

Water Sharing Plan for the Lachlan Regulated River Water Source 2003

[2003-180]



New South Wales

Status Information

Currency of version

Historical version for 14 September 2012 to 20 December 2012 (accessed 16 August 2024 at 22:30)

Legislation on this site is usually updated within 3 working days after a change to the legislation.

Provisions in force

The provisions displayed in this version of the legislation have all commenced.

Notes—

- **Note**

In incorporating the amendments made by the *Water Management (Minister's Plans) Order No 2 of 2004*, published in Gazette No 110 of 1.7.2004, p 5072, changes have been made to the numbering of some of the provisions to maintain appropriate numerical or alphabetical order.

Authorisation

This version of the legislation is compiled and maintained in a database of legislation by the Parliamentary Counsel's Office and published on the NSW legislation website, and is certified as the form of that legislation that is correct under section 45C of the [Interpretation Act 1987](#).

File last modified 14 September 2012

Water Sharing Plan for the Lachlan Regulated River Water Source 2003



New South Wales

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Water Sharing Plan for the Lachlan Regulated River Water Source 2003



New South Wales

Part 1 Introduction

1 Name of plan

This Plan is the *Water Sharing Plan for the Lachlan Regulated River Water Source 2003* (hereafter **this Plan**).

2 Nature and status of this Plan

- (1) This Plan is made under section 50 of the *Water Management Act 2000* as amended (hereafter **the Act**).
- (2) This Plan covers the core provisions of section 20 of the Act for water sharing, and additional provisions of section 21 of the Act, and other relevant matters.

3 Date of commencement

This Plan takes effect on the 1 July 2004 and ceases 10 years after that date.

4 Water source and waters to which this Plan applies

- (1) The water source in respect of which this Plan is made is that between the banks of all rivers, from the upper limits of Wyangala Dam water storage downstream to the junction of the Lachlan River with the Murrumbidgee, which, at the date of commencement of this Plan, have been declared by the Minister to be regulated rivers.

Note—

A regulated river is a river that has been declared by the Minister, by order published in the New South Wales Government Gazette, to be a regulated river.

Note—

The regulated rivers referred to in subclause (1) are listed in Appendix 1.

- (2) The water source shall be known as the Lachlan Regulated River Water Source (hereafter **this water source**).

- (3) The rivers included in this water source may be varied under section 45 (1) (b) of the Act as set out in Part 14 of this Plan.
- (4) This water source is within the Lachlan Water Management Area as constituted by the Ministerial order published in the NSW Government Gazette (hereafter **the Gazette**) on 23 November 2001.

Note—

The Lachlan Water Management Area is shown on the map in Appendix 2.

- (5) This Plan applies to all waters contained within this water source but does not apply to waters contained within aquifer water sources underlying this water source or to water on land adjacent to this water source.

Note—

Management of floodplain harvesting is not a component of this water sharing plan. Management of floodplain harvesting will occur according to a number of state-wide management principles, attached in Appendix 3.

5 Interpretation

- (1) Terms that are defined in the Act have the same meaning in this Plan and the effect of these terms may be explained in Notes.
- (2) Additional terms are defined in Schedule 1.
- (3) Notes in the text of this Plan do not form part of this Plan.
- (4) Schedules to this Plan form part of this Plan.
- (5) Appendices to this Plan do not form part of this Plan.

6 Effect on licences, authorities and permits under the [Water Act 1912](#)

- (1) This Plan applies from the date of commencement to those matters that are administered under the Act at that time.
- (2) This Plan applies to other matters from the date the relevant provisions of the Act are commenced.

Note—

To the extent possible, the rules embodied in this Plan apply to matters administered under the [Water Act 1912](#) in the interim.

7 State Water Management Outcomes Plan

- (1) In accordance with section 16 (1) (a) of the Act this Plan is consistent with the State Water Management Outcomes Plan published in the Gazette on 20 December 2002 (hereafter **the SWMOP**).

- (2) Schedule 2 identifies the SWMOP targets applicable to this Plan and how this Plan contributes to meeting those targets.

Part 2 Vision, objectives, strategies and performance indicators

8 Vision, objectives, strategies and performance indicators

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

9 Vision

The vision for this Plan is to achieve a healthy Lachlan River that provides a dynamic and sustainable environment for native plants and animals, that is enjoyed and valued by the community and that is managed for the socio-economic interest of the people of the Lachlan catchment.

10 Objectives

The objectives of this Plan are to:

- (a) maintain or restore the key environmental features of the Lachlan River system by a river flow regime that, as much as possible, mimics natural conditions in order to make provision for the following outcomes:
 - (i) a diversity of natural in-stream and riparian habitat and biota,
 - (ii) the restoration, by naturally triggered flooding, of the riverine floodplain to its previous rich mosaic of ecosystems,
 - (iii) the improved health and function of wetlands as frequency and duration of inundation is restored,
 - (iv) an abundance and diversity of native aquatic species,
 - (v) an abundance and diversity of native water birds,
 - (vi) the restoration of water quality that supports aquatic ecosystems, and
 - (vii) the recovery of threatened species, communities and populations,
- (b) make provisions for access for extraction by towns, riparian landholders, irrigation and other industry for the benefit of rural communities in the Lachlan River system by providing for the following outcomes:
 - (i) a supply of water to provide for the needs of rural communities,
 - (ii) the specification and provision of basic landholder rights,
 - (iii) a water allocation system, which clarifies resource access, and enables flexibility and efficiency within climatic variability, and

- (iv) the maintenance and enhancement of recreational opportunities based on water features,
- (c) provide water to ensure that the social needs and amenity values of the Lachlan Valley community, that are reliant upon water, continue to be met by providing for the following outcomes:
 - (i) supplies of water that deliver a range of recreational and amenity opportunities,
 - (ii) that aesthetic values are maintained, and
 - (iii) water management that recognises social impacts,
- (d) water management that recognises, respects and incorporates the spiritual, economic and aesthetic values of the water source to provide for the following outcomes:
 - (i) the recognition and protection of the traditional rights of Aboriginal people,
 - (ii) protection of sacred sites,
 - (iii) the maintenance of traditional rights of access to birds, fish, crustacea and other traditional foods, and
 - (iv) the protection of the cultural, spiritual and identity aspects of rivers and wetlands.

Note—

Although there are no specific strategies directly related to this objective in this Plan, the environmental water provisions in the Plan contribute to providing the specified outcomes.

11 Strategies

The strategies for reaching the objectives set out in clause 10 are to:

- (a) establish environmental water provisions (Part 3 of this Plan),
- (b) identify water requirements for basic landholder rights (Part 4 of this Plan),
- (c) identify water requirements for access licences (Part 6 of this Plan),
- (d) establish rules for granting of access licences (Part 7 of this Plan),
- (e) establish provisions that place limits on the availability of water (Part 8 of this Plan),
- (f) establish rules for making available water determinations (Part 8 of this Plan),
- (g) establish rules for the operation of water accounts (Part 9 of this Plan),
- (h) establish provisions specifying circumstances under which water may be extracted (Part 9 of this Plan), and
- (i) establish access licence dealing rules (Part 10 of this Plan).

12 Performance indicators

The following indicators are to be used to determine the performance of this Plan against its objectives:

- (a) change in ecological condition of this water source and dependent ecosystems,
- (b) change in low flow regime,
- (c) change in moderate to high flow regime,
- (d) change in water quality in this water source,
- (e) extent to which domestic and stock rights requirements have been met,
- (f) extent to which local water utility requirements have been met,
- (g) change in economic benefits derived from water extraction and use,
- (h) extent of recognition of spiritual, social and customary values of water to Aboriginal people, and
- (i) extent to which native title rights have been met.

Note—

Appendix 4 details the objectives to which these performance indicators relate and the methods for assessing indicators.

Part 3 Environmental water provisions

13 Environmental water provisions

This Part is made in accordance with sections 5 (3), 8 (1), 8 (2) and 20 (1) (a) of the Act.

14 Planned environmental water

This Plan establishes the following planned environmental water rules:

- (a) water volume in excess of the long-term extraction limit established in clause 31 of this Plan may not be taken from this water source and used for any purpose, and
- (b) water availability is to be managed as specified in clause 33 of this Plan to ensure water volume in excess of the long-term extraction limit is not being taken.

Note—

By limiting long-term average extractions to an estimated 305,000 ML/year this Plan ensures that approximately 75% of the long-term average annual flow in the water source (estimated to be 1,212,000 ML/year) will be preserved and will contribute to the maintenance of basic ecosystem health.

15 Planned environmental water

- (1) This Plan establishes the following planned environmental water rules for the management of translucent releases from Wyangala Dam water storage:
- (a) translucent releases may be made from Wyangala Dam during the period 15 May to 15 November, only if the inflows to Wyangala Dam water storage since 1 January that calendar year have exceeded 250,000 megalitres,
 - (b) translucent releases under subclause (1) (a) are to be made when the combination of Wyangala Dam inflows plus downstream tributary inflows would be sufficient to produce a flow downstream of Lake Brewster of greater than:
 - (i) 4,000 megalitres per day (hereafter **ML/day**) when the volume of water held in Wyangala Dam water storage is less than or equal to 50% of the full supply volume, or
 - (ii) 3,500 ML/day when the volume of water held in Wyangala Dam water storage is more than 50% of the full supply volume,
 - (c) the translucent release from Wyangala Dam is to be the lesser of the inflow to Wyangala Dam water storage and the release necessary to achieve a flow at Lake Brewster Weir of :
 - (i) 4,000 ML/day plus 25 ML/day for each 1% by which the volume of water held in Wyangala Dam water storage exceeds 0% of the full supply volume, when the volume of water held is less than or equal to 50% of the full supply volume,
 - (ii) 3,500 ML/day plus 31.25 ML/day for each 1% by which the volume of water held in Wyangala Dam water storage exceeds 0% of the full supply volume, when the volume of water held is greater than 50% of the full supply volume but less than or equal to 80% of the full supply volume, and
 - (iii) 6,000 ML/day plus 100 ML/day for each 1% by which the volume of water held in Wyangala Dam water storage exceeds 80% of the full supply volume,

Note—

Subclause (1) (c) (iii) results in the maximum release from Wyangala Dam when it is full being the release necessary to achieve a flow at Lake Brewster Weir of 8000 ML/day.

- (d) translucent releases under subclause (1) (a) are only to be made when the sum of flows that have passed downstream of Lake Brewster Weir (measured at Brewster Weir) since the 1 June of that year are less than 350,000 megalitres plus the sum of the following over the same period:
 - (i) downstream water orders and any losses associated with delivery of these water orders,

- (ii) replenishment flows to effluent rivers downstream of Lake Brewster Weir and any losses downstream of Lake Brewster Weir associated with delivery of these replenishment flows,
- (iii) any flow volume downstream of Lake Brewster Weir resulting from airspace releases under clause 65, and
- (iv) any flow volume downstream of Lake Brewster Weir resulting from releases made pursuant to 15 (2) (c) or 15 (3) (c),
- (e) tributary inflows occurring at any time that the translucent releases conditions under subclauses (1) (a), (1) (b) and (1) (d) are satisfied are not to be used for extractive purposes or diverted to, or stored in, any weirs or water storages except to the extent that they are in excess of the flow required to satisfy the flow rate downstream of Lake Brewster that results from the calculation in subclause (1) (b),

Note—

If flows are insufficient to satisfy subclause (1) (b), or the conditions specified in subclauses (a) or (d) are not met, tributary inflows may be diverted and stored in Lake Cargelligo or Lake Brewster, consistent with normal operational management.

