

- (4) Unused water allocations in the water allocation accounts of domestic and stock access licences or of local water utility access licences cannot be carried over from one water year to the next.
- (5) In any water year, subject to local impact management restrictions arising from Part 10, Division 2 of this Plan, water taken under a local water utility access licence or a domestic and stock access licence may not exceed a volume equal to:
 - (a) 100% of the share component of the access licence,
 - (b) plus any water allocations assigned from another access licence under section 71T of the Act in that year,
 - (c) plus any water allocations re-credited in accordance with section 76 of the Act in that year, and
 - (d) minus any water allocations assigned to another licence under section 71T of the Act in that year.
- (6) Unused water allocations in the water allocation accounts of aquifer access licence may be carried over from one water year to the next, subject to subclause (7).
- (7) The maximum amount of unused water allocations that can be carried over under subclause (6) is equal to 2 ML per unit of share component.
- (8) In any water year, subject to local impact management restrictions arising from Part 10, Division 2 of this Plan, water taken from these Groundwater Sources under an aquifer access licence may not exceed a volume that is equal to:
 - (a) 2 ML per unit of aquifer access licence share component,
 - (b) plus any water allocations assigned from another access licence under section 71T of the Act in that year, and
 - (c) minus any water allocations assigned to another access licence under section 71T of the Act in that year.

Division 3 Management of local impacts

37 Management of local impacts

This Division is made in accordance with section 21 (a) of the Act.

38 Water level management

- (1) The Minister may declare that, in order to protect water levels within these Groundwater Sources, local access rules are to apply in a defined area known as a local impact area.
- (2) Local extraction restrictions will first apply once contoured drawdown or recovery depths exceed trigger levels specified by the Minister for 2 or more successive years, or unacceptable levels of drawdown or recovery specified by the Minister are observed in a single year.
- (3) Local extraction restrictions will apply to such an extent and for such time as to reduce the rate of pressure decline, or in response to unacceptable seasonal drawdown or recovery, to ensure pressure recovery occurs to acceptable levels.
- (4) Local extraction restrictions may increase to prevent unacceptable seasonal drawdown and unacceptable recovery levels, as specified by the Minister.
- (5) In the Shallow Groundwater Source, if the depth to the watertable outside areas where the water table has risen unnaturally, and its lowering is required, is identified as having a declining trend to the extent that local ecosystems could be adversely impacted upon, then a review of extraction by access licence holders in the affected area will be undertaken.
- (6) If the review in subclause (5) reveals it is required, extraction will be restricted in the local impact area to such an extent and for such a time as required to stabilise and if necessary restore the watertable to an appropriate level, as determined by the Minister.
- (7) This clause does not apply to local water utility access licences.

Note. This clause recognises that in some locations, at certain periods of high groundwater demand, critical water level declines may occur, and that additional extraction limitations may be required.

Groundwater pressures are referenced to the top of the relevant aquifer. A local impact area is to be identified from a map of the piezometric surface change, showing seasonal, annual or longer patterns of drawdown or recovery in an aquifer.

39 Water quality management

- (1) The beneficial uses of these Groundwater Sources, based on the beneficial use classes identified in the Australian and New Zealand Environment and Conservation Council *Water Quality Guidelines 2001*, and the National Health and Medical Research Council *Raw Water for Drinking Purposes Guidelines 1996*, are
 - (a) ecosystem protection and agricultural water for the Shallow Groundwater Source, and

- (b) raw water for drinking, ecosystem protection and agricultural water for the Deep Groundwater Source.

Note. It is not recommended that the groundwater from these Groundwater Sources be consumed without prior treatment. Land use activities may have polluted the groundwater in some areas.

- (2) Water quality decline will be deemed unacceptable if extraction is likely to cause water quality to decline to a lower beneficial use class.
- (3) The Minister may declare that, in order to protect water quality within these Groundwater Sources, local access rules are to apply in a defined area known as a local impact area.
- (4) If unacceptable water quality declines are occurring, extraction from all water supply works (bores) within a local impact area declared under subclause (3) that are nominated by an access licence will be restricted to such an extent and for such a time as is required to halt that decline, or restore the beneficial uses of these Groundwater Sources.

