



Water Sharing Plan for the Lower Murray Shallow Groundwater Source 2012

under the

Water Management Act 2000

I, the Minister for Primary Industries, in pursuance of section 50 of the *Water Management Act 2000*, do, by this Order, make the following Minister's Plan for the Lower Murray Shallow Groundwater Source.

Dated this 13th day of March, 2012.

KATRINA HODGKINSON, MP
Minister for Primary Industries

Explanatory note

This Order is made under section 50 of the *Water Management Act 2000*.

The object of this Order is to make the Water Sharing Plan for the Lower Murray Shallow Groundwater Source 2012. The concurrence of the Minister for the Environment was obtained prior to the making of this Order.

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Water Sharing Plan for the Lower Murray Shallow Groundwater Source 2012

Part 1 Introduction

Note. Part 12 allows for amendments to be made to this Part.

1 Name of this Plan

This Plan is the *Water Sharing Plan for the Lower Murray Shallow Groundwater Source 2012* (hereafter *this Plan*).

2 Nature and status of this Plan

- (1) This Plan is made under section 50 of the *Water Management Act 2000* (hereafter *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 under another section of the Act, the section is referred to in notes of this Plan.

3 Commencement of this Plan

This Plan commences on 1 April 2012.

Notes.

- 1 In accordance with section 43 of the Act, this Plan will have effect for 10 years from 1 July 2012.
- 2 The Minister may extend this Plan for a further period of 10 years after it is due to expire, in accordance with section 43 of the Act.

4 Application of this Plan

- (1) This Plan applies to the Lower Murray Shallow Groundwater Source (hereafter *this groundwater source*) within the Murray Water Management Area.

Note. The Murray Water Management Area was 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) This groundwater source is shown on the registered map called the Lower Murray Shallow Groundwater Source held by the NSW Office of Water (hereafter the *Registered Map*).

Note. An overview of the Registered Map is shown in Appendix 1. Copies of the Registered Map may be inspected at the offices listed in Appendix 2.

- (3) This groundwater source includes all water contained within all alluvial sediments below the surface of the ground shown on the Registered Map, to a depth of 12 metres.

- (4) This groundwater source does not include water contained in the Lower Murray Groundwater Source as defined in the *Water Sharing Plan for the Lower Murray Groundwater Source 2006*.

Note. The Lower Murray Groundwater Source includes all water contained in any sediment at a depth greater than 12 metres.

5 Management zones

- (1) For the purposes of this Plan, this groundwater source is divided into the following management zones:
- (a) Lower Murray Shallow (Eastern) Management Zone, and
 - (b) Lower Murray Shallow (Western) Management Zone.
- (2) The management zones in subclause (1) are shown on the Registered Map.

6 Understanding the rules in this Plan

This Plan contains various rules. Where appropriate, rules specified in this Plan are given effect to by mandatory conditions for access licences and approvals contained in Part 11 of this Plan.

Note. The rules in this Plan include environmental water rules, access licence dealing rules, rules for granting and managing access licences, rules for water supply work approvals, rules for the making of available water determinations and water allocation account rules.

7 Interpretation

- (1) Words and expressions that are defined in the Dictionary in Schedule 1 of this Plan have the meaning set out in that Schedule.
- (2) Unless otherwise defined in this Plan, words and expressions that are defined in the Act or in the regulations to the Act (hereafter *the Regulations*) have the same meaning in this Plan.
- (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) Schedules to this Plan form part of this Plan.
- (5) Notes in the text of this Plan do not form part of this Plan.
- (6) Appendices to this Plan do not form part of this Plan.

Part 2 Vision, objectives, strategies and performance indicators

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

8 Vision statement

The vision for this Plan is to provide for healthy and enhanced groundwater sources and water dependent ecosystems and for equitable water sharing among users in this groundwater source.

9 Objectives

The objectives of this Plan are to:

- (a) protect, preserve, maintain and enhance the high priority groundwater dependent ecosystems and important river flow dependent ecosystems of this groundwater source,
- (b) protect, preserve, maintain and enhance the Aboriginal, cultural and heritage values of this groundwater source,
- (c) protect basic landholder rights,
- (d) manage this groundwater source to ensure equitable sharing between users,
- (e) provide opportunities for enhanced market based trading of access licences and water allocations within environmental and system constraints,
- (f) provide water allocation account management rules which allow sufficient flexibility in water use,
- (g) contribute to the maintenance of water quality,
- (h) provide recognition of the connectivity between surface water and groundwater,
- (i) adaptively manage this groundwater source,
- (j) contribute to the environmental and other public benefit outcomes identified under the Water Access Entitlements and Planning Framework in the *Intergovernmental Agreement on a National Water Initiative (2004)* (hereafter **the NWI**).

Note. Under the NWI, water that is provided by NSW to meet agreed environmental and other public benefit outcomes as defined within relevant water plans is to:

- (i) be given statutory recognition and have at the same degree of security as water access entitlements for consumptive use and be fully accounted for,
- (ii) be defined as the water management arrangements required to meet the outcomes sought, including water provided on a rules basis or held as a water access entitlement, and
- (iii) if held as a water access entitlement, may be made available to be traded (where physically possible) on the temporary market, when not required to meet the environmental and other

public benefit outcomes sought and provided such trading is not in conflict with these outcomes.

10 Strategies

The strategies of this Plan are to:

- (a) establish environmental water rules,
- (b) identify water requirements for basic landholder rights,
- (c) identify water requirements for access licences,
- (d) establish rules for the granting of access licences and approvals,
- (e) establish rules that place limits on the availability of water for extraction,
- (f) establish rules for making available water determinations,
- (g) establish rules for the operation of water accounts,
- (h) establish rules which specify the circumstances under which water may be extracted,
- (i) establish access licence dealing rules,
- (j) establish performance indicators, and
- (k) identify triggers for and limits to changes to the rules in this Plan.

11 Performance indicators

The following indicators are to be used to measure the success of the strategies to reach the objectives of this Plan:

- (a) change in the ecological value of key groundwater sources and their dependent ecosystems,
- (b) the extent to which basic landholder rights requirements have been met, including native title requirements,
- (c) change in local water utility access,
- (d) the extent to which local water utility requirements have been met,
- (e) change in the economic benefits derived from groundwater extraction and use, and
- (f) extent of recognition of spiritual, social and customary values of water to Aboriginal people.