- (f) water flows required to meet translucent release flow targets in subclause (1) (c) are not to be taken or used for any other purpose,
- (g) releases of water from Lake Cargelligo and Lake Brewster may be substituted for all or part of the translucent releases from Wyangala Dam specified in this clause if making the translucent releases from Wyangala Dam is likely to cause flooding,
- (h) water released in accordance with subclause (1) (g) from Lake Brewster shall be accounted for as flow passing downstream of Lake Brewster Weir under subclause (1) (d), and
- (i) in the event that the release capacity of Wyangala Dam is insufficient to provide the release as specified in subclause (1) (c) plus the releases required to satisfy access licence orders, then:
 - (i) releases are to equal the release capacity,
 - (ii) water is to be permitted to be taken in accordance with access licence water orders,
 - (iii) the portion of the required translucent release which has not been supplied is to be calculated as the total release minus the release made to satisfy access licence holder demands,
 - (iv) the volumes calculated under subclause (1) (i) (iii) are to be accrued and released at the earliest opportunity, and

- (v) releases under subclause (1) (i) (iv) are not to be subject to the requirements of subclauses (1) (a), (1) (b) and (1) (c).
 - (j) a review of the requirement, in subclause (1) (a), that inflows to Wyangala Dam water storage since 1 January in a calendar year must have exceeded 250,000 megalitres before translucent releases may be made, is to :
 - (i) be carried out by the Minister before the end of year 5 of this Plan, and
 - (ii) assess the environmental and socio-economic impacts of reductions in the required volume of inflow, and
 - (k) subclause (1) (a) may be varied under section 45 (1) (b) of the Act and as set out in Part 14 of this Plan.
- (2) This Plan establishes the following planned environmental water rules for the management of an environmental contingency allowance held in Wyangala Dam water storage (hereafter **the WECA**) and management of an environmental contingency allowance held in Lake Brewster (hereafter **the LBECA**):
- (a) accounts of the water credited to and released from the WECA and LBECA are to be kept,
 - (b) 10,000 megalitres is to be credited to the WECA account and 10,000 megalitres is to be credited to the LBECA account:
 - (i) on 1 July each year, if the total volume of water in the water allocation accounts of regulated river (general security) access licences exceeds 50% of the total volume of regulated river (general security) access licence share components, or
 - (ii) if no crediting under subclause (2) (b) (i) occurred on 1 July of that water year, when the sum of the volume of water in the water allocation accounts of regulated river (general security) access licences at 1 July, plus the volume of water provided by available water determinations for those licences during the water year, is equivalent to 75% of total regulated river (general security) share components,
 - (c) water credited to the WECA and LBECA accounts may be released for ecological purposes, including, but not limited to, completion of waterbird breeding events, promotion of fish breeding, promotion of fish passage, wetland watering and increasing flow variability,
 - (d) rules determining the volume and timing of releases of water credited to the WECA and LBECA accounts shall be specified in accordance with procedures established by the Minister,
 - (e) the volume of LBECA available for release from Lake Brewster at any time shall be

the lesser of the volume of credit remaining in the LBECA account and the active storage in Lake Brewster, and

- (f) any credits remaining in the WECA and LBECA accounts are to be forfeited at the end of each water year.

Note—

It is not possible to forecast when releases of water from the WECA and LBECA will be required, as releases occur in response to unpredictable environmental circumstances. To allow estimation of the effect of the WECA and LBECA rules on water extractions computer modelling has assumed that a total of 5,000 megalitres of WECA and of LBECA were released at the end of each years when there was water in the accounts. It is expected that, over the life of the Plan average releases from each account would not exceed these figures.

- (3) This Plan establishes the following planned environmental water rules for the management of a water quality allowance (hereafter **the WQA**):
 - (a) an account of the water credited to and released from the WQA is to be kept,
 - (b) 20,000 megalitres is to be credited to the WQA account on 1 July each year,
 - (c) water credited to the WQA may be released for any water quality management purpose, but in particular for reduction of salinity levels and mitigation of blue-green algae impacts,
 - (d) rules determining the volume and timing of releases of water credited to the WQA account shall be specified in accordance with procedures established by the Minister, and
 - (e) any credits remaining in the WQA accounts are to forfeit at the end of each water year.

16 Adaptive environmental water

- (1) At any time an access licence holder may, by a process determined by the Minister, commit all or part of their licence as adaptive environmental water.
- (2) The Minister may grant an access licence in a water source to which this Plan applies if the licence is subject to an adaptive environmental water condition and arises through water savings in the system made in that water source as referred to in section 8C (1) of the Act.
- (2A) The Minister may change the category or subcategory of an access licence in a water source to which this Plan applies if the licence is subject to an adaptive environmental water condition that arises through water savings as referred to in section 8D of the Act.
- (3) At the commencement of this Plan there are no access licences committed to an

environmental purpose in accordance with section 8 (1) (c) of the Act.

Part 4 Basic landholder rights

17 Basic landholder rights

This Part is made in accordance with sections 5 (3) and 20 (1) (b) of the Act.

18 Domestic and stock rights

Note—

Water from this water source should not be consumed without prior treatment, which is adequate to ensure its safety.

- (1) At the commencement of this Plan the water requirements of holders of domestic and stock rights are estimated to be 4,211 megalitres per year (hereafter **ML/year**).
- (2) This Plan recognises that the exercise of domestic and stock rights may increase during the term of this Plan.

Note—

Increase in use of domestic and stock rights may occur as a result of an increase in the number of landholdings fronting this water source or as a result of an increase in the exercise of domestic and stock rights on existing landholdings.

- (3) The water supply system shall be managed so that it would be capable of maintaining supply to those exercising domestic and stock rights through a repeat of the worst period of low inflows to this water source, as represented in flow information held by the Department.
- (4) To achieve subclause (3), sufficient volumes of water must be set aside from assured inflows into the water source and in reserves held in Wyangala Dam water storage or other water storages.

Note—

The Minister may issue an order under section 328 of the Act to restrict the exercise of domestic and stock basic rights from the water source to protect the environment, for reasons of public health, or to preserve basic landholder rights.

19 Native title rights

Note—

Water from this water source should not be consumed without prior treatment, which is adequate to ensure its safety.

- (1) At the commencement of this Plan there are no holders of native title rights in this water source and therefore native title rights are 0 ML/year.
- (2) This Plan recognises that native title rights may increase during the term of this Plan.

Note—

Increase in native title rights may occur as a result of the granting of native title rights under the Commonwealth *Native Titles Act 1993*.

- (3) The water supply system shall be managed so that it would be capable of maintaining supply to those exercising native title rights through a repeat of the worst period of low inflows to this water source represented in flow information held by the Department
- (4) To achieve subclause (3), sufficient volumes of water must be set aside from assured inflows into the water source and reserves held in Wyangala Dam water storage or other water storages.

Part 5 Bulk access regime

20 Bulk access regime

- (1) This Part is made in accordance with section 20 (1) (e) of the Act.
- (2) This Plan establishes a bulk access regime for the extraction of water under access licences in this water source having regard to:
 - (a) the environmental water provisions established under Part 3 of this Plan,
 - (b) the requirements for basic landholder rights identified under Part 4 of this Plan, and
 - (c) the requirements for water for extraction under access licences identified under Part 6 of this Plan.
- (3) The bulk access regime established under subclause (2):
 - (a) establishes rules according to which access licences are granted as provided for in Part 7 of this Plan,
 - (b) recognises and is consistent with the limits to the availability of water as provided for in Part 8 of this Plan,
 - (c) establishes rules according to which available water determinations are to be made as provided for in Part 8 of this Plan,
 - (d) recognises the effect of climatic variability on the availability of water as provided for in Part 8 of this Plan,
 - (e) establishes rules with respect to the priorities according to which access licences are to be adjusted as a consequence of any reduction of the availability of water as provided for in Part 8 of this Plan, and
 - (f) establishes rules according to which access licences are managed as provided for

in Part 9 of this Plan.

Part 6 Requirements for water under access licences

21 Requirements for water under access licences

This Part is made in accordance with section 20 (1) (c) of the Act.

Note—

The following clauses in this Part represent the total volumes specified in the share components of access licences in this water source. There is no commitment to make these volumes available. The actual volumes available at any time will depend on climate, access licence priority and the rules in this Plan.

22 Share component of domestic and stock access licences

It is estimated that at the time of commencement of Part 2 of Chapter 3 of the Act, the share components of domestic and stock access licences authorised to extract water from this water source will total 13,100 megalitres per year.

23 Share component of local water utility access licences

It is estimated that at the time of commencement of Part 2 of Chapter 3 of the Act, the share components of local water utility access licences authorised to extract water from this water source will total 15,539 megalitres per year.

24 Share component of regulated river (high security) access licences

It is estimated that at the time of commencement of Part 2 of Chapter 3 of the Act, the share components of regulated river (high security) access licences authorised to extract water from this water source will total 26,472 unit shares.

25 Share component of regulated river (general security) access licences

It is estimated that at the time of commencement of Part 2 of Chapter 3 of the Act, the share components of regulated river (general security) access licences authorised to extract water from this water source will total 592,847 unit shares.

26 Share component of regulated river (conveyance) access licences

It is estimated that at the time of commencement of Part 2 of Chapter 3 of the Act, the share components of regulated river (general security) access licences authorised to extract water from this water source will total 17,911 unit shares.

27 Share component of supplementary water access licences

There shall be no supplementary water access licences authorised to extract water from this water source.

28 Changes to total share component

This Plan recognises that total requirements for water under access licences in each access licence category may change during the term of this Plan as a result of:

- (a) the granting, surrender, cancellation or non renewal of access licences, or
- (b) variations to local water utility access licences arising from section 66 of the Act.

Part 7 Rules for granting access licences

29 Rules for granting access licences

- (1) This Part is made in accordance with section 20 (2) (b) and 63 of the Act.
- (2) Access licences may be granted in this water source, subject to any embargo on the making of applications for access licences made under Chapter 3 Part 2 Division 7 of the Act.
- (3) The Minister should declare an embargo on the making of applications for access licences in this water source, other than for access licences of the following kinds:
 - (a) local water utility access licences,

Note—

Pursuant to sections 66 (3) and 66 (4) of the Act, the Minister may also vary a local water utility's share component at 5 year intervals, or on application of the local water utility where there is a rapid growth in population.

- (b) domestic and stock access licences,
 - (c) regulated river (high security) (Aboriginal cultural) access licences of up to 10 megalitres per year per application, or
 - (d) specific purpose access licences for which applications are provided for under the regulations in accordance with section 61 (1) (a).
- (4) In applying for a new access licence, the applicant must establish the purpose and circumstances relating to that access licence, and that the share component sought will be the minimum required to meet that purpose and circumstances.
 - (5) Subclause (4) does not apply to an application for a new access licence arising from:
 - (a) section 61 (1) (c) of the Act, where the right has been acquired by auction, tender or other open market process, or
 - (b) an access licence dealing.

Part 8 Limits to the availability of water

Division 1 Long-term extraction limit

30 Limit to the availability of water

This Division is made in accordance with section 20 (2) (a) of the Act.

31 Volume of the long-term extraction limit

- (1) This Plan establishes a long-term extraction limit for this water source which is the lesser of:
- (a) the long-term average annual extraction from this water source that would occur with:
 - (i) the water storages, private water management infrastructure, cropping mix that existed in 1999/2000,
 - (ii) the share components existing at the time of commencement of this Plan,
 - (iii) the maximum crop area and the crop planting behaviour adopted as representative of baseline conditions used for assessment of Cap under Schedule F of the Murray Darling Basin Agreement, and
 - (iv) application of the water management rules defined in this Plan, or
 - (b) the long-term average annual extraction from this water source that would occur under the baseline conditions used for assessment of the Cap under Schedule F of the Murray Darling Basin Agreement.

