

Water Sharing Plan for the Lachlan Regulated River Water Source 2016 (amended 2019)

Notes.

- 1 In accordance with section 48 of the *Water Management Act 2000*, the Minister must take all reasonable steps to give effect to the provisions of this Plan when exercising functions under the Act.
- 2 In accordance with section 49 of the *Water Management Act 2000*, public authorities must also have regard to the provisions of this Plan to the extent they apply to the public authority
- 3 The Minister may amend this Plan at any time under section 45 of the *Water Management Act 2000*, including if satisfied it is in the public interest to do so, or in such circumstances, in relation to such matters and to such extent as Part 12 of this Plan provides.

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Part 1 Introduction

1 Name of Plan

This Plan is the *Water Sharing Plan for the Lachlan Regulated River Water Source 2016 (this Plan)*.

2 Nature and status of Plan

- (1) This Plan is made under section 50 of the *Water Management Act 2000* (the Act).
- (2) This Plan is a plan for water sharing and generally deals with the matters set out in sections 20 and 21 of the Act, as well as other sections of the Act.

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

3 Commencement

- (1) This Plan commences on 1 July 2016.
- (2) This Plan replaces the *Water Sharing Plan for the Lachlan Regulated River Water Source 2003*.

Notes.

- 1 In accordance with section 43 of the Act, this Plan will have effect for 10 years from 1 July 2016. The Minister may extend this Plan for a further period of 10 years after it is due to expire, in accordance with section 43A of the Act.
- 2 Under the *Intergovernmental Agreement on Implementing Water Reform in the Murray-Darling Basin* and the associated National Partnership Agreement, NSW agreed to develop water resource plans for Murray-Darling Basin water resources that are consistent with the requirements of the *Basin Plan 2012*. This Plan was amended in 2019, partly to meet NSW's commitments under these agreements. The water resource plan for the Lachlan surface water area commences on 1 July 2019. Provisions of this Plan are included as part of this water resource plan.

4 Application of Plan

- (1) This Plan applies to the Lachlan Regulated River Water Source (*the water source*) within the Lachlan Water Management Area.

Note. The Lachlan Water Management Area was constituted by Ministerial order made under section 11 of the Act and published in the NSW Government Gazette No 180 on 23 November 2001 at page 9389.

- (2) The water source consists of:
 - (a) the water between the banks of all rivers, from the upper limits of Wyangala Dam water storage (*Wyangala Dam*) downstream to the junction of the Lachlan River with the Murrumbidgee River, that have been declared by the Minister to be a regulated river, and
 - (b) the water taken through floodplain harvesting in conjunction with an access licence with a share component that specifies the water source.

Notes.

- 1 The *Regulated River Order for the Lachlan Regulated River* was made by the Minister and published in the NSW Government Gazette No 92 on 14 September 2012 at page 3955 and amended by item [89] of Schedule 1 of the *Water Management Amendment Act 2018*.
- 2 An overview map of the Lachlan Regulated River is shown in Appendix 2.
- 3 **floodplain harvesting** is defined in the Dictionary.
- 4 The water source does not include the following:
 - (a) the Lachlan Unregulated River Water Sources to which the *Water Sharing Plan for the Lachlan Unregulated River Water Sources 2012* applies, or
 - (b) the Lachlan Alluvial Water Sources to which the *Water Sharing Plan for the Lachlan Alluvial Groundwater Sources 2019* applies.

5 (Repealed)

6 Interpretation

- (1) Unless otherwise defined in this Plan, words and expressions that are defined in the Act or in the regulations made under the Act have the same meaning in this Plan.
- (2) Words and expressions that are defined in the Dictionary to this Plan have the meanings set out in the Dictionary.
- (3) Unless otherwise specified, a reference to the *Water Sharing Plan for the Lachlan Unregulated River Water Sources 2012* includes a reference to any plan that replaces that plan.
- (4) Unless otherwise specified, a clause that applies to a category of access licence also applies to any subcategories of that category of access licence.
- (5) The Dictionary and Schedules to this Plan form part of this Plan.
- (6) A number in brackets following the name of a gauge is the gauge number.
- (7) Notes in the text of this Plan do not form part of this Plan.
- (8) Appendices to this Plan do not form part of this Plan.

Part 2 Vision, objectives, strategies and performance indicators

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

7 Vision statement

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

- (a) the health and enhancement of the water source and its water-dependent ecosystems,
- (b) the productive and economically efficient use of water resources,
- (c) the social and cultural benefits to urban and rural communities that result from the sustainable and efficient use of water, and
- (d) the spiritual, social, customary and economic benefits to Aboriginal communities that result from the sustainable and efficient use of water.

8 Acknowledgment

Respect is paid to the Traditional Owners of this country, who are acknowledged as the first natural resource managers within the Lachlan Water Management Area.

9 Environmental objectives

- (1) The broad environmental objective of this Plan is to protect and, where possible, enhance the ecological condition of this water source and its water-dependent ecosystems (instream, riparian and floodplain ecosystems).

Note. The ecological condition of this water source includes high ecological value aquatic ecosystems, target species, communities, populations and key ecosystem functions as defined in Appendix 3.

- (2) The targeted environmental objectives of this Plan are as follows:
 - (a) to protect and, where possible, enhance the following over the term of this Plan:
 - (i) the recorded distribution or extent of target ecological populations including native fish and native vegetation,

Note. Target ecological populations include populations of native fish and native vegetation. Criteria for identifying priority monitoring locations of target ecological populations for the water source are defined in Appendix 3.
 - (ii) the population structure of target ecological populations including native fish and native vegetation communities,

Note. Target ecological populations for this water source are defined in Appendix 3.
 - (iii) the connectivity between and within water sources, including to support surface and groundwater exchange and downstream processes including priority carbon and nutrient pathways and priority fish passages,

Notes.

- 1 **Carbon and nutrient pathways** is defined in the Dictionary.
- 2 Criteria for identifying priority carbon and nutrient transport pathways, and priority fish passages in these water sources is defined in Appendix 3.
- 3 Downstream processes may include maintaining connectivity with downstream water sources.

- (iv) water quality within the water source to support water-dependent ecosystems and ecosystem functions,

Notes.

- 1 Water quality targets for the water source are defined in the *Water quality management plan for the Lachlan water resource plan area (SW10)*.
- 2 Criteria for identifying priority monitoring locations for water quality measurables are defined in Appendix 3.
- 3 Clause 28 of this Plan outlines the provisions for a Water Quality Allowance (WQA). The EWA water is managed by an Environmental Watering Advisory Group according to the rules in this Plan, and guided by the Lachlan Long-term Watering Plan and Lachlan Annual Watering Plan.

- (b) to support environmental watering in the water source to contribute to maintaining or enhancing ecological condition in streams, riparian zones, dependent wetlands and floodplains.

Note. Clause 27 outlines the provisions for an Environmental Watering Allowance (EWA). The EWA water is managed by an Environmental Watering Advisory Group according to the rules in this Plan, and guided by the Lachlan Long-term Watering Plan and Lachlan Annual Watering Plans.

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

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

Notes.

- 1 Part 7 of this Plan reserves all water remaining above the long-term average annual extraction limit and cumulative annual extraction limit for the environment.
- 2 This strategy will contribute to all the objectives in subclause (2)

- (b) to reserve a portion of natural flows to mitigate alterations to natural flow regimes in this water source,

Notes.

- 1 **Flow regimes** is defined in the dictionary
- 2 The rules in clause 26 of this Plan mitigate the alterations to medium and high flows in the natural flow regime of this water source by ensuring a portion of tributary flows are protected. These rules contribute to all objectives in subclause (2).
- 3 The rules in clause 26 of this Plan mitigate the alterations to medium and high flows in the natural flow regime of this water source by requiring translucent releases from Wyangala Dam. These rules contribute to all objectives in subclause (2).

- (c) to reserve a portion of natural flows to maintain hydrological connectivity between the water source and riparian zones, wetlands and floodplains connected to the water source,

Note. The rules in clause 26 of this Plan maintain the hydrological connectivity by ensuring

a portion of medium and high natural flows are protected. These rules contribute to all objectives in subclause (2).

- (d) to reserve a share of water to support environmental watering events in streams, riparian zones, floodplains and wetlands connected to the water source,

Note. The rules in clause 27 of this Plan ensure that an environmental water account is maintained for purposes including those listed in clause 27(3). These rules contribute to all objectives in subclause (2).

- (e) to reserve a share of water for the management of water quality, including for the purposes specified in clause 28(3),

Notes.

1 Clause 28 of this Plan outlines the provisions for a Water Quality Allowance (WQA).

2 These rules contribute to all objectives in subclause (2).

- (f) to reserve a share of water to maintain a visible flow in the Lachlan River at Geramy.

Notes.

1 Clause 31 of this Plan outlines provisions for a Minimum Flow Rule

2 These rules contribute to all objectives in subclause (2).

- (4) The performance indicators used to measure the success of the strategies for reaching the broad environmental objective in subclause (1) will be evaluated by determining the extent to which:

- (a) the combined outcomes of the targeted objectives in subclause (5) have contributed to achieving the broad objective, and

- (b) external influences on this water source during the term of this Plan have affected progress toward achieving the broad objective.

- (5) The performance indicators used to measure the success of the strategies for reaching the targeted environmental objectives in subclause (2) are the changes or trends in ecological condition during the term of this Plan, including the following:

- (a) the recorded range or extent of target ecological populations, including native fish and native vegetation, as described in Appendix 3,

- (b) the recorded condition of target ecological populations including native fish and native vegetation, as described in Appendix 3,

- (c) measurements of carbon and nutrient transport processes and fish movements through priority fish passage areas as described in Appendix 3,

- (d) the recorded values of water quality measurements including salinity, turbidity, total nitrogen, total phosphorous, pH, water temperature and dissolved oxygen, and

- (e) the extent to which the strategies in subclause (3) have provided flow conditions of sufficient magnitude, frequency, timing and water quality to achieve targeted environmental objectives.

Note. The priority performance indicators to measure targeted environmental objectives, and the corresponding strategies and rules to achieve them, are described in Appendix 3.