Part 3 Bulk access regime

12 Bulk access regime

- (1) This Plan establishes a bulk access regime for the extraction of water under access licences in this groundwater source, having regard to:
 - (a) the environmental water rules established in Part 4 of this Plan,
 - (b) the requirements for water for basic landholder rights identified in Division 2 of Part 5 of this Plan,
 - (c) the requirements for water for extraction under access licences identified in Division 3 of Part 5 of this Plan, and
 - (d) the access licence dealing rules established in Part 10 of this Plan.
- (2) The bulk access regime established in this Plan for this groundwater source:
 - (a) recognises and is consistent with the limits to the availability of water set in relation to this groundwater source contained in Division 1 of Part 6 of this Plan,
 - (b) establishes rules according to which access licences are to be granted and managed contained in Parts 7 and 8 of this Plan and available water determinations to be made contained in Division 2 of Part 6 of this Plan,
 - (c) recognises the effect of climatic variability on the availability of water as described in clause 13,
 - (d) establishes rules with respect to the priorities according to which water allocations are to be adjusted as a consequence of any reductions in the availability of water due to an increase in average annual extraction above the long-term average annual extraction limit, contained in Division 1 of Part 6 of this Plan,
 - (e) contains provisions with respect to the conditions that must be imposed as mandatory conditions on access licences, contained in Division 2 of Part 11 of this Plan, and
 - (f) recognises and is consistent with the water management principles contained in section 5 of the Act.

13 Climatic variability

This Plan recognises the effects of climatic variability on groundwater levels in this groundwater source by having provisions that manage the sharing of water in this groundwater source within the limits of water availability on a long-term average annual basis and the

priorities according to which water allocations are to be adjusted as a consequence of any reductions in the availability of water due to an increase in average annual extraction against the long-term average annual extraction limit, contained in Division 1 of Part 6.

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

Part 4 Planned environmental water provisions

Notes.

- 1 This Part is made in accordance with sections 8, 8A and 20 of the Act.
- 2 Part 12 allows for amendments to be made to this Part.

14 General

This Part contains environmental water rules for the commitment, identification, establishment and maintenance of planned environmental water in this groundwater source.

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 a specified times or in specified circumstances, and that cannot to the extent committed be taken or used for any other purpose.

15 Commitment and identification of planned environmental water

- (1) Planned environmental water is committed and identified in this groundwater source as set in this clause.
- (2) Water is committed and identified as planned environmental water in this groundwater source in the following ways:
 - (a) by reference to the commitment of the physical presence of water in this groundwater source,
 - (b) by reference to the long-term average annual commitment of water as planned environmental water, and
 - (c) by reference to 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.

16 Establishment and maintenance of planned environmental water

- (1) Planned environmental water is established and maintained in this groundwater source as set out in this clause.
- (2) Planned environmental water in this groundwater source is established as follows:
 - (a) the physical presence of water that is equal to 33% of the long-term average annual rainfall recharge at the commencement of this Plan and 100% of the long-term groundwater storage in this groundwater source,

Notes.

- 1 At the commencement of this Plan, the long-term average annual rainfall recharge for this groundwater source is estimated to be 121,300 ML/year.

- 2 Groundwater sources generally store large volumes of water, often accumulated over thousands or even tens of thousands of years. The amount of annual recharge is often very small compared to this stored volume. This Plan does not allow access to the storage component of the groundwater resources over the long-term. This means that over the long-term, the groundwater resources will not be depleted as a result of extraction.
 - 3 The recharge estimates for this groundwater source are based on rainfall infiltration.
 - 4 The portion of recharge reserved for the environment is not the same for every groundwater source, having regard to the different levels of socio-economic reliance and environmental values for each groundwater source.
- (b) the long-term average annual commitment of water as planned environmental water in this groundwater source that is equal to 33% of the long-term average annual rainfall recharge at the commencement of this Plan and 100% of the long-term groundwater storage, and
- (c) the water remaining after water has been taken pursuant to basic landholder rights and access licences in this groundwater source, in accordance with the rules specified in Part 6 and Part 8 of this Plan.
- (3) The planned environmental water established under subclause (2) (a) is maintained in this groundwater source by the rules specified in Part 6 and Part 8 of this Plan.
 - (4) The planned environmental water established under subclause (2) (b) is maintained in this groundwater source by the rules specified in Part 6 of this Plan.
 - (5) The planned environmental water established under subclause (2) (c) is maintained in this groundwater source by the rules specified in Part 6 and Part 8 of this Plan.

Note. The rules in Part 6 ensure that there will be water remaining in this groundwater source over the long-term by maintaining compliance with the long-term average annual extraction limit. The rules in Part 6 provide for a reduction in available water determinations when the long-term average annual extraction limit has been assessed to have been exceeded.

Part 5 Requirements for water

Division 1 General

17 Application

- (1) This Part identifies the requirements for water from this groundwater source for basic landholder rights (Division 2) and for extraction under access licences (Division 3).
- (2) The amounts of water specified in this Part represent the estimated water requirements of persons entitled to basic landholder rights in this groundwater source and the total volumes or unit shares specified in the share components of all access licences in this groundwater source. The actual volumes of water available for extraction in this groundwater source at any time will depend on factors such as climatic variability, access licence priority and the rules in this Plan.
- (3) This Plan recognises that basic landholder rights in this groundwater source and the total share components of all access licences authorised to extract water from this groundwater source may change during the term of this Plan. This Plan manages such changes by having provisions that manage the sharing of water within the limits of water availability, as provided for in Division 1 of Part 6 of this Plan.

Note. The total share components of access licences in this groundwater source may change during the term of the Plan as a result of:

- (a) the granting, surrender or cancellation of access licences in this groundwater source,
- (b) the variation of local water utility licences under section 66 of the Act, or
- (c) changes due to the conversion of *Water Act 1912* entitlements that are currently non-volumetric.

Division 2 Requirements for water for basic landholder rights

18 Domestic and stock rights

At the commencement of this Plan the water requirements of persons entitled to domestic and stock rights in this groundwater source are estimated to total 988 megalitres per year (hereafter *ML/year*), distributed as follows:

- (a) 509 ML/year in the Lower Murray Shallow (Eastern) Management Zone, and
- (b) 479 ML/year in the Lower Murray Shallow (Western) Management Zone.

Notes.

- 1 Domestic and stock rights are set out in Division 1 of Part 1 of Chapter 3 of the Act and must be exercised in accordance with any mandatory guidelines established under the Act with respect to the taking and use of water for domestic consumption or stock watering.

- 2 Inherent water quality and land use activities may make the water in some areas unsuitable for human consumption. Water from this groundwater source should not be consumed without first being tested and, if necessary, appropriately treated. Such testing and treatment is the responsibility of the water user.

19 Native title rights

At the commencement of this Plan there are no native title rights in this groundwater source. Therefore the water requirements for native title rights total 0 ML/year.

Note. A change in native title rights may occur pursuant to the provisions of the *Native Title Act 1993* (Cth).

Division 3 Requirements for water for extraction under access licences

20 Share component of domestic and stock access licences

It is estimated that at the time of commencement of this Plan the share components of domestic and stock access licences authorised to take water from this groundwater source will total 0 ML/year.

21 Share component of local water utility access licences

It is estimated that at the time of commencement of this Plan the share components of local water utility access licences authorised to take water from this groundwater source will total 0 ML/year.

22 Share component of aquifer access licences

It is estimated that at the time of commencement of this Plan the share components of aquifer access licences authorised to take water from this groundwater source will total 60,905 unit shares, distributed as follows:

- (a) 54,315 unit shares in the Lower Murray Shallow (Eastern) Management Zone, and
- (b) 6,590 unit shares in the Lower Murray Shallow (Western) Management Zone.