Note—

The baseline conditions used for assessment of the Cap under Schedule F of the Murray Darling Basin Agreement means the level of water resource development at June 1994.

Note—

An estimate of the long-term average annual extraction that would occur under the conditions specified under subclause (1) (a) has been made by the Department using the Lachlan IQQM computer model scenario run number E229. This indicated a long-term average annual extraction volume of approximately 305,000 megalitres.

Note—

An assessment of the long-term average annual extractions that would result from the baseline conditions in subclause (b) has been made using the Lachlan IQQM computer model scenario run number C071A. This indicated a long-term average annual extraction volume of approximately 315,000 megalitres.

Note—

The long-term extraction limit recognises the effect of climatic variability on the availability of water, in

accordance with section 20 (2) (c) of the Act, as historic climate and river flow information is used in its determination.

- (2) The values referred to in subclauses (1) (a) and (1) (b) shall be adjusted for any access licence dealings under section 71R of the Act.
- (3) For the purposes of establishing the long-term extraction limit and auditing compliance with it, the following shall be included:
 - (a) all water extractions by holders of all categories of access licences in accordance with the rules used for accounting of Cap diversions for Schedule F of the Murray Darling Basin Agreement,
 - (b) domestic and stock rights and native title rights extractions,
 - (c) volumes of water delivered as adaptive environmental water,
 - (d) floodplain harvesting extractions determined to be taken for use in conjunction with extractions from this water source, and
 - (e) water allocations assigned from the water allocation accounts of access licences in this water source to the water allocation accounts of access licences in other water sources.
- (4) For the purposes of establishing the long-term extraction limit and auditing compliance with it,
 - (a) the assessed volume of extractions shall be reduced by the volume of water allocations being assigned from the water allocation accounts of access licences in any other water source to the water allocation accounts of access licences in this water source, and
 - (b) the following shall not be included:
 - (i) replenishment flows made in accordance with this Plan, or
 - (ii) diversion of water pursuant to the planned environmental water rules in Part 3 of this Plan.

32 Assessment of the long-term extraction limit and current long-term average annual extraction

- (1) Assessment of the long-term extraction limit and the current long-term average annual extraction shall be carried out after the end of each water year, using the hydrologic computer model that, at the time, is approved by the Department for assessing long-term water extraction from this water source.
- (2) To assess the long-term extraction limit, the model referred to in subclause (1) shall be set to represent as closely as possible the conditions referred to in clauses 31 (1)

(a) and 31 (1) (b).

- (3) To assess the current long-term average annual extraction from this water source, the model referred to in subclause (1) shall be set to represent as closely as possible all water use development, water supply system management and other factors affecting the quantity of long-term average annual water extraction from this water source at the time of the assessment.
- (4) Any advice provided by the Compliance Assessment Advisory Committee, if one has been established under clause 34, should be considered in relation to assessments under subclause (1).

33 Maintaining compliance with the long-term extraction limit

- (1) The long-term average annual extraction from this water source shall not be permitted to exceed the long-term extraction limit specified in clause 31.
- (2) Pursuant to subclause (1), the maximum volume that may be taken under a regulated river (general security) access licences during any water year shall be reduced, by reducing the value of X referred to in clause 35, if:
 - (a) it has been assessed that the current long-term average annual water extraction from the water source exceeds the long-term extraction limit specified in clause 31 (1) by:
 - (i) 3% of the long-term extraction limit specified in clause 31 (1), or
 - (ii) half the difference between the volume specified in clause 31 (1) (a) and the volume specified in clause 31 (1) (b), or
 - (b) it has been assessed that the current long-term average annual water extraction from the water source exceeds the volume specified in clause 31 (1) (b), or
 - (c) assessments in accordance with clause 32 for 3 consecutive water years indicate that the current long-term average annual water extraction from the water source exceed the long-term extraction limit.
- (3) The degree of reduction under subclause (2) shall be the degree that is assessed necessary to return the long-term average annual extraction from this water source to the long-term extraction limit.
- (4) The assessment of the degree of reduction required under subclause (2) shall be made using the same computer model used to carry out assessments of extractions compared to the long-term extraction limit under clause 32.
- (5) Any advice provided by a Compliance Assessment Advisory Committee, if one has been established under clause 34, should be considered in relation to assessments under subclause (4).

- (6) If an assessment under clause 32 indicates that current long-term average annual extraction is below the long-term extraction limit by more than 3%, then the maximum annual volume that may be taken under a regulated river (general security) access licences during any water year, may be increased to the degree that it is assessed necessary to return long-term average annual extraction to the long-term extraction limit by increasing the value of X referred to in clause 35.
- (7) The assessment of the degree of increase under subclause (6) shall be made using the same computer model used to carry out assessments of usage compared to the long-term extraction limit under clause 32.
- (8) Any advice provided by a Compliance Assessment Advisory Committee, if one has been established under clause 34, should be considered in relation to assessments under subclause (7).

34 Compliance Assessment Advisory Committee

- (1) The Minister should establish a Compliance Assessment Advisory Committee under section 388 of the Act for the purpose of providing advice regarding assessments under clauses 32 and 33.
- (2) In providing its advice the Compliance Assessment Advisory Committee should consider possible improvements to:
 - (a) the process for assessing current long-term average annual extractions,
 - (b) the computer model referred to in clause 32,
 - (c) the data used in the computer model referred to in clause 32, and
 - (d) the effect of any actions taken in accordance with subclauses 33 (2) and 33 (6).
- (3) Membership of the Compliance Assessment Advisory Committee should be for a period of 5 years and should consist of the following:
 - (a) a person representing the Department,
 - (b) a person representing the State Water arm of the Department, or its successor,
 - (c) a person representing NSW Agriculture, or its successor,
 - (d) no more than 3 persons representing the irrigation industry,
 - (e) a person representing local government,
 - (f) a person representing the National Parks and Wildlife Service, Environment Protection Authority or NSW Fisheries, or their successors,
 - (g) a person representing nature conservation interests, and

(h) other members as required by the Minister.

35 Limit to the annual volume that may be taken under or assigned from regulated river (general security) access licences

- (1) The maximum volume that may be taken under a regulated river (general security) access licence during any water year shall be:
 - (a) X megalitres per unit share, where X is determined in accordance with clause 33, subject to the provisions of subclause (2) and subclause (3),
 - (b) plus the volume of water assigned to the access licence account from the A sub-account of any regulated river (general security) access licence during that water year,
 - (c) plus the volume of water assigned to the access licence account from the account of an access licence of any category other than regulated river (general security) during that water year,
 - (d) minus the volume of water assigned from the A sub-account of the access licence to the account of any other access licence.
- (2) X in subclause (1) may not exceed 1 megalitre per unit share.
- (3) X in subclause (1) shall be 0.75 megalitres per unit share for the 2004/2005 water year.

Division 2 Available water determinations

36 Available water determinations

- (1) This Division is made in accordance with section 20 (2) (b) of the Act.
- (2) All available water determinations in this water source shall be expressed as:
 - (a) a percentage of the share component, for all categories of access licence where share components are specified as megalitres per year,
 - (b) megalitres per unit share for all regulated river (high security) access licences and regulated river (conveyance) access licences, and
 - (c) as a volume to be distributed to all regulated river (general security) in proportion to the number of unit shares in the share component of each licence after making allowance for the effect of any water allocation account limits or other relevant provisions in Part 9, Division 2 of this Plan.
- (3) In making available water determinations under section 59 of the Act for access licences with share components that specify this water source, the Minister should consider the requirements of this Division.

37 Available water determinations for domestic and stock access licences

- (1) The water supply system shall be managed so that available water determinations for domestic and stock access licences of 100% of share components can be maintained through a repeat of the worst period of low inflows to this water source, represented in flow information held by the Department.
- (2) Sufficient volumes of water must be set aside from assured inflows into the water source and reserves held in Wyangala Dam water storage or other water storages to provide for subclause (1).
- (3) The available water determination for domestic and stock access licences made for the commencement of each water year shall be 100% of share components whenever possible.
- (4) The sum of available water determinations made for domestic and stock access licences in any water year shall not exceed 100% of share components.
- (5) This Plan recognises that the water requirement of domestic and stock access licences may increase during the term of the Plan in accordance with clause 29.
- (6) The volumes of water set aside from assured inflows into this water source and reserves held in Wyangala Dam water storage or other water storages shall be adjusted as required over the course of this Plan, if necessary to do so to ensure subclause (1) is satisfied.

38 Available water determinations for local water utility access licences

- (1) The water supply system shall be managed so that available water determinations for local water utility access licences of 100% of share components can be maintained through a repeat of the worst period of low inflows to this water source, represented in flow information held by the Department.
- (2) Sufficient volumes of water must be set aside from assured inflows into the water source and reserves held in Wyangala Dam water storage or other water storages to provide for subclause (1).
- (3) The available water determination for local water utility access licences made for the commencement of each water year shall be 100% of share components whenever possible.
- (4) The sum of available water determinations made for local water utility access licences in any water year shall not exceed 100% of share components.
- (5) The Plan recognises that the water requirement of local water utility access licences may increase during the term of the Plan in accordance with clause 29 and section 66 of the Act.

- (6) The volumes of water set aside from assured inflows into the water source and reserves held in Wyangala Dam water storage or other water storages shall be adjusted as required over the course of this Plan, if necessary to do so, to ensure subclause (1) is satisfied.

39 Available water determinations for regulated river (high security) access licences

- (1) The water supply system shall be managed so that available water determinations for regulated river (high security) access licences of 1 megalitre per unit share can be maintained through a repeat of the worst period of low inflows to this water source represented in flow information held by the Department.
- (2) Sufficient volumes of water must be set aside from assured inflows into the water source and reserves held in Wyangala Dam water storage or other water storages to provide for subclause (1).
- (3) The available water determination for regulated river (high security) access licences made for the commencement of each water year shall be 1 megalitre per unit share whenever possible.
- (4) If the available water determination made under subclause (3) is less than 1 megalitre per unit share then further assessments of available water resources shall be carried out at least monthly and available water determinations made until the sum of available water determinations for the water year is 1 megalitre per unit share.
- (5) The sum of available water determinations made for regulated river (high security) access licences in any water year shall not exceed 1 megalitre per unit share.
- (6) Available water determinations made for regulated river (high security) access licences must take into account:
 - (a) the environmental water provisions established by this Plan,
 - (b) requirements for domestic and stock rights,
 - (c) requirements for native title rights,
 - (d) requirements for domestic and stock access licences,
 - (e) requirements for local water utility access licences,
 - (f) allocations remaining in access licence water allocation accounts from previous available water determinations,
 - (g) water losses associated with the holding and delivery of water to meet the requirements specified in subclauses (a) to (f),
 - (h) an appropriate volume to meet water losses associated with the holding and

delivery of water resulting from the available water determination, and

(i) any other relevant matters.

40 Available water determinations for regulated river (general security) access licences

- (1) An available water determination is not to be made for regulated river (general security) access licence holders in any water year until the sum of available water determinations for regulated river (high security) access licences for the water year is equivalent to 1 megalitre per unit share.
- (2) Immediately following the withdrawal of water allocations under clause 47 (7) an available water determination for regulated river (general security) access licences shall be made.