- (6) In evaluating the effectiveness of the strategies in meeting the objectives of this clause, the following will be relevant:
 - (a) the extent to which changes in the performance indicators can be attributed to the strategies and rules in this Plan, and
 - (b) the extent to which the strategies and rules in this Plan have been implemented and complied with.

10 Economic objectives

- (1) The broad economic objective of this Plan is to maintain access to water to optimise economic benefits for irrigation, water-dependent industries and local economies.

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

- (a) to provide water trading opportunities for water-dependent economic activities,

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

- (b) to maintain or enhance access to water for agriculture, business and landholders, and

- (c) to contribute to maintaining water quality for agriculture, business and landholders.

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

- (a) to provide a stable and predictable framework for sharing water among water users,

Note. The individual account management rules in Part 9 and priority of extraction rules in clause 33 provide certainty in how water is to be shared between individual access licence holders and different categories of access licences. These rules contribute to all objectives in subclause (2).

- (b) where possible, to provide for flexibility of access to water,

- (c) to manage extractions to the long-term average annual extraction limit and the cumulative annual extraction limit, and provide rules for managing extractions within those limits that recognise different climatic conditions in different years, including during drought,

Note. The application of the long-term average annual extraction limit and the cumulative annual extraction limit and the assessment and compliance rules in Part 7 of this Plan manage extractions to different climatic conditions in different years. These rules contribute to the objective in subclause (2) (b).

- (d) to provide for trade of water allocations and entitlements within the water source, subject to environmental and system constraints, and

Note. The rules in Part 10 of this Plan permit a variety of dealings within environmental and system constraints, including assignment of rights under access licences, assignment of water allocations between access licences and the ability to move the share component of an access licence from one water source to another. These rules contribute to the objective in subclause (2) (a).

- (e) to reserve a portion of natural flows to mitigate deterioration in water quality due to alterations to natural flow regimes.

Notes.

- 1 The rules in Division 1 of Part 6 of this Plan mitigate the alterations to medium and high flows in the natural flow regime of the water source by ensuring a portion of tributary flows are protected. These rules contribute to all objectives in subclause (2).
- 2 The rules in clause 26 of this Plan mitigate the alterations to medium and high flows in the natural flow regime of this water source by requiring translucent releases from Wyangala Dam.
- 3 The rules in clause 28 of this Plan reserve a share of water for the management of water quality.

- (4) The performance indicators used to measure the success of the strategies for reaching the broad economic objective in subclause (1) will be evaluated by determining the extent to which:

- (a) the combined outcomes of the targeted economic objectives in subclause (5) have contributed to achieving the broad objective, and
- (b) external influences on the water source during the term of this Plan have affected progress towards achieving the broad objective.

Note. External influences may include trends in urban, agricultural and industrial development, energy costs, commodity prices, interest rates, technology advances and changes in policy or regulation.

- (5) The performance indicators used to measure the success of the strategies for reaching the targeted economic objectives in subclause (2) are the changes or trends in economic benefits, including the following:

- (a) the economic benefits of water extraction and use, by measuring factors including the movement of water to higher value uses,
- (b) the economic benefits of water trading including changes or trends in the following:
 - (i) the unit price of water that is subject to a dealing,
 - (ii) the annual total volume of access licence share components subject to a dealing,
 - (iii) the annual total number of access licence shares subject to a dealing,
 - (iv) the weighted average price of water traded within the water source, and

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

- (c) the recorded values of water quality measurements including salinity, sodium adsorption ratio, harmful algal blooms, total nitrogen, total phosphorus, pH, and dissolved oxygen.
- (6) In evaluating the effectiveness of the strategies in meeting the objectives of this clause, the following will be relevant:
 - (a) the extent to which stakeholders have considered the operation of this Plan to be clearly explained and predictable, and
 - (b) the extent to which changes in the economic benefits of water extraction and use can be attributed to the strategies in subclause (3) and rules in this Plan.

Note. The process for determining the priority for monitoring the targeted economic objectives, and the corresponding strategies and rules to achieve them, are described in Appendix 3.

11 Aboriginal cultural objectives

- (1) The broad Aboriginal cultural objective of this Plan is to maintain the spiritual, social, customary and economic values and uses of water by Aboriginal people.
- (2) The targeted Aboriginal cultural objectives of this Plan are as follows:
 - (a) to provide access to water in the exercise of native title rights,
 - (b) to provide access to water for Aboriginal cultural use, including fishing,
Note. Relevant fish species may include golden perch and Murray cod.
 - (c) to protect identified water-dependent culturally significant areas, including important riparian vegetation communities, and
 - (d) to maintain or enhance water quality to ensure suitability of water for Aboriginal cultural use.
- (3) The strategies for reaching the Aboriginal cultural objectives of this Plan are as follows:
 - (a) to manage access to water consistently with the exercise of native title rights,
 - (b) to provide for water associated with Aboriginal cultural values and uses,
Note. The rules in Part 8 of this Plan provide opportunities for Aboriginal people to access water by allowing for the granting of an access licence of the subcategory "Aboriginal cultural". This rule contributes to the objective in subclause (2) (b).
 - (c) to reserve a portion of natural flows to mitigate alterations to natural flow regimes in this water source,

Notes.

- 1 The rules in clause 26 of this Plan mitigate the alterations to medium and high flows in the natural flow regime of this water source by ensuring a portion of tributary flows are protected. These rules contribute to the objectives in subclauses (2) (b), (c) and (d).

2 The rules in clause 26 of this Plan mitigate the alterations to medium and high flows in the natural flow regime of this water source by requiring translucent releases from Wyangala Dam. These rules contribute to the objectives in subclauses (2) (b), (c) and (d).

(d) to reserve a portion of natural flows to maintain hydrological connectivity between the water source and riparian zones, wetlands and floodplains connected to the water source, and

Note. The rules in clause 26 of this Plan maintain the hydrological connectivity between this water source and wetlands connected to this water source by ensuring a portion of medium and high natural flows are protected. These rules contribute to the objectives in subclauses (2) (b), (c) and (d).

(e) to provide for Aboriginal values to be considered as part of the broader environmental watering events.

Note. The rules in clause 27 of this Plan ensure that an environmental water account is maintained for purposes including to support environmental assets that have been identified as having Aboriginal cultural value. This rule contributes to the objectives in subclauses (2) (b), (c) and (d).

(4) The performance indicators used to measure the success of the strategies for reaching the broad Aboriginal cultural objective in subclause (1) will be evaluated by determining the extent to which:

(a) the combined outcomes of the targeted Aboriginal cultural objectives measured in subclause (5) have contributed to achieving the broad objective, and

(b) external influences on this water source during the term of this Plan have affected progress toward achieving the broad objective.

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

(5) The performance indicators used to measure the success of the strategies for reaching the targeted Aboriginal cultural objectives in subclause (2) will be evaluated as follows:

(a) by comparing changes, or trends in, the use of water by Aboriginal people during the term of this Plan by measuring:

(i) the extent to which native title rights are able to be exercised, consistently with any determination of native title, and

(ii) the extent to which access to water has achieved Aboriginal cultural outcomes,

(b) by comparing changes, or trends in, the recorded range or extent of target populations of native fish, as described in Appendix 3,

(c) by comparing changes, or trends in, the recorded range or condition of target populations of riparian vegetation,

(d) by considering the extent to which the protection of identified cultural assets can

be attributed to the strategies in subclause (3) and rules in this Plan,

- (e) by considering the extent to which Aboriginal people have considered the operation of this Plan to be beneficial to meeting their needs for water-dependent Aboriginal cultural uses and values,
- (f) by considering the extent to which changes in the use of water by Aboriginal people can be attributed to the strategies in subclause (3) and rules in this Plan, and
- (g) by comparing changes, or trends in, the recorded values of water quality measurements including salinity, harmful algal blooms, total nitrogen, total phosphorus, pH, water temperature and dissolved oxygen.

11A Social and cultural objectives

- (1) The broad social and cultural objectives of this Plan are to maintain or enhance the efficient and sustainable access to water to support basic human needs, and water dependant values, culture, heritage and recreational uses.
- (2) The targeted social and cultural objectives of this Plan are to maintain or improve the following:
 - (a) access to water for basic human needs, town water supply and domestic and stock purposes,
 - (b) access to water for water-dependent cultural, heritage and recreational uses, including recreational fishing, and
Note. Native fish species that are important for recreational fishing may include golden perch and Murray cod.
 - (c) water quality for basic human needs, town water supply, domestic and stock purposes and water-dependent cultural, heritage and recreational uses, including recreational fishing.
- (3) The strategies for reaching the social and cultural objectives of this Plan are as follows:
 - (a) to provide water access for basic human needs, town water supply, and for domestic and stock purposes,
Note. The rules for the maintenance of water supply and replenishment flows in clauses 29 and 30 of this Plan ensure that water is available for basic human needs, town water supply and domestic and stock purposes. These rules contribute to the objective in subclause (2) (a).
 - (b) to reserve a portion of natural flows to mitigate alterations to natural flow regimes in this water source,

Notes.

- 1 The rules in clause 26 of this Plan mitigate the alterations to medium and high flows in the natural flow regime of this water source by ensuring a portion of tributary flows are protected. These rules contribute to the objectives in subclauses (2) (b) and (c).

