



New South Wales

Water Sharing Plan for the NSW Murray Darling Basin Porous Rock Groundwater Sources Order 2020

under the

Water Management Act 2000

I, MELINDA PAVEY MP, Minister for Water, Property and Housing, in pursuance of sections 45(5A) and 50 of the *Water Management Act 2000*, make the following Order.

Dated this 29th day of June 2020.

MELINDA PAVEY, MP
Minister for Water, Property and Housing

Explanatory note

The objects of this Order are to repeal the *Water Sharing Plan for the NSW Murray Darling Basin Porous Rock Groundwater Sources 2011* pursuant to section 45(5A) of the *Water Management Act 2000* and to make the *Water Sharing Plan for the NSW Murray Darling Basin Porous Rock Groundwater Sources 2020* pursuant to section 50 of the *Water Management Act 2000*.

The concurrence of the Minister for Energy and Environment was obtained prior to the making of the *Water Sharing Plan for the NSW Murray Darling Basin Porous Rock Groundwater Sources 2020*.

Water Sharing Plan for the NSW Murray Darling Basin Porous Rock Groundwater Sources Order 2020

under the

Water Management Act 2000

1 Name of Order

This Order is the *Water Sharing Plan for the NSW Murray Darling Basin Porous Rock Groundwater Sources Order 2020*.

2 Commencement

This Order commences on the day it is published on the NSW legislation website.

3 Repeal

The *Water Sharing Plan for the NSW Murray Darling Basin Porous Rock Groundwater Sources 2011* is repealed on 30 June 2020.

4 Making of Minister's Plan

The *Water Sharing Plan for the NSW Murray Darling Basin Porous Rock Groundwater Sources 2020* set out at Schedule 1 is made on 1 July 2020.

Note. This Plan commences on 1 July 2020 in accordance with clause 3 of Schedule 1.

Schedule 1

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Water Sharing Plan for the NSW Murray Darling Basin Porous Rock Groundwater Sources 2020

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 In accordance with section 49 of the *Water Management Act 2000*, public authorities must also have regard to the provisions of this Plan to the extent they apply to the public authority.
- 3 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 provides.

Part 1 Introduction

1 Name of Plan

This Plan is the *Water Sharing Plan for the NSW Murray Darling Basin Porous Rock Groundwater Sources 2020 (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 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 for the purposes of another section of the Act, the section is referred to in the notes to this Plan.

3 Commencement

This Plan commences on 1 July 2020.

Notes.

- 1 In relation to the groundwater sources, this Plan replaces the relevant provisions of the *Water Sharing Plan for the NSW Murray Darling Basin Porous Rock Groundwater Sources 2011*.
- 2 In accordance with section 43 of the Act, this Plan will have effect for 10 years from 1 July 2020. In accordance with section 43A of the Act, the Minister may extend this Plan for a further period of 10 years after it is due to expire.
- 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 consistent with the requirements of the Basin Plan. Certain provisions of this Plan form part of the water resource plan for the NSW Murray-Darling Basin Porous Rock water resource plan area.
- 4 **Basin Plan** is defined in the Dictionary.

4 Application of Plan

- (1) This Plan applies to the following water sources known as the NSW Murray Darling Basin Porous Rock Groundwater Sources within the Border Rivers Water Management Area, the Central West Water Management Area, the Gwydir Water Management Area, the Lower Murray Darling Water Management Area, the Murray Water Management

Area, the Murrumbidgee Water Management Area, the Namoi Water Management Area and the Western Water Management Area (*the groundwater sources*):

- (a) the Gunnedah–Oxley Basin MDB Groundwater Source,
- (b) the Oaklands Basin Groundwater Source,
- (c) the Sydney Basin MDB Groundwater Source,
- (d) the Western Murray Porous Rock Groundwater Source.

Note. The Border Rivers Water Management Area, the Central West Water Management Area, the Gwydir Water Management Area, the Lower Murray Darling Water Management Area, the Murray Water Management Area, the Murrumbidgee Water Management Area, the Namoi Water Management Area and the Western Water Management Area were constituted by Ministerial order made under section 11 of the *Water Management Act 2000* published in the NSW Government Gazette No 180 on 23 November 2001 at page 9389.

- (2) The boundaries of the groundwater sources are shown on the *Plan Map (WSP013_Version 2)*, *Water Sharing Plan for the NSW Murray Darling Basin Porous Rock Groundwater Sources 2020 (the Plan Map)*, held by the Department.

Notes.

- 1 The Plan Map shows the extent of the groundwater sources. The extent of the groundwater sources below the surface of the ground is described in subclauses (3) – (7).
 - 2 The Plan Map is part of this Plan and is available on the NSW Legislation website. An overview of the Plan Map is shown in Appendix 1.
- (3) Subject to subclause (7), the waters in the Gunnedah–Oxley Basin MDB Groundwater Source comprise all water contained within:
 - (a) all rocks of Permian, Triassic, Jurassic, Cretaceous and Tertiary age within the outcropped and buried areas, and
 - (b) all alluvial sediments within the outcropped areas,within the boundary of the Gunnedah–Oxley Basin MDB Groundwater Source shown on the Plan Map.

Note. *Outcropped*, *buried* and *alluvial sediments* are defined in the Dictionary.
 - (4) The waters in the Oaklands Basin Groundwater Source comprise all water contained within all rocks of Permian and Triassic age within the buried area within the boundary of the Oaklands Basin Groundwater Source shown on the Plan Map.
 - (5) Subject to subclause (7), the waters in the Sydney Basin MDB Groundwater Source comprise all water contained within:
 - (a) all rocks of Permian, Triassic, Jurassic Cretaceous and Tertiary age within the outcropped and buried areas, and
 - (b) all alluvial sediments within the outcropped areas,

within the boundary of the Sydney Basin MDB Groundwater Source shown on the Plan Map.

- (6) Subject to subclause (7), the waters in the Western Murray Porous Rock Groundwater Source comprise all water contained within:
- (a) all rocks of Tertiary and Quaternary age within the outcropped and buried areas, and
 - (b) all alluvial sediments within the outcropped areas,

within the boundary of the Western Murray Porous Rock Groundwater Source shown on the Plan Map.

Notes.

- 1 Buried porous rock groundwater sources underlie other aquifers. Bores drilled through overlying unconsolidated alluvial sediments or other rock aquifers may draw water from porous rock groundwater sources.
- 2 **Porous rock** is defined in the Dictionary.

- (7) The groundwater sources do not include water contained in the following water sources:
- (a) the water sources as defined in the *Water Sharing Plan for the Gwydir Alluvial Groundwater Sources 2020* or any relevant replacement plan,
 - (b) the water sources as defined in the *Water Sharing Plan for the Lachlan Alluvial Groundwater Sources 2020* or any relevant replacement plan,
 - (c) the water sources as defined in the *Water Sharing Plan for the Macquarie-Castlereagh Alluvial Groundwater Sources 2020* or any relevant replacement plan,
 - (d) the water sources as defined the *Water Sharing Plan for the Murray Alluvial Groundwater Sources 2020* or any relevant replacement plan,
 - (e) the water sources as defined in the *Water Sharing Plan for the Murrumbidgee Alluvial Groundwater Sources 2020* or any relevant replacement plan,
 - (f) the water sources as defined in the *Water Sharing Plan for the Namoi Alluvial Groundwater Sources 2020* or any relevant replacement plan,
 - (g) the water sources as defined in the *Water Sharing Plan for the NSW Great Artesian Basin Groundwater Sources 2008* or any relevant replacement plan,
 - (h) the water sources as defined in the *Water Sharing Plan for the NSW Murray Darling Basin Fractured Rock Groundwater Sources 2020* or any relevant replacement plan,

- (i) the water sources as defined in the *Water Sharing Plan for the NSW Great Artesian Basin Shallow Groundwater Sources 2020* or any relevant replacement plan,
 - (j) the water sources as defined in the *Water Sharing Plan for the Darling Alluvial Groundwater Sources 2020* or any relevant replacement plan.
- (8) The high priority groundwater-dependent ecosystems for the purposes of this Plan are:
- (a) shown on the *High Priority Groundwater-Dependent Ecosystem Map (GDE023_Version 1)*, *Water Sharing Plan for the NSW Murray Darling Basin Porous Rock Groundwater Sources 2020* (***the High Priority Groundwater-Dependent Ecosystem Map***), held by the Department, or
 - (b) identified in Schedule 2, or
 - (c) any escarpment, within the boundaries of the groundwater sources, that is determined by the Minister to be a high priority groundwater-dependent ecosystem.