Note—

The effect of clause 47 (7) and subclause (2) is that when Wyangala Dam spills or is deemed to have effectively spilled or water is released to create or maintain airspace and Lake Brewster and Lake Cargelligo are full or are deemed to be full or they will fill, as defined in clause 47 (7), all general security access licence accounts will be equalised. Assessments indicate that when Wyangala Dam, Lake Brewster and Lake Cargelligo are full it should be possible for each general security access licence account to hold a maximum 1.36 megalitres per unit share.

- (3) The available water determination for regulated river (general security) access licences shall be based on the volume available after making provision for:
 - (a) the environmental water provisions established by this plan,
 - (b) requirements for domestic and stock rights,
 - (c) requirements for native title rights,
 - (d) requirements for domestic and stock access licences,
 - (e) requirements for local water utility access licences,
 - (f) requirements for regulated river (high security) access licences,
 - (g) requirements for regulated river (conveyance) access licences,
 - (h) allocations remaining in access licence water allocation accounts from previous available water determinations,
 - (i) water losses associated with the holding and delivery of water to meet the requirements identified in subclauses (a) to (g),
 - (j) an appropriate volume to meet water losses associated with the holding and delivery of water resulting from the available water determination, and
 - (k) any other relevant matters.

41 Available water determinations for regulated river (conveyance) access licences

- (1) Available water determinations for regulated river (conveyance) access licences shall be made for the commencement of each water year and as required, during the water year, to provide a volume of water to licences in this category during the water year that is equal to:
 - (a) 0.0558 megalitres per unit share when the sum of available water determinations for regulated river (general security) access licences for the water year is zero megalitres per unit share,
 - (b) 0.0558 megalitres per unit share plus 0.0403 megalitres for each 0.01 megalitres per unit share of total available water determinations made for regulated river (general security) access licences in the water year when the sum of available water determinations for regulated river (general security) access licences for the water year is greater than zero but less or equal to 0.2 megalitres per unit share,
 - (c) 0.8620 megalitres plus 0.00172 megalitres for each 0.01 megalitres per unit share of total available water determinations in excess of 0.2 megalitres per unit share made for regulated river (general security) access licences in the water year when the sum of available water determinations for regulated river (general security) access licences for the water year is greater than 0.2 megalitres per unit share but less than 1 megalitre per unit share, and
 - (d) 1 megalitre per unit share when the sum of available water determinations for regulated river (general security) access licences for the water year is equal to or greater than 1 megalitre per unit share.
- (2) The Minister may amend this Plan to vary the provisions of subclause (1) if the Minister considers it is necessary to do so to reflect the actual conveyancing losses experienced by Jemalong Irrigation.

Note—

The Available Water Determination rules above reflect the rules that applied to the conveyancing allowance for Jemalong Irrigation limited under the annual water allocation regime which preceded this Plan. Within the first year of operation of the Plan it is expected that either these rules will be adjusted to reflect the actual losses likely to be experienced by Jemalong under the continuous accounting rules in this Plan or the regulated river (conveyance) licence will be converted into a regulated river (general security) access licence and a regulated river (high security) access licence.

Part 9 Rules for managing access licences

Division 1 General

42 Rules for managing access licences

This Part is made in accordance with sections 20 (2) (b), 20 (2) (e), 21 (a) and 21 (c) of the

Act having regard to:

- (a) the environmental water rules established in Part 3 of this Plan,
- (b) requirements for water to satisfy basic landholder rights identified in Part 4 of this Plan, and
- (c) requirements for water for extraction under access licences in Part 6 of this Plan.

Division 2 Water allocation account management

43 Water allocation accounts

- (1) In accordance with section 85 of the Act, a water allocation account shall be established for each access licence in this water source.
- (2) The water allocation accounts of all regulated river (general security) access licences shall be comprised of two sub-accounts, referred to hereafter as the A sub-account and the B sub-account.

Note—

The A sub-account holds water that may be taken by the licence holder this water year, the B sub-account holds water allocation that may not be taken by the licence holder during the current water year.

44 Accrual of water allocations

- (1) Water allocations shall be accrued into each access licence water allocation account in accordance with the available water determinations made for the category of the access licence.
- (2) Subject to the provisions of clause 47, water allocations accrued from available water determinations for regulated river (general security) access licences shall:
 - (a) be credited to the A sub-account of a regulated river (general security) access licence whenever the total volume placed into that sub-account from available water determinations during the water year is less than $J - K + L$
where:
 - (i) **J** equals X multiplied by the number of unit shares in the share component of the access licence, where X is as determined under clause 35 (1),
 - (ii) **K** equals the volume in the A sub-account at the commencement of the water year after any adjustments under clause 47 (3) or 47 (4), and
 - (iii) **L** equals the volume of carryover withdrawn under clause 47 (7),
 - (b) otherwise shall be credited to the B sub-account of a regulated river (general security) access.

45 Volume taken under access licences

Note—

Section 341 of the Act makes it unlawful to take a volume of water under an access licence that exceeds the volume of water allocation which is credited to the access licence at the time of water extraction.

- (1) The water allocation taken under domestic and stock access licences, local water utility access licences, regulated river (high security) access licences, regulated river (general security) access licences and regulated river (conveyance) access licences shall be assessed as:
 - (a) the volume of water taken by the approved water supply works nominated by the access licence, or
 - (b) the greater of
 - (i) the volume of water extracted by the approved water supply works nominated by the access licence, or
 - (ii) the volume of water ordered for extraction by the approved water supply works nominated by the access licence,where the Minister has applied such a discretionary condition to the access licence.
- (2) The Minister should only apply a discretionary condition in relation to subclause (1) (b) where this has been provided for in a compliance management strategy approved by the Minister.

Note—

It is intended that the discretionary condition referred to above should only be applied where water orders have been exceeding the volume of water being taken under a licence and this cannot be explained by rainfall or other unavoidable factors.

- (3) The water allocations taken under a regulated river (general security) access licences are to be debited to the A sub-account of the access licence.

46 Accounting of assigned water allocations and return flows

- (1) Water allocations assigned from a water allocation account under Chapter 3 Part 2 Division 4 of the Act shall be debited from that water allocation account and water allocations assigned to a water allocation account under Chapter 3 Part 2 Division 4 of the Act shall be credited to that water allocation account.
- (2) Water allocations assigned from the A sub-account of a regulated river (general security) access licence to another regulated river (general security) access licence shall be credited to the A sub-account of the receiving access licence.
- (3) Water allocations assigned from the B sub-account of a regulated river (general

security) access licence to another regulated river (general security) access licence shall be credited to the B sub-account of the receiving access licence.

- (4) Water allocations assigned to a regulated river (general security) access licence from the account of an access licence of any category which is not permitted to carry over water allocation credits shall be credited to the A sub-account of the access licence.
- (5) Water allocations may also be recredited to access licence water allocation accounts under section 76 of the Act, in accordance with water return flow rules established under section 75 of the Act.
- (6) Unless otherwise specified in the water return flow rules established under section 75 of the Act, water allocations recredited to regulated river (general security) access licences under subclause 5 shall:
 - (a) be recredited to the A sub-account of the access licence where re-crediting occurs in the water year in which the allocations were used, or
 - (b) shall be recredited to the B sub-account of the access licence where re-crediting occurs in a water year subsequent to that in which the allocations were used.

47 Carrying over of water allocation credits, water allocation account limits and withdrawal of water allocations

- (1) Water allocation remaining in the water allocation accounts of local water utility access licences, domestic and stock access licences and regulated river (high security) access licences cannot be carried over from one water year to the next.
- (2) Water allocation remaining in the water allocation accounts of regulated river (general security) access licences may be carried over from one water year to the next.
- (3) If water allocations are carried over under sub-clause (2) and if water allocations in the A sub-account of a regulated river (general security) access licence are in excess of X multiplied by the number of unit shares in the share component of the access licence, where X is as determined under clause 35 (1), then a volume of water allocations equal to the volume of exceedance shall be moved from the A sub-account into the B sub-account.
- (4) If water allocations are carried over under sub-clause (2) and if water allocations in the A sub-account of a regulated river (general security) access licence are less than X multiplied by the number of unit shares in the share component of the access licence, where X is as determined under clause 35 (1), then a volume of water allocations shall be moved from the B sub-account to the A sub-account which is equal to the lesser of:
 - (a) the volume of water allocations in the B sub-account, and
 - (b) the volume which would increase the volume of water allocations in the A sub-

account to X multiplied by the number of unit shares in the share component of the access licence, where X is as specified in clause 35 (1).

- (5) The sum of the volume of water allocations held in the A sub-account of a regulated river (general security) access licence plus the volume of water allocations held in the B sub-account of the access licence may not, at any time, exceed 2 megalitres per unit share of the access licence share component.
- (6) The following rules apply to the management of water allocations in the water allocation accounts of regulated river (conveyance) access licences:
- (a) water allocations remaining in the water allocation account at the end of the 2011/12 water year may be carried over to the 2012/13 water year only, and
 - (b) the maximum volume that may be held in the water allocation account at any time is 2 megalitres per unit share.
- (7) Whenever:
- (a) a spill of water occurs from Wyangala Dam, or
 - (b) the Minister deems that a spill of water has occurred from Wyangala Dam, or
 - (c) water is released to create or maintain air space at Wyangala Dam, and Lake Brewster and Lake Cargelligo are:
 - (d) full, or
 - (e) deemed by the Minister to be full, or
 - (f) the Minister is satisfied they will fill from flows already in this water source or its tributaries,

then all water allocations remaining in the water allocation accounts of regulated river (general security) access licences shall be withdrawn.

Note 1—

The effect of subclause (7) and clause 40 (2) is that when Wyangala Dam spills or is deemed to have effectively spilled or water is released to create or maintain airspace and Lake Brewster and Lake Cargelligo are full or are deemed to be full or they will fill, as defined in subclause (7), all general security access licence accounts will be equalised. Assessments indicate that when Wyangala Dam, Lake Brewster and Lake Cargelligo are full it should be possible for each general security access licence account to hold a maximum 1.36 megalitres per unit share.

Note 2—

Airspace requirements at Wyangala Dam are determined in accordance with clause 65.

Note 3—

Under subclause (7), the Minister may from time to time, deem that the full volume of Lake Brewster and

Lake Cargelligo is less than their physical full capacity. The reasons for this may include supporting a bird breeding event.

- (8) The Minister may, in accordance with clause 69, amend this Plan to replace this subclause with rules relating to carrying over of water allocation credits, water allocation account limits and withdrawal of water allocations for regulated river (conveyance) access licences and may further amend the rules if the Minister considers it necessary to do so to reflect the actual conveyancing losses experienced by Jemalong Irrigation.

Division 3 Extraction conditions

48 General priority of extractions

Where extraction components of access licences do not specify the rate as a share of supply capability or a volume per unit time, the following priority of extractions shall apply whenever supply capability is insufficient to satisfy all orders for water in any section of this water source:

- (a) water shall be supplied to domestic and stock access licences, local water utility access licences and regulated river (high security) access licences that have placed orders for water, and
- (b) then any remaining supply capability shall be shared between regulated river (general security) and regulated river (conveyance) access licences that have placed an order for water, in proportion to share components specified on the access licences.

49 Numerical specification of extraction components

- (1) At any time during the term of this Plan, the Minister may, in accordance with the mandatory conditions on access licences, amend the extraction components of access licences in this water source, or in any section of this water source.
- (2) Action under subclause (1) should be undertaken as follows:
 - (a) the specified rate in the extraction component of each access licence should be a volume per unit of time or a share of supply capability,
 - (b) the specified rate in the extraction component of each domestic and stock local water utility and regulated river (high security) access licence should be sufficient to satisfy the maximum water needs, and
 - (c) after satisfying subclause (b), the remaining supply capability should be distributed among regulated river (general security) access licences and regulated river (conveyance) access licences in proportion to the share component of each access licence.
- (3) When action under subclause (1) is undertaken, the Minister may also, in accordance

with mandatory conditions on access licences, amend the extraction components of access licences in other sections of this water source to exclude extractions in sections of this water source affected by the action under subclause (1).