23 Share component of salinity and water table management access licences

It is estimated that at the time of commencement of this Plan the share components of salinity and water table management access licences authorised to take water from this groundwater source will total 20,000 ML/year.

Part 6 Limits to the availability of water

Division 1 Long-term average annual extraction limit

24 General

The availability of water for extraction in this groundwater source on a long-term basis is to be managed in accordance with this Part.

25 Volume of the long-term average annual extraction limits

- (1) This clause establishes a long-term average annual extraction limit for this groundwater source.
- (2) Subject to any variation under subclause (3), the long-term average annual extraction limit in this groundwater source is 81,893 ML/year.

Note. The long-term average annual extraction limit for this groundwater source is as follows:

- (a) an estimate of annual extraction of water for those entitlements issued under Part 5 of the *Water Act 1912* in this water source immediately prior to the commencement of this Plan, plus
 - (b) an estimate of annual water requirements for domestic and stock rights and native title rights in this water source at the commencement of this Plan.
- (3) Following the surrender and cancellation of an access licence in this groundwater source under sections 77 and 77A of the Act, the Minister may vary the long-term average annual extraction limit.

Notes.

- 1 Part 12 allows for amendments to be made to this clause.
- 2 Under section 8F of the Act, the long-term average annual extraction limit is taken to be varied by the amount of any change to the amount of water committed as licensed environmental water. Water committed as licensed environmental water is not to be accounted for as extraction. The variation in the long-term average annual extraction limit is to be determined in accordance with a methodology approved by the Minister and published in the Gazette.

26 Calculation of current levels of annual extraction

- (1) After each water year, the total volume of water extracted during that water year under access licences and pursuant to domestic and stock rights and native title rights must be calculated for this groundwater source.
- (2) For the purpose of calculating the total volume of water extracted during a water year, the following must be taken into account:
 - (a) all water taken by holders of all categories of access licences in this groundwater source, and

- (b) all water taken pursuant to domestic and stock rights and native title rights in this groundwater source.

27 Assessment of average annual extraction against the long-term average annual extraction limits

- (1) An assessment of average annual extractions against the long-term average annual extraction limit is to be conducted for this groundwater source as set out in subclause (2).
- (2) Commencing in the sixth water year in which this Plan has effect, the assessment referred to in subclause (1) must compare the long-term average annual extraction limit established in clause 25 against the annual extraction averaged over the preceding five water years.

28 Compliance with the long-term average annual extraction limits

- (1) Pursuant to section 58 (4) of the Act, this plan amends the relative priorities of the categories of aquifer access licences and salinity and water table management access licences to the extent necessary to make the reductions to available water determinations as set out in this clause.
- (2) Compliance with the long-term average annual extraction limits established in this groundwater source is to be managed in accordance with subclause (3).
- (3) Commencing in the sixth water year in which this Plan has effect, if in the Minister's opinion the assessment under clause 27 demonstrates that annual extractions in this groundwater source averaged over the preceding five water years have exceeded the long-term average annual extraction limit for this groundwater source by 10% or more, then the available water determination for aquifer access licences in this groundwater source is to be reduced in the following water year in accordance with subclause (4).
- (4) The reduction under subclause (3) is to be of an amount that is, in the Minister's opinion, necessary to return the average annual extractions in this groundwater source to the long-term average annual extraction limit established in this Part.

Division 2 Available water determinations

29 General

- (1) Available water determinations for access licences with a share component that specifies this groundwater source are to be expressed as either:
 - (a) a percentage of the share component for access licences which have share components specified as ML/year, or

- (b) megalitres per unit share for access licences which have share components specified as a number of unit shares.
- (2) Subject to subclause (3) the sum of available water determinations made for an access licence, other than a salinity and water table management access licence and an access licence (subcategory “town water supply”), with a share component that specifies this groundwater source must not, in any water year, exceed:
 - (a) 150% of the access licence share component or such lower amount that results from Division 1 of this Part, for all access licences with share components specified as ML/year, or
 - (b) 1.5 megalitres per unit share of access licence share component or such lower amount that results from Division 1 of this Part, for all access licences with share components specified as a number of unit shares.
- (3) The sum of available water determinations made for a salinity and water table management access licence and an access licence (subcategory “town water supply”) with a share component that specifies this groundwater source must not, in any water year, exceed 1 megalitre per unit share of access licence share component or such lower amount that results from Division 1 of this Part.

30 Available water determinations

- (1) In making available water determinations under section 59 of the Act, the Minister should consider the rules in this clause.
- (2) At the commencement of this Plan and at the commencement of each water year after the first water year in which this Plan has effect, the following available water determinations should be made for access licences with a share component that specifies this groundwater source:
 - (a) 100% of the access licence share component for domestic and stock access licences,
 - (b) 100% of the access licence share component for local water utility access licences,
 - (c) 100% of the access licence share component for salinity and water table management access licences, and
 - (d) 1 megalitre per unit share of the access licence share component for aquifer access licences,

or such lower amount that results from Division 1 of this Part.

Note. Division 1 of this Part provides for available water determinations for aquifer access licences to be reduced where the long-term average annual extraction limit for this groundwater source has been assessed to have been exceeded, as per clauses 27 and 28.

- (3) During a water year, if in the Minister's opinion, the water table in this groundwater source rises significantly and insufficient allocations are available to lower the water table, then the Minister may announce additional water determinations.

Part 7 Rules for granting access licences

Notes.

- 1 This Part is made in accordance with sections 20, 61 and 63 of the Act.
- 2 Access licences granted in this groundwater source will be subject to mandatory conditions and discretionary conditions.

31 Specific purpose access licences

- (1) Applications for specific purpose access licences, other than those permitted under the regulations, may not be made in this groundwater source, except for salinity and water table management access licences with a share component that specifies this groundwater source.
- (2) A salinity and water table management access licence may be granted in this groundwater source.
- (3) A specific purpose access licence must not be granted in this groundwater source unless the Minister is satisfied that the share and extraction component of the access licence is the minimum required to meet the circumstances in which the access licence is proposed to be used.
- (4) An access licence of the subcategory “Aboriginal cultural” must not be granted in this groundwater source unless the share component of the proposed access licence is less than or equal to 10 ML/year.

32 Granting of access licences as a result of controlled allocation

The Minister may grant an access licence where the right to apply for the licence has been acquired in accordance with an order made under section 65 of the Act.

Part 8 Rules for managing access licences

Note. Part 12 allows for amendments to be made to this Part.

33 General

The rules in this Division apply to the taking of water under an access licence with a share component that specifies this groundwater source.

Note. The Act provides for the keeping of water allocation accounts for access licences. The rules in this Part impose further restrictions on the volume of water that may be taken under an access licence over a specified period of time. These restrictions are in addition to any other limits on access licences for the taking of water contained in this Plan. It is an offence under the Act to take water under an access licence for which there is no or insufficient water allocation.