Notes.

- 1 ***Escarpment, groundwater-dependent ecosystem*** and ***high priority groundwater-dependent ecosystems*** are defined in the Dictionary.
- 2 The High Priority Groundwater-Dependent Ecosystem Map is part of this Plan and is available on the NSW legislation website. An overview of the High Priority Groundwater-Dependent Ecosystem Map is shown in Appendix 2.

5 Management zones

- (1) For the purposes of this Plan, the following groundwater sources are divided into the following management zones:
- (a) the Gunnedah–Oxley Basin MDB Groundwater Source:
 - (i) the Gunnedah–Oxley Basin MDB (Spring Ridge) Management Zone,
 - (ii) the Gunnedah–Oxley Basin MDB (Other) Management Zone,
 - (b) the Sydney Basin MDB Groundwater Source:
 - (i) the Sydney Basin MDB (Macquarie Oxley) Management Zone,
 - (ii) the Sydney Basin MDB (Other) Management Zone.

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

- (2) The waters in the Gunnedah–Oxley Basin MDB (Spring Ridge) Management Zone in the Gunnedah–Oxley Basin MDB Groundwater Source comprise all water contained within:
- (a) all rocks of Jurassic, Cretaceous and Tertiary age within the outcropped and buried areas, and

- (b) all alluvial sediments within the outcropped areas,
within the boundary of the Gunnedah–Oxley Basin MDB (Spring Ridge) Management Zone shown on the Plan Map, excluding the waters described in clause 4 (7).
- (3) The waters in the Gunnedah–Oxley Basin MDB (Other) Management Zone in the Gunnedah–Oxley Basin MDB Groundwater Source comprise all water contained within:
- (a) all rocks of Permian, Triassic, Jurassic, Cretaceous and Tertiary age within the outcropped and buried areas, and
- (b) all alluvial sediments within the outcropped areas,
within the boundary of the Gunnedah–Oxley Basin MDB Groundwater Source shown on the Plan Map, excluding the waters contained within the Gunnedah–Oxley Basin MDB (Spring Ridge) Management Zone as defined in subclause (2) and the waters described in clause 4 (7).
- Note.** The Gunnedah–Oxley Basin MDB (Other) Management Zone is not shown on the Plan Map as the boundary is the same as the Gunnedah–Oxley Basin MDB Groundwater Source.
- (4) The waters in the Sydney Basin MDB (Macquarie Oxley) Management Zone in the Sydney Basin MDB Groundwater Source comprise all water contained within:
- (a) all rocks of Jurassic, Cretaceous and Tertiary age within the outcropped and buried areas, and
- (b) all alluvial sediments within the outcropped areas,
within the boundary of the Sydney Basin MDB (Macquarie Oxley) Management Zone shown on the Plan Map, excluding the waters described in clause 4 (7).
- (5) The waters in the Sydney Basin MDB (Other) Management Zone in Sydney Basin MDB Groundwater Source comprise all water contained within:
- (a) all rocks of Permian, Triassic, Jurassic, Cretaceous and Tertiary age within the outcropped and buried areas, and
- (b) all alluvial sediments within the outcropped areas,
within the boundary of the Sydney Basin MDB Groundwater Source shown on the Plan Map, excluding the waters contained within the Sydney Basin MDB (Macquarie Oxley) Management Zone as defined in subclause (4) and the waters described in clause 4 (7).
- Note.** The Sydney Basin MDB (Other) Management Zone is not shown on the Plan Map as the boundary is the same as the Sydney Basin MDB Groundwater Source.

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 at the end of this Plan have the meaning 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 High Priority Groundwater-Dependent Ecosystem 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

Notes.

- 1 This Part is made in accordance with section 35 (1) of the Act.
- 2 This Part describes broad objectives, which are the long term outcomes of this Plan and are not directly measured but evaluated by considering the cumulative achievement of the associated targeted objectives. Targeted objectives described in this Part are specific outcomes that can be achieved by the strategies in this Plan and can be directly measured so that success or failure to achieve the objective can be quantified.

7 Acknowledgement

Respect is paid to the traditional owners of this country, who are acknowledged as the first natural resource managers within the Border Rivers Water Management Area, the Central West Water Management Area, the Gwydir Water Management Area, the Lower Murray Darling Water Management Area, the Murray Water Management Area, the Murrumbidgee Water Management Area, the Namoi Water Management Area and the Western Water Management Area.

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 of groundwater to Aboriginal communities.

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.
- (2) The targeted environmental objectives of this Plan are as follows:
 - (a) to protect the extent and condition of high priority groundwater-dependent ecosystems,
 - (b) 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 targeted environmental objectives of this Plan are as follows:
- (a) reserve all water for the environment in excess of the limits to the availability of water,
Note. Part 4 reserves all water remaining above the long-term average annual extraction limits and the Basin Plan long-term average sustainable diversion limits for the environment.
 - (b) manage extractions under access licences and basic landholder rights within the limits to the availability of water,
Note. Part 6 manages extraction of groundwater within the long-term average annual extraction limits and the Basin Plan long-term average sustainable diversion limits.
 - (c) 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 provisions that manage the location, construction and use of water supply works to prevent impacts on high priority groundwater-dependent ecosystems and from sources of contaminated water.
- (4) The performance indicator used to measure the success of the strategies for reaching the broad environmental objective in subclause (1) is an evaluation of the extent to which the combined outcomes of the targeted objectives in subclause (2) have contributed to achieving the broad objective.
- (5) The performance indicators used to measure the success of the strategies for reaching the targeted environmental objectives in subclause (2) are the changes in trends in ecological condition during the term of this Plan as assessed using one or more of 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 groundwater levels.
- (6) In evaluating the effectiveness of the strategies in meeting the objectives in this clause, the following will be relevant:
- (a) the extent to which the strategies in subclause (3) and provisions in this Plan have been implemented and complied with,
 - (b) the extent to which changes in the performance indicators can be attributed to the strategies in subclause (3) and provisions in this Plan,
 - (c) the extent to which the strategies in subclause (3) support achievement of the environmental objectives,

- (d) the extent to which external influences on the groundwater sources and their dependent ecosystems have affected progress toward achieving the environmental objectives.

Note. External influences may include long- and short-term climate trends, land use patterns and other factors.

10 Economic objectives

- (1) The broad economic objective of this Plan is to provide access to groundwater to optimise economic benefits for groundwater-dependent businesses and local economies.

- (2) The targeted economic objectives of this Plan are as follows:

- (a) to provide groundwater trading opportunities for groundwater-dependent businesses,

Note. Trading is a generic term referring to dealings under Division 4 of Part 2 of Chapter 3 of the Act.

- (b) to provide access to groundwater in the long term for groundwater-dependent businesses.