Part 10 Access licence dealing rules

50 Access licence dealings

- (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 on 27 December 2002, 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—

Access licence dealings include changes of licence ownership, conversions of licence category, movement of share component from one access licence to another access licence, movement of water allocation from one access licence allocation account to another access licence allocation account and changes in the location of water supply that can take water available under the licence. These dealings must comply with the provisions of the Act, the 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 access licence dealing rules in this Plan to prevail.

51 Rules relating to constraints within this water source

- (1) This clause relates to dealings under sections 71O, 71Q and 71W of the Act and to dealings in respect of water allocation assignments within this water source under section 71T of the Act.
- (2) Any dealing that would result in the total of A plus B plus C exceeding 23,457 is prohibited, where:
 - (a) **A** is the total number of unit shares of regulated river (general security) access licences nominating water supply works on the section of Willandra Creek that is part of this water source multiplied by X, where X is as specified in clause 35 (1),
 - (b) **B** is the total number of unit shares of all other access licences whose share component is specified in unit shares and whose nominated water supply works are on the section of Willandra Creek that is part of this water source, and
 - (c) **C** is the total number of megalitres per year of access licences whose share component is specified in megalitres per year and whose nominated water supply works are on the section of Willandra Creek that is part of this water source.

- (3) Any dealing that would result in the total of A plus B exceeding the total of A plus B at the commencement of the Plan is prohibited, where:
- (a) **A** is the total number of unit shares of access licences whose share component is specified in unit shares and whose nominated water supply works are on the Lachlan River downstream of Booligal, and
 - (b) **B** is the total number of megalitres per year of access licences whose share component is specified in megalitres per year and whose nominated water supply works are on the Lachlan River downstream of Booligal.
- (4) Any dealing that would result in the assignment of all or part of the share component of an access licence, whose extraction component only permits the taking of water upstream of Lake Cargelligo Weir, to an access licence, whose extraction component only permits the taking of water downstream of Lake Cargelligo Weir, is prohibited.
- (5) Any dealing that would result in the assignment of all or part of the share component of an access licence, whose extraction component only permits the taking of water downstream of Lake Cargelligo Weir, to an access licence, whose extraction component only permits the taking of water upstream of Lake Cargelligo Weir, is prohibited.
- (6) A water allocation assignment is prohibited if it would result in $A + B - C - D$ exceeding 31,000 megalitres, where:
- (a) **A** is the total volume of water allocations assigned during a water year from the A sub-accounts of regulated river (general security) access licences whose extraction component only permits the taking of water upstream of Lake Cargelligo Weir, to the accounts of access licences whose extraction component only permits the taking of water downstream of Lake Cargelligo Weir,
 - (b) **B** is the total volume of water allocations assigned during a water year from the accounts of all categories of access licences, other than regulated river (general security) access licences, whose extraction component only permits the taking of water upstream of Lake Cargelligo Weir to the accounts of access licences whose extraction component only permits the taking of water downstream of Lake Cargelligo Weir,
 - (c) **C** is the total volume of water allocations assigned during a water year from the A sub-accounts of regulated river (general security) access licences whose extraction component only permits the taking of water downstream of Lake Cargelligo Weir, to the accounts of access licences whose extraction component only permits the taking of water upstream of Lake Cargelligo Weir, and
 - (d) **D** is the total volume of water allocations assigned during a water year from the accounts of all categories of access licences, other than regulated river (general

security) access licences, whose extraction component only permits the taking of water downstream of Lake Cargelligo Weir to the accounts of access licences whose extraction component only permits the taking of water upstream of Lake Cargelligo Weir.

- (7) Subclauses (4), (5) and (6) may be varied under section 45 (1) (b) of the Act and as set out in Part 14 of this Plan.
- (8) Any water allocation assignment that would result in the total volume of water allocation that may be taken in any water year under access licences nominating water supply works in the section of Willandra Creek that is part of this water source, exceeding 23,457 Megalitres.
- (9) Any water allocation assignment that would result in the total number of megalitres of water allocation that may be taken in any water year by access licences whose nominated water supply works are on the Lachlan River downstream of Booligal exceeding the total of A plus B at the commencement of the Plan is prohibited, where:
 - (a) **A** is the total number of unit shares of access licences whose share component is specified in unit shares and whose nominated water supply works are on the Lachlan River downstream of Booligal, and
 - (b) **B** is the total number of megalitres per year of access licences whose share component is specified in megalitres per year and whose nominated water supply works are on the Lachlan River downstream of Booligal.
- (10) Any dealing that involves the assignment of water allocations held in the B sub-account of a regulated river (general security) access licence to the water allocation account of any other category of access licence is prohibited.

52 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) Access licences in other water sources outside of this water source may be issued following cancellation of access licences in this water source, only if:
 - (a) the access licence dealing rules in the receiving water source permit such a dealing,
 - (b) a conversion factor, established by the Minister and published in an Order made under section 71Z of the Act that protects environmental water, domestic and stock rights, native title rights and the reliability of supply to all other access

licences in this water source, has been applied, and

(c) the water source in which the access licence is issued is one of the following:

(i) a water source within the Lachlan Unregulated Extraction Management Unit, (as defined in the [Water Sharing Plan for the Mandagery Creek Water Source 2003](#)), and not on a river that is primarily fed by effluent flows from the Lachlan River, or

Note—

The prohibition on the issue of licences within effluent rivers is included to stop licence trading leading to an increase in extractions from rivers feeding environmentally sensitive wetland areas.

(ii) a regulated river in the Belubula River catchment.

(3) Access licences in this water source may be issued following cancellation of access licences in other water sources, only if:

(a) the access licence dealing rules in the other water source permit such a dealing,

(b) a conversion factor, established by the Minister and published in an Order made under section 71Z of the Act that protects environmental water, domestic and stock rights, native title rights and the reliability of supply to all other access licences in this water source, has been applied, and

(c) the other water source is one of the following:

(i) a water source within the Lachlan Unregulated Extraction Management Unit, (as defined in the [Water Sharing Plan for the Mandagery Creek Water Source 2003](#)), or

(ii) a regulated river in the Belubula River catchment.

Note—

The access licence dealing principles gazetted on 27 December 2002 prohibit a change of water source dealing where the movement is from an unregulated water source to a regulated water source. This means that transfers from unregulated rivers to this water source cannot occur until the prohibition in the dealing principles is lifted.

53 Rules for conversion of access licence category

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

(2) Conversion of an access licence of one category to an access licence of another category is prohibited except as provided for under this clause.

(3) On application of the access licence holder, the Minister may cancel a regulated river (general security) access licence, and issue a regulated river (high security) access licence, subject to:

- (a) the application of a conversion factor established by the Minister and published in an Order made under section 71L of the Act that protects environmental water, domestic and stock rights, native title rights and the reliability of supply to all other access licences in this water source,

Note—

It has been assessed that a conversion factor of 0.45 should apply to the conversion of the first 30,000 unit shares of regulated river (general security) access licence to regulated river (high security) access licence.

- (b) the number of megalitres of water in the regulated river (general security) access licence water allocation account being equal to or greater than the number of unit shares in its share component, and
- (c) the volume of water allocations credited to the water allocation account of the new regulated river (high security) access licence water allocation account not exceeding the volume of water allocation held in the A sub-account of the cancelled access licence.

Note—

The volume of water in the regulated river (general security) access licence water allocation account which is in excess of the share component volume of the new regulated river (high security) access licence will not be credited to the new regulated river (high security) access licence account.

- (4) On application of the access licence holder, the Minister may cancel a regulated river (high security) access licence, and issue a regulated river (general security) access licence, subject to:
 - (a) the application of a conversion factor equal to one divided by the conversion factor established in subclause (3), and
 - (b) such an application not resulting in an increase in the total number of unit shares in regulated river (general security) access licence share components above the total number of unit shares at the time of commencement of Part 2 of Chapter 3 of the Act.

Note—

This would allow conversion of a regulated river (high security) access licence to a regulated river (general security) access licence only if there had been a corresponding or larger amount of regulated river (general security) access licence share component converted to regulated river (high security) access licence.

- (5) On application of the licence holder, the Minister may cancel a regulated river (conveyance) access licence and issue a regulated river (general security) access licence and/or a regulated river (high security) access licence, subject to:
 - (a) the application conversion factors established by the Minister and published in an Order made under section 71Z of the Act that protects environmental water, domestic and stock rights, native title rights and the reliability of supply to all

other access licences in this water source, and

- (b) where the licence to be issued is a regulated river (high security) access licence, the volume of water in the regulated river (conveyance) access licence water allocation account being equal to or greater than its share component.

54 Rules for interstate access licence transfer

- (1) This clause relates to dealings under section 71U of the Act.
- (2) Access licence equivalents in other States may not be transferred into this water source.
- (3) Access licences in this water source may not be transferred into another State.

55 Rules for water allocation assignment between water sources

- (1) This clause relates to dealings under section 71T of the Act in relation to water allocation assignments between water sources.
- (2) Water allocations from the water allocation accounts of access licences in this water source may not be assigned to the water allocation accounts of access licences in other water sources.
- (3) Water allocations from the water allocation accounts of access licences in other water sources may not be assigned to the water allocation accounts of access licences in this water source.

56 Rules for interstate assignment of water allocations

- (1) This clause relates to dealings under section 71V of the Act.
- (2) Water allocation equivalents from other States may not be assigned to the water allocation accounts of access licences in this water source.
- (3) Water allocations from the water allocation accounts of access licences in this water source may not be assigned to water allocation equivalents in other States.

Part 11 Mandatory conditions

57 Mandatory conditions on access licences

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

Note—

The Minister may impose discretionary conditions at any time on an access licence in accordance with section 66 (1) (b) of the Act.

- (2) All access licences in this water source shall have mandatory conditions to give effect 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 including whether extraction is permitted upstream or downstream of Lake Cargelligo Weir,
 - (c) the requirement that extraction under the access licence shall be subject to the available water determinations,
 - (d) the requirement that extraction under the access licence shall be subject to the water allocation account management rules established in Part 9 of this Plan,
 - (e) the requirement that water may only be taken by water supply works nominated on the access licence, and
 - (f) any other conditions required to implement the provisions of this Plan.
- (3) All regulated river (general security) access licences, shall have mandatory conditions that require that the taking of water in accordance with the access licence may only occur if the resulting debit shall not exceed the volume of water allocation remaining in the access licence's A sub-account.
 - (4) All access licences, other than regulated river (general security) access licences, shall have mandatory conditions that require that the taking of water in accordance with the access licence may only occur if the resulting debit to the access licence account shall not exceed the volume of water allocation remaining in the access licence account.
 - (5) All access licences shall have a mandatory condition that facilitates the provisions of clause 49 of this Plan.
 - (6) All domestic and stock access licences, local water utility access licences regulated river (high security) access licences and regulated river (general security) shall have mandatory conditions that only allow the taking of water if it has been ordered in accordance with procedures established by the Minister.
 - (7) All domestic and stock access licences shall have mandatory conditions that only allow the taking of water for the purpose of domestic consumption or stock watering as defined in section 52 of the Act.
 - (8) 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.
 - (9) All regulated river (general security) access licences shall have mandatory conditions to reflect and facilitate application of the provisions of clause 35 of this Plan.
 - (10) All regulated river (high security) (Aboriginal cultural) access licences shall have mandatory water that only allow the taking of water by Aboriginal persons or

communities for personal, domestic and communal purposes including the purposes of drinking, food preparation, washing, manufacturing traditional artefacts, watering domestic gardens, cultural teaching, hunting, fishing, and gathering, and for recreational, cultural and ceremonial purposes.