- 2 The rules in clause 26 of this Plan mitigate the alterations to medium and high flows in the natural flow regime of this water source by requiring translucent releases from Wyangala Dam. These rules contribute to the objectives in subclauses (2) (b) and (c).
- (c) to reserve a portion of natural flows to maintain hydrological connectivity between the water source and riparian zones, wetlands and floodplains connected to the water source, and
- Note.** The rules in clause 26 of this Plan maintain the hydrological connectivity by ensuring a portion of medium and high natural flows are protected. These rules contribute to the objectives in subclauses (2) (b) and (c).
- (d) to minimise adverse impacts of water delivery on community values and uses.
- Note.** The rules for water delivery and channel capacity constraints, priority of extractions for access licences and the environmental water account, rates of change to storage releases, supply of orders when remaining allocations are low and dam operation during floods and spills in Part 6 of this Plan minimise the impact of water delivery on the community. These rules contribute to all objectives in subclause (2).
- (4) The performance indicators used to measure the success of the strategies for reaching the broad social and cultural objectives in subclause (1) will be evaluated by determining the extent to which:
- (a) the combined outcomes of the targeted social and cultural objectives measured in subclause (5) have contributed to achieving the broad objective, and
- (b) external influences on this water source during the term of this Plan have affected progress toward achieving the broad objective.
- Note.** External influences may include trends in urban, agricultural and industrial development, social or cultural behaviour, climate and changes in policy or regulation.
- (5) The performance indicators used to measure the success of the strategies for reaching the targeted social and cultural objectives in subclause (2) will be evaluated as follows:
- (a) by comparing changes, or trends in, the social and cultural uses of water during the term of this Plan by measuring:
- (i) the extent to which basic landholder, domestic and stock rights have been met, and
- (ii) the extent to which major utility and local utility access licence requirements have been met,
- (b) by comparing changes, or trends in, the recorded range or extent of target populations of native fish that are important for recreational fishing, as described in Appendix 3,
- (c) by comparing changes, or trends in, the recorded takes of native fish that are important for recreational fishing within legal age and size classes, as described in Appendix 3,

- (d) by considering the extent to which changes in the social and cultural use of water can be attributed to the strategies in subclause (3) and rules in this Plan, and
- (e) by comparing changes, or trends in, the recorded values of water quality measurements including salinity, harmful algal blooms, total nitrogen, total phosphorus, pH, water temperature and dissolved oxygen.

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Part 3 Bulk access regime

12 Bulk access regime

- (1) This Plan establishes a bulk access regime for the extraction of water under access licences in the water source, having regard to the following:
 - (a) the environmental water provisions established under Part 4 of this Plan,
 - (b) the requirements for basic landholder rights identified under Division 2 of Part 5 of this Plan,
 - (c) the requirements for water for extraction under access licences identified under Division 3 of Part 5 of this Plan, and
 - (d) the access licence dealing rules established under Part 10 of this Plan.
- (2) The bulk access regime for the water source:
 - (a) establishes rules according to the following:
 - (i) which access licences are granted as provided for in Part 8 of the Plan,
 - (ii) which available water determinations are to be made as provided for in Division 2 of Part 7 of this Plan,
 - (iii) which access licences are managed as provided for in Part 9 of this Plan,
 - (b) establishes rules with respect to the priorities according to which water allocations are to be adjusted as a consequence of any reduction in the availability of water due to an increase in average annual extraction against the long-term average annual extraction limit or the cumulative extraction limit contained in Division 1 of Part 7 of this Plan,
 - (c) recognises, and is consistent with, the following:
 - (i) the limits to the availability of water as provided for in Division 1 of Part 7 of this Plan,
 - (ii) the water management principles set out in section 5 of the Act,
 - (iii) the effect of climatic variability on the availability of water as described in clause 13, and
 - (d) contains provisions with respect to the conditions that must be imposed as mandatory conditions on access licences contained in Division 2 of Part 11 of this Plan.

13 Climatic variability

This Plan recognises the effects of climatic variability on river flow in the water source through provisions:

- (a) contained in Part 7 of this Plan:
 - (i) that manage the sharing of water within the limits of water availability on a long-term average annual basis, and
 - (ii) that establish priorities according to which water allocations are to be adjusted as a consequence of any reduction in the availability of water due to an increase in the average annual extraction against the long-term average annual extraction limit or the cumulative annual extraction limit, and
- (b) contained in Division 5 of Part 7 of this Plan that manage the sharing of water between categories of access licences on an annual basis.

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

Part 4 Planned environmental water provisions

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

14 General

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

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

15 Commitment and identification of planned environmental water

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

- (a) the commitment of the physical presence of water in the water source,
- (b) the long-term average annual commitment of water as planned environmental water, or
- (c) the water that is not committed after the commitments to basic landholder rights and for sharing and extraction under any other rights have been met.

16 Establishment and maintenance of planned environmental water

(1) This Plan establishes planned environmental water in the water source as follows:

- (a) the physical presence of water, resulting from the following:
 - (i) the environmental flow rules in clause 26,
Note. The environmental flow rules in clause 26 ensure that environmental flows are released from water storages in the water source.
 - (ii) the environmental water allowance rules in clause 27,
Note. The environmental water allowance rules in clause 27 ensure water is reserved and released for environmental purposes from Wyangala Dam and Lake Brewster.
 - (iii) the water quality allowance rules for water quality management purposes in clause 28,
Note. The water quality allowance rules in clause 28 ensure that water is credited to a water quality allowance and that releases may be made from this allowance for water quality purposes.
- (b) the long-term average annual commitment of water as planned environmental water, resulting from compliance with the long-term average annual extraction limit and the cumulative annual extraction limit in Part 7 of this Plan,
- (c) water remaining after water has been taken pursuant to basic landholder rights and access licences, in accordance with the rules specified in Parts 7 and 9 of this Plan.

- (2) The planned environmental water established under subclause (1) (a) is maintained by:
 - (a) the environmental flow rules in clause 26, and
 - (b) the environmental water allowance rules in clause 27, and
 - (c) the water quality allowance rules in clause 28.
- (3) The planned environmental water established under subclause (1) (b) is maintained by the rules specified in Part 7 of this Plan.
- (4) The planned environmental water established under subclause (1) (c) is by the rules specified in Parts 7 and 9 of this Plan.

Note. The rules in **Error! Reference source not found.** of this Plan ensure that there will be water remaining in the water source over the long-term by maintaining compliance with the long-term average annual extraction limit. The rules in **Error! Reference source not found.** also provide for lower available water determinations when the long-term average annual extraction limit has been assessed to have been exceeded.

Part 5 Requirements for water

Division 1 General

17 Application

- (1) This Part identifies the requirements for water in the exercise of basic landholder rights (Division 2) and for extraction under access licences (Division 3) in the water source.
- (2) The volumes of water specified in this Part represent, as at 1 April 2019, the requirements for water to satisfy basic landholder rights and the total volumes or unit shares specified in the share components of all access licences in the water source.
- (3) This Plan recognises that requirements for water in connection with basic landholder rights and the total share components of all access licences in the water source may change during the term of this Plan.

Notes.

- 1 The total share components of access licences in the water source may change during the term of this Plan as a result of:
 - (a) the grant, surrender or cancellation of access licences in the water source, or
 - (b) the variation of local water utility licences under section 66 of the Act.
- 2 This Plan manages changes in basic landholder rights and total share components of all access licences through provisions in **Error! Reference source not found.** which manage the sharing of water within the limits of water availability.
- 3 Inherent water quality and land use activities may make the water in some areas unsuitable for human consumption. Water should not be consumed without first being tested and, if necessary, appropriately treated. Such testing and treatment is the responsibility of the water user.

Minister's note.

The estimates, share components and numbers of licences referred to in this Part are as at the commencement of this Plan in 2004, but will be updated before the amendments commence to be accurate as at 1 April 2019.

Division 2 Requirements for water for basic landholder rights

Note. Under the Act, basic landholder rights are defined as domestic and stock rights, native title rights and harvestable rights. However, there are no harvestable rights in the water source under this Plan.

18 Domestic and stock rights

As at 1 April 2019, the water requirements of persons entitled to domestic and stock rights are estimated to total 1,163 megalitres per year (*ML/year*).

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

19 Native title rights

As at 1 April 2019, no determinations of native title rights have been made in relation to the water source under the Native Title Act 1993 of the Commonwealth. As at that date, no water requirements have been identified for native title holders.

Notes.

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

Division 3 Requirements for water for extraction under access licences

Notes.

- 1 The share component estimates in this Division include licensed environmental water as defined in section 8 of the Act. The Environmental Water Register maintained by the Department provides a record of licensed environmental water licences, as well as other water intended for environmental purposes.
- 2 As at 1 July 2019, the licensed environmental water referred to in Note 1 comprises 2 access licences with adaptive environmental water conditions totalling 13,000 ML/year.
- 3 As at 1 July 2019, there are 15 other access licences with share components totalling 114,336 ML/year that are not identified as licensed environmental water but are intended to be used for environmental purposes. Some of these are held by the Commonwealth Government and others by the NSW Government. These access licences are regulated river (general security) or regulated river (high security) access licences.
- 4 This Division sets out total volumes or unit shares in the share components of access licences in the water source as at 1 July 2019. The actual volume of water available at any time will depend on climate, access licence priority and the rules in this Plan.

20 Share component of domestic and stock access licences

As at 1 April 2019, the share components of domestic and stock access licences total 12,502 ML/year.

21 Share component of local water utility access licences

As at 1 April 2019, the share components of local water utility access licences total 15,545 ML/year.

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

As at 1 April 2019, the share components of regulated river (high security) access licences total 27,680 unit shares.

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

As at 1 April 2019, the share components of regulated river (general security) access licences total 592,801 unit shares.

24 Share component of regulated river (conveyance) access licence

As at 1 April 2019, the share components of regulated river (conveyance) access licences total 17,911 unit shares.

25 (Repealed)

DRAFT

Part 6 System operation requirements

Notes.

- 1 The approximate location of relevant gauges and other locations referred to in this Part are in the overview map at Appendix 2.
- 2 **Full supply volume**, **NSW Environmental Water Manager**, **operator**, and **translucent flows** are defined in the Dictionary.