- (3) The strategies for reaching the targeted economic objectives of this Plan are as follows:

- (a) provide a clear framework for sharing water among water users,

Note. Part 6 provides certainty in how available water is determined and shared between individual access licence holders and different categories of access licences.

- (b) where possible and subject to assessment of local impacts, provide for flexibility of access to water and trade of water allocations and entitlements within the groundwater sources,

Notes.

1 The account management provisions in Part 8, including those relating to the amount of water that may be carried over from one water year to the next, and the volume of water that can be taken in any water year, provide flexibility for water users.

2 The provisions in Part 10 permit a variety of dealings within environmental and resource constraints, including assignment of rights under access licences and assignment of water allocations between access licences.

- (c) manage extractions to specified limits over the long-term.

Note. Managing extractions to limits over the long term ensures the groundwater will be available for future beneficial economic uses.

- (4) The performance indicator used to measure the success of the strategies for reaching the broad economic objective in subclause (1) is an evaluation of the extent to which the combined outcomes of the targeted economic objectives in subclause (2) have contributed to achieving the broad objective.

- (5) The performance indicators used to measure the success of the strategies for reaching the targeted economic objectives in subclause (2) are the changes or trends in economic benefits during the term of this Plan as assessed using one or more of the following:
- (a) the economic benefits of water extraction and use,
 - (b) the economic benefits of water trading as demonstrated by:
 - (i) the annual number or volume of share components of access licences transferred or assigned, and
 - (ii) the weighted average unit price of share components of access licences transferred or assigned, and
Note. *Weighted average unit price* is defined in the Dictionary.
 - (iii) the annual volume of water allocations assigned, and
 - (iv) the weighted average unit price of water allocations assigned,
 - (c) the recorded values of groundwater levels.
- (6) In evaluating the effectiveness of the strategies in meeting the objectives in this clause, the following will be relevant:
- (a) the extent to which the strategies in subclause (3) and the provisions in this Plan have been implemented and complied with,
 - (b) the extent to which the changes in the economic benefits of water extraction and use can be attributed to the strategies in subclause (3) and provisions in this Plan,
 - (c) the extent to which the strategies in subclause (3) support achievement of the economic objectives,
 - (d) the extent to which external influences on groundwater-dependent businesses have affected progress towards achieving the economic objectives.
Note. External influences may include trends in urban, agricultural and industrial development, energy costs, commodity prices, interest rates, technology advances, climate and changes in industry policy or regulation.

11 Aboriginal cultural objectives

- (1) The broad Aboriginal cultural objective of this Plan is to maintain the spiritual, social, customary and economic values and uses 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 use,
 - (c) to protect groundwater-dependent culturally significant areas.

Note. *Groundwater-dependent culturally significant area* is defined in the Dictionary.

- (3) The strategies for reaching the targeted Aboriginal cultural objectives of this Plan are as follows:
- (a) manage access to groundwater consistently with the exercise of native title rights,
 - (b) provide for groundwater associated with Aboriginal cultural values and purposes,
Note. The provisions in Part 7 provide opportunities for Aboriginal people to access water by allowing for the granting of an aquifer access licence of the subcategory "Aboriginal cultural".
 - (c) manage extractions under access licences and basic landholder rights within the extraction limits,
Note. The provisions in Part 6 manage extraction of groundwater within the extraction limits for the groundwater sources. This helps to protect any culturally significant areas from damage associated with long term declines in water levels.
 - (d) manage the construction and use of water supply works to minimise impacts on groundwater quality,
Note. The provisions in Part 9 manage the location, construction and use of water supply works to prevent impacts from sources of contaminated water.
 - (e) manage the construction and use of water supply works to minimise impacts on groundwater-dependent culturally significant areas.
Note. The provisions in Part 9 manage the location, construction and use of water supply works to prevent impacts on culturally significant areas.
- (4) The performance indicator used to measure the success of the strategies for reaching the broad Aboriginal cultural objective in subclause (1) is an evaluation of the extent to which the combined outcomes of the targeted Aboriginal cultural objectives in subclause (2) have contributed to achieving the broad objective.
- (5) The performance indicators used to measure the success of the strategies for reaching the targeted Aboriginal cultural objectives in subclause (2) are the changes or trends in Aboriginal cultural benefits during the term of this Plan as assessed using one or more of the following:
- (a) the use of water by Aboriginal people, by measuring factors including:
 - (i) the extent to which native title rights are capable of being exercised, consistent with any determination of native title,
 - (ii) the extent to which access to water has contributed to the achievement of Aboriginal cultural outcomes,
 - (b) the extent to which Aboriginal people have considered the operation of this Plan to be beneficial to meeting their needs for groundwater-dependent Aboriginal cultural uses and values,

- (c) the extent to which changes in the use of water by Aboriginal people can be attributed to the strategies in subclause (3) and the provisions in this Plan,
 - (d) the recorded values of groundwater levels.
- (6) In evaluating the effectiveness of the strategies in meeting the Aboriginal cultural objectives in this clause, the following will be relevant:
- (a) the extent to which the strategies in subclause (3) and provisions in this Plan have been implemented and complied with,
 - (b) the extent to which changes in the performance indicators can be attributed to the strategies in subclause (3) and provisions in this Plan,
 - (c) the extent to which the strategies in subclause (3) support achievement of the Aboriginal cultural objectives,
 - (d) the extent to which external influences on the groundwater-dependent Aboriginal cultural activities have affected progress toward achieving the Aboriginal cultural objectives.

12 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 and cultural 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 domestic and stock purposes,
 - (b) to provide for access to water for groundwater-dependent cultural and community purposes.
- (3) The strategies for reaching the targeted social and cultural objectives of this Plan are as follows:
 - (a) provide groundwater for basic landholder rights, town water supply, and for licensed domestic and stock purposes,
Note. The provisions in Part 6 ensure that water is available for basic landholder rights, town water supply and licensed domestic and stock purposes.
 - (b) manage the construction and use of water supply works to minimise impacts on basic landholder rights and town water supply,
Note. Part 9 includes provisions that manage the location, construction and use of water supply works to minimise the impacts of extraction on groundwater supplies for basic landholder rights and towns.
 - (c) manage the construction and use of water supply works to minimise impacts on groundwater quality.

Note. Part 9 includes provisions that manage the location, construction and use of water supply works to prevent contamination impacts on groundwater quality.

- (4) The performance indicator used to measure the success of the strategies for reaching the broad social and cultural objective in subclause (1) is an evaluation of the extent to which the combined outcomes of the targeted social and cultural objectives in subclause (2) have contributed to achieving the broad objective.
- (5) The performance indicators used to measure the success of the strategies for reaching the targeted social and cultural objectives in subclause (2) are the changes or trends in social and cultural benefits during the term of this Plan as assessed using one or more of the following:
 - (a) the social and cultural uses of water during the term of this Plan, by measuring factors including:
 - (i) the extent to which basic landholder rights and licensed domestic and stock rights have been met, and
 - (ii) the extent to which local water utility access licence requirements have been met,
 - (b) the recorded values of groundwater levels.
- (6) In evaluating the effectiveness of the strategies in meeting the social and cultural objectives in this clause, the following will be relevant:
 - (a) the extent to which the strategies in subclause (3) and provisions in this Plan 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 provisions in this Plan,
 - (c) the extent to which the strategies in subclause (3) support achievement of the social and cultural objectives,
 - (d) the extent to which external influences on social and cultural activities dependent on the groundwater sources during the term of this Plan have affected progress toward achieving the social and cultural objectives.