34 Individual access licence account management rules

- (1) In any water year, the water taken under a domestic and stock access licence, a local water utility access licence or a salinity and water table management access licence with a share component that specifies this groundwater source must not exceed a volume equal to:
 - (a) the sum of water allocations accrued to the water allocation account for the access licence from available water determinations in that water year, plus
 - (b) the net amount of any water allocations assigned to or from the water allocation account for the access licence under section 71T of the Act in that water year, plus
 - (c) 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.
- (2) Water allocations remaining in the water allocation account of a domestic and stock access licence, a local water utility access licence and a salinity and water table management access licence in this groundwater source cannot be carried over from one water year to the next.
- (3) In any water year, the water taken under an aquifer access licence in this groundwater source must not exceed a volume equal to:
 - (a) 150% of the access licence share component for access licences with share components expressed as ML/year, plus
 - (b) the net amount of any water allocations assigned to or from the water allocation account for the access licence under section 71T of the Act in that water year, plus
 - (c) 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.

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- (4) The maximum water allocation that can be carried over in a water allocation account for an aquifer access licence in this groundwater source from one water year to the next is equal to:
 - (a) 100% of the access licence share component for access licences with share components expressed as ML/year, or
 - (b) 1 ML per unit share of the access licence share component, for access licences with share components expressed as a number of unit shares.

Part 9 Rules for water supply works approvals

Notes.

- 1 This Part is made in accordance with sections 5, 21 and 95 of the Act.
- 2 Part 12 allows for amendments to be made to this Part.

35 General

The rules in this Part apply to water supply work approvals for water supply works that may be used to take water from this groundwater source.

36 Rules for amending water supply work approvals for replacement groundwater works

- (1) The Minister may amend a water supply work approval to alter the water supply work to which the approval relates if the Minister is satisfied that the amendment is to authorise a replacement groundwater work.
- (2) For the purposes of this Plan, a *replacement groundwater work* means a water supply work that replaces an existing water supply work constructed and used for the purpose of taking water from an aquifer where:
 - (a) the existing water supply work is authorised by a water supply work approval under the Act,
 - (b) the replacement groundwater work is to be constructed to extract water from the same groundwater source as the existing water supply work,
 - (c) the replacement groundwater work is to be constructed to extract water from:
 - (i) the same depth as the existing water supply work, or
 - (ii) a different depth if the Minister is satisfied that doing so will result in no greater impact on a groundwater source or its dependent ecosystems,
 - (d) the replacement groundwater work is to be located:
 - (i) within 20 metres of the existing water supply work, or
 - (ii) more than 20 metres from the existing water supply work if the Minister is satisfied that doing so will result in no greater impact on a groundwater source or its dependent ecosystems,
 - (e) the existing water supply work is located within 100 metres of the high bank of a river and the replacement groundwater work is to be located:

- (i) within 20 metres of the existing water supply work but closer to the high bank of the river, or
 - (ii) more than 20 metres of the existing water supply work, but no closer to the high bank of the river, if the Minister is satisfied that doing so will result in no greater impact on a groundwater source or its dependent ecosystems,
- (f) the replacement groundwater work must not have a greater internal diameter or excavation footprint than the existing water supply work, except where the internal diameter of the casing of the existing water supply work is no longer manufactured, in which case the internal diameter of the replacement groundwater work is to be no greater than 110% of the internal diameter of the existing water supply work it replaces. For the purposes of this paragraph, *internal diameter* means the diameter of the inside of the casing of the water supply work which is a water bore and *excavation footprint* means the authorised dimensions of a water supply work which is an unlined excavation constructed for the purpose of water supply only.
- (3) For the purposes of subclause (2) (c) (ii), the Minister may require the applicant to submit a hydrogeological study, assessed as adequate by the Minister, to demonstrate that the construction of the water supply work at a different depth to the existing water supply work will result in no greater impact on a groundwater source or its dependent ecosystems.
- (4) For the purposes of subclause (2) (d) (ii) or (2) (e) (ii), the Minister may require the applicant to submit a hydrogeological study, assessed as adequate by the Minister, to demonstrate that the location of the water supply work at a distance greater than 20 metres from the existing water supply work will result in no greater impact on a groundwater source or its dependent ecosystems.

Note. The Minister may amend an approval on the application of the holder of the approval under section 107 of the Act. The operation of section 107 (3) of the Act may further restrict the replacement of an existing water supply work.

37 Rules to minimise interference between water supply works

- (1) A water supply work approval must not be granted or amended to authorise the construction of a water supply work in this groundwater source which, in the Minister's opinion, is located within:
- (a) 400 metres of a water supply work located on another landholding that is authorised to take water from the same groundwater source pursuant to an access licence,
 - (b) 400 metres of a water supply work located on another landholding that is authorised to take water from the same groundwater source pursuant to basic landholder rights,

- (c) 200 metres from the boundary of the land on which the water supply work is located, unless the owner of the land adjoining the boundary has provided consent in writing,
 - (d) 1,000 metres of a water supply work authorised to take water from the same groundwater source by a local water utility, unless the local water utility has provided consent in writing,
 - (e) 200 metres of a NSW Office of Water observation or monitoring bore, unless the Minister has provided consent in writing, or
 - (f) 100 metres of an irrigation channel, unless the rural water service provider has provided consent in writing.
- (2) The distance restrictions specified in subclause (1) do not apply to the grant or amendment of a water supply work approval if the Minister is satisfied that:
- (a) the water supply work is 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 management or remedial works, or
 - (d) the location of the water supply work at a lesser distance would result in no more than minimal impact on existing extractions within this groundwater source.
- (3) For the purpose of subclause (2) (d), the Minister may request the applicant to undertake a hydrogeological study, submitted by the applicant and assessed as adequate by the Minister, to demonstrate that the location of the water supply work at a lesser distance would result in no greater impact on existing extractions within this groundwater source.
- (4) If an approval is granted under circumstances where subclause (2) (d) applies, the approval must be subject to a requirement that, when directed by the Minister by notice in writing, the approval holder must carry out all actions required by the Minister and specified in the notice, to minimise the impact of the water supply work on existing water levels or extractions, if the Minister is satisfied that the location of the water supply work is causing more than minimal impact on existing water levels or extractions.

38 Rules for water supply works located near contamination sources

- (1) A water supply work approval must not be granted or amended to authorise the construction of a water supply work which, in the Minister's opinion, is located:
- (a) within 250 metres of the plume associated with a contamination source listed in Schedule 2,

- (b) between 250 metres and 500 metres of the plume associated with a contamination source listed in Schedule 2, unless the Minister is satisfied that no drawdown of water will occur within 250 metres of that plume, or
 - (c) at a distance that is more than 500 metres from the plume associated with a contamination source listed in Schedule 2, if a greater distance is determined by the Minister to be necessary to protect the water source, the environment or public health and safety.
- (2) The distance restrictions specified in subclause (1) do not apply to the grant or amendment of a water supply work approval if the Minister is satisfied that:
- (a) the proposed distance is adequate to protect the groundwater source, its dependent ecosystems and public health and safety, or
 - (b) the water supply work is for the purpose of monitoring, environmental management or remedial works.
- (3) For the purpose of subclause (2) (a), the Minister may request the applicant to undertake a hydrogeological study, submitted by the applicant and assessed as adequate by the Minister, to demonstrate that the location of the water supply work at a lesser distance would result in no greater impact on dependent ecosystems and public health and safety.