Division 1 Environmental flow rules

26 Environmental flow rules for the water source

- (1) (Repealed)
- (2) Subject to subclause (4), the operator must release translucent flows from Wyangala Dam in any given year, during the period of 15 May to 15 November, whenever the following applies:
 - (a) the inflows to Wyangala Dam since 1 January that calendar year have been greater than 250,000 megalitres (**ML**), and
 - (b) the total sum of inflows to Wyangala Dam and tributary inflows downstream of Wyangala Dam are capable, in the operator's opinion, of producing a flow in the Lachlan River at Lachlan Lake Brewster Weir gauge (412048) greater than:
 - (i) 4,000 megalitres per day (**ML/day**), when the volume of water held in Wyangala Dam 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 is more than 50% of the full supply volume.
- (3) The operator may substitute releases from Lake Cargelligo and Lake Brewster for all or part of the translucent flows required to be released from Wyangala Dam if releasing the translucent flows from Wyangala Dam is likely to cause flooding.
- (4) Water released in accordance with subclause (3) from Lake Brewster must be accounted as translucent flows passing at Lake Brewster Weir and not for the purposes of subclause (7) (a) or (b).
- (5) Translucent flows must not be used to supply access licence requirements, basic landholder rights or be diverted to or stored in any weir or water storage.

Rate of release of translucent flows

- (6) The rate of release of translucent flows released under subclause (2) must be the lesser of:
 - (a) inflows to Wyangala Dam, or

- (b) the release necessary to achieve a flow in the Lachlan River at Lachlan Lake Brewster Weir gauge (412048) of:
- (i) 4,000 ML/day plus 25 ML/day for each 1% by which the volume of water held in Wyangala Dam 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, and
 - (ii) 3,500 ML/day plus 31.25 ML/day for each 1% by which the volume of water held in Wyangala Dam 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 is greater than 80% of the full supply volume.

Note. Subclause (6) (b) (iii) is the maximum release from Wyangala Dam when it is full and is the release necessary to achieve a flow at Lachlan Lake Brewster Weir gauge (412048) of 8,000 ML/day.

Wet water conditions

- (7) The operator must not release translucent flows when flows at Lachlan Lake Brewster Weir (412048) have exceeded 350,000 ML and all of the following, as measured since 1 June that water year:
- (a) the volume of water ordered for take downstream of Lake Brewster and any losses associated with delivery of these orders,
 - (b) replenishment flows to effluents downstream of Lake Brewster and any losses associated with the delivery of those replenishment flows,
 - (c) the volume of water downstream of Lake Brewster Weir resulting from releases undertaken to create airspace under clause 37,
- Note.** *Airspace* is defined in the Dictionary.
- (d) the volume of water released from the environmental water allowances and the water quality allowances under clauses 27 and 28, and
 - (e) the volume of water released to maintain a visible flow at Geramy under clause 30.
- (8) Tributary inflows occurring when translucent flows are being released under this clause must not be used to supply access licence requirements or basic landholder rights or be diverted to or stored in any weir or water storages, except to the extent that they are in excess of the flow required to meet the flow rates specified in subclause (2) (b).

Note. If flows are insufficient to satisfy subclause (2) (b), or the conditions specified in subclauses (2) (a) or (7), tributary inflows may be diverted and stored in Lake Cargelligo or Lake Brewster, consistent with normal operational management.

- (9) In the event that the release capacity of Wyangala Dam is insufficient to produce the release rates specified in subclause (6) (b) in addition to the releases required to satisfy access licence orders, the operator must ensure:
- (a) releases equal the release capacity,
 - (b) releases to satisfy water orders can be made in accordance with access licence water orders,
 - (c) the volume of the translucent flows released equals the total volume of water released from Wyangala Dam minus the volume of water released to satisfy access licence holder orders,
 - (d) the volume of translucent flows required to be released under subclause (2) but not released under this subclause is accrued and released at the earliest opportunity, and
 - (e) releases made under paragraph (d) are not to be subject to the timing and release rate restrictions in subclauses (2) and (6), but are subject to the maximum release rules specified in subclause (7).

Division 1A Environmental water allowances

27 Environmental water allowance rules

- (1) The operator must maintain the following environmental water allowances (*EWAs*):
- (a) an environmental water allowance held in Wyangala Dam, known as the Wyangala Environmental Water Allowance (*Wyangala EWA*), and
 - (b) an environmental water allowance held in Lake Brewster, known as the Lake Brewster Environmental Water Allowance (*Brewster EWA*).
- (2) The Wyangala EWA and Brewster EWA will each be credited with a volume of water equal to 10,000 ML:
- (a) 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
 - (b) if not credited under subclause 2 (a), during the water year if 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.
- (3) (Repealed)

(4) The volume of Brewster EWA available for release from Lake Brewster at any time must be the lesser of:

- (a) the volume of credit remaining in the Brewster EWA, or
- (b) the active storage in Lake Brewster, minus any water transferred from Wyangala Dam for operational reasons.

Note. *Active storage* is defined in the dictionary.

(5) Any credits remaining in Wyangala EWA and Brewster EWA at the end of each water year are forfeited.

Note. It is not possible to forecast when releases of water from the Wyangala EWA and Lake Brewster EWA will be required, as releases occur in response to unpredictable environmental circumstances. To allow estimation of the effect of the Wyangala EWA and Lake Brewster EWA rules on water extractions computer modelling has assumed that a total of 5,000 megalitres of Wyangala EWA and of Lake Brewster EWA were released at the end of each year 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.

(6) The NSW Environmental Water Manager may request the operator to release water from the EWA in accordance with any applicable environmental water plan.

(7) The operator must release water from the EWA on the request of the NSW Environmental Water Manager.

28 Water quality allowance

(1) The operator must maintain a water quality allowance (*WQA*) for the management of water quality.

(2) The WQA must be credited with a volume of water equal to 20,000 ML on 1 July each water year.

(3) The operator may make releases of water from the WQA for any water quality management purpose but in particular for reduction of salinity levels and mitigation of blue-green algae impacts.

(4) Any credits remaining in the WQA at the end of the water year must be forfeited.

(5) The operator is to comply with any rules determining the volume and timing of releases of water credited to the WQA account as specified in procedures established by the Minister.

(6) (Repealed)

28A Consultation

The NSW Environmental Water Manager may consult with any government agency or the Environmental Water Advisory Group, or both, and consider any relevant advice, before taking action under this Division.

Notes.

- 1 As at 1 July 2019, the Minister has delegated the lead role in managing environmental water allowances established under water sharing plans to the NSW Office of Environment and Heritage (OEH). OEH also administers and supports Environmental Water Advisory Groups (EWAGs) to inform the management of environmental water allowances and licensed environmental water. For more information on EWAGs, see *Cooperative management of environmental water to improve river and wetland health in NSW (2014)*, available from OEH's website at www.environment.nsw.gov.au.
- 2 As at 1 July 2019, OEH manages an EWAG for the Lachlan catchment called the Lachlan Riverine Working Group.

Division 2 General system operations rules

29 Maintenance of water supply

- (1) The operator must operate the water supply system in such a way that water would be available for the following:
 - (a) the annual water requirements of persons exercising domestic and stock rights and native title rights,
 - (b) available water determinations for domestic and stock access licences and local water utility access licences of 100% of share components, and
 - (c) available water determinations for regulated river (high security) access licences of 1 ML per unit share.
- (2) The operator must set aside sufficient volumes of water from inflows into the water source and in reserves held in Wyangala Dam or other water storages so that water can be supplied to meet the requirements and determinations referred to under subclause (1) (a) to (c).
- (3) In this clause, *worst drought* means the worst period of low inflows into the water source, as identified in flow information held by the Department before 1 July 2004.

Notes.

- 1 1 July 2004 was the date of commencement of the first water sharing plan for the water source made under the Act, namely the *Water Sharing Plan for the Lachlan Regulated River Water Source 2003*.
- 2 **Water supply system** and **reserves** are defined in the Dictionary.

30 Replenishment flows

- (1) Unless the operator otherwise determines, the operator is to provide the following replenishment flows for domestic and stock requirements:
 - (a) replenishment flows of up to 12,000 ML/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),

Note. This volume includes water for the township of Ivanhoe and Morrison's Lake.

- (b) replenishment flows of up to 9,000 ML/year to the Merrowie Creek Trust District downstream to Cuba Dam (Grid Reference 266800 east, 6249000 north, Tarwong Map, 1:50,000, Sheet 7730), and
- (c) replenishment flows of up to 9,000 ML/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).

Note. The circumstances under which the replenishment flows specified in subclause (1) are to be provided will be specified as conditions on the water supply work approval held by Water NSW.

- (2) The operator must ensure a continuous supply is provided to the off-take at Booberoi Creek at a rate sufficient:
 - (a) to provide for town and domestic supply and stock watering, and
 - (b) to produce a visible flow at the Booberoi Creek at Return gauge (412192), until 12,500 ML has been supplied to the off-take at Booberoi Creek in a water year.
- (3) The operator must ensure that a visible flow is maintained in the Lachlan River at Geramy to provide for domestic supply and stock watering.

Note. Geramy is the last homestead on the Lachlan River. This subclause ensures water is supplied for stock and domestic purposes to the end of the water source.

Minister's note.

Subclause 30 (3) is proposed to be moved from clause 31 in the existing plan as the rule simply provides another form of a replenishment flow for stock and domestic purposes, similar to subclause 30 (2).

It would be preferable also to change the current reference from the Geramy homestead to a specific gauge or a more defined visible flow reference point at or close to the end of the water source. Feedback is sought on a more suitable reference point for this purpose.

31 (Repealed)

32 Water delivery and channel capacity constraints

- (1) In managing the water supply system, the operator must consider, determine and specify the maximum water delivery and operating channel capacities throughout the water source in accordance with procedures established by the Minister, taking into account the following:
 - (a) the 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, and

Note. *transmission losses* is defined in the Dictionary.

- (d) the capacity of structures in the water supply system.

Notes.