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

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 planned environmental water established under Part 4,
 - (b) the requirements for water to satisfy basic landholder rights identified under Part 5,
 - (c) the requirements for water for extraction under access licences identified under Part 5,
 - (d) the access licence dealing rules established under Part 10.
- (2) The bulk access regime:
 - (a) establishes rules, according to which:
 - (i) access licences are to be granted as provided for in Part 7, and
 - (ii) available water determinations are to be made as provided for in Part 6, and
 - (iii) access licences are to be managed as provided for in Part 8, and
 - (b) 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 extraction above the limits to the availability of water contained in Part 6, and
 - (c) recognises and is consistent with the following:
 - (i) the limits to the availability of water as provided for in Part 6,
 - (ii) the water management principles under section 5 of the Act,
 - (iii) the effect of climatic variability on the availability of water as described in clause 14, and
 - (d) contains provisions with respect to the mandatory conditions imposed on access licences in Part 11.

14 Climatic variability

This Plan recognises the effects of climatic variability on groundwater levels through provisions contained in Part 6 that manage the sharing of water within the limits of water availability on a long-term 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 Environmental water provisions

Note. This Part is made in accordance with section 8 of the Act.

15 General

This Part contains environmental water provisions that 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) the long-term average annual commitment of water as planned environmental water,
- (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 long-term average annual commitment of water as planned environmental water, resulting from compliance with the limits to the availability of water in accordance with the provisions specified in Part 6,

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

- (b) the water remaining after water has been taken under basic landholder rights, access licences and any other rights under the Act, and the water that cannot be carried over from one water year to the next in accordance with the provisions specified in Part 6 and Part 8 .

Note. The provisions in Part 8 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 permitted by Part 8, that can be carried over from one water year to the next water year. In addition to the water referred to 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 provisions in Part 6 and Part 8.

Note. The rules in Part 9 also provide mechanisms to ensure that no more than minimal harm will be done to high priority groundwater-dependent ecosystems, groundwater-dependent culturally significant areas, groundwater quality and groundwater levels and pressures at a local scale as a result of the granting or amendment of a water supply work approval.

Part 5 Requirements for water

Division 1 General

18 Application

- (1) This Part identifies the requirements for water for 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 for basic landholder rights and the total share components of access licences 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 Basic landholder rights requirements may increase as provided for under the Act. This Plan manages changes in basic landholder rights and total share components of all access licences through provisions in Part 6 that manage the sharing of water within the limits of water availability.
- 3 Inherent water quality and land use activities may make the groundwater in some areas 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. Testing and treatment is the responsibility of the water user.

Division 2 Requirements for water for basic landholder rights

Note. Under the Act, basic landholder rights are defined as domestic and stock rights, native title rights and harvestable rights. There are no harvestable rights in the groundwater sources. Under the Act, basic landholder rights authorise the take of groundwater 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

On the commencement of this Plan, the water requirements of persons entitled to domestic and stock rights are estimated to total 32,990 megalitres per year (*ML/year*) and are distributed as follows:

- (a) 5,778 ML/year in the Gunnedah–Oxley Basin MDB Groundwater Source,
- (b) 0 ML/year in the Oaklands Basin Groundwater Source,
- (c) 465 ML/year in the Sydney Basin MDB Groundwater Source,
- (d) 26,747 ML/year in the Western Murray Porous Rock 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 for 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 that may be taken under an access licence for domestic and stock purposes.

20 Native title rights

The requirement for water to satisfy native title rights is the water that may be taken in the exercise of native title rights in accordance with the *Native Title Act 1993* of the Commonwealth, including:

- (a) the native title determination for the Barkandji Traditional Owners #8 (Parts A and B, National Native Title Tribunal references NCD2015/001 and NCD2017/001), and
- (b) any other determination of native title, and
- (c) any indigenous land use agreement.

Notes.

- 1 A map of the native title determination area can be viewed by searching the National Native Title Tribunal website at www.nntt.gov.au.
- 2 This Plan may be amended if there is an additional or change to a native title determination in accordance with the *Native Title Act 1993* of the Commonwealth by which water is required.
- 3 This Plan may be amended if consultation with native title holders identifies more specific requirements for water to satisfy native title rights.
- 4 Native title rights may be exercised in accordance with the *Native Title Act 1993* of the Commonwealth, including section 211 of that Act.

Division 3 Requirements for water under access licences

Note. This Division sets out the total volumes or unit shares in the share components of access licences in the groundwater sources as at the commencement of this Plan. The actual volume of water available from year to year will depend on climate, access licence priority and the provisions in this Plan.

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 870 ML/year, distributed as follows:

- (a) 480 ML/year in the Gunnedah–Oxley Basin MDB Groundwater Source,
- (b) 390 ML/year in the Western Murray Porous Rock Groundwater Source,
- (c) 0 ML/year in all other groundwater sources.

23 Share components of aquifer access licences

On the commencement of this Plan, it is estimated that the share components of aquifer access licences total 55,117 unit shares, distributed as follows:

- (a) 23,109 unit shares in the Gunnedah–Oxley Basin MDB Groundwater Source,
- (b) 0 unit shares in the Oaklands Basin Groundwater Source,
- (c) 10,474 unit shares in the Sydney Basin MDB Groundwater Source,
- (d) 21,534 unit shares in the Western Murray Porous Rock Groundwater Source.

24 Share components of salinity and water table management access licences

On the commencement of this Plan, it is estimated that the share components of salinity and water table management access licences total 13,985 ML/year, distributed as follows:

- (a) 13,985 ML/year in the Western Murray Porous Rock Groundwater Source,
- (b) 0 ML/year in all other groundwater sources.

Part 6 Limits to the availability of water

Division 1 Limits

25 Long-term average annual extraction limits

- (1) The long-term average annual extraction limit for the Gunnedah–Oxley Basin MDB Groundwater Source is 127,500 ML/year.

Note. The long-term average annual extraction limit for the groundwater source specified in subclause (1) equates to the long-term average sustainable diversion limit for the Gunnedah–Oxley Basin MDB (GS17) Groundwater SDL Resource Unit specified in Schedule 4 of the Basin Plan.

- (2) The long-term average annual extraction limit for the Oaklands Basin Groundwater Source is 2,500 ML/year.

Note. The long-term average annual extraction limit for the groundwater source specified in subclause (2) equates to the long-term average sustainable diversion limit for the Oaklands Basin (GS38) Groundwater SDL Resource Unit specified in Schedule 4 of the Basin Plan.

- (3) The long-term average annual extraction limit for the Sydney Basin MDB Groundwater Source is 19,100 ML/year.

Note. The long-term average annual extraction limit for the groundwater source specified in subclause (3) equates to the long-term average sustainable diversion limit for the Sydney Basin MDB (GS41) Groundwater SDL Resource Unit specified in Schedule 4 of the Basin Plan.

- (4) The long-term average annual extraction limit for the Western Murray Porous Rock Groundwater Source is 226,000 ML/year.

Note. The long-term average annual extraction limit for the groundwater source specified in subclause (4) equates to the long-term average sustainable diversion limit for the Western Porous Rock (GS50) Groundwater SDL Resource Unit specified in Schedule 4 of the Basin Plan.

26 Calculation of annual extraction

The Minister is to determine the volume of water taken during a water year for each of the groundwater sources under the following entitlements (the *annual extraction*):

- (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 Part 5.

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

- (1) The Minister is to undertake an assessment under this clause comparing the long-term average annual extraction limit for each of the groundwater sources against the average of annual extraction for the preceding five water years for the respective groundwater source.
- (2) There is non-compliance with a long-term average annual extraction limit if the average of annual extraction for a groundwater source in the preceding five water years exceeds

the long-term average annual extraction limit for that groundwater source by 5% or more.

28 Assessment of compliance with Basin Plan long-term average sustainable diversion limits

The Minister is to undertake an assessment of compliance with the Basin Plan long-term average sustainable diversion limits for the groundwater SDL resource units in accordance with the processes set out in Divisions 1 and 3 of Part 4 of Chapter 6 of the Basin Plan.

