or urban stormwater, treating it and then storing it in aquifers under controlled conditions. This water can then be extracted at a later time.
 - (b) any new category of access licence established for the purpose of urban stormwater harvesting,
 - (c) the interception of water before it reaches a stream or aquifer by plantations or other means,
 - (d) the management of salt interception schemes,
 - (e) the management of aquifer interference activities, including the granting of aquifer interference approvals,
 - (f) return flows, as referred to in Division 5 of Part 2 of Chapter 3 of the Act.
- (2) This Plan may be amended to give effect to, or in connection with, a determination of native title under the *Native Title Act 1993* of the Commonwealth.

- (3) This Plan may be amended to enable a water resource plan to be accredited under the *Water Act 2007* of the Commonwealth.
- (4) This Plan may be amended to provide rules for the protection of water-dependent Aboriginal cultural areas.
- (5) An amendment authorised by this Plan is taken to include any consequential amendments required to be made to this Plan to give effect to that particular amendment.
Note. For example, if Part 1 is amended to add a new management zone, this may require amendments to other parts of this Plan to include rules for that management zone.
- (6) Consequential amendments may be made to this Plan as a result of an amendment to the Act or regulations.

68 Other amendments related to the Cudgegong Alluvial Groundwater Source

Minister's Note

Clauses 68 and 69 reflect arrangements in place for the Cudgegong and Upper Macquarie Alluvial Groundwater Sources under the *Water Sharing Plan for the Macquarie Bogan Unregulated and Alluvial Water Sources 2012*. The clauses have never been activated, and are highly unlikely to be over the next two years as the annual extractions since 2012 have been significantly less than the long-term average annual extraction limits for both groundwater sources.

Additionally, activation of these clauses is likely to result in non-compliance with the Basin Plan Sustainable Diversion Limits.

For these reasons, it is intended that these clauses and their associated Schedule will not be included in the final *Water Sharing Plan for the Macquarie-Castlereagh Alluvial Groundwater Sources 2019*.

Your views are sought on this issue.

Notes.

- 1 Implementation of this clause and clause 69 will require an amendment to the *Water Management (General) Regulation 2018* to include supplementary water (aquifer) access licence as a subcategory of access licence, and therefore as a type of specific purpose access licence.
 - 2 Any supplementary water (aquifer) access licences granted under this clause or clause 69 will be cancelled on 30 June 2021 in accordance with section 77A of the Act.
- (1) If the Minister is satisfied that the available water determination to be made at the commencement of a water year for aquifer access licences in the Cudgegong Alluvial

Groundwater Source is likely to be below 0.8 ML per unit share as a result of the long-term average annual extraction limit or long term average diversion limit being exceeded, then this Plan may be amended as follows:

- (a) to permit the granting of a supplementary water (aquifer) access licence to the holder of an aquifer (high security) access licence listed in Column 1 of the table in clause 1 of Schedule 2, provided that the share component is equal to the number of unit shares specified in Column 2 of the table in Schedule 2,
- (b) to include available water determination rules for supplementary water (aquifer) access licences which provide that supplementary water access licences receive an available water determination which is to be reduced each year but not go below 0.2 ML per unit share, except for the third year from commencement of this Plan where the available water determination shall be equal to 0 ML per unit share,
- (c) to amend the available water determination rules in Division 2 of Part 6 of this Plan for aquifer (high security) access licences in the Cudgegong Alluvial Groundwater Source to provide that:
 - (i) the sum of the available water determinations made at the commencement of each water year for aquifer (high security) access licences and supplementary water (aquifer) access licences must not exceed 1 ML per unit share and must not be an amount that is, in the Minister's opinion, necessary to return long-term average annual extractions to the long-term average annual extraction limits established in clause 25, and
 - (ii) the available water determinations made at the commencement of each water year for aquifer (high security) access licences is to include an amount equal to 60% of the available water determination made for regulated river (high security) access licences in the Macquarie and Cudgegong Regulated Rivers Water Source,
- (d) to include rules in Part 8 that prohibit the carrying over of water allocations remaining in the water allocation account of the supplementary water (aquifer) access licences,

- (e) to include rules that change the relative priorities of aquifer (high security) access licences and supplementary water (aquifer) access licences to the extent necessary to make the available water determinations as amended under paragraphs (b) and (c),
- (f) to include access licence dealing rules which prohibit dealings under sections 71Q, 71S, 71T and 71W of the Act for supplementary water (aquifer) access licences,
- (g) to include rules to require that where an aquifer (high security) access licence and a supplementary water (aquifer) access licence nominate the same water supply work, water is to be debited from the supplementary water (aquifer) access licence water allocation account before water is debited from the aquifer (high security) access licence water allocation account, and
- (h) to include rules for supplementary water (aquifer) access licences pursuant to section 70 of the Act, and to provide that water cannot be extracted under supplementary water (aquifer) access licences from the third water year following commencement of this Plan.