- 1 Operating channel capacity affects daily supply capability. The following operating channel capacities were determined at the commencement of this Plan:
 - (a) 15,000 ML/day between Wyangala Dam and Jemalong Weir,
 - (b) 10,000 ML/day between Jemalong Weir and Condobolin,
 - (c) 7,000 ML/day between Condobolin and Lake Cargelligo Weir,
 - (d) 2,400 ML/day between Lake Cargelligo Weir and Willandra Weir,
 - (e) 2,000 ML/day between Willandra Weir and Middle Creek Offtake,
 - (f) 1,500 ML/day between Middle Creek Offtake and Hillston Weir,
 - (g) 1,500 ML/day between Hillston Weir and Whealbah,
 - (h) 1,000 ML/day between Whealbah and Torrigan Weir,
 - (i) 500 ML/day in Willandra Creek,
 - (j) 390 ML/day in the Wallamundry Creek system,
 - (k) 2,000 ML/day in Goobang/Bumbuggan Creeks,
 - (l) 800 ML/day between Booligal Weir and Corrong,
 - (m) 600 ML/day downstream of Corrong.
- 2 The following constraints have been identified with the water management structures controlled by the Minister:
 - (a) water delivery in Island Creek may be constrained by the diversion capacities of the Lachlan River,
 - (b) water delivery in the Wallamundry Creek system may be constrained by the diversion capacities of the Island Creek Weir, and
 - (c) water delivery in Willandra Creek may be constrained by the diversion capacities of the Willandra Weir.
- 3 Channel capacity in Island Creek, Wallamundry/Wallaroi/Nerrathong Creeks and Willandra Creek will be shared in accordance with flow sharing protocols to be established by Water NSW.

33 Priority of extractions for access licences

- (1) If supply capability in any section of the water source is insufficient to satisfy all water orders, the following rules of priority apply:
 - (a) the operator is to supply water with respect to the following for which orders for water have been placed,
 - (i) domestic and stock access licences (before those referred to in paragraphs (ii) and (iii)),
 - (ii) local water utility access licences (after those referred to in paragraph (i)), and
 - (iii) AWD subaccount of regulated river (high security) access licences (after those referred to in paragraph (i) and (ii)),

- (b) once the requirements in (a) have been met, unless otherwise directed by the Minister, any remaining supply capability is to be shared (in accordance with a method approved by the operator) between the following for which orders for water have been made:
- (i) regulated river (general security) access licences,
 - (ii) regulated river (conveyance) access licences, and
 - (iii) from the spillable subaccount of regulated river (high security) access licences.

Note. *supply capability* is defined in the Dictionary as the rate at which water can be supplied to a section of a water source after satisfying the environmental water provisions and the requirements for water to satisfy basic landholder rights.

- (2) The operator is to consult with water user representatives and relevant government agencies, as the Minister considers appropriate, before determining the method in subclause (1) (b).
- (3) In this clause:

AWD subaccount and *spillable subaccount* have the same meaning as they have in clause 52.

Notes.

- 1 During periods of channel capacity constraint, the implementation of the above provisions may result in ordering delays and an inability to supply water requirements from regulated water deliveries on a daily basis.
- 2 The Operator will use meetings with the Customer Advisory Group as a means to consult with water user representatives.
- 3 This clause may be amended if individual daily extraction components are applied.

34 (Repealed)

35 Rates of change to storage releases

In changing the rate of the release of water from a water storage or other water supply system structure, the operator must consider relevant environmental matters, damage to river banks and public safety.

36 Dam operation during floods and spills

- (1) The operator must operate Wyangala Dam during times of floods and spills of water in a manner that maintains the safety of dam infrastructure.
- (2) Subject to subclause (1), the operator must do the following during times of floods and spills of water with respect to Wyangala Dam:
- (a) leave Wyangala Dam as full as possible after the flood event or spilling of water, subject to maintenance of a target airspace volume as specified in clause 37 (b), and

- (b) seek to lessen downstream flood damage.

37 Airspace operation rules

Notes.

- 1 Airspace is defined in the Dictionary.
- 2 An airspace operation is a pre-emptive emergency flood measure to mitigate high flows.

The operator must undertake airspace operation of Wyangala Dam as follows:

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

Part 7 Limits to the availability of water

Note. This Part sets out the rules for managing the availability of water for extraction in accordance with the following annual extraction limits:

- (a) a long-term average annual extraction limit, and
- (b) a cumulative annual extraction limit.

Division 1 Calculations under this Part

38 Exclusions, inclusions and variations in calculations

- (1) This clause applies to the calculation of the following limits and extraction:
 - (a) the long-term average annual extraction under clause 39,
 - (b) the average annual extraction under clause 40,
 - (c) the cumulative annual extraction limit under clause 42, and
 - (d) the cumulative annual extraction under clause 43.
- (2) The calculation by the Minister of the limits and extraction to which this clause applies must:
 - (a) exclude the following:
 - (i) allocations assigned from an access licence in the water source to an access licence in another water source under section 71T of the Act,
 - (ii) planned environmental water provided for in Part 4 of this Plan,
 - (iii) replenishment flows made in accordance with clause 30 of this Plan, and
 - (b) include allocations assigned to an access licence in the water source from an access licence in another water source, and
 - (c) be varied by any change to the amount of water committed as licensed environmental water as determined under section 8F of the Act.

Division 2 Long-term average annual extraction limit

39 Calculation of the long-term average annual extraction limit

- (1) Following end of each water year, the Minister must calculate the long-term average annual extraction limit for the water source in accordance with this clause and clause 38.
- (2) The long-term average annual extraction limit is the average annual extraction calculated over the duration of available climate records using the hydrological computer model approved by the Minister, based on the following:
 - (a) the water storages and water use development that existed in 1999/2000,
Note. *water use development* is defined in the Dictionary.

- (b) the share components of water access licences and basic landholder rights that existed on 1 July 2004,
- (c) the rules set out in the *Water Sharing Plan for the Lachlan Regulated River Water Source 2003* as at 1 July 2004,
- (d) the maximum crop area and the crop planting behaviour that was in place at the commencement of the *Water Sharing Plan for the Lachlan Regulated River Water Source 2003*,
- (e) the level of development for commercial plantations that existed on 30 June 2009, and
- (f) the level of development for floodplain harvesting that existed in the 1999/2000 water year in connection with extractions from the water source, as assessed by the Minister.

Notes.

- 1 The baseline diversion limit for the Lachlan SDL Resource Unit as defined in Schedule 3 of the Basin Plan includes the long-term average annual extraction limit for the water source and the long-term average annual extraction limits under the *Water Sharing Plan for the Belubula Regulated River Water Source 2012* and the *Water Sharing Plan for the Lachlan Unregulated Water Sources 2012*.
- 2 The long-term average annual extraction limit has been assessed using the Lachlan IQQM computer model scenario run number E229. As at 1 July 2019, the long-term average annual extraction limit is assessed to be [update to be added] ML/year.
- 3 Under section 8F of the Act the long-term average annual extraction limit is to be varied by the amount of any change to the amount of water committed as licensed environmental water, excluding water committed under section 8C of the Act. The variation in the long-term average annual extraction limit is to be determined in accordance with a methodology approved by the Minister and published in the Gazette.
- 4 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.
- 5 **commercial plantations** is defined in the Dictionary.

40 Calculation of average annual extraction

The Minister, using the hydrological computer model approved by the Minister, is to calculate the average annual extraction following the end of each water year, calculated over the duration of available climate records and based on the following:

- (a) the water storages and water use development that existed in that water year,
- (b) the basic landholder rights and access licence share components that existed in that water year,
- (c) the current rules in this Plan,
- (d) the level of development for commercial plantations in that water year, and

- (e) if not included under subclause (b), the level of development for floodplain harvesting in conjunction with extractions under an access licence in the water source in that water year.

41 Assessment of compliance with the long-term average annual extraction limit

- (1) Following the calculations under clauses 39 and 40, the Minister is to compare average annual extraction against the long-term average annual extraction limit.
- (2) There is non-compliance with the long-term average annual extraction limit if the average annual extraction exceeds the long-term average annual extraction limit by 3% or more.

Division 3 Cumulative annual extraction limit

42 Calculation of the cumulative annual extraction limit

The cumulative annual extraction limit for the water source is the long-term average annual extraction limit calculated under clause 39 minus 48,000 ML/year and minus the shared reduction amount for the Lachlan SDL resource unit as determined under section 6.05 of the Basin Plan.

Notes.

- 1 The sustainable diversion limit for the Lachlan SDL Resource Unit as specified in Schedule 2 of the Basin Plan comprises the cumulative annual extraction limit in this Plan and the long-term average annual extraction limits under the *Water Sharing Plan for the Belubula Regulated River Water Sources 2012* and the *Water Sharing Plan for the Lachlan Unregulated River Water Sources 2012*.
- 2 The subtraction of 48,000 ML/year is prescribed in Schedule 2 of the Basin Plan.

42A Calculation of cumulative annual extraction

- (1) Following the end of each water year, the Minister is to calculate cumulative annual extraction in accordance with Division 2 of Part 4 of Chapter 6 of the Basin Plan.
- (2) For the purposes of the calculation, references to the long-term annual diversion limit and the SDL resource unit in Division 2 of Part 4 of Chapter 6 of the Basin Plan are taken to be references to the cumulative annual extraction limit and the water source, respectively.

Note. Under section 6.10 of the Basin Plan, take of licensed environmental water and under licences held by the Commonwealth Environmental Water Holder are not included in this assessment as they fall outside the definition of take for consumptive use under the Water Act 2007 of the Commonwealth.

42B Assessment of compliance with the cumulative annual extraction limit

- (1) Following the calculations under clauses 42 and 42A, the Minister is to compare cumulative annual extraction against the cumulative annual extraction limit.
- (2) There is non-compliance with the cumulative annual extraction limit in the circumstances set out in Division 2 of Part 4 of Chapter 6 of the Basin Plan.

Division 4 Compliance with extraction limits

42C Action following non-compliance

- (1) Subject to subclauses (2) and (3), if an assessment under clauses 41 or 42B demonstrates that there is non-compliance with a limit, the Minister may reduce the volumes that may be taken or assigned from regulated river (general security) access licences under clause 50 for the water year after the assessment:

Note. Action under this clause will have effect for the water year following the assessment, which will be two water years after the non-compliance occurred.

- (2) An action under subclause (1) may only be taken to the extent to which the Minister considers the following is necessary:
 - (a) in the case of non-compliance with the long-term average annual extraction limit— to return long-term average annual extraction in the water source to the long-term average annual extraction limit, or
 - (b) in the case of non-compliance with the cumulative extraction limit— to meet the requirements of Division 2 of Part 4 of Chapter 6 of the Basin Plan.
- (3) Before taking action under subclause (1), the Minister may consult with water user representatives on the following:
 - (a) the data used for the calculations under Divisions 2 and 3, and
 - (b) the proposed actions under Division 4.