Notes.

- 1 **Groundwater SDL resource unit** is defined in the Dictionary. The notes to clause 25 outline the relationship between the groundwater SDL resource units and groundwater sources to which this Plan applies.
- 2 **Long-term average sustainable diversion limit** is defined in the Dictionary.

29 Compliance with limits

- (1) Pursuant to section 58 (3) of the Act, this Plan amends the relative priorities of the categories of the aquifer access licence and salinity and water table management access licence to the extent necessary to make the reductions to available water determinations as set out in this clause.
- (2) If an assessment for a groundwater source under either clause 27 or clause 28 demonstrates non-compliance with the long-term average annual extraction limit or the long-term average sustainable diversion limit, the Minister is to take, in relation to that groundwater source, any one or more of the following actions:
 - (a) reduce the maximum water account debit for aquifer access licences access licences under clause 36,
Note. **Water account debit** has the meaning set out in clause 36.
 - (b) make an available water determination for aquifer access licences in accordance with clause 34 of less than 1 megalitre (**ML**) per unit share of access licence share component.
- (3) The Minister may take one or more of the actions in subclause (2) (a) and (2) (b) in a groundwater SDL resource unit if an assessment under clause 28 would have demonstrated non-compliance with the long-term average sustainable diversion limit but for there being a reasonable excuse, as provided for in Division 3 of Part 4 of Chapter 6 of the Basin Plan.
- (4) Any action under subclauses (2) or (3) is to be taken to the extent the Minister considers the following is necessary:

- (a) in the case of non-compliance with the long-term average annual extraction limit— to return average annual extractions in the relevant groundwater source to the long-term average annual extraction limit,
 - (b) in the case of non-compliance with the long-term average sustainable diversion limit— to meet the requirements of Division 3 of Part 4 of Chapter 6 of the Basin Plan,
 - (c) in the case where non-compliance with the long-term average sustainable diversion limit would have occurred but for there being a reasonable excuse— to meet the requirements of Division 3 of Part 4 of Chapter 6 of the Basin Plan.
- (5) If the Minister reduces a maximum water account debit under subclauses (2) (a) or (3), the Minister may increase the maximum water account debit later in the water year, up to the following limits:
- (a) 1.25 ML per unit share of the access licence share component,
 - (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 re-credited to the water allocation account for the aquifer access licence in accordance with section 76 of the Act in that water year.
- (6) If the Minister makes a reduced available water determination pursuant to subclauses (2) (b) or (3), the Minister may make further available water determinations in the water year subject to clause 30 (2).

Division 2 Available water determinations

Note. When making an available water determination at the commencement of a water year, the Minister may also make known the maximum water account debit for aquifer access licences under clause 36 for that water year, as determined under Division 1 of this Part.

30 General

- (1) Available water determinations are to be expressed as one of the following:
 - (a) for an access licence specifying the share component in ML/year— a percentage of the share component,
 - (b) for an access licence specifying the share component as a number of unit shares—ML per unit share.
- (2) The sum of available water determinations made for any access licence must not exceed the following in any water year:
 - (a) for an access licence specifying the share component in ML/year— 100% of the access licence share component,

- (b) for an access licence specifying the share component as a number of unit shares— 1 ML per unit share of the access licence share component.

Note. If the Minister makes an available water determination of less than 1 ML per unit share of the access licence share component, the Minister may make further available water determinations during a water year, subject to subclause (2).

31 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.

32 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.

33 Available water determinations for salinity and water table management 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 salinity and water table management access licences.

34 Available water determinations for aquifer access licences

Unless the Minister otherwise determines, at the commencement of each water year an available water determination of 1 ML per unit share of the access licence share component is to be made for aquifer access licences.

Part 7 Rules for granting access licences

Notes.

- 1 This Part is made in accordance with sections 61 and 63 of the Act. Section 61 of the Act provides for applications for specific purpose access licences in accordance with the regulations and the relevant water sharing plan.
- 2 Access licences in the groundwater sources are granted subject to mandatory conditions required to be imposed by this Plan, the regulations and the Act, and may also be subject to discretionary conditions.

35 Specific purpose access licences

- (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) A person may make an application for an aquifer (Aboriginal cultural) access licence only if the share component of the proposed access licence is no greater than 10 ML/year.
- (3) A person may make an application for a salinity and water table management access licence in the Western Murray Porous Rock Groundwater Source.
- (4) The Minister may only grant an aquifer (Aboriginal cultural) access licence 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 Operation of water allocation accounts

Notes.

- 1 Section 85 of the Act provides for the keeping of water allocation accounts for access licences. The provisions 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 The provisions in this Part apply to the following persons:
 - (a) the Minister in managing water allocation accounts,
 - (b) the access licence holder, as required by mandatory conditions imposed on the access licence under Part 11.

36 Water allocation account debiting

- (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, local water utility access licences and salinity and water table management access licences, the maximum water account debit in a 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 access licence under section 71T of the Act in that water year,
 - (c) plus any water allocations re-credited 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, the maximum water account debit in a water year must not exceed the following:
 - (a) 1.25 ML per unit share of the access licence share component or, if applicable, the lower amount made in accordance with clause 29,
 - (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 re-credited to the water allocation account for the aquifer access licence in accordance with section 76 of the Act in that water year.

37 Limits on carryover

- (1) For a domestic and stock access licence, a local water utility access licence or a salinity and water table management access licence, water allocations remaining in the water allocation account cannot be carried over from one water year to the next water year.

- (2) For an aquifer access licence, water allocations remaining in the water allocation account are to be carried over from one water year to the next water year, up to a maximum of 0.25 ML per unit share of the access licence share component.

Part 9 Rules for water supply work approvals

Note. This Part is made in accordance with sections 5, 95 (3) and 107 (5) of the Act.

38 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 there will be:
 - (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 significant 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 must 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. The Minister may also, under section 102 of the Act, impose or vary conditions on a water supply work approval at any time as the Minister thinks fit. These conditions may limit the volume or rate of extraction from a water supply work.

Other limits on volumes or rates of extraction

- 6 The Minister may also limit the volume or rate of extraction from existing water supply works 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

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

39 Rules to minimise interference between water supply works

- (1) A water supply work approval must not be granted or amended if the water supply work is located within any of the following:
- (a) 100 metres of a water supply work that is:
 - (i) located on another landholding, and
 - (ii) authorised to take water solely for basic landholder rights from the same groundwater source,
 - (b) 400 metres of a water supply work that is:
 - (i) located on another landholding, and
 - (ii) nominated by another access licence to take water from the same groundwater source,
 - (c) 200 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,
 - (d) 500 metres of a water supply work that is nominated by a local water utility access licence or a major utility access licence authorised 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,
 - (e) 200 metres of a Government monitoring or observation bore.

Note. Government monitoring or observation bore 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 of any of the following:
- (a) the water supply work is used solely for basic landholder rights,
 - (b) the water supply work is a replacement groundwater work,
Note. Replacement groundwater work is defined in the Dictionary.
 - (c) the water supply work is for the purpose of monitoring, environmental remediation activities or emergency services,
 - (d) the location of the water supply work at a lesser distance than that specified in subclause (1) 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.

40 Rules for water supply works located near contamination sources

- (1) A water supply work approval must not be granted or amended if, in the Minister's opinion, 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 change in groundwater level will occur within 250 metres of that plume.
- (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) the location of the water supply work is adequate to protect the groundwater source, the environment and public health and safety,
 - (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 in the borehole annulus to a minimum depth of 20 metres from the ground surface, and
Note. *Borehole annulus* is defined in the Dictionary.
 - (b) in the Minister's opinion, located at a sufficient distance from the on-site sewage disposal system to prevent migration of septic contamination in the aquifer.
- (4) The Minister may modify the depth requirement in subclause (3) (a) if satisfied of any of the following:
 - (a) adequate arrangements are in place to protect the groundwater source, the environment and public health and safety,
 - (b) the water supply work is for the purpose of monitoring and environmental remediation activities.