39 Rules for water supply works located near sensitive environmental areas

- (1) A water supply work approval must not be granted or amended to authorise the construction of a water supply work which, in the Minister's opinion, is located:
- (a) within 100 metres of a high priority groundwater dependent ecosystem listed in Schedule 3 in the case of a water supply work used solely to take water pursuant to basic landholder rights,
 - (b) within 200 metres of a high priority groundwater dependent ecosystem listed in Schedule 3 in the case of a water supply work not used solely to take water pursuant to basic landholder rights,
 - (c) at a distance that is more than 200 metres from a high priority groundwater dependent ecosystem listed in Schedule 3, excluding water supply works used solely to take water pursuant to basic landholder rights, if the Minister is satisfied that the water supply work is likely to cause more than minimal drawdown at the perimeter of any high priority groundwater dependent ecosystem listed in Schedule 3, or
 - (d) within 100 metres of the top of the high bank of a river or stream.

- (2) The distance restrictions specified in subclauses (1) (a) and (1) (b) do not apply to the grant or amendment of a water supply work approval if the Minister is satisfied that no more than minimal drawdown of water will occur at the perimeter of any high priority groundwater dependent ecosystem listed in Schedule 3.
- (3) The distance restrictions specified in subclause (1) do not apply to the grant or amendment of a water supply work approval if the Minister is satisfied that:
 - (a) the water supply work is for the purpose of monitoring, environmental management or remedial works,
 - (b) the water supply work replaces an existing water supply work that is part of a bore network for a major utility or a local water utility for the purpose of town water supply,
 - (c) the water supply work is a replacement groundwater work, or
 - (d) the location of the water supply work at a lesser distance would result in no greater impact on this groundwater source and its groundwater dependent ecosystems.
- (4) The Minister may request the applicant to undertake a hydrogeological study, submitted by the applicant and assessed as adequate by the Minister, to demonstrate that:
 - (a) for the purpose of subclause (2), no more than minimal drawdown of water will occur at the perimeter of any high priority groundwater dependent ecosystem listed in Schedule 3, or
 - (b) for the purposes of subclause (3) (d), the location of the water supply work at a lesser distance would result in no greater impact on this groundwater source and its groundwater dependent ecosystems.

40 Rules for water supply works located near groundwater dependent culturally significant sites

- (1) A water supply work approval must not be granted or amended to authorise the construction of a water supply work which, in the Minister's opinion, is located within:
 - (a) 100 metres of a groundwater dependent culturally significant site in the case of a water supply work used solely to take water pursuant to basic landholder rights, or
 - (b) 200 metres of a groundwater dependent culturally significant site in the case of a water supply work not used solely to take water pursuant to basic landholder rights.
- (2) The distance restrictions specified in subclause (1) do not apply to the grant or amendment of a water supply work approval if the Minister is satisfied that:

- (a) the water supply work is for the purpose of monitoring, environmental management or remedial works,
 - (b) the water supply work replaces an existing water supply work that is part of a bore network for a major utility or a local water utility for the purpose of town water supply,
 - (c) the water supply work is sealed off to the nearest impervious layer above the slotted intervals of the water supply work with an impermeable seal constructed between the casing and the bore hole in accordance with any requirements specified by the Minister,
 - (d) the water supply work is a replacement groundwater work, or
 - (e) the location of the water supply work at a lesser distance would result in no more than a minimal impact in this groundwater sources and its groundwater dependent culturally significant sites.
- (3) For the purpose of subclause (2) (e), the Minister may require the applicant to undertake a hydrogeological study, submitted by the applicant and assessed as adequate by the Minister, to demonstrate that the location of the water supply work at a lesser distance would result in no more than minimal impact on this groundwater source and its groundwater dependent culturally significant sites.

Note. Culturally significant sites will be identified as part of the assessment undertaken by the NSW Office of Water during the processing of an application for the granting or amending of a water supply work approval.

41 Rules for the use of water supply works located within restricted distances

- (1) Subject to subclauses (2) and (3), a water supply work that is located within a restricted distance specified in clauses 37 to 40 must not, in any water year, be used to take more water than the volume of water that is equal to the sum of the share components of the access licences nominating that water supply work at the commencement of this Plan.
- (2) Subject to subclause (3), a water supply work that becomes located within a restricted distance specified in clauses 37 to 40 as a result of an amendment to this Plan, must not, in any water year, be used to take more water than the volume of water that is equal to the sum of the share components of access licences nominating that water supply work at the date of the amendment.
- (3) Subclauses (1) and (2) do not apply where a restricted distance does not apply in accordance with clauses 37 to 40.

Note. The water quality from any bore can be affected by land use activities and inherent water quality in the aquifer. Water quality cannot be guaranteed and extracted water may be unsuitable for human consumption and other uses. The quality of water extracted should be tested before being used and appropriately treated. Such testing and treatment is the responsibility of the licence holder.

Part 10 Access licence dealing rules

42 General

The access licence dealing rules established in this Part apply to all access licence dealings in this groundwater source.

Notes.

- 1 Access licence dealings in this groundwater source are subject to the provisions of the Act, the regulations, the access licence dealing principles and the access licence dealing rules established in this Part.
- 2 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.

43 Conversion of access licence to new category

- (1) This clause relates to dealings under section 71O of the Act in this groundwater source.
- (2) Dealings under section 71O of the Act are prohibited.

44 Assignment of rights dealings (within groundwater sources)

- (1) This clause relates to dealings under section 71Q of the Act in this groundwater source.
- (2) Dealings under section 71Q of the Act are prohibited if the dealing involves an assignment of rights from the Lower Murray Shallow (Western) Management Zone in this groundwater source to the Lower Murray Shallow (Eastern) Management Zone in this groundwater source.

45 Amendment of extraction component dealings

- (1) This clause relates to dealings under section 71S of the Act in this groundwater source.
- (2) Dealings under section 71S of the Act are prohibited if the dealing involves an access licence with an extraction component that specifies Lower Murray Shallow (Western) Management Zone in this groundwater source being varied to specify Lower Murray Shallow (Eastern) Management Zone in this groundwater source.

46 Assignment of water allocation dealings

- (1) This clause relates to dealings under section 71T of the Act in this groundwater source.
- (2) Dealings under section 71T of the Act are prohibited if the dealing involves an assignment of water allocation from the Lower Murray Shallow (Western) Management Zone in this groundwater source to the Lower Murray Shallow (Eastern) Management Zone in this groundwater source.