Division 5 Available water determinations

43 General

- (1) Available water determinations for access licences are to be expressed as one of the following:
 - (a) with respect to access licences specifying share components as ML/year—a percentage of the share component, and
 - (b) with respect to access licences specifying share components as a number of unit shares— ML per unit share.
- (2) The sum of available water determinations made for any access licence, other than for regulated river (general security) access licences or regulated river (conveyance) access licences, must not exceed the following in any water year:
 - (a) for any access licence where share components are specified as ML/year— 100% of the access licence share component, and

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

44 Available water determinations for domestic and stock access licences

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

Note. If the Minister makes an available water determination of less than 100%, the Minister may make further available water determinations during a water year, subject to subclause 43 (2).

45 Available water determinations for local water utility access licences

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

Note. If the Minister makes an available water determination of less than 100%, the Minister may make further available water determinations during a water year, subject to subclause 43 (2).

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

- (1) Unless the Minister otherwise determines and subject to subclause (3), at the commencement of each water year an available water determination is to be made for regulated river (high security) access licences of 1 ML per unit share.

Note. If the available water determination is less than 1 ML per unit share, the Minister may conduct further assessments of available water resources and may make further available water determinations subject to subclause 43 (2).

- (2) The Minister must not make an available water determination under this clause:

- (a) unless water is available for the following, including for any water losses associated with the holding and delivery of that water:
 - (i) to meet the environmental water rules (including the environmental flow rules and the environmental water allowance rules) under Divisions 1 and 1A of Part 6 of this Plan,
 - (ii) to meet the requirements for basic landholder rights,
 - (iii) available water determinations totalling 100% of access licence share components for domestic and stock access licences and local water utility access licences,
 - (iv) existing water allocations in the regulated river (general security) access licence water allocation accounts, and
- (b) unless sufficient water is available for water losses associated with the holding and delivery of water as a result of the available water determination.

Note. Pursuant to clause 52 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 that they will fill, as defined in clause 52, all allocations within the spillable subaccounts of regulated river (high security) access licences will be withdrawn.

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

- (1) The Minister is to assess if water is available for the making of an available water determination for regulated river (general security) access licences, at least monthly.
- (2) For the purposes of the assessment, water is not available unless:
 - (a) water is available for the following, including for any losses associated with the holding and delivery of that water:
 - (i) to meet the environmental water rules (including the environmental flow rules and the environmental water allowance rules) under Divisions 1 and 1A of Part 6 this Plan,
 - (ii) to meet the requirements for basic landholder rights,
 - (iii) available water determinations totalling 100% of access licence share components for domestic and stock access licences and local water utility access licences,
 - (iv) available water determinations totalling 1 ML per unit share for regulated river (high security) access licences,
 - (v) existing water allocations in regulated river (general security) access licence water allocation accounts and existing water allocations in the spillable subaccount of regulated river (high security) access licences, and
 - (b) sufficient water is available for losses associated with the holding and delivery of water as a result of the available water determination.
- (3) The Minister must make an available water determination for all regulated river (general security) access licences when all water allocations held in the water allocation accounts of regulated river (general security) access licences have been withdrawn under clause 52 (14).

Note. The effect of clauses 47 (3) and 52 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 that they will fill, as defined in clause 52, all regulated river (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 ML/unit of share component.

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

- (1) (Repealed)

- (2) Subject to subclauses (3)–(7), the Minister must make an available water determination for regulated river (conveyance) access licences at the commencement of each water year and whenever an available water determination is made for regulated river (general security) access licences.
- (3) The available water determination made under subclause (2) must take into consideration the total water availability for regulated river (general security) access licences that are used to supply water to Jemalong Irrigation Limited’s area of operation and the total volume of water required to meet Jemalong Irrigation Limited’s conveyance loss in that water year.
- (4) Before making an available water determination under subclause (2), the total water availability in ML/unit of share component for regulated river (general security) access licences that are used to supply water to Jemalong Irrigation Limited’s area of operation is to be determined using the formula:

$$(GS_1 + GS_2) / GS_{SC}$$

where:

GS_1 is the total water allocation in the take subaccounts of regulated river (general security) access licences that are used to supply water to Jemalong Irrigation Limited’s area of operation at the commencement of the water year, except where subclause (7) applies.

GS_2 is the total volume of water credited to the water allocation accounts of regulated river (general security) access licences that are used to supply water to Jemalong Irrigation Limited’s area of operation, from regulated river (general security) access licence available water determinations made in that water year, except where subclause (7) applies.

GS_{SC} is the total share components of regulated river (general security) access licences that are used to supply water to Jemalong Irrigation Limited’s area of operation.

- (5) For the purposes of subclause (4), *take subaccount* has the same meaning as it has in clause 52.
- (6) The total volume of water required to meet Jemalong Irrigation Limited’s conveyance loss in that water year, should be equal to:
- (a) 2,400 ML plus 570 ML for each 0.01 ML/unit of share component calculated under subclause (4), when the result of that calculation is less than or equal to 0.2 ML/unit of share component,
- (b) 13,800 ML plus 74.745 ML for each 0.01 ML/unit of share component calculated above 0.2 ML/unit of share component under subclause (4), when the result of that

calculation is greater than 0.2 ML/unit of share component and less than 0.75 ML/unit of share component, and

(c) 17,911 ML when the result of the calculation made under subclause (4) is equal to or greater than 0.75 ML/unit of share component.

(7) The available water determination made under subclause (2) should be determined using the formula:

$$(CL_2 - CL_1) / TC_{sc}$$

where:

CL_2 is the total volume of water required to meet Jemalong Irrigation Limited's conveyance loss calculated under subclause (6).

CL_1 is the total volume of water required to meet Jemalong Irrigation Limited's conveyance loss calculated under subclause (6) at the time the previous available water determination for regulated river (conveyance) access licences was made in that water year, except where subclause (8) applies.

TC_{sc} is the total share components of regulated river (conveyance) access licences.

(8) Immediately following the withdrawal of water allocations from the water allocation accounts of regulated river (general security) access licences under clause 52 (14) and prior to the making of an available water determination for regulated river (general security) access licences under clause 47 (3), the values of GS_1 and GS_2 to be used in subclause (4) and CL_1 to be used in subclause (7) are zero.

Part 8 Rules for granting access licences

Notes.

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

49 Specific purpose access licences

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

- (1) The Minister must not grant a specific purpose access licence unless satisfied that the share and extraction components of the access licence are the minimum required for the proposed use.
- (2) (Repealed)
- (3) A person may make an application for a regulated river (high security) (Aboriginal cultural) access licence if the share component of the proposed access licence is no greater than 10 ML/year.
- (4) The Minister may only grant a regulated river (high security) (Aboriginal cultural) access licence for the taking of water by an Aboriginal person or Aboriginal community for any personal, domestic or communal purpose, including drinking, food preparation, washing, manufacturing traditional artefacts, watering domestic gardens, cultural teaching, hunting, fishing, gathering and for recreational, cultural and ceremonial purposes.

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

Part 9 Rules for operating water accounts and managing access licences

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

50 Debits from an individual water allocation account for water take

- (1) Subject to subclause (2), in managing the water allocation account of a domestic and stock access licence, local water utility access licence, regulated river (high security) access licence, and regulated river (general security) access licence, the Minister must debit the volume of water extracted by water supply works nominated by the access licence from the water allocation account of the licence.
- (2) Upon written notice from the Minister to the licence holder, in managing the water allocation account of a domestic and stock access licence, local water utility access licence, regulated river (high security) access licence, and regulated river (general security) access licence, the Minister may debit the greater of the following from the account:
 - (a) the volume of water extracted by water supply works nominated by the access licence, or
 - (b) the water ordered for extraction under the access licence.

Note. It is intended that the Minister may take action under subclause (2) if water orders from a particular licence holder exceed the volume of water taken under the licence and this cannot be explained by rainfall or other unavoidable factors.

51 Limits on water allocation accounts and carryover

- (1) The Minister must not allow allocations in a water allocation account to exceed the following at any time:
 - (a) for domestic and stock access licence or local water utility access licence— 100% of the share component,
 - (b) for a regulated river (high security) access licence— 1 ML per unit share,
 - (c) for a regulated river (general security) access licence— 2 ML per unit share, or
 - (d) for a regulated river (conveyance) access licence – 1 ML per unit share.
- (2) The Minister must not carry over water allocations remaining in a water allocation account from one water year to the next water year for the following categories of licence:
 - (a) domestic and stock access licence,

- (b) local water utility access licence,
 - (c) regulated river (high security) access licence, or
 - (d) regulated river (conveyance) access licence.
- (3) Subject to subclause (1), the Minister must carry over water allocations remaining in the regulated river (general security) access licence water allocation account from one water year to the next.

52 Accounting rules

- (1) The rules in this clause apply to the following:
- (a) the Minister in managing water allocation accounts, and
 - (b) the access licence holder, as provided for by mandatory conditions in Part 11.

Subaccounts of water allocation account of regulated river (general security) access licences

- (2) The water allocation accounts for all regulated river (general security) access licences will be comprised of two subaccounts, the *take subaccount* and the *hold subaccount*.
- (2a) The take subaccount holds water that may be taken by the licence holder in a water year.
- (2b) The hold subaccount holds water allocation that may not be taken by the licence holder during a water year.
- (3) For a regulated river (general security) access licence, the combined total water allocation that is taken, assigned under section 71T of the Act, or otherwise debited or withdrawn, from the take subaccount and hold subaccount in a water year must not exceed the following:
- (a) 1 ML per unit share (or such lower amount that reflects reductions made in accordance with clause 42C),
 - (b) plus any water allocations assigned to the water allocation account for the access licence under section 71T of the Act in that water year,
 - (c) plus any water allocations recredited to the water allocation account for the access licence in accordance with section 76 of the Act in that water year.
- (4) Subject to subclause (5), water allocations for regulated river (general security) access licences must be:
- (a) credited to the take subaccount of the licence if the total volume placed into that subaccount from available water determinations during the water year is less than $J - K + L$,

- (b) if subclause 4 (a) does not apply, credited to the hold subaccount of the licence,
- (c) debited from the take subaccount of the licence,

where:

J means 1 ML per unit share (or such lower amount that reflects reductions made in accordance with clause 42C).