40 Protection of groundwater dependent ecosystems

- (1) High priority groundwater dependent ecosystems are listed in Schedule 3.
- (2) Pursuant to section 45 (1) (b) of the Act, the Minister may identify further high priority groundwater dependent ecosystems and include them in Schedule 3, based on further studies of groundwater ecosystem dependency undertaken by the Minister.
- (3) The Minister should consult with the Minister for the Environment before adding further high priority groundwater dependent ecosystems to Schedule 3.
- (4) Extraction of groundwater from a new or replacement water supply work (bore) is excluded within 200 metres of designated high priority groundwater dependent ecosystems, or any creek or river, for those exercising basic landholder rights, and 1,000 metres for extraction authorised by all other access licences, unless the water supply work (bore):
 - (a) only draws water from an aquifer at depths as approved by the Minister, and
 - (b) has an impermeable seal constructed within the annulus of the bore to isolate aquifers preventing water ingress from the restricted aquifer, as specified by the Minister.
- (5) Subclause (4) will not apply to extraction from an existing water supply work (bore) until such time as the work is replaced.

41 Protection of aquifer integrity

- (1) The Minister may declare that, in order to protect the integrity of the aquifers within these Groundwater Sources, local access restrictions are to apply in a defined area known as a local impact area.
- (2) The Minister may, on presentation of evidence of land subsidence or aquifer compaction, restrict extraction from all water supply works (bores) within a local impact area declared under subclause (1), that are nominated by an access licence, to such an extent and for such time as to stabilise that subsidence or compaction.

Note. This clause recognises that damage of aquifers through excessive water storage loss is irreversible, and destroys the resource for future water users, including the environment.

42 Extraction restrictions

The Minister may, in the event of local impact restrictions arising from this Division, impose by Order a reduction in annual, quarterly, monthly, weekly or daily extraction rates from water supply works (bores) in the affected area.

43 Group registration

This Plan allows for the formation of a group of access licences with respect to the sharing of local impact restrictions arising from this Division, subject to the following rules:

- (a) the group register will be maintained by the Minister,
- (b) holders of access licences must make a request to the Minister to form a group,
- (c) total extraction by all access licences within a group will be assessed as a whole against their combined restricted extraction and must not exceed that amount,
- (d) no access licence holder within the group may extract more than is permitted by Division 2 of this Part in any one water accounting year as a result of participation in a group,
- (e) an access licence holder may apply to be removed by the Minister from the group and the extraction by the group will be reduced by the extraction restriction of that access licence,
- (f) an access licence holder may apply to be added by the Minister to the group and the combined restricted extraction of the group will be increased by the extraction restriction of that access licence, and

- (g) the Minister reserves the right to remove a licence holder from a group where that individual causes the group extraction restriction to be exceeded, or to dissolve a group where its members exceed their combined extraction restriction.

44 Infrastructure failure

- (1) The operational rules relating to local impact management may rely on water levels at specified monitoring bores.
- (2) In the event of a monitoring bore failure the Minister may:
 - (a) continue with the current access rules until the monitoring bore is reinstated,
 - (b) adjust the current access rules based on climatic conditions and any other monitoring bore information, until the monitoring bore is reinstated, or
 - (c) rely on another monitoring bore in the area to provide information.

Part 11 Access licence dealing rules

45 Access licence dealing rules

- (1) This Part is made in accordance with section 20 (1) (d) of the Act and with the Minister's access licence dealing principles gazetted under section 71Z of the Act.
- (2) Applications for access licence dealings may be granted subject to the Minister's access licence dealing principles gazetted from time to time under section 71Z of the Act and the rules in this Part.

Note. There are a number of mechanisms within the Act, called access licence dealings, to change either the ownership of all or part of an access licence, or the location within a water source at which all or part of the share and extraction components of access licences can be exercised. These dealings are governed by the principles in section 5 of the Act, Minister's access licence dealing principles, and the rules in this Part.

Note. Where there is an inconsistency between access licence dealing rules established in this Plan and Minister's access licence dealing principles gazetted subsequent to the commencement of this Plan, section 71Z of the Act provides for the Minister's access licence dealing principles to prevail.

46 Rules relating to constraints within a Groundwater Source

- (1) This clause applies to any relevant dealings under sections 71Q, 71S, and 71W of the Act, and section 71T of the Act with respect to water allocation assignments within a Groundwater Source.
- (2) Dealings are prohibited under this clause if:
 - (a) any of the access licences or water allocations involved are not within these Groundwater Sources, or
 - (b) the dealing would result in the total extraction under access licences through nominated works in an area, plus basic landholder rights extraction, causing any adverse local impact in accordance with Part 10 Division 3 of this Plan.

47 Rules for change of water source

- (1) This clause relates to dealings under section 71R of the Act.

Note. Section 71R dealings are the mechanism by which access licences can move from one water source to another. Once the change in water source has been effected, if permitted, the new licence will have to nominate specified works (by a dealing under section 71W of the Act) in the receiving water source before extraction can commence.
- (2) Dealings under this section 71R of the Act that change the water source to which an access licence applies are prohibited in these Groundwater Sources, except as provided for in this clause.