41 Rules for water supply works located near high priority groundwater-dependent

ecosystems

- (1) A water supply work approval must not be granted or amended if, in the Minister's opinion, the water supply work is located within any of the following:
 - (a) 40 metres of the top of the high bank of a river,
Note. *Top of the high bank of a river* is defined in the Dictionary.
 - (b) 500 metres of the edge of an escarpment that is a high priority groundwater-dependent ecosystem for the purposes of this Plan, where the location of the water supply work is above that escarpment,
 - (c) 200 metres of a high priority groundwater-dependent ecosystem listed in Table A of Schedule 2,
 - (d) 500 metres of a high priority karst groundwater-dependent ecosystem listed in Table B of Schedule 2,
Note. *Karst* is defined in the Dictionary.
 - (e) 200 metres of any other high priority groundwater-dependent ecosystem shown on the High Priority Groundwater-Dependent Ecosystem Map.
- (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) the water supply work is used solely for basic landholder rights,
 - (b) the water supply work is a replacement groundwater work,
 - (c) the water supply work is for the purpose of monitoring, environmental remediation activities or emergency services,
 - (d) the location of the water supply work at a lesser distance than that specified in subclause (1) would result in no more than minimal harm to any high priority groundwater-dependent ecosystem shown on the High Priority Groundwater-Dependent Ecosystem Map or identified in subclauses (1) (b) – (f).
- (3) The location restriction in subclause (1) (e) does not apply unless a high probability of groundwater dependence has been confirmed by the Department for the relevant ecosystem.

42 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, in the Minister's opinion, the water supply work is located within 200 metres of a groundwater-dependent culturally significant area.

Note. Groundwater-dependent culturally significant areas may be identified during the term of this Plan. Aboriginal people may also identify culturally significant areas when applications for new or amended water supply works are advertised. Potential groundwater-dependent culturally significant areas will be considered in the assessment of any application for a water supply work approval within the area of this Plan.

- (2) The location restriction specified in subclause (1) 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) the water supply work is used solely for basic landholder rights,
 - (b) the water supply work is a replacement groundwater work,
 - (c) the water supply work is for the purpose of monitoring, environmental remediation activities or emergency services,
 - (d) the location of the water supply work at a lesser distance would result in no more than minimal harm to any groundwater-dependent culturally significant area.

43 Rules for water supply works used solely for basic landholder rights

- (1) A water supply work approval for a water supply work used solely for basic landholder rights must not be granted or amended if, in the Minister's opinion, the water supply work is located within any of the following:
- (a) 100 metres of a Government monitoring or observation bore,
 - (b) 40 metres of the top of the high bank of a river,
 - (c) 100 metres of the edge of an escarpment that is a high priority groundwater-dependent ecosystem for the purposes of this Plan, where the location of the water supply work is above that escarpment,
 - (d) 100 metres of a high priority groundwater-dependent ecosystem listed in Table A of Schedule 2,
 - (e) 100 metres of a high priority karst groundwater-dependent ecosystem listed in Table B of Schedule 2,
 - (f) 100 metres of any other high priority groundwater-dependent ecosystem shown on the High Priority Groundwater-Dependent Ecosystem Map but only if a high

probability of groundwater dependence has been confirmed by the Department for the relevant ecosystem,

- (g) 100 metres of a groundwater-dependent culturally significant area.
- (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 the water supply work is a replacement groundwater work.
- (3) The location restrictions specified in subclause (1) (c) – (f) do not apply to the granting or amending of a water supply work approval if the Minister is satisfied that the location of the water supply work at a lesser distance would result in no more than minimal harm to any high priority groundwater-dependent ecosystem shown on the High Priority Groundwater-Dependent Ecosystem Map or identified in subclause (1) (c) – (f).
- (4) The location restriction specified in subclause (1) (g) does not apply to the granting or amending of a water supply work approval if the Minister is satisfied that the location of the water supply work at a lesser distance would result in no more than minimal harm to any groundwater-dependent culturally significant area.

44 Replacement groundwater works

- (1) For the purposes of this Plan, *replacement groundwater work* means a water supply work that:
 - (a) will replace an existing water supply work that is authorised by a water supply work approval, and
 - (b) 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) is to be located:
 - (i) within 20 metres of the existing water supply work, and
 - (ii) if the existing water supply work is located within 40 metres of the top of the high bank of a river, no closer to that high bank of a river, and
 - (d) will not have a greater internal diameter or excavation footprint than the existing water supply work, except where the internal diameter of the existing water supply work is:

- (i) no longer manufactured, in which case the internal diameter 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 is to be no more than 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) (c) (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 on any associated access licences.

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 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 Gunnedah–Oxley Basin MDB Groundwater Source and Sydney Basin MDB Groundwater Source are shown on the Plan Map.
- 4 An application for a dealing may be refused, or conditions imposed on an access licence or water supply work approval at the time of a dealing, to give effect to the provisions of this Plan.

45 Conversion of access licence to new category dealings

Dealings under section 71O of the Act are prohibited.

46 Assignment of rights dealings

- (1) A dealing under section 71Q of the Act is prohibited if it would result in the sum of the share components of all access licences with extraction components that specify the Gunnedah–Oxley Basin MDB (Spring Ridge) Management Zone exceeding 8,935.
- (2) A dealing under section 71Q of the Act is prohibited if it involves an assignment of rights between different groundwater sources.

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

Dealings under section 71R of the Act are prohibited.

48 Amendment of extraction component dealings

A dealing under section 71S of the Act is prohibited if it would result in the sum of the share components of all access licences with extraction components that specify the Gunnedah–Oxley Basin MDB (Spring Ridge) Management Zone exceeding 8,935.

49 Assignment of water allocations dealings

- (1) A dealing under section 71T of the Act is prohibited if it would result in the sum of water allocations credited to the water allocation accounts of all access licences with an extraction component that specifies the Gunnedah–Oxley Basin MDB (Spring Ridge) Management Zone, from available water determinations or section 71T dealings in that water year, exceeding 8,935.
- (2) A dealing under section 71T of the Act is prohibited if it involves an assignment of water allocation between different groundwater sources.

50 Interstate access licence transfer and assignment of water allocations

- (1) A dealing under section 71U of the Act is prohibited if it involves the interstate transfer of an access licence to or from the following groundwater sources:
 - (a) Oaklands Basin Groundwater Source,
 - (b) Sydney Basin MDB Groundwater Source.
 - (2) A dealing under section 71V of the Act is prohibited if it involves the interstate assignment of water allocations to or from the following groundwater sources:
 - (a) Oaklands Basin Groundwater Source,
 - (b) Sydney Basin MDB Groundwater Source.
 - (3) A dealing under section 71U of the Act that involves the interstate transfer of an access licence to or from the following groundwater sources is prohibited unless in accordance with administrative arrangements agreed to, and implemented by, NSW and the other State or Territory:
 - (a) Gunnedah–Oxley Basin MDB Groundwater Source,
 - (b) Western Murray Porous Rock Groundwater Source.
 - (4) A dealing under section 71V of the Act that involves the interstate assignment of water allocations to or from the following groundwater sources is prohibited unless in accordance with administrative arrangements agreed to, and implemented by, NSW and the other State or Territory:
 - (a) Gunnedah–Oxley Basin MDB Groundwater Source,
 - (b) Western Murray Porous Rock Groundwater Source.
- Note.** As at 1 July 2020, administrative arrangements are not in place between New South Wales and other States or Territories. New South Wales will, in collaboration with the relevant States or Territories, consider introducing a cross border trading framework, if and when demand increases to a level that justifies the investment in administrative resources.