K means the volume in the take subaccount at the commencement of the water year after any adjustments under subclauses (6), (7), (12) and (13).

L means the volume of water withdrawn from the Take subaccount under subclause (14).

- (5) Water allocations assigned under section 71T of the Act to or from a regulated river (general security) access licences must be credited and debited in accordance with clause 61 (1) (g) – (k).
- (6) Unless otherwise specified in the water return flow rules established under section 76 of the Act, water allocations re-credited to regulated river (general security) access licences must be re-credited to the:
 - (a) take subaccount of the access licence where re-crediting occurs in the water year in which the water allocations were used, or
 - (b) hold subaccount of the access licence where re-crediting occurs in a water year subsequent to that in which the water allocations were used.
- (7) If water allocations are carried over under clause 51 (3) and water allocations in the take subaccount of a regulated river (general security) access licence are:
 - (a) greater than 1 ML per unit share (or such lower amount that reflects reductions made in accordance with clauses 42C), then a volume of water allocations equal to the volume of exceedance must be moved from the take subaccount to the hold subaccount, or
 - (b) less than 1 ML per unit share (or such lower amount that reflects reductions made in accordance with clauses 42C), then a volume of water allocations must be moved from the hold subaccount to the take subaccount which is equal to the lesser of:
 - (i) the volume of water allocations in the hold subaccount, or
 - (ii) the volume which would increase the volume of water allocations in the Take subaccount to 1 ML per unit share (or such lower amount that reflects reductions made in accordance with clause 42C).

Subaccounts of water allocation account of regulated river (high security) access licences

- (8) The water allocation accounts of all regulated river (high security) access licences will be comprised of two subaccounts, the available water determination subaccount (*AWD subaccount*) and the *spillable subaccount*.
- (9) The AWD subaccount holds water allocations credited to the licence following an available water determination during a water year and any water allocations assigned from other access licences under section 71T of the Act.

Note. The AWD subaccount is unaffected when Wyangala Dam spills and other storages are full.

- (10) The spillable subaccount holds water allocations that are assigned to the licence from the take subaccount of a regulated river (general security) access licence during the water year under section 71T of the Act.

Note. The water in the spillable subaccount will be withdrawn when Wyangala Dam spills and other storages are full.

- (11) Water allocations for regulated river (high security) access licences must be:
- (a) credited into the AWD subaccount in accordance with available water determinations, and
 - (b) debited from the spillable subaccount until the volume in that subaccount reaches zero, and then from the AWD subaccount, unless otherwise notified by the licence holder.

Other Accounting Rules

- (12) Evaporation reductions will apply to water allocations carried over under clause 51 (3) based on net evaporation on the extra surface area generated by the carried over water in:
- (a) Wyangala Dam, when the total volume of allocations being carried over under clause 51 (3) is less than the storage volume of Wyangala Dam, or
 - (b) Wyangala Dam, Lake Cargelligo and Lake Brewster, when the total volume of allocations being carried over under clause 51 (3) exceeds the storage volume of Wyangala Dam.
- (13) Evaporation reductions under subclause (12) will:
- (a) be determined and applied to the take subaccount and hold subaccount of a regulated river (general security) access licence at the end of each quarter of a water year, and
 - (b) not be applied to water allocations accrued from available water determinations in that water year.

- (14) No more than once every six months, all water allocations in the following must be withdrawn whenever Wyangala Dam, Lake Brewster and Lake Cargelligo are full, the Minister deems to be full, or the Minister is satisfied that they will fill from flows already in the water source or its tributaries:
- (a) the water allocation accounts of regulated river (general security) access licences,
 - (b) the spillable subaccounts of regulated river (high security) access licences, and
 - (c) the water allocation accounts of regulated river (conveyance) access licences.
- (15) Without limiting the Minister's power under subclause (14) to deem the dams referred to in that subclause to be full, 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 for any reason (including to support a bird breeding event).

Note. The effect of clauses 47 (3), 48 (8) and subclause (14) is that when Wyangala Dam, Lake Brewster and Lake Cargelligo are full or will fill, all regulated river (general security) access licence accounts and regulated river (conveyance) access licence accounts will be equalised. Water remaining in the spillable subaccounts of regulated river (high security) access licences must be withdrawn. Water remaining in the AWD subaccounts of regulated river (high security) access licences must remain. Assessments indicate that when Wyangala Dam, Lake Brewster and Lake Cargelligo are full it should be possible for each regulated river (general security) access licence account to hold a maximum 1.36 ML/ unit share component.

53 – 56 (Repealed)

Part 10 Access licence dealing rules

Notes.

- 1 Access licence dealings in this water source are subject to the provisions of the Act, the regulations, any access licence dealing principles established by order made under section 71A of the Act and the access licence dealing rules established under this Part.
- 2 As at 1 July 2019 the *Access Licence Dealing Principles Order 2004* applies. The access licence dealing principles prevail over the access licence dealing rules in this Plan to the extent of any inconsistency, as provided by section 71Z (3) of the Act.
- 3 An application for a dealing may be refused or conditions applied on an access licence or water supply work approval at the time of a dealing to give effect to the provisions of this Plan.

Minister's note.

The Department of Industry - Water is considering an option to allow limited conversion of regulated river (high security) entitlements from downstream regulated river water sources to access licences in connected upstream unregulated water sources. This would enable some additional water to be taken in upstream areas without affecting water availability in the downstream storage/s, but may need to be subject to an assessment of potential local impacts of any such trade on the environment and access to water by other water users, and may be limited in scope.

This is a new concept that is yet to be discussed with stakeholders (including the Lachlan and Belubula Stakeholder Advisory Panel). As such, no provisions to facilitate it have been included within this draft amended plan, other than an amendment provision within Part 12. If pursued, new provisions will need to be incorporated into the plan.

More information will be prepared for additional stakeholder consultation before this issue is formally considered, however early stakeholder feedback on the concept is welcome.

57 (Repealed)

58 Conversion of access licence to new category

Dealings under section 71O of the Act are prohibited.

59 Assignment of rights dealings

Note. In some segments of the water source, the Minister's ability to deliver water is limited by supply constraints. In these segments, this clause prohibits dealings that would increase the total share components of access licences in those segments above 2004 amounts, until individual daily extraction components are imposed on each licence in that segment, under the Act.

- (1) A dealing under section 71Q of the Act within the water source is prohibited if the dealing involves an assignment of rights:
 - (a) to an access licence that nominates a water supply work located within the section of Willandra Creek that is within the water source, if it would cause the sum of the share components of all access licences that nominate a water supply work located in the section of Willandra Creek that is within the water source to exceed 23,457, or

- (b) to an access licence that nominates a water supply work located in the section of the Lachlan River downstream of Booligal Weir that is within the water source, if it would cause the sum of the share components of all access licences that nominate a water supply work located in the section of the Lachlan River downstream of Booligal Weir that is within the water source to exceed 16,585, or
- (c) that would result in $A - B$ exceeding 67,000, where:

A is the total volume of rights assigned from access licences that nominate a water supply work located upstream of Lake Cargelligo Weir, to access licences that nominate a water supply work located downstream of Lake Cargelligo Weir.

B is the total volume of rights assigned from access licences that nominate a water supply work located downstream of Lake Cargelligo Weir, to access licences that nominate a water supply work located upstream of Lake Cargelligo Weir.

- (2) Dealings under section 71Q of the Act between the water source and other water sources are prohibited.
- (3) (Repealed)

60 Amendment of share component (change of water source)

Dealings under 71R of the Act are prohibited.

61 Assignment of water allocation dealings

- (1) A dealing under section 71T of the Act within the same water source is prohibited in the water source if the dealing involves an assignment of water allocation:
 - (a) that would result in $A + B - C - D$ exceeding 82,000 ML, where:

A is the total volume of water allocations assigned during a water year from the Take subaccounts of regulated river (general security) access licences, and from the water allocation accounts of all other categories of access licence, for which the extraction components only permit the taking of water upstream of Lake Cargelligo Weir, to the accounts of access licences for which the extraction components only permit the taking of water downstream of Lake Cargelligo Weir.

B is the total volume of water allocations assigned during a water year from the accounts of all categories of access licence, 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 is the total volume of water allocations assigned during a water year from the Take subaccounts 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 components only permit the taking of water upstream of Lake Cargelligo Weir.

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, or

- (b) from an access licence that does not nominate a water supply work located in the section of the Lachlan River downstream of the Booligal Weir that is within the water source to an access licence that nominates a water supply located in the section of the Lachlan River downstream of the Booligal Weir that is within the water source if it would result in the total volume of water allocation that may be taken in any water year, by access licences whose nominated water supply work are located on the section of the Lachlan River downstream of Booligal Weir that is within the water source, to exceed 16,585 ML, or
- (c) from an access licence that does not nominate a water supply work located downstream of the Willandra Creek Weir that is within the water source, to an access licence that nominates a water supply work located downstream of the Willandra Creek Weir that is within the water source if it would result in the total volume of water allocation that may be taken in any water year by access licences nominating water supply works downstream of the Willandra Creek Weir that is in the water source to exceed 23,457 ML, or
- (d) from the Hold subaccount of a regulated river (general security) access licence to the water allocation account of any other category of access licence, or
- (e) from the AWD subaccount of a regulated river (high security) access licence to the spillable subaccount of another regulated river (high security) access licence, or
- (f) from the spillable subaccount of a regulated river (high security) access licence to the AWD subaccount of another regulated river (high security) access licence, or
- (g) from the spillable subaccount of a regulated river (high security) access licence to the Hold subaccount of a regulated river (general security) access licence, or
- (h) from the Take subaccount of a regulated river (general security) access licence to the Hold subaccount of a regulated river (general security) access licence, or

- (i) from the Hold subaccount of a regulated river (general security) access licence to the Take subaccount of a regulated river (general security) access licence, or
 - (j) from an access licence which is not permitted to carry over water allocation to the Hold subaccount of a regulated river (general security) access licence, or
 - (k) from the Take subaccount of a regulated river (general security) access licence or a regulated river (conveyance) access licence to the AWD subaccount of a regulated river (high security) access licence.
- (2) Dealings under section 71T of the Act between the water source and other water sources are prohibited.