- (3) An access licence with a share component specifying one of these Groundwater Sources may be cancelled and a new licence issued specifying another of these Groundwater Sources only if the total share components of all access licences in the Groundwater Source in which the access licence is to be issued remains below:
 - (a) for the Shallow Groundwater Source: the recharge established in clause 14 (1) (a) minus the proportion of recharge reserved for the environment in clause 16 (1) (b),
 - (b) for the Deep Groundwater Source: the recharge established in clause 14 (1) (b) minus the proportion of recharge reserved for the environment in clause (16) (1) (c), minus total volume of share components for domestic and stock access licences established in clause 23 (b), minus the volume or share components for local water utilities as established clause 24 (b).
- (4) The volume of the share component on a licence issued under a dealing provided for in subclause (3) is to be the volume of the cancelled access licence share component.

48 Rules for conversion of access licence category

- (1) This clause relates to dealings under section 71O of the Act.
- (2) Dealings that result in conversion of an access licence of one category to an access licence of another category are prohibited in these Groundwater Sources.

49 Rules for interstate access licence transfer

- (1) This clause relates to dealings under section 71U of the Act.
- (2) Dealings that result in an interstate access licence transfer into or out of these Groundwater Sources are prohibited.

50 Rules for water allocation assignments between water sources

- (1) This clause relates to dealings under section 71T of the Act.
- (2) Dealings that assign water allocations between access licences in other water sources and access licences in these Groundwater Sources are prohibited.
- (3) Dealings that assign water allocations between an access licence in one of these Groundwater Sources and an access licence in another of these Groundwater Sources may be permitted only if:

- (a) the total water allocations credited to all access licences in the Groundwater Source to which the water allocation is assigned remain below the extraction limit of that Groundwater Source established in clause 28, and
- (b) the assignment would not result in the total extraction of credited water allocations through nominated works in an area, plus basic landholder rights extraction, causing any adverse local impact in accordance with Part 10 Division 3 of this Plan.

Note. Each water allocation assignment must be applied for. Access licence holders may enter into private contracts to assign water allocations for a number of years. Such contracts are not guaranteed by the Government, and approval must be sought annually. Approval will be subject to the rules in this Plan, including local impact assessment.

51 Rules for interstate assignment of water allocations

- (1) This clause relates to dealings under section 71V of the Act.
- (2) Dealings that result in an interstate assignment of water allocations to or from these Groundwater Sources are prohibited.

Part 12 Mandatory conditions

52 Mandatory conditions on access licences

This Part is made in accordance with sections 17 (c) and 20 (2) (e) of the Act.

53 Access licence conditions

- (1) All access licences shall have mandatory conditions to give effect to the provisions of this Plan in relation to the following:
 - (a) the specification of the share component of the access licence,
 - (b) the specification of the extraction component of the access licence,
 - (c) the requirement that all taking of water under the access licence will be subject to the available water determinations,
 - (d) the requirement that all taking of water under the access licence will be subject to any local impact management restrictions established in this Plan,
 - (e) the requirement that all taking of water under the access licence will be subject to the account management rules established in this Plan,
 - (f) the requirement that water may only be taken under the access licence by the water supply work (bore) nominated by the access licence,
 - (g) the taking of water in accordance with the access licence may only occur if the resulting debit from the access licence water allocation account will not exceed the volume of water allocation remaining in the account, and
 - (h) any other conditions required to implement the provisions of this Plan.
- (2) All local water utility access licences shall have mandatory conditions that only allow the taking of water for the exercise of a water supply function of the local water utility or for other such purpose provided for under the Act.
- (3) All access licences shall have mandatory conditions to give effect to clauses 38, 39 and 40, in relation to water level management, water quality management and protection of groundwater dependent ecosystems.

54 Mandatory conditions on water supply work (bore) approvals

All approvals for a water supply work (bore) to which this Plan applies shall have mandatory conditions in relation to the following:

- (a) the water supply work (bore) is only to be constructed by a driller licensed under section 349 of the Act,
- (b) the water supply work (bore) must comply with drilling standards as specified by the Minister,
- (c) construction of a water supply work (bore) must prevent contamination between aquifers through proper bore construction,
- (d) a water supply work (bore) approval holder must ensure decommissioning procedures comply with applicable standards as specified by the Minister,
- (e) a new or replacement water supply work (bore) to access water for basic rights will be required, as a condition of approval, to be constructed to sufficient depth to maintain access to the water source for the life of the work,
- (f) the water supply work (bore) approval holder is, within 2 months of completion of the work, or after the issue of the approval if the water supply work (bore) is existing, to provide the Minister with:
 - (i) details of the work on the prescribed form,
 - (ii) a plan showing accurately the location of the work in relation to portion and property boundaries, and
 - (iii) details of any water analysis and/or pumping tests required by the Minister,
- (g) if during the construction of the water supply work (bore), saline or contaminated water is encountered above the producing aquifer, such water is to be sealed off by:
 - (i) inserting the appropriate length(s) of casing to a depth sufficient to exclude the saline or contaminated water from the work, and
 - (ii) placing an impermeable seal between the casing(s) and the walls of the bore hole from the bottom of the casing to ground level, as specified by the Minister,
- (h) if a water supply work (bore) is abandoned, the water supply work (bore) approval holder is to:
 - (i) notify the Minister that the work has been abandoned, and

- (ii) seal off the aquifer by backfilling the work to ground level after withdrawing the casing (lining), as specified by the Minister,
- (i) an extraction measurement device shall be installed and maintained on each water supply work (bore) used for extraction of water under an access licence, and such device shall be of a type, and shall be maintained in a manner, which is acceptable to the Minister,
- (j) a water supply work (bore) must comply with the relevant local impact management rules in Part 10 of this Plan,
- (k) notwithstanding the available water determination, it is the responsibility of the water supply work (bore) approval holder to ascertain from the Minister whether or not there are in place any local impact restrictions before commencing to take water from these Groundwater Sources,
- (l) extraction under an access licence through the approved water supply work (bore) is only authorised with respect to the access licences specified on the water supply work (bore) approval,
- (m) a water supply work (bore) approval holder must supply to the Minister on request, and to the required standards, a report pertaining to the quality of the water obtained from the water supply work (bore), and
- (n) any other conditions required to implement the provisions of this Plan.

Note. It is recommended that the Minister also apply conditions to water use approvals requiring the supply of information on an annual basis on types and areas of irrigated crops.

Part 13 Monitoring and reporting

55 Monitoring

The monitoring of the performance indicators specified in clause 11 shall be undertaken by the Minister.

Note. Review and Audit of this Plan

In accordance with section 43A of the Act, the Natural Resources Commission must undertake a review of this Plan prior to any decision to extend its term or to make a new plan. The review must consider the extent to which the Plan's water sharing provisions have contributed to achieving or not achieving the State priorities for local land services relevant to natural resource management (as referred to in the *Local Land Services Act 2013*).

When undertaking this review the Natural Resources Commission is required to call for public submissions. The Commission will take into consideration any submission received as well as any other relevant State-wide or regional government policies or agreements that apply to the Local Land Services region.

In accordance with section 44 of the Act, this Plan will be audited at intervals of no more than five years, for the purpose of ascertaining whether its provisions are being given effect to. This audit is to be carried out by an audit panel appointed by the Minister in consultation with the water management committee, where one exists.

Part 14 Amendment of this Plan

56 Amendment of this Plan

- (1) This Part is made in accordance with section 45 (1) (b) of the Act.
- (2) This Plan can be amended in accordance with the following clauses of this Plan:
 - (a) clause 14 in respect to average annual recharge,
 - (b) clause 16 in respect to planned environmental water,
 - (c) clause 29 in respect to long-term average extraction limits,
 - (d) clause 36 in respect to the water allocation account management rules, or
 - (e) clause 40 in respect to high priority groundwater dependent ecosystems.

57 Amendment relating to planned environmental water

- (1) The Minister may amend this Plan to provide for the recovery of planned environmental water as follows:
 - (a) the recovery is only to apply where the Minister has cancelled an access licence held by the Minister in accordance with section 8A of the Act,
 - (b) the amount of additional water to be provided as planned environmental water is to be equivalent to the annual average extraction of water under the cancelled licence over the long-term,
 - (c) the average annual long-term availability of water for the remaining access licences that relate to the water source concerned is to be reduced by the average annual long-term extraction of water under the cancelled licence.
- (2) The Minister may amend this Plan to specify the purposes for which planned environmental water committed under section 8A of the Act is to be used.

Schedule 1 Dictionary

The following definitions apply to this Plan in addition to the definitions set out in the Act:

abandoned (work) refers to a water supply work (bore) that is no longer being used.

aquifer compaction refers to the reduction in the porosity (pore spaces) of an aquifer, and may result from over pumping the aquifer.

available head is the difference between the depth to the top of the target aquifer, and an initial piezometric level.

available water in relation to a water management area or water source, is the water that is available in that area or water source in accordance with an available water determination that is in force in respect of that area or water source.

available water determination is a written Order by the Minister as to the availability of water for the various categories of access licence in relation to a specified water management area or water source.