51 Nomination of water supply works dealings

- (1) A dealing under section 71W of the Act is prohibited if it:
 - (a) would result in the sum of the share components of all access licences with extraction components that specify the Gunnedah–Oxley Basin MDB (Spring Ridge) Management Zone exceeding 8,935, or
 - (b) except where subclause (3) applies, involves an access licence being amended to nominate a water supply work located in a different groundwater source to that specified in the share component of the access licence.

- (2) A dealing under section 71W of the Act is prohibited in the following groundwater sources if it involves an access licence being amended to nominate a water supply work outside of NSW:
- (a) Oaklands Basin Groundwater Source,
 - (b) Sydney Basin MDB Groundwater Source.
- (3) A dealing under section 71W of the Act that involves an access licence being amended to nominate a water supply work outside of NSW is prohibited in the following water sources unless in accordance with administrative arrangements agreed to, and implemented by, NSW and the other State or Territory:
- (a) Gunnedah–Oxley Basin MDB Groundwater Source,
 - (b) Western Murray Porous Rock Groundwater Source.

Part 11 Mandatory conditions

Note. Mandatory conditions relating to metering equipment and recording of information are imposed by the *Water Management (General) Regulation 2018*. Clauses in this Plan that provide for mandatory conditions to be imposed in relation to metering and logbooks only apply until the roll out of the metering and reporting mandatory conditions that are prescribed in Part 10 and Part 11 of the *Water Management (General) Regulation 2018*.

Division 1 General

52 General

- (1) For the purposes of this Part a requirement to notify the Minister in writing will only be satisfied by writing to the email address for enquiries on the Department's website.
- (2) In this Part an *operational meter* means an operational meter that complies with Australian Standard AS 4747, *Meters for non-urban water supply*, as updated or replaced from time to time.

Division 2 Access licences

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

53 General conditions

- (1) Each access licence must have mandatory conditions to give effect to the following:
 - (a) the water taken under an access licence must not exceed the maximum water account debit permitted under clause 36,
 - (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,
 - (c) any other condition required to implement the provisions of this Plan.
- (2) All salinity and water table management access licences must have a mandatory condition that specifies that water must only be taken under the access licence for the sole purpose of reducing or preventing an increase in salinity levels in a water source.

54 Record keeping conditions

- (1) Each access licence, excluding a salinity and water table management access licence, must have mandatory conditions to give effect to the following:

- (a) the licence holder must record the following information in a logbook each time that water is taken using a water supply work that does not have both an operational meter (as referred to in clause 52 (2)) and an operational data logger:
 - (i) the date and the 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 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 36 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.

Note. *Logbook* is defined in the Dictionary.

- (2) If an access licence with a nominated water supply work is subject to a mandatory condition imposed by Part 10 or Part 11 of the *Water Management (General) Regulation 2018* relating to the recording or reporting of water that is taken by the work, this clause ceases to have effect in relation to the work on the day on which the condition applies to the licence.
- (3) This clause is taken to be repealed on the day on which the temporary exemption from the mandatory metering equipment condition ceases to apply to the groundwater sources in accordance with clause 230 (1) of the *Water Management (General) Regulation 2018*.

Notes.

- 1 **Mandatory metering equipment condition** is defined in clause 228 of the *Water Management (General) Regulation 2018*.
- 2 The *Water Management (General) Regulation 2018* will impose a mandatory condition requiring record keeping on access licences and approvals by 1 December 2021.

Division 3 Water supply work approvals

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

55 General conditions

- (1) Water supply work approvals must have mandatory conditions to give effect to:
 - (a) the clauses set out in this Division, and
 - (b) any other conditions required to implement the provisions of this Plan.

- (2) A water supply work approved for the purpose of monitoring, an environmental remediation activity or emergency services must be used only for that purpose.
- (3) 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 of the required information can be kept in the one logbook.
- (4) Upon becoming aware of a breach of any condition of the approval, the approval holder must:
 - (a) notify the Minister as soon as practicable, and
 - (b) if the notification under paragraph (a) was not in writing, confirm this notification in writing within seven days of becoming aware of the breach.

56 Metering conditions

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

- (4) If an approval for a water supply work is subject to a mandatory metering equipment condition in the relation to the work, this clause ceases to have effect in relation to the work on the day on which the condition applies to the approval.
- (5) This clause is taken to be repealed on the day on which the temporary exemption from the mandatory metering equipment condition ceases to apply to the groundwater sources in accordance with clause 230 (1) of the *Water Management (General) Regulation 2018*.

Note. Clause 230 of the *Water Management (General) Regulation 2018* provides that the mandatory metering equipment condition applies to new works required to have a meter from 1

April 2019, and to other access licences and approvals in the groundwater sources from 1 December 2021.

57 Record keeping conditions

- (1) This clause does not apply to a water supply work approval if the work is used for the sole purpose of taking water under basic landholder rights.
- (2) The approval holder must:
 - (a) record the following information in a logbook whenever the water supply work does not have both an operational meter (as referred to in clause 52 (2)) and an operational data logger:
 - (i) the date and the 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, the authority under which water was taken,
 - (iv) the 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 and is operational, the meter reading before each time water is taken,
 - (vii) if metering equipment has not been installed for use in connection with the water supply work, or has been installed but is not operational, 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.
- (3) Subclauses (2) (a) (iv) and (v) do not apply to a water supply work approval nominated solely by a salinity and water table management access licence.
- (4) If an approval for a water supply work is subject to a mandatory condition imposed by Part 10 or Part 11 of the *Water Management (General) Regulation 2018* relating to the

recording or reporting of water that is taken by the work, this clause ceases to have effect in relation to the work on the day on which the condition applies to the approval.

- (5) This clause is taken to be repealed on the day on which the temporary exemption from the mandatory metering equipment condition ceases to apply to the groundwater sources in accordance with clause 230 (1) of the *Water Management (General) Regulation 2018*.

Note. The *Water Management (General) Regulation 2018* will impose a mandatory condition requiring record keeping on access licences and approvals by 1 December 2021.

58 Water supply work construction conditions

- (1) The approval holder must ensure that the water supply work is constructed in such a way that ensures the following:
- (a) the water supply work is situated in the location specified in the application for the water supply work,
 - (b) water is able to be taken through the water supply work only from the groundwater source specified in the share component of the access licence that nominates the water supply work,
 - (c) the water supply work is sealed off from all other water sources,
 - (d) construction of the water supply work complies with the construction standards for that type of bore prescribed in the *Minimum Construction Requirements for Water Bores in Australia*,
Note. *Minimum Construction Requirements for Water Bores in Australia* is defined in the Dictionary.
 - (e) construction and use of the water supply work prevents contamination of the aquifer and between aquifers,
 - (f) construction and use of the water supply work prevents the flow of saline water between aquifers.
- (2) If contaminated water is encountered 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) place an impermeable seal in the borehole annulus when and 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) Subclause (2) does not apply to a water supply work constructed for the purpose of monitoring or remediating contaminated water.
- (4) The approval holder must, within 60 days of completion of the construction of the water supply work, or within 60 days after the issue of the water supply work approval if the approval is for the amendment of an existing water supply work, submit the details of the water supply work to the Minister in a form approved by the Minister.
- (5) The approval holder must ensure:
 - (a) the construction of the water supply work is completed within three years of the approval being granted, and
 - (b) the water supply work is not used unless construction is completed within three years of the approval being granted.
- (6) Each water supply work approval for a replacement groundwater work must impose conditions which give effect to clause 44 (1) (b) - (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 is 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 clause.
- (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 referred to in subclause (2) stating that the water supply work:
 - (a) must not be decommissioned, or
 - (b) must be decommissioned in accordance with the requirements specified in the notice.
- (4) In decommissioning the water supply work, the approval holder must comply with the work plan referred to in subclause (2) or requirements referred to in subclause (3) (b).
- (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.