62 Rules for interstate access licence transfer

- (1) Dealings under section 71U of the Act involving the interstate transfer of access licences to or from the water source are prohibited.
- (2) Dealings under section 71V of the Act involving the interstate assignment of water allocations to or from access licences in the water source are prohibited.

63 Nomination of water supply works dealings

- (1) A dealing under section 71W of the Act is prohibited if the dealing involves:
 - (a) an access licence being amended to nominate a water supply work located downstream of the Willandra Creek Weir that is within the water source if it would cause the sum of the share components of all access licences nominating water supply works downstream of the Willandra Creek Weir that is in the water source to exceed 23,457 ML, or
 - (b) an access licence being amended to nominate a water supply work located downstream of Booligal Weir that is within the water source if it would cause the sum of the share components of all access licences nominating water supply works downstream of the Booligal Weir that is in the water source to exceed 16,585 ML, or
 - (c) an access licence that does not nominate a water supply work located downstream of Lake Cargelligo Weir in the water source being amended to nominate a water supply work located downstream of Lake Cargelligo Weir in the water source, or
 - (d) an access licence that does not nominate a water supply work upstream of Lake Cargelligo Weir in the water source being amended to nominate a water supply work that is upstream of Lake Cargelligo Weir in the water source, or
 - (e) an access licence being amended to nominate a water supply work located in different water source.

- (2) Dealings under section 71W of the Act that involve the nomination of a water supply work located in a State other than NSW by an access licence in the water source are prohibited.
- (3) Dealings under section 71W of the Act that involve the nomination of a water supply work in the water source by an access licence from a State other than NSW are prohibited.

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Part 11 Mandatory conditions

Division 1 General

64 General

In this Part:

- (a) a requirement to notify the Minister in writing will only be satisfied by writing to the addressee listed in Schedule 2 of this Plan or to the email address for enquiries on the Department's website.

Note. As at 1 April 2019, the email address for the Department's website is water.enquiries@dpi.nsw.gov.au.

- (b) a metered water supply work with a data logger means a water supply work with:
- (i) a meter that complies with Australian Standard AS 4747, *Meters for non-urban water supply*, as may be updated or replaced from time to time, and
- (ii) a data logger, and
- (c) if the holder of a water supply work approval is the same as the holder of the access licence under which water is proposed to be taken, then it is not necessary to maintain two separate Logbooks and all the required information can be kept in one Logbook.

Note. *Logbook* is defined in the Dictionary.

Ministers note.

Regulations have been drafted to impose new mandatory conditions relating to metering and logbooks by regulation. If that occurs, it is proposed to remove all clauses providing for mandatory conditions to be imposed in relation to metering and logbooks from water sharing plans. Consultation on the proposed regulations occurred in September and October 2018.

Division 2 Access licences

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

65 General

- (1) Each access licence must have the following mandatory conditions:
- (a) (Repealed)
- (b) upon becoming aware of a breach of any condition of the access licence, the licence holder must:
- (i) notify the Minister as soon as practicable, and
- (ii) if the notification under subparagraph (i) was not in writing, confirm this notification in writing within seven days of becoming aware of the breach,

- (c) extraction under the access licence is subject to the relevant available water determination.
 - (d) (Repealed)
- (2) Access licences in the water source, excluding access licences that nominate only metered water supply works with a data logger, must have mandatory conditions to give effect to the following:
- (a) the holder of the access licence must keep a Logbook,
 - (b) the holder of the access licence must record the following in the Logbook:
 - (i) each date and period of time during which water was taken under the access licence,
 - (ii) the volume of water taken on that date,
 - (iii) the water supply work approval number of the water supply work used to take the water on that date,
 - (iv) the purpose or purposes for which the water was taken on that date,
 - (v) any other information required to be recorded in the Logbook under the rules of this Plan,
 - (c) the holder of the access licence must produce the Logbook to the Minister for inspection, when requested, and
 - (d) the holder of the access licence must retain the information required to be recorded in the Logbook for five years from the date to which that information relates.
- (3) Each domestic and stock access licence must have a mandatory condition that water may only be taken for the purpose of domestic consumption or stock watering as defined in section 52 of the Act.
- (4) Each regulated river (general security) access licence must have a mandatory condition that the licence holder may only take the water available in the water allocation account for the licence and in accordance with the accounting rules in clause 52.
- (5) Each access licence must have a mandatory condition that the licence holder must not take water unless it has been ordered in accordance with procedures established by the Minister.
- (6) Each access licence must have a mandatory condition that specifies whether water is permitted to be taken upstream or downstream of Lake Cargelligo Weir.

Division 3 Water supply work approvals

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

65A Application of Division

The conditions set out in this Division must be imposed on each water supply work approval in the water source, unless otherwise specified.

66 General

- (1) Water supply work approvals for water supply works in the water source must have mandatory conditions to give effect to the following:
 - (a) the water supply work must not be used to take water under an access licence unless in compliance with the relevant access rules for the taking of water as specified in Part 9,
 - (b) unless exempted by the Minister by notice in writing, the approval holder must have metering equipment installed that meets the following requirements:
 - (i) the metering equipment must accurately measure and record the flow of all water taken through the water supply work,
 - (ii) the metering equipment must comply with Australian Standard AS 4747, *Meters for non-urban water supply*, as may be updated or replaced from time to time,
 - (iii) the metering equipment must be operated and maintained in a proper and efficient manner at all times,
 - (iv) the metering equipment must be sited and installed at a place in the pipe, channel or conduit between the water source and the first discharge outlet. There must be no flow of water out of the pipe, channel or conduit between this water source and the metering equipment,
 - (v) any other requirements as to type, standard or other criteria for the metering equipment specified in the notice,

Note. The Minister may also direct a landholder or person to install, replace or properly maintain metering equipment under section 326 of the Act.
 - (c) the approval holder must ensure that, if the water supply work is abandoned or replaced, it is decommissioned in accordance with any direction from the Minister. The Minister may direct that any such water supply work need not be decommissioned,

- (d) within sixty days of the decommissioning of the water supply work, the approval holder must notify the Minister in writing that the water supply work has been decommissioned,
 - (e) the holder of the water supply work approval upon becoming aware of a breach of any condition of the approval must:
 - (i) notify the Minister as soon as practicable, and
 - (ii) if the notification under subparagraph (i) was not in writing, confirm this notification in writing within 7 days of becoming aware of the breach,
 - (f) any other conditions required to implement the provisions of this Plan.
- (2) Water supply work approvals for water supply works in the water source, excluding a water supply work that is a metered water supply work with a data logger or is used for the purpose of taking water under basic landholder rights only, must have mandatory conditions to give effect to the following:
- (a) the holder of a water supply work approval must keep a Logbook,
 - (b) the holder of a water supply work approval must record the following in the Logbook:
 - (i) each date and period of time during which water was taken using the water supply work,
 - (ii) the volume of water taken on that date,
 - (iii) the number of the access licence under which water was taken on that date, or, if water was taken under some other authority (such as basic landholder rights), the authority under which water was taken,
 - (iv) the purpose or purposes for which the water was taken on that date,
 - (v) details of any cropping carried out using the water taken through the water supply work including the type of crop, area cropped and dates of planting and harvesting,
 - (vi) where metering equipment has been installed for use in connection with the water supply work, the meter reading before water is taken,
 - (vii) where metering equipment has not been installed for use in connection with the water supply work, details of all pumping activities for the water supply work including pump running hours, pump power usage or pump fuel usage, pump start and stop times and pump capacity per unit of time,

- (viii) any other information required to be recorded in the Logbook under the rules of this Plan,
 - (c) the holder of the water supply work approval must produce the Logbook to the Minister for inspection when requested, and
 - (d) the holder of a water supply work approval must retain the information required to be recorded in the Logbook for five years from the date to which that information relates.
- (3) The Minister may require the holder of a water supply work approval for a metered water supply work with a data logger to keep a Logbook in accordance with any requirements of subclause (2).
- (4) Subclauses (1)–(3) do not apply to approvals for water supply works held by Water NSW provided the approval is not nominated by an access licence.
- (5) Water supply work approvals held by Water NSW must have mandatory conditions to give effect to the system operation rules in Part 6.

Part 12 Amendment of this Plan

67 General

- (1) An amendment authorised by this Plan is taken to include any consequential amendments required to be made to this Plan to give effect to that particular amendment.

Note. For example, if Part 1 is amended to add a new management zone, this may require amendments to other parts of this Plan to include rules for that management zone.

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

68 Part 1

Part 1 may be amended to add, modify or remove a river or segment of river to or from the water source providing that:

- (a) any amendment is consistent with any applicable regulated river order, and
- (b) the Minister is satisfied that there will be no impact on environmental water, or on the available water to any access licence in the water source.

69 (Repealed)

Minister's note.

Since the commencement of the 2016 Plan, the translucency rules have been thoroughly reviewed in consultation with key government agencies and relevant stakeholder groups, resulting in no proposals to amend the rules. Accordingly, this amendment provision is redundant and should be repealed.

70 Part 7

- (1) (Repealed)
- (2) The Minister may amend clause 48 to provide available water determination rules for regulated river (conveyance) access licences that reflect the loss of water that occurs between the points of offtake of water from the water source and the points of delivery to water users within the Jemalong Irrigation Limited area of operation, if, in the Minister's opinion, it is necessary to do so to prevent third party impacts from dealings that manipulate future regulated river (conveyance) access licence water allocations.

71 Part 9

Part 9 of this Plan may be amended to provide account management rules for regulated river (conveyance