Note. Section 77A (1) of the Act relevantly provides that the Minister is to cancel a supplementary water access licence when the relevant management plan ceases to make provision for the extraction of water under such an access licence.

69 Other amendments related to the Upper Macquarie Alluvial Groundwater Source

Notes.

- 1 Implementation of this clause and clause 68 will require an amendment to the *Water Management (General) Regulation 2018* to include supplementary water (aquifer) access licence as a subcategory of access licence, and therefore as a type of specific purpose access licence.
 - 2 Any supplementary water (aquifer) access licences granted under this clause or clause 68 will be cancelled on 30 June 2021 in accordance with section 77A of the Act.
- (1) If the Minister is satisfied that the available water determination to be made at the commencement of a water year for aquifer access licences in the Upper Macquarie Alluvial Groundwater Source is likely to be below 0.8 ML per unit share as result of the long-term average annual extraction limit or long-term average diversion limit being exceeded, then this Plan may be amended as follows:

- (a) to permit the granting of a supplementary water (aquifer) access licence to the holder of an aquifer access licence listed in Column 1 of the table in clause 2 of Schedule 2, provided that the share component is equal to the number of unit shares specified in Column 2 of the table in clause 2 of Schedule 2,
- (b) to include available water determination rules for supplementary water (aquifer) access licences which provide that supplementary water access licences receive an available water determination which is to be reduced each year but not go below 0.2 ML per unit share, except for the third year from commencement of this Plan where the available water determination shall be equal to 0 ML per unit share,
- (c) to amend the available water determination rules in Division 2 of Part 6 of this Plan for aquifer access licences in the Upper Macquarie Alluvial Groundwater Source so that the sum of the available water determinations made at the commencement of each water year for aquifer access licences and supplementary water (aquifer) access licences does not exceed 1 ML per unit share, and is an amount that is, in the Minister's opinion, necessary to return long-term average annual extractions in the Upper Macquarie Alluvial Groundwater Source to the long-term average annual extraction limit established in clause 25,
- (d) to include rules in Part 8 that prohibit the carrying over of water allocations remaining in the water allocation account of supplementary water (aquifer) access licences,
- (e) to include rules to change the relative priorities of the categories of aquifer access licence and supplementary water (aquifer) access licences to the extent necessary to make the available water determinations as amended under paragraphs (b) and (c),
- (f) to include access licence dealing rules which prohibit dealings under sections 71Q, 71S, 71T and 71W of the Act for supplementary water (aquifer) access licences,
- (g) to include rules that require where an aquifer access licence and a supplementary water (aquifer) access licence nominate the same water supply

work, water is to be debited from the supplementary water (aquifer) access licence water allocation account before water is debited from the aquifer access licence water allocation account, and

- (h) to include rules for supplementary water (aquifer) access licences pursuant to section 70 of the Act, and to provide that water cannot be extracted under supplementary water (aquifer) access licences from the third water year following commencement of this Plan.

Note. Section 77A (1) of the Act relevantly provides that the Minister is to cancel a supplementary water access licence when the relevant management plan ceases to make provision for the extraction of water under such an access licence.

Dictionary

Note. Unless otherwise defined in this Plan, words and expressions that are defined in the Act or in the regulations have the same meaning in this Plan.

Aboriginal person has the same meaning as it has in the *Aboriginal Land Rights Act 1983*.

approved EP&A Act development means:

- (a) a project approved under Part 3A of the *Environmental Planning and Assessment Act 1979* (whether before or after its repeal), or
- (b) State significant development authorised by a development consent under Part 4 of that Act, or
- (c) State significant infrastructure approved under Part 5 of that Act.

annual permitted take has the meaning given by section 6.12B of the Basin Plan.

Basin Plan means the *Basin Plan 2012* made under subparagraph 44 (3) (b) (i) of the *Water Act 2007* of the Commonwealth.

beneficial use category is a general categorisation of groundwater uses based on water quality and the presence or absence of contaminants.

borehole annulus means the space between the bore casing and the wall of the borehole.

drawdown is the difference between the groundwater level in a bore before take and during take.

excavation footprint means the authorised dimensions of a water supply work which is an unlined excavation constructed for the purposes of water supply only.