58 Mandatory conditions on water supply works approvals

- (1) All approvals for water supply works in this water source shall have mandatory conditions to give effect to the following:
 - (a) flow measurement devices shall be installed and maintained on all works used for extraction of water under an access licence and shall be of a type and shall be maintained in a manner, which is acceptable to the Minister,
 - (b) water extraction, property water management infrastructure and cropping details shall be provided on request, in the form and in accordance with procedures established by the Minister, and
 - (c) the taking of water may only occur in accordance with the conditions applying to the access licence from whose water allocation account the taking of water will be debited.
- (2) Subclause (1) does not apply to approvals for water supply works held by State Water provided such an approval is not nominated by an access licence.
- (3) All approvals for water supply works in this water source shall have any other conditions required to implement the provisions of this Plan.

Part 12 System operation rules

59 System operation rules

This Part is made in accordance with section 21 (e) of the Act.

60 Replenishment flows

- (1) The Minister shall determine the volume of replenishment flows to be provided in any water year that are necessary to meet the domestic and stock requirements for the following, up to the maximum volume specified:
 - (a) a volume not exceeding 12,000 megalitres per water year to Willandra Creek downstream from Homestead Weir to the Ivanhoe/Balranald Road (Grid Reference 229700 east, 6333000 north, Kilfera Map, 1:100,000, Sheet 7731), which volume includes water for the township of Ivanhoe and Morrison's Lake,
 - (b) a volume not exceeding 9,000 megalitres per water year to the Marrowie Creek Trust District downstream to Cuba Dam (Grid Reference 266800 east, 6249000 north, Tarwong Map, 1:50,000, Sheet 7730), and

- (c) a volume not exceeding 9,000 megalitres per water year to the Torigany, Muggabah and Merrimajeel Creeks Trust District downstream to the Murrumbidgil Swamp (Angorra Clump) (Grid Reference 281000 east, 6249000 north, Booligal Map, 1:50,000, Sheet 7830) on Merrimajeel Creek and the point on Muggabah Creek at Grid Reference 279000 east, 6239700 north, Booligal Map, 1:50,000, Sheet 7830).
- (2) Booberoi Creek is to receive a continuous supply at its off-take at a rate sufficient to provide for town and domestic supply and stock watering and produce a visible flow at the Ginniguldrie Road Bridge, providing that the volume so supplied does not exceed 12,500 megalitres in any water year.
- (3) Sufficient volumes of water must be set aside from assured inflows into the water source and reserves held in Wyangala Dam water storage or other water storages to provide for subclause (1) and subclause (2).

61 Minimum flow levels

A visible flow should be maintained in the Lachlan River at Geramy.

62 Water delivery and channel capacity constraints

Where necessary for determining extraction components, managing water releases or providing water under access licences, the maximum delivery capacity or operating channel capacity shall be determined and specified in accordance with procedures established by the Minister, taking into account:

- (a) inundation of private land or interference with access,
- (b) the effects of inundation on the floodplain and associated wetlands,
- (c) the transmission losses expected to occur,
- (d) capacities of water management structures controlled by the Department, and
- (e) the SWMOP targets.

Note—

Operation of the system at the commencement of this Plan has the following constraints on maximum flows:

- 6,600 ML/day between Wyangala Dam and Jemalong Weir (the valve capacity of Wyangala Dam)
- 2,600 ML/day between Jemalong Weir and Willandra Weir,
- 390 ML/day in the Wallamundry Creek system,
- 1,200 ML/day in Goobang/Bumbuggan Creeks,
- 500 ML/day in Willandra Creek,
- 2,400 ML/day between Willandra Weir and Merrowie Creek,
- 1,500 ML/day between Merrowie Creek and Torigany split,
- 420 ML/day between Torigany split and Booligal, and
- 310 ML/day downstream of Booligal.

63 Rates of change of releases from water storages

Rules regarding rates of change to releases from water storages should be specified in accordance with procedures established by the Minister, and should take into account:

- (a) relevant environmental considerations,
- (b) damage to river banks, and
- (c) public safety.

64 Dam operation during floods and spills

- (1) The operation of Wyangala Dam during times of flood and spilling of water is to be undertaken in a manner that maintains the safety of dam infrastructure.
- (2) Providing it is consistent with subclause (1), operation :
 - (a) should leave the storage as full as possible at the completion of the flood, subject to maintenance of a target airspace volume as specified in clause 65 (b),
 - (b) should ensure the general rate of increase of outflow does not exceed the rate of increase of inflow, and
 - (c) should aim to lessening downstream flood damage, where possible.

65 Airspace operation rules

Airspace operation of Wyangala Dam shall be in accordance with the following rules:

- (a) airspace is to be maintained in Wyangala Dam for the purpose of reducing downstream flood damage,
- (b) the target airspace volume that is to be maintained at any time, shall be set so that the probability of the water storage volume being full, by the time significant irrigation

demand commences, is at least 80%,

- (c) evacuation of airspace should not result in flow at Cotton's Weir, Forbes or at Jemalong Weir exceeding the minor flood level at these sites, and
- (d) when the Wyangala Dam water storage is within 1 percent of the airspace target, airspace evacuation releases are to be maintained at the Wyangala power station capacity, if practicable.

Part 13 Monitoring and reporting

66 Monitoring

The monitoring of the performance indicators specified in clause 12 of this Plan 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 relevant natural resource management standards and targets in the catchment management area (as referred to in section 5 of the [Catchment Management Authorities Act 2003](#)).

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 catchment management area.

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.

Note—

Implementation Program

In accordance with section 51 of the Act, the Minister may establish an Implementation Program that sets out the means by which the provisions of this Plan are to be achieved.

It is proposed that the Minister establish an Implementation Program for this Plan. Pursuant to section 51 (5) of the Act, the Implementation Program is to be reviewed annually by the Minister to determine whether it is effective in implementing this Plan.

The results of the review of the Implementation Program are included in the annual report for the Department of Land and Water Conservation.

Part 14 Amendment of this Plan

67 Changes to this water source

The Minister, under section 45 (1) (b) of the Act and by notice published in the Gazette, may add a river or section of river to this water source or remove a river or section of river

from this water source providing that:

- (a) any river or section of river that is added has been declared to be a regulated river by an order published in the Gazette, and
- (b) the Minister is satisfied that there shall be no impact on environmental water, or on the available water to any access licences in this water source.

68 Amendment of planned environmental water rules

- (1) Clause 15 (1) (a) may be amended under section 45 (1) (b) of the Act.
- (2) Such an amendment is:
 - (a) only to occur following the Minister's consideration of the review under clause 15 (1) (j),
 - (b) only affect the volume of inflows to Wyangala Dam water storage in any calendar year since 1 January that must be exceeded before translucent releases may be made from Wyangala Dam, and
 - (c) may retain or decrease the volume but may not increase the volume.
- (3) Before making an amendment under this clause establish an Advisory Committee under section 388 of the Act.
- (4) The Committee should:
 - (a) make a recommendation to the Minister regarding whether an amendment in accord with clause 15 (2) should occur and, if so, what amendment should be made,
 - (b) provide a report detailing:
 - (i) the environmental, social and economic impacts of options assessed, including the recommended option and the no change option, and
 - (ii) the extent of any consultation with the local community.
- (5) The committee should comprise:
 - (a) a person representing the Department,
 - (b) a person nominated by the Minister for the Environment,
 - (c) 2 persons representing the irrigation industry,
 - (d) 2 persons representing nature conservation interests, and
 - (e) a person representing local government,

- (f) a representative of the Aboriginal community, and
- (g) any independent scientists or social or economic experts the Minister believes appropriate.

69 Amendment of regulated river (conveyance) access licence rules

- (1) If the Minister considers it is necessary to do so to reflect the actual conveyancing losses likely to be experienced by Jemalong Irrigation under the water accounting rules specified in this Plan the Minister may, under section 45 (1) (b) of the Act:
 - (a) amend the provisions in clause 41 (1) regarding available water determinations for regulated river (conveyance) access licences, and
 - (b) replace clause 47 (8) with provisions relating to:
 - (i) the maximum volume that may, at any time, be held in the accounts of regulated river (conveyance) access licences,
 - (ii) the volume of water allocation that may be carried over from one water year to the next in the water allocation accounts of regulated river (conveyance) access licences, and
 - (iii) the withdrawal of water allocations from the water allocation accounts of regulated river (conveyance) access licences when a spill of water from Wyangala Dam occurs and Lake Brewster and Lake Cargelligo are full or will fill from flows already in the water source or its tributaries.
- (2) Action under subclause (1) should occur within one year of commencement of this Plan.

70 Amendment of rules relating to constraints within a water source

- (1) At any time after 1 July 2007, and following the completion of the review, specified in subclause (2) the Minister may, under section 45 (1) (b) of the Act remove or reduce the prohibition on dealings specified in subclauses 51 (4), 51 (5) and 51 (6).
- (2) A review of the provisions specified in subclauses 51 (4), 51 (5) and 51 (6) should:
 - (a) commence in the first year of this Plan and be completed no later than the fifth year of this Plan,
 - (b) consider the appropriateness of the provisions against the objectives of this Plan,
 - (c) examine but not be limited to the following matters:
 - (i) possible social and economic impacts on local communities,
 - (ii) possible environmental impacts including seasonal flow reversal, salinity, channel stability, flow variability and habitat,

- (iii) physical channel constraints,
 - (iv) any works that may be required to address physical channel constraints,
 - (v) pumping capacity,
 - (vi) relative impacts on different sections of the water source,
 - (vii) impact of trade on water allocation reliability and ability to meet daily water supply demands,
 - (viii) impact of transmission losses on water allocation reliability to regulated river (general security) access licences and the ability to meet daily water supply demands, and
- (d) recommend whether the prohibitions should be retained, modified or fully removed.
- (3) The Minister may seek advice from a committee consisting of members from appropriate government agencies, local government, environmental interests, industry and the community before taking action under subclause (1).

71 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.

72 Amendment of Plan relating to floodplain harvesting

The Minister may amend this Plan so as to provide for the floodplain harvesting of water by amending the waters or water sources to which this Plan applies and by consequential amendments so long as the amendments:

- (a) if the Plan has already taken into consideration floodplain harvesting extractions, do not affect the outcomes of the long-term extraction limit specified in the Plan, or

- (b) if the Plan has not already taken into consideration floodplain harvesting extractions, do not allow more water being taken pursuant to access licences for floodplain harvesting than permitted under Schedule F to the Agreement within the meaning of the *Murray-Darling Basin Act 1992*.

Dictionary

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

airspace is a volume in a **water storage**, which is kept empty for the purpose of mitigating potential floods.

assured inflows are the volumes of water which historic hydrologic information indicates are the minimum which can be expected to flow into the water source.

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.

the Cap is as defined in Schedule F of the Murray Darling Basin Agreement.

conversion factor refers to the adjustment factor that may be applied to the size of share components when they are part of a dealing under section 710 or 71R of the Act.