47 Interstate transfer of access licences and assignment of water allocation

- (1) This clause relates to dealings under section 71U or 71V of the Act in this groundwater source.
- (2) Dealings involving the interstate transfer of an access licence to or from this groundwater source may only be permitted where administrative arrangements have been agreed to and implemented by the States.
- (3) Dealings involving the interstate assignment of water allocations to or from access licences in this groundwater source may only be permitted where administrative arrangements have been agreed to and implemented by the States.

48 Nomination of water supply works dealings

- (1) This clause relates to dealings under section 71W of the Act in this groundwater source.
- (2) Dealings under section 71W of the Act are prohibited if the dealing involves an access licence which nominates a water supply work located in the Lower Murray Shallow (Western) Management Zone in this groundwater source being amended to nominate a water supply work located in the Lower Murray Shallow (Eastern) Management Zone in this groundwater source.

Part 11 Mandatory conditions

Division 1 General

49 General

In this Part:

- (a) a requirement to notify the Minister in writing is satisfied by making a notification in writing to the address listed in Appendix 3 of this Plan or to the email address for the NSW Office of Water Licensing Enquiries Information Centre,

Note. At the commencement of this Plan, the email address for the NSW Office of Water Licensing Enquiries Information Centre is information@water.nsw.gov.au.

- (b) a *metered water supply work with a data logger* means a water supply work with a meter and a data logger that complies with the *Australian Technical Specification ATS 4747, Meters for non-urban water supply* as may be updated and replaced from time to time, and

Note. The definition of metered water supply work with a data logger does not include all water supply works that are metered or that have a data logger. The water supply work must meet the parameters of this definition for the water supply work to be a metered water supply work with a data logger.

- (c) if the holder of a water supply work approval is the same as the holder of the access licence under which water is proposed to be taken, then it is not necessary to maintain two separate Logbooks and all the required information can be kept in one Logbook.

Division 2 Access licences

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

50 General

- (1) Access licences in this groundwater source must have mandatory conditions where required to give effect to the following:

- (a) the relevant water allocation account management rules specified in Part 8 of this Plan for the respective category or subcategory of access licence,
- (b) water must not be taken under an access licence otherwise than in compliance with the conditions applying to the water supply work approval for the water supply work through which water is to be taken,
- (c) the holder of an access licence must notify the Minister, in writing, immediately upon becoming aware of a breach of any condition of the access licence, and

-
- (d) any other condition required to implement the provisions of this Plan.
- (2) Access licences in this groundwater source, excluding access licences that nominate only metered water supply works with a data logger, must have mandatory conditions where required to give effect to the following:
- (a) the holder of the access licence must keep a Logbook,
 - (b) the holder of the access licence, except the holder of a salinity and water table management access licence, must record the following in the Logbook:
 - (i) each date and period of time during which water was taken under the access licence,
 - (ii) the volume of water taken on that date,
 - (iii) the water supply work approval number of the water supply work used to take the water on that date,
 - (iv) the purpose or purposes for which the water was taken on that date,
 - (v) for all domestic and stock access licences and local water utility access licences, the volume of water taken in each water year, by comparison to the maximum volume of water permitted to be taken in that water year under clause 34 (1),
 - (vi) for aquifer access licences in this groundwater source, the volume of water taken in each water year, by comparison to the maximum volume of water permitted to be taken in that water year under clause 34 (3), and
 - (vii) any other information required to be recorded in the Logbook under the rules of this Plan,
 - (c) the holder of a salinity or water table management access licence, must record the following in the Logbook:
 - (i) the dates and periods of time during which water was taken under the access licence for the previous monthly accounting period,
 - (ii) the volume of water taken for the previous monthly accounting period,
 - (iii) the volume of water taken in each water year, by comparison to the maximum volume of water permitted to be taken in that water year under clause 34 (1),
 - (iv) the water supply work approval number for the water supply work used to take water during the previous monthly accounting period, and

- (v) any other information required to be recorded in the Logbook under the rules of this Plan,
 - (d) the holder of the access licence must produce the Logbook to the Minister for inspection when requested, and
 - (e) the holder of the access licence must retain the information required to be recorded in the Logbook for five years from the date to which that information relates.
- (3) When directed by the Minister by notice in writing, the holder of an access licence that nominates only a metered water supply work with a data logger must keep a Logbook in accordance with any requirements from subclause (2) that are specified in the notice.
- (4) All access licences of the subcategory “Aboriginal cultural” must have a mandatory condition that specifies that water must only be taken under the access licence by Aboriginal persons or Aboriginal communities for personal, domestic or communal purposes, including drinking, food preparation, washing, manufacturing traditional artefacts, watering domestic gardens, cultural teaching, hunting, fishing, gathering and for recreational, cultural and ceremonial purposes.
- (5) An access licence for a project under Part 4 for State Significant Development or Part 3A or State Significant Infrastructure under Part 5.1 of the *Environmental Planning and Assessment Act 1979* must have mandatory conditions where required to give effect to the rules for the use of water supply works located within restricted distances specified in clause 41.

Division 3 Water supply work approvals

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

51 General

- (1) Water supply work approvals for water supply works in this groundwater source must have mandatory conditions where required to give effect to the following:
- (a) when directed by the Minister by notice in writing, the approval holder must have metering equipment installed that meets the following requirements:
 - (i) the metering equipment must accurately measure and record the flow of all water taken through the water supply work,
 - (ii) the metering equipment must comply with the *Australian Technical Specification ATS 4747, Meters for non-urban water supply* as may be updated or replaced from time to time,

- (iii) the metering equipment must be operated and maintained in a proper and efficient manner at all times,
- (iv) the metering equipment must be sited and installed at a place in the pipe, channel or conduit between the groundwater source and the first discharge outlet. There must be no flow of water into or out of the pipe, channel or conduit between the groundwater source and the metering equipment, and
- (v) any other requirements as to type, standard or other criteria for the metering equipment specified in the notice,
 - Note.** The Minister may direct a landholder or persons to install, replace or to properly maintain metering equipment under section 326 of the Act.
- (b) the rules for limiting the taking of water within the distance restrictions as specified in clause 41,
- (c) the construction of a new water supply work must:
 - (i) comply with the distance restrictions specified in, or specified by the Minister in accordance with clauses 37 to 40,
 - (ii) comply with the construction standards for that type of bore prescribed in the *Minimum Construction Requirements for Water Bores in Australia*, 2003, ISBN 1 9209 2009 9, as may be amended or replaced from time to time, and
 - (iii) be constructed appropriately so as to prevent contamination between aquifers,
- (d) the approval holder must ensure that if the water supply work is abandoned or replaced, it is decommissioned in compliance with the “minimum requirements for decommissioning bores” prescribed in the *Minimum Construction Requirements for Water Bores in Australia*, 2003, ISBN 1 9209 2009 9, as amended or replaced from time to time, unless otherwise directed by the Minister in writing,
- (e) within two months of the decommissioning of the water supply work, the approval holder must notify the Minister in writing that the water supply work has been decommissioned,
- (f) the approval holder must, within two months of completion of the construction of the water supply work, or within two months after the issue of the water supply work approval if the water supply work is existing, submit to the NSW Office of Water in a form approved by the Minister, the details of the water supply work,
- (g) if, during the construction of the water supply work, saline or contaminated water is encountered above the production aquifer, the approval holder must:

- (i) notify the Minister in writing within 48 hours of becoming aware of the contaminated water,
 - (ii) take all reasonable steps to minimise contamination and environmental harm,
 - (iii) ensure that such water is sealed off by inserting casing to a depth sufficient to exclude the saline or contaminated water from the water supply work, and, if specified by the Minister, place an impermeable seal between the casing(s) and the walls of the water supply work from the bottom of the casing to ground level, as specified by the Minister,
 - (iv) if the Minister has specified any other requirements, comply with any requirements specified by the Minister in writing, and
 - (v) the above requirements do not apply where the water supply work is being constructed for the purpose of taking saline water through a salinity and water table management access licence and the only contaminated water encountered is saline water,
- (h) when 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 water obtained using the water supply work,
- (i) the water supply work approval will lapse if the construction of the water supply work is not completed within three years of the issue of the water supply work approval, and
- (j) any other conditions required to implement the provisions of this Plan.
- (2) Water supply work approvals for water supply works in this groundwater source, except for a water supply work that is a metered water supply work with a data logger or a water supply work that nominates a salinity and water table management access licence, must have mandatory conditions where required to give effect to the following:
- (a) the holder of a water supply work approval must keep a Logbook,
 - (b) the holder of a water supply work approval must record the following in the Logbook:
 - (i) each date and period of time during which water was taken using the water supply work,
 - (ii) the volume of water taken on that date,
 - (iii) the access licence number of the access licence under which water was taken on that date, or, if the water was taken under some other authority (such as basic landholder rights), the authority under which water was taken,

- (iv) the purpose or purposes for which the water was taken on that date,
 - (v) details of any cropping carried out using the water taken through the water supply work including the type of crop, area cropped and dates of planting and harvesting,
 - (vi) where metering equipment has been installed for use in connection with the water supply work, the meter reading before water is taken,
 - (vii) where metering equipment has not been installed for use in connection with a water supply work, details of all pumping activities for the water supply work including pump running hours, pump power usage or pump fuel usage, and pump capacity per unit of time, and
 - (viii) any other information required to be recorded in the Logbook under the rules of this Plan,
- (c) the holder of the water supply work approval must produce the Logbook to the Minister for inspection, when requested, and
 - (d) the holder of a water supply work approval must retain the information required to be recorded in the Logbook for five years from the date to which that information relates.
- (3) Water supply work approvals for water supply works which are nominated by a salinity or water table management access licence in this groundwater source, except for a water supply work that is a metered water supply work with a data logger, must have mandatory conditions where required to give effect to the following:
- (a) the holder of a water supply work approval must keep a Logbook,
 - (b) the holder of a water supply work approval must record the following in the Logbook:
 - (i) the dates and periods of time during which water was taken under the access licence for the previous monthly accounting period,
 - (ii) the volume of water taken for the previous monthly accounting period,
 - (iii) the access licence number of the access licence under which water was taken on that date, or, if water was taken under some other authority (such as basic landholder rights), the authority under which water was taken,
 - (iv) where metering equipment has been installed for use in connection with the water supply work, the meter reading before water is taken,

- (v) where metering equipment has not been installed for use in connection with the water supply work, details of all pumping activities for the water supply work including pump running hours, pump power usage or pump fuel usage, and pump capacity per unit of time, and
 - (vi) any other information required to be recorded in the Logbook under the rules of this Plan,
 - (c) the holder of the water supply work approval must produce the Logbook to the Minister for inspection, when requested, and
 - (d) the holder of a water supply work approval must retain the information required to be recorded in the Logbook for five years from the date to which that information relates.
- (4) A water supply work approval for a replacement groundwater work must have mandatory conditions to give effect to the requirements for a replacement groundwater work specified in or specified by the Minister in accordance with clause 36.
- (5) A water supply work approval granted under circumstances where clause 37 (2) (d) applies must have a mandatory condition to give effect to clause 37 (4).

Note. Part 12 allows for the amendment of this clause.

Part 12 Amendment of this Plan

52 General

- (1) Amendments specified throughout this Plan and in this Part are amendments authorised by this Plan.
- (2) Amendments authorised by this Plan are 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 amendment to other parts of the Plan to include rules for that management zone.
- (3) An amendment authorised by this Plan which results in a variation of the bulk access regime is an amendment authorised by this Plan for the purpose of sections 87 (2) (c) and 87AA of the Act.

53 Part 1

Part 1 may be amended to:

- (a) apply this Plan to new or additional groundwater sources or water management areas (including part thereof) or to modify (including to amend the boundaries) or remove an existing groundwater source or water management area (including part thereof) included in 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, and
- (c) amend the Registered Map.

54 Part 4

Part 4 may be amended to vary the amount of recharge reserved as planned environmental water as a result of recharge studies undertaken or assessed as adequate by the Minister.

55 Part 6

Part 6 may be amended to modify the long-term average annual extraction limit as a result of recharge studies undertaken or assessed as adequate by the Minister.

56 Part 8

Part 8 may be amended to provide access rules for access licences in this groundwater source.

57 Part 9

Part 9 may be amended to do any of the following:

- (a) amend the definition of a replacement groundwater work in clause 36,
- (b) add, remove or modify a restricted distance specified in:
 - (i) clause 37 after year 4 of this Plan, or
 - (ii) clause 39 based on the outcomes of further studies of groundwater ecosystem dependency that have been assessed as adequate by the Minister, or
- (c) amend clause 41 to impose further restrictions on the rate and timing of extraction of water to mitigate impacts.

58 Part 11

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

- (a) amend the rules in relation to record keeping including amendments in relation to requirements for Logbooks, or
- (b) amend clause 51 to specify different standards for decommissioning water supply works or construction requirements for water supply works.

59 Schedules

- (1) Schedule 1 may be amended to add, modify and/or remove a definition.
- (2) Schedule 2 may be amended to add or remove a contamination source.
- (3) Schedule 3 may be amended to:
 - (a) add or remove a sensitive environmental area, or
 - (b) add or remove a high priority groundwater dependent ecosystem or a high priority karst environment groundwater dependent ecosystem.

60 Other

- (1) This Plan may be amended to provide for the following:
 - (a) managed aquifer recharge, or
Note. Managed aquifer recharge schemes involve taking water such as recycled water or urban stormwater, treating it and then storing it in underground 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.