Part 12 Amendment of this Plan

Notes.

- 1 This Part sets out amendments authorised by this Plan.
- 2 For the purposes of section 87 of the Act, the initial period for the groundwater sources expire on 1 July 2022.

61 General

For the purposes of section 45 (1) (b) of the Act, this Part provides for when this Plan may be amended and any such amendments are taken to be authorised by this Plan.

62 Amendments relating to 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 groundwater sources to which a management zone applies and the boundaries of such a zone,
- (c) amend the Plan Map,
- (d) amend the High Priority Groundwater-Dependent Ecosystem Map.

63 Amendments relating to limits to the availability of water

This Plan may be amended to give effect to adjustments proposed under Part 4 of Chapter 7 of the Basin Plan, including adjustment to the limits in Part 6 and the planned environmental water in Part 4.

Note. Part 4 of Chapter 7 of the Basin Plan allows SDLs for groundwater SDL resource units to be adjusted by up to 5% to reflect new or improved information about the groundwater resources, including recharge rates, connectivity with surface water, usage patterns, or State policy and planning settings.

64 Amendments relating to compliance with limits and the operation of water allocation accounts

This Plan may be amended to establish different maximum water account debits for aquifer access licences for each management zone in the Gunnedah–Oxley Basin MDB Groundwater Source or the Sydney Basin MDB Groundwater Source.

65 Amendments relating to the granting of access licences

This Plan may be amended to establish or modify provisions for the granting of aquifer (Aboriginal community development) access licences.

66 Amendments relating to mandatory conditions

This Plan may be amended with respect to mandatory conditions to specify different standards or requirements for the construction or decommissioning of water supply works.

67 Dictionary

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

68 Schedules

- (1) Schedule 1 may be amended to add or remove a contamination source.
- (2) Schedule 2 may be amended to add or remove a:
 - (a) high priority groundwater-dependent ecosystem, or
 - (b) high priority karst environment groundwater-dependent ecosystem.

69 Other amendments (general)

- (1) This Plan may be amended to include provisions 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) the interception of water before it reaches a stream or aquifer by plantations or other means,
 - (c) the management of salt interception schemes,
 - (d) the management of aquifer interference activities, including the granting of aquifer interference approvals,
 - (e) water return flows, as referred to in Division 5 of Part 2 of Chapter 3 of the Act,
 - (f) the protection of groundwater-dependent culturally significant areas.
- (2) This Plan may be amended to establish or modify provisions for supplementary water (storage) access licences.
- (3) 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.
- (4) 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 provisions for that management zone.

- (5) Consequential amendments may be made to this Plan as a result of an amendment to the Act or regulations.

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 it has in the *Aboriginal Land Rights Act 1983*.

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

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

buried means a groundwater system that is overlain or partly overlain by another groundwater system.

escarpment refers to steep to precipitous landform pattern forming a linearly extensive, straight or sinuous inclined surface, which separates terrains at different altitudes, that above the escarpment commonly being a plateau. Relief within the landform pattern may be high (hilly) or low (planar). The upper margin is often marked by an included cliff or scarp.

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

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 ecosystem is an ecosystem that has its species composition and natural ecological processes wholly or partially determined by groundwater.

groundwater-dependent culturally significant area means an area determined by the Minister to be a groundwater-dependent culturally significant area.

groundwater SDL resource unit for groundwater has the same meaning as provided for in section 6.03 of the Basin Plan.

high priority groundwater-dependent ecosystems may include:

- (a) any instream ecosystem associated with rivers that have a base flow component to their flow regime,
- (b) vegetation that has a high probability of being groundwater-dependent, and is of very high or high ecological value,
- (c) Ramsar wetlands, or wetlands listed in the Directory of Important Wetlands in Australia: Third edition, Environment Australia, 2001 (ISBN 0 642 54721 1).

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

karst means an area of land, including subterranean land, that has developed in soluble rock through the processes of solution, abrasion or collapse, together with its associated bedrock, soil, water, gases and biodiversity.

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 average sustainable diversion limit has the same meaning as it has in section 4 of the *Water Act 2007* of the Commonwealth.

management zone is an area within a water source in which provisions 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.

outcropped means a groundwater system that occurs at the earth's surface.

porous rock means consolidated sedimentary rock containing voids, pores or other openings (such as joints, cleats and/or fractures) which are interconnected in the rock mass and are capable of transmitting water.

replacement groundwater work has the meaning given by clause 44.

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

top of the high bank of a river means, in relation to the location of a water supply work, the top of the highest bank on the side of the river where the work is located, unless otherwise determined by the Minister.

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

water account debit has the meaning given by clause 36.

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

Schedule 1 Contamination sources

(clause 40)

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 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 High priority groundwater-dependent ecosystems (clauses 41 and 43)
Table A—High priority groundwater-dependent ecosystems

Column 1	Column 2	Column 3	Column 4	Column 6
High priority groundwater-dependent ecosystem	GDE Type	Latitude - Decimal degrees (South)	Longitude -Decimal degrees (East)	Groundwater Source
Back Spring	Spring	-31.3483	149.8178	Gunnedah–Oxley Basin MDB Groundwater Source
Barra Spring	Spring	-31.3817	149.7844	Gunnedah–Oxley Basin MDB Groundwater Source
Boballa Springs	Spring	-31.3817	149.7344	Gunnedah–Oxley Basin MDB Groundwater Source
Bonan Spring	Spring	-31.2483	149.4178	Gunnedah–Oxley Basin MDB Groundwater Source
Carlisle Springs	Spring	-31.7483	149.5511	Gunnedah–Oxley Basin MDB Groundwater Source
Kellys Springs	Spring	-32.0817	149.7511	Sydney Basin MDB Groundwater Source
Lickhole Spring	Spring	-31.5483	149.4178	Gunnedah–Oxley Basin MDB Groundwater Source
Mitchells Springs	Spring	-31.3317	149.7011	Gunnedah–Oxley Basin MDB Groundwater Source
Naran Springs	Spring	-32.165	149.1594	Gunnedah–Oxley Basin MDB Groundwater Source
Tambar Spring	Spring	-31.3483	149.8344	Gunnedah–Oxley Basin MDB Groundwater Source
Terda Spring	Spring	-31.3983	150.0678	Gunnedah–Oxley Basin MDB Groundwater Source
Tigheys Spring	Spring	-31.1483	149.6511	Gunnedah–Oxley Basin MDB Groundwater Source
Treloar Springs	Spring	-31.3983	150.0678	Gunnedah–Oxley Basin MDB Groundwater Source
Wetalaba Springs	Spring	-31.465	149.9011	Gunnedah–Oxley Basin MDB Groundwater Source

Table B—High priority karst environment groundwater-dependent ecosystems

Column 1	Column 2	Column 3	Column 4
High priority karst environment groundwater-dependent ecosystem	GDE type	Groundwater source	Approximate location
Ilford	Karst	Sydney Basin MDB	21 km south-west of Rylstone

Appendix 2 Overview of the High Priority Groundwater-Dependent Ecosystem Map

(clauses 4, 41 and 43)

Overview of the High Priority Groundwater-Dependent Ecosystem Map (GDE023_Version 1), Water Sharing Plan for the NSW Murray Darling Basin Porous Rock Groundwater Sources 2020