Department is the Department of Land and Water Conservation or its successor.

environmental contingency allowance is a volume of water held in storage from which releases are made for particular environmental purposes or in response to particular environmental circumstances.

extraction component is the extraction component of an access licence as defined in 56 (1) of the Act.

floodplain harvesting is the collection or capture of water flowing across floodplains.

full supply volume is the volume of water held in a **water storage** at the storage level considered to be the limit for the purposes of storage of water, except in periods of flood operation.

long-term average annual extraction is the average of annual water extractions from the water source over the period for which an assessment is carried out.

Minister is the Minister for Land and Water Conservation. The Minister may delegate functions under section 389 of the Act.

Murray Darling Basin Agreement is the agreement between the Commonwealth of Australia and the states of New South Wales, Victoria and South Australia as referred to in the *Murray Darling Basin Act 1992*, for the purpose of promoting and co-ordinating effective planning and management for the

equitable, efficient and sustainable use of the water, land and other environmental resources of the Murray-Darling Basin.

private water management infrastructure includes pumps, on-farm dams and all other private infrastructure which affect the volume of water taken by access licences.

replenishment flows are flows provided to refill pools and water holes in effluent river systems downstream of the water source and provide water for household and town use and stock.

reserves are volumes of water put aside in a **water storage** to allow the supply of future water requirements.

share component is the share component of an access licence as defined in 56 (1) of the Act or, for the purposes of this Plan, any right to take water under the [Water Act 1912](#) that gives rise to share component of an access licence under the [Water Management Act 2000](#) (as amended).

supply capability is defined as the rate at which water that can be supplied to a section of a water source after satisfying the environmental water provisions and the requirements for water to satisfy basic land holder rights.

translucent release is the release from a **water storage** of some portion of inflow to the **water storage** coincident with the occurrence of that inflow.

water storage means a state owned dam, weir or other structure, which is used to regulate and manage river flows in this water source and the water body impounded by this structure.

water supply system includes the water storages and all other factors influencing water supply that are under the control of the Minister.

water use development includes all privately owned water management structures, and all aspects of farm, industry, town or private household development which affect the volumes of water taken from the water source, and the management practices that are applied in relation to them.

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

Schedule 2 Contribution to relevant targets in the December 2002 State Water Management Outcomes Plan

Levels of assessed contribution:

FULL contributes to target in full

HIGH while not fully contributing to target, there is a good level of contribution

PARTIAL goes some way to contributing to target

LOW only small degree of contribution to target

Relevant Target	Level of contribution	Comments
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Target 1a

Extractions in Murray Darling Basin’s regulated rivers limited to the level of the long term average annual extraction below the MDBMC Cap which results from the long term impact of the environmental water rules

FULL

- Plan clearly sets out the basis for the long-term extraction limit

Target 1f

Rules for adjustments to future available water determinations in the event that the extraction limits are exceeded, clearly prescribed in consultation with the relevant management committee, and acted upon

FULL

- Rules set out in Part 8
- Silver perch is a listed Threatened Species is thought to still occur in the Lachlan. Improvement in higher flows may assist its spawning and recruitment.

Target 2

All water management plans incorporating mechanisms to protect and restore aquatic habitats, and the diversity and abundance of native animals and plants, with particular reference to threatened species, populations and communities and key threatening processes.

PARTIAL

- The flow improvements should provide increased wetland inundation for a number of lower river wetlands eg Booligal, Murrumbidgee, Lake Merrimajeele, Cumbung Swamp and Merrowie.
- An Environmental Contingency Allowance of 20,000 ML is provided.
- The plan substantially reduces environmental water when Wyangala Dam levels are reduced or water available to access licences restricted, irrespective of the environmental needs.

Target 4a

Where the frequency of “end of system” daily flows would be less than 60 percent of the predevelopment level without environmental flow rules or extraction limits, the flows increased to 60 percent of predevelopment levels or increased by at least 10 percent of the predevelopment frequency.

PARTIAL

- The frequency of flows up to the 20th percentile meet the target
- The frequency of flows between the 20th percentile and the 60th percentile do not meet the target.
- The frequency of flows above the 60th percentile meet the target.

Target 4b

Frequency of “end of system” daily very low flows (as defined by local field investigation) protected or restored to predevelopment levels to maintain or restore their critical ecological functions, drought refuges and habitat connectivity. In the absence of such local assessments, protection extended up to at least the predevelopment 95th percentile.

FULL

- This Plan provides for maintenance of flow to end of system at level which is above the natural 95th percentile flow frequency (which is a zero flow)

Target 4c

The channel capacity of all lower river and effluent creek systems used for the delivery of regulated water determined. Subject to reasonable socio-economic impacts, limits on daily supply volumes established for effluent systems such that they do not exceed 80 percent of the channel capacity for more than 10 percent of days in each month of each year. Where daily supply volumes are currently substantially less than channel capacity, alternative limits established to reduce the impact of unseasonal flows arising from future access licence dealings.

PARTIAL

- This Plan provides for the determination of maximum operating channel capacities in accordance with the SWMOP target.
- This Plan also provides for the distribution of numerical extraction rights that could be used to facilitate management to desired capacity targets.
- The Plan also notes a number of maximum channel capacity constraints that would apply at the start of this Plan. However, these are only expressed as a Note and are therefore not part of the Plan.

Target 5

Access rights for water access licensees clearly and legally specified in terms of share and extraction components.

HIGH

- Access rights are specified and tradeable

Target 12

Measures in place in all water sources subject to a gazetted water sharing plan to protect basic domestic and stock water rights from the impact of other water access and use.

FULL

- Obligations are set out in Part 5

Target 14

Water sources, ecosystems and sites of cultural or traditional importance to Aboriginal people identified, plans of management prepared, and measures put in place to protect and improve them.

LOW

- The Plan does not address specific Aboriginal cultural or traditional requirements and has not identified any sites of particular importance.
- It is likely that the environmental flow rules in the Plan will contribute to protection.

<p>Target 16a All share components of access licences tradeable.</p>	<p>PARTIAL</p>	<ul style="list-style-type: none"> • All share components are tradeable. • This Plan prohibits the movement of share component from upstream of Lake Cargelligo Weir to downstream of Lake Cargelligo Weir and vice versa. However it does provide for review and possible removal or modification of this restriction. • The limits placed on movement of share component and allocation into Willandra Creek and the Lachlan downstream of Booligal have been put in place because of the potential environmental impacts that would result from changes in flow regimes resulting from increased regulated flow.
<p>Target 16c Conversion factors and protocols established to facilitate trading and dealings between water sources, whilst also protecting existing access and environmental water</p>	<p>FULL</p>	<ul style="list-style-type: none"> • Assignments between water sources are in line with Government policy
<p>Target 16d Reduced conversion factors only applied when necessary to offset increased losses associated with water supply delivery</p>	<p>FULL</p>	<ul style="list-style-type: none"> • The Plan does not impose reduction factors
<p>Target 16f Zones established where necessary for environmental protection and limits/ constraints on water dealings in them made explicit.</p>	<p>PARTIAL</p>	<ul style="list-style-type: none"> • This Plan establishes dealing zones being upstream and downstream of Cargelligo Weir, downstream of Booligal and Willandra Creek.
<p>Target 35 All management plans incorporating water quality objectives that have considered Government approved Interim Environmental Objectives, the current Australian and New Zealand Environment and Conservation Council Guidelines and the recommendations of relevant Healthy Rivers Commission Inquiries.</p>	<p>PARTIAL</p>	<ul style="list-style-type: none"> • This Plan included a general objective for ecosystem water quality. • This Plan makes specific provision for water quality management through 20,000 Megalitre Water Quality Allowance for salinity and blue-green algae.

Appendix 1 Rivers and lakes in the Lachlan Regulated River Water Source

(1) The Lachlan Regulated River Water Source includes the following:

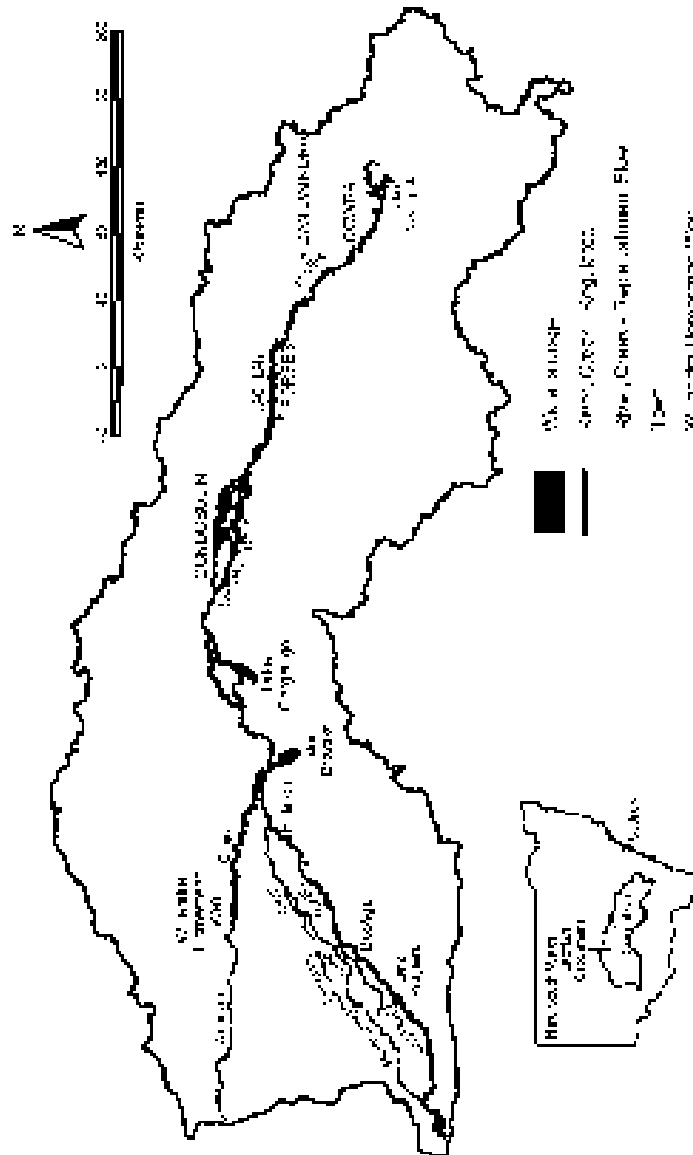
- (a) Anabranch of Willandra Creek, offtaking within Lot 2, DP 750671, Parish of Gunnagai, County of Blaxland.

- (b) Buggabuggan Creek from its confluence with the Lachlan River to its confluence with Goobang Creek.
- (c) Carrawabbity Creek, to the northern boundary of Lot 148, DP 750146, Parish of Carrawabbity, County of Ashburnham, from its junction with the Lachlan River.
- (d) Goobang Creek from its confluence with Buggabuggan Creek to its confluence with the Lachlan River.
- (e) Island Creek from the upstream to the downstream confluences with the Lachlan River.
- (f) Jemalong Creek, from its confluence with the Lachlan River to the north-east boundary of Lot 18, DP 752953, Parish of Tallabung, County of Forbes.
- (g) Lachlan River, from the north-east corner of Lot 2, DP 545539, Parish of Yewrangara, County of Georgiana, downstream to the junction with the Murrumbidgee River.
- (h) Abercrombie River, from the south-east corner of Lot 2, DP 531871, Parish of Grabine, County of Georgiana to the Wyangala Dam Storage.
- (i) All tributaries to the Wyangala Dam storage (named and unnamed, excluding the Lachlan River and the Abercrombie River), from the high water mark of the storage.
- (j) Lake Brewster.
- (k) Lake Cargelligo.
- (l) Nerathong Creek from its confluence with Wallamundry Creek to its confluence with the Lachlan River.
- (m) The channel or cutting connecting The Curlew Water and Lake Cargelligo.
- (n) The channel or cutting connecting The Sheet of Water and The Curlew Water.
- (o) The Curlew Water.
- (p) The cutting connecting the Lachlan River and The Sheet of Water.
- (q) The Lake Creek connecting Lake Cargelligo and Lachlan River.
- (r) The Sheet of Water.
- (s) Torriganny Creek.
- (t) Unnamed lagoon offtaking from the Lachlan River in Reserve 1013789, Parish of Jundrie, County of Blaxland.
- (u) Unnamed watercourse offtaking from the Lachlan River within Lot 1, DP 112549, Parish of Hunthawong, County of Nicholson.
- (v) Wallamundry Creek from its confluence with Island Creek to its confluence with Wallaroi Creek.
- (w) Wallaroi Creek from its confluence with Wallamundry Creek to its confluence with the Lachlan

River.