GDE Map has the meaning given by subclause 42 (1) of this Plan.

Government monitoring or observation bore means a bore owned or operated by or on behalf of the Minister, the Ministerial Corporation, the Department or WaterNSW and used for observation or monitoring purposes.

groundwater-dependent ecosystems are ecosystems which have their species composition and natural ecological processes wholly or partially determined by groundwater.

internal diameter means the diameter of the inside of the casing of a water bore.

logbook in relation to an access licence or water supply work approval, means a record in the manner and form approved by the Minister that is notified on the Department's website.

long-term annual diversion limit has the meaning given by section 4 of the *Water Act 2007* of the Commonwealth.

management zone is an area within a water source in which rules particular to that area will apply, for example, restrictions on dealings.

Minimum Construction Requirements for Water Bores in Australia means the document published by the National Uniform Drillers Licensing Committee entitled *Minimum Construction Requirements for Water Bores in Australia*, as published from time to time.

replacement groundwater work has the meaning given by clause 44 of this Plan.

structural damage to an aquifer includes any permanent compaction of sediments within the groundwater source, resulting from depressurisation or dewatering.

total dissolved solids is a measure of the combined total of dissolved substances in water. This includes mostly inorganic minerals and salts with small amounts of organic matter such as bacteria.

unconsolidated alluvial sediments include gravel, sand, silt or clay that are not bound or hardened by mineral cement, pressure, or thermal alteration of the grains.

water account debit has the meaning given by clause 37 of this Plan.

weighted average price means the total price of all units sold divided by the number of units sold.

Schedule 1 Contamination sources

(clause 41)

A contamination source in the groundwater sources is any of the following:

- (a) any site that has been declared to be significantly contaminated land under the *Contaminated Land Management Act 1997*,
- (b) any site that has been notified to the NSW Environment Protection Authority under section 60 of the *Contaminated Land Management Act 1997*,
- (c) any site that is or has been the subject of an activity listed in Table 1 of the contaminated land planning guidelines published under the *Environmental Planning and Assessment Act 1979* from time to time.

Schedule 2 Supplementary aquifer access licences (clauses 68 and 69)

1 Cudgegong Alluvial Groundwater Source

Note. If the available water determination for aquifer (high security) access licences in the Cudgegong Alluvial Groundwater Source will be below 0.8 ML per unit share as result of a limit being exceeded, this Plan may be amended under clause 68 to permit the granting of supplementary water (aquifer) access licences to holders of aquifer access licences and aquifer (high security) access licences listed in the table below.

This clause applies to each aquifer access licence and aquifer (high security) access licence with a share component that specifies the Cudgegong Alluvial Groundwater Source listed in the table below:

Column 1 Water access licence	Column 2 Supplementary water access licence share component (unit shares)
34128	104
34129	1
34130	42
34134	4
34135	2
34137	4
34138	68
34142	10
34144	0
34145	75
34146	44
34147	34
34150	27
34151	20
34152	59
34153	4
34155	19
34157	180
34158	17
34159	6
34160	18
34162	40
34163	3
34166	93
34169	7
34170	1
34172	45
34173	4

34174	4
34178	1
34179	23
34180	8
34182	198
34184	68
34187	6
34190	4
34193	66
34194	139
34196	7
34198	12
34205	101
34210	44
34211	29
34213	5
36852	35
37495	15
41371	24
41586	53
42061	20

2 Upper Macquarie Alluvial Groundwater Source

Note. If the available water determination for aquifer access licences in the Upper Macquarie Alluvial Groundwater Source will be below 0.8 ML per unit share as result of a limit being exceeded, this Plan may be amended under clause 69 to permit the granting of supplementary water (aquifer) access licences to holders of aquifer access licences listed in the table below.