- (2) This Plan may be amended to allow for the granting of aquifer interference approvals and the management of aquifer interference activities.
- (3) This Plan may be amended following the granting of a native title claim pursuant to the provisions of the *Native Title Act 1993* (Cth) to give effect to an entitlement granted under that claim.
- (4) Consequential amendments may be made to this Plan as a result of an amendment to the Act or Regulations.
- (5) This Plan may be amended after year five to provide rules for the protection of water dependent Aboriginal cultural assets including:
 - (a) identifying water dependent Aboriginal cultural assets in a schedule,
 - (b) amending the access rules to protect water dependent Aboriginal cultural assets,
 - (c) restricting the granting and amendment of water supply works to protect water dependent Aboriginal cultural assets, and/or
 - (d) amending trading rules to protect water dependent Aboriginal cultural assets.
- (6) Any amendment under subclause (5) will take into account the socio-economic impacts of the proposed change and the environmental water requirements of the water source
- (7) Before making an amendment pursuant to subclause (5) the Minister should consult with relevant Government agencies and stakeholders.

Schedule 1 Dictionary

Aboriginal person has the same meaning as under section 4 of the *Aboriginal Land Rights Act 1983*.

alluvial sediments means unconsolidated fluvio-lacustrine sediments.

drawdown means a lowering of the level to which water will rise in cased bores. Natural drawdown may occur due to seasonal climatic changes. Groundwater pumping may also result in seasonal and long-term drawdown.

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

irrigation channel means a channel owned or managed by a rural water service provider.

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

Logbook, in relation to an access licence or water supply works approval, means a written record, kept in hard copy or electronic form, which accurately records all information required to be kept in relation to the access licence or water supply work approval under the rules of this Plan.

monitoring bore means a bore constructed for the purpose of measuring water levels and/or taking samples for water quality analysis.

recharge means the addition of water, usually by natural infiltration, to an aquifer.

Registered Map for this groundwater source has the same meaning as in clause 4 (2) of this Plan.

replacement groundwater work has the same meaning as in clause 36 (2) of this Plan.

Water Act 1912 entitlement has the same meaning as an entitlement has in clause 2 of Schedule 10 to the Act.

water year means a year commencing 1 July.

Schedule 2 Contamination sources in this groundwater source

Contamination sources in this groundwater source comprise the following:

- (a) on site sewage disposal systems or septic tanks,
- (b) any sites which have been declared to be significantly contaminated land under the *Contaminated Land Management Act 1997*,
- (c) any sites that are or have been the subject of an activity listed in Table 1 of the contaminated land planning guidelines as published under the *Environmental Planning and Assessment Act 1979* from time to time, and
- (d) any sites listed in an agency database relating to contamination sources.

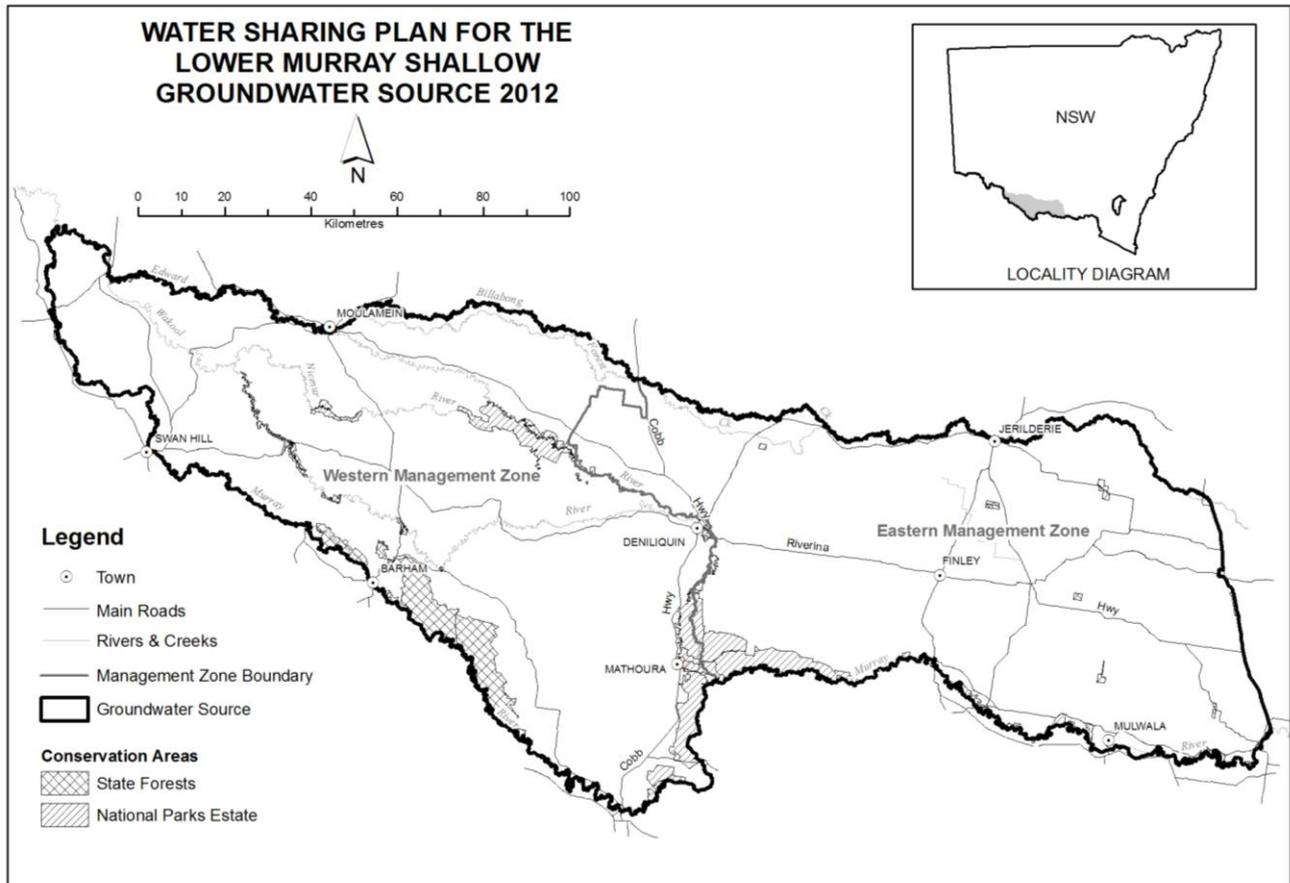
Schedule 3 High priority groundwater dependent ecosystems

At the commencement of this Plan, no high priority groundwater dependent ecosystems have been identified in this Schedule.

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

Water Sharing Plan for the Lower Murray Shallow Groundwater Source 2012

Appendix 1 Overview of the Registered Map



Appendix 2 Inspection of Registered Map

Copies of the Registered Map may be inspected at the following offices:

NSW Office of Water
Department of Trade and Investment, Regional Infrastructure and Services
10 Valentine Ave
PARRAMATTA
NSW 2150

NSW Office of Water
Department of Trade and Investment, Regional Infrastructure and Services
512 Dean Street
ALBURY
NSW 2640

NSW Office of Water
Department of Trade and Investment, Regional Infrastructure and Services
8-20 Edwardes Street
DENILQUIN
NSW 2710

Water Sharing Plan for the Lower Murray Shallow Groundwater Source 2012

Appendix 3 Office

NSW Office of Water
Department of Trade and Investment, Regional Infrastructure and Services
PO Box 205
DENILIQUIN
NSW 2710