- (x) Willandra Creek from the offtake of the Lachlan River downstream to the Willandra Homestead Weir located on Lot 1 DP 247335, Parish of Bundunglong, County of Franklin.
- (y) Mandagery Creek from GPS Location E619870, N6293815 (MGA 94 Datum) to its confluence with the Lachlan River.

Appendix 2 Lachlan Water Management Area



Appendix 3 State floodplain harvesting principles

Section 1 Definition and categories of floodplain harvesting

- (1) Floodplain harvesting is the collection, extraction or impoundment of water flowing

across floodplains. The floodplain flows can originate from local runoff that has not yet entered the main channel of a river, or from water that has overflowed from the main channel of a river during a flood. For the purposes of this policy the floodplain is defined as extending to the 1 in 100 year flood line.

- (2) Floodplain harvesting can generally be put into one of three categories:
- (a) diversion or capture of floodplain flows using purpose built structures or extraction works to divert water into storages, supply channels or fields or to retain flows,
 - (b) capture of floodplain flows originating from outside of irrigated areas using works built for purposes other than floodplain harvesting. Examples are:
 - (i) levees and supply works such as off river storages constructed in billabongs or depressions that fill from floodplain flows, and
 - (ii) below ground level water channels from which the water is pumped into on farm storages, and
 - (c) opportunistic diversions from floodplains, depressions or wetlands using temporary pumps or other means.

Note—

Capture of rainfall or runoff from farm irrigation fields, via tailwater systems or other means, is not floodplain harvesting.

Section 2 Floodplain harvesting management issues

- (1) The harvesting of water from floodplains reduces the amount of water reaching or returning to rivers. This decreases the amount of water available to meet downstream river health, wetland and floodplain needs and the water supply entitlements of other users.
- (2) Floodplain harvesting can seriously affect the connectivity between the local floodplain, wetlands and the river, through the loss of flow volume and redirection of water flows.
- (3) The [Water Act 1912](#) provided powers to license floodplain harvesting. However this was never applied as there was generally no requirement to restrict total overall water extractions or off-allocation diversions. Harvested floodplain water has been treated as a freely available bonus to a farmer's licensed entitlement.
- (4) This situation has now changed. The Murray-Darling Basin cap applies to all water diverted from inland NSW catchments and rivers. Licensed and off-allocation access has been subject to increasing restrictions. Embargoes on water licences are also in place on many areas on the coast.
- (5) Floodplain harvesting works and water extractions also clearly fall into those activities

that the *Water Management Act 2000* requires to be only undertaken by way of a licence. The Act also requires such licensing to consider the ecological functioning of floodplains.

- (6) Floodplain harvesting can no longer be left outside of the State's water management and compliance system or as a source of increase in further water extractions. Given this, it is the Government's intention that floodplain harvesting works and taking of water from floodplains be licensed and managed. It will take a number of years to complete the process. However, the water sharing plans must signal the basic principles that will govern the process.

Section 3 Management of floodplain harvesting

- (1) Floodplain harvesting will not be a component of individual water sharing plans being produced for the regulated and unregulated rivers. During flood times water originating in one river system may flow across floodplains and along "flood runners" into adjacent river systems. It is therefore often not possible to assign an area of floodplain to a particular river.
- (2) Management of floodplain harvesting will occur on a state-wide basis, according to the six principles set out in section 4.
- (3) There are many thousands of existing floodplain works which will require licensing and this will be done over the next couple of years. The licensing process will include proper environmental impact assessments.
- (4) A separate category of licence will be established.

Section 4 Floodplain harvesting principles

- (1) Principle 1 is that all existing floodplain harvesting works and floodplain harvesting extractions will be licensed.
- (2) Principle 2 is that licensing will focus initially on controlling the structures, but with movement towards specifying volume limits and flow related access conditions, including metering of pumps

Note—

While all surface and groundwater licences now (or will shortly) specify volume entitlements or annual limits to water, it is not possible to do this for floodplain harvesting licences at this stage. This is because the pattern of use is highly episodic and site and infrastructure specific, and current data on structures and use is minimal.

The Department of Land and Water Conservation will licence existing structures and specify monitoring of use (including metering of pumps) as a licence condition where possible. This may not be possible initially in cases where a tailwater system is also picking up floodplain water as they are difficult to separate, or where overland flow is being captured by a billabong for which we do not have any information on its capacity. Options for application of volumetric conditions will be developed and implemented where appropriate within the first five years of the initial water sharing plans.

- (3) Principle 3 is that no new works or expanded floodplain harvesting activities in the Murray-Darling Basin that will result in the diversion of additional water will be authorised.

Note—

All new floodplain harvesting works are required by law to be licensed. However, as any new works would result in a growth in diversion, which would threaten river health and/or the water entitlements of others, such works would have to be offset by a reduction in other forms of water diversion.

- (4) Principle 4 is that floodplain diversions associated with works in place in the Murray-Darling Basin prior to the end of the 1994 irrigation season will be considered as within the NSW cap.

Note—

Because cap is based on the use of water with development as it was in 1994, NSW considers that the water use that would result from use of the floodplain infrastructure in place in 1994, is part of the cap in each system.

- (5) Principle 5 is that once licensing is completed, an assessment of long-term use resulting from authorised structures against that from structures which existed in 1994 will be carried out and appropriate steps taken to keep harvesting to cap levels.

Note—

It is likely that there has been some growth in floodplain harvesting works and extractions since 1994. However, it is expected that the licensing process will result in some modification of existing works. This may be adequate to offset any post 1994 development. If not, restrictions on the use of the licensed works will have to be applied to return diversions to cap levels. Such restrictions could include restrictions on pumping times or a requirement to modify the work to allow a proportion of flows to be bypassed. By preventing the construction or enlargement of new works, the opportunity for any further growth in floodplain harvesting diversions will be minimised.

- (6) Principle 6 is that floodplain harvesting rights will not be tradeable.

Note—

Trading of floodplain harvesting rights will not be permitted because the frequency and volume of use is site and infrastructure specific, and volume management will take some time to implement.

Appendix 4 Performance indicators

Performance indicators for the Lachlan Regulated River Water Sharing Plan

Performance indicator	Related objective	Assessed by	Commentary
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<p>(a) Change in ecological condition of this water source and dependent ecosystems.</p>	<p>clause 10 (a)</p>	<ul style="list-style-type: none"> • Monitoring of ecological response to changed flow regimes, under the Integrated Monitoring of Environmental Flows program (IMEF) (each water source will have specific hypotheses from the set developed under IMEF). • Other relevant studies as may be undertaken in specific water sources. 	<ul style="list-style-type: none"> • IMEF tests a number of hypotheses to indicate how elements of river ecology respond to different aspects of the flow regime (including Environmental Flow Rules, irrigation flows, and floods and wetland connectivity).
<p>(b) Change in low flow regime.</p>	<p>clause 10 (a)</p>	<ul style="list-style-type: none"> • Number of days per water year where flow is below natural 95th and 80th percentiles. • Average and maximum number of days per water year of continuous periods of flow which is below natural 95th and 80th percentiles. • Measurement at end of system and specified key sampling sites. 	<ul style="list-style-type: none"> • River Flow Objectives (RFOs) 1 and 6. • RFOs are the objectives agreed to by the NSW Government aimed at safeguarding river flows for environmental health. <p>Note—</p> <p style="padding-left: 20px;">Not every RFO is relevant to every river in NSW.</p> <ul style="list-style-type: none"> • Analysis would need to incorporate reference to seasonal indicators. • Long term modelling will reflect the influence of climate on flows. • Appropriate data relating to flow distribution, such as summer/ winter cropping balance, agronomical practices, on farm storage development, management and operation of environmental releases etc. • Baseline should be the modelled water sharing plan scenario (rather than natural flows).

(c) Change in moderate to high flow regime.	clause 10 (a)	<ul style="list-style-type: none"> • Number of days per water year where flow is above natural 30th, 15th and 5th percentiles. • Average and maximum number of days per water year of continuous periods of flow which is above natural 30th, 15th and 5th percentiles. • Measurement at end of system and other key sampling sites in this water source. 	• RFO 3.
(d) Change in water quality.	clause 10 (a) clause 10 (vi) clause 10 (b) clause 10 (iv) clause 10 (c) clause 10 (d)	<ul style="list-style-type: none"> • Assessment and statistical analysis of key water quality parameters, and relationship to flow. 	<ul style="list-style-type: none"> • The Plan rules will contribute to a long-term change in water quality by affecting flow regimes and flow management to address issues such as algal management. • There are many non-water sharing plan related factors that affect water quality (eg land-based activities and thermal pollution).
(e) Extent to which basic landholder rights requirements have been met.	clause 10 (b) (ii)	<ul style="list-style-type: none"> • Basic rights allowances made according to plan provisions/ implementation program requirements. • Flows adequate to meet basic rights requirements (taking into consideration allowances for delivery). 	<ul style="list-style-type: none"> • Basic rights usage figures in water sharing plans are estimated volumes (not actual use). • Basic rights represents a very small proportion of water extraction in regulated systems.
(f) Extent to which local water utility and major utility requirements (where major utilities are involved in urban water provision) have been met.	clause 10 (b) clause 10 (c)	<ul style="list-style-type: none"> • Percentage of years that reserves were adequate to satisfy local water utility water requirements. 	

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| (g) Change in economic benefits derived from water extraction and use. | clause 10 (b) | <ul style="list-style-type: none"> • Change in regional gross margins versus annual total extractions based on year 1 benchmarks (as represented in IQQM). • Movement of water to higher value crops as measured by increases in area and/or water taken by these enterprises versus lower value uses. • Change in unit price of water transferred. • Annual total volume of access licence assigned in each water year. | <ul style="list-style-type: none"> • There are many factors affecting economic status of a region, for example commodity prices, other sources of water (eg groundwater). • The Performance Indicator is intended to isolate as much as possible the effects of water availability and price on the gross margin returns at a regional level. • Assessment undertaken as part of plan performance monitoring will make assumptions to attempt to identify the impact of the plan provisions. |
| (h) Extent of recognition of spiritual, social and customary values of water to Aboriginal people. | clause 10 (d) | <ul style="list-style-type: none"> • Assessment of amount and type of information collected to identify the range of values of water to Aboriginal people. | <ul style="list-style-type: none"> • The collection of information on the values associated with water is considered the first step in addressing the objects of the Act. It would be expected that at the end of 5 years there should be relevant information collected for each water source, as a minimum requirement. |
| (i) Extent to which native title rights have been met. | clause 10 (d) | <ul style="list-style-type: none"> • Native title rights allowances made according to plan provisions/implementation program requirements. | |

Appendix 5 (Repealed)