This clause applies to each aquifer access licence listed in the table below:

Column 1	Column 2
Water access licence	Supplementary water access licence share component (unit shares)
35027	3
35028	100
35029	43
35031	56
35032	350
35034	1242
35036	57
35039	415
35042	85
35045	115
35046	48

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35051	6
35052	145
35053	672
35054	261
35056	30
35060	345
35062	59
35063	15
35065	24
35067	41
35068	67
35069	486
35070	544
35071	425
35072	1183
35075	2
35076	35
35077	10
35078	208
35079	335
35082	16
35083	48
35084	4
35085	25
35086	74
35087	95
35089	153
35090	263
35099	19
35102	12
35103	434
35104	191
35105	434
35107	413
35108	597
35109	80
35112	180
35113	59
35115	72
35117	57
35125	105
35131	356
35132	364
35133	456
35135	60

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35137	100
35140	379
35143	236
35144	499
35146	235
35147	12
35148	671
35694	46
36725	19
37690	480
41668	323

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Schedule 3 Offices

(clause 51)

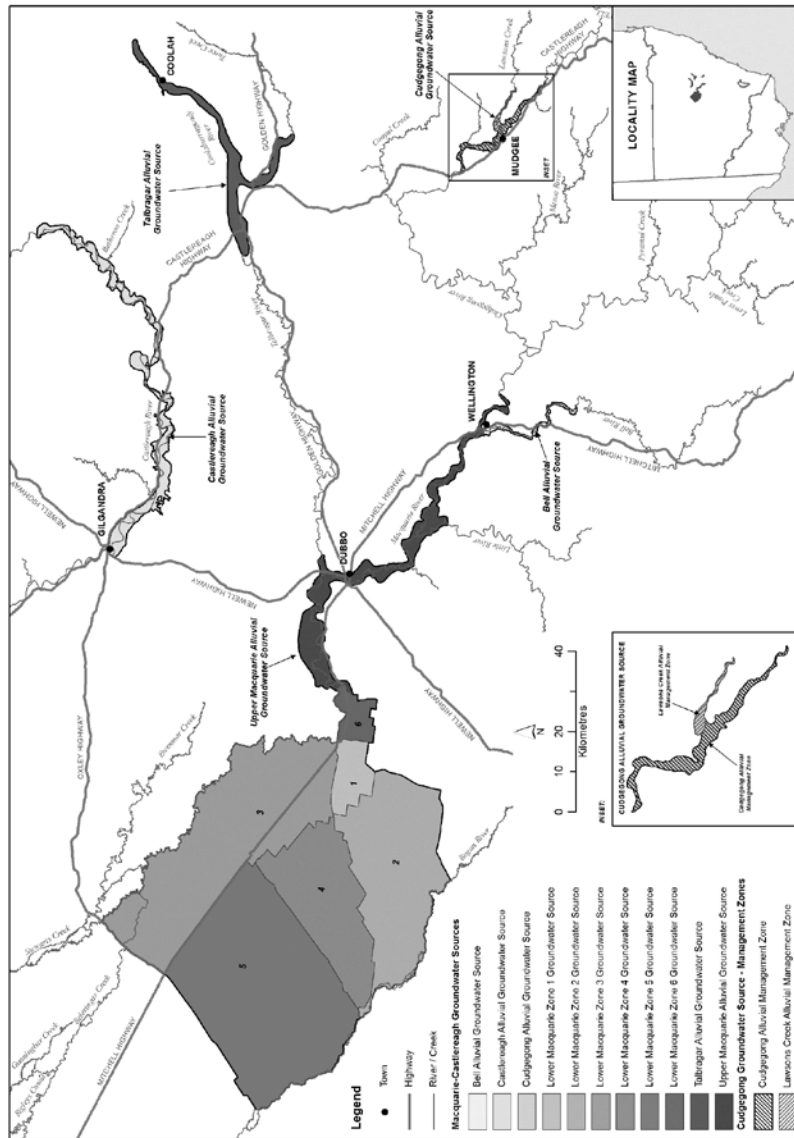
Department of Industry, Water
209 Cobra St
DUBBO NSW 2830

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Appendix 1 Overview of the Plan Map

(clause 4)

Overview of the Plan Map (WSP049_Version 1), Water Sharing Plan for the Macquarie-Castlereagh Groundwater Sources 2019



Appendix 2 Overview of the GDE Map (clauses 9 and 42)

Overview of the GDE Map (GDE016_Version 1), *Water Sharing Plan for the Macquarie-Castlereagh Groundwater Sources 2019*

Note. High priority groundwater-dependent ecosystems (hereafter **GDEs**) are currently under investigation and some may be identified during the term of this Plan. The full list of potential GDEs will be identified on the Departmental GDE Register and as a precautionary approach, will be considered by staff in the assessment of any application for a water supply work approval within the area of this Plan. If it becomes verified as a high priority GDE, this Appendix will be amended to include the GDE.