Note. An available water determination gives rise to a water allocation that is credited to a water allocation account for each licensed holder.

bedrock is the solid rock underlying unconsolidated sediments such as the soil and weathered rock. Bedrock is a general term for solid rock that lies beneath soil, loose sediments, or other unconsolidated material.

buffer zone is an area surrounding a groundwater dependent ecosystem or other feature (such as an area of low quality) within which extraction, or the impact of extraction, is restricted.

contoured drawdown or recovery depths refers to spatial water levels data indicating drawdown or lack of recovery.

drawdown refers to 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.

extraction limit is the amount of the long-term average annual recharge and storage that can be extracted, on average, each water accounting year.

groundwater is water that occurs beneath the ground surface in the saturated zone.

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

long term average storage component is the volume of water in the aquifer less the combined average annual recharge and requirements for basic rights at the commencement of this Plan.

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

piezometric surface (potentiometric surface) is a surface that represents the level to which water will rise in cased bores. (The watertable is the potentiometric surface of an unconfined aquifer).

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

recovery depths see contoured drawdown

share component is the share component of an access licence.

unconsolidated alluvial aquifers are aquifers formed by sediment deposited by the action of flowing water in particular along river beds and floodplains, but not including lakes and seas.

water year is a 12 month period from 1 July to 30 June.

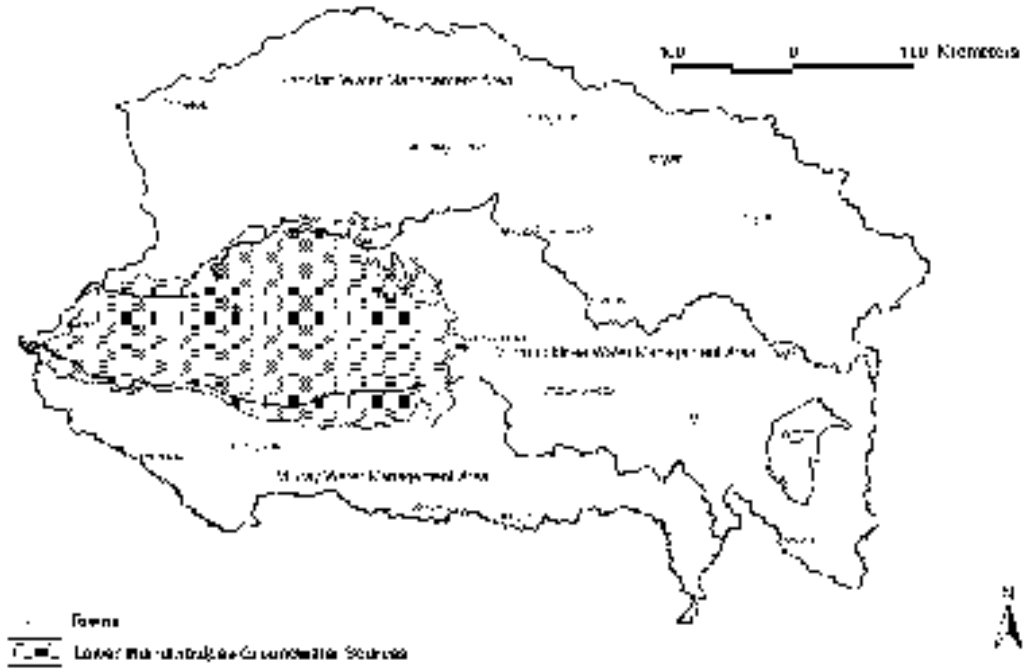
watertable is the upper surface of an unconfined aquifer.

Schedule 3 High priority groundwater dependent ecosystems

High priority groundwater dependent ecosystems in the Lower Murrumbidgee Groundwater Sources are, 'Prior streams' as shown on Sheet 1 of 3 drawings accompanying in the *Murrumbidgee Local Environment Plan 1994*.

Note. The high priority groundwater dependant ecosystems listed in this Schedule may change during the period of this Plan. The offices of the Department of Land and Water Conservation, shown in Appendix 2, should be contacted for a current list.

Appendix 1 Murrumbidgee, Lachlan and Murray Water Management Areas



Appendix 2 Location of maps

The maps in relation to this Plan may be inspected at:

Department of Industry, Water
7161 Olympic Highway
WAGGA WAGGA NSW 2650

Department of Industry, Water
449 Charlotte Street
DENILIQUIN NSW 2710

Department of Industry, Water
126 Lachlan Street
HAY NSW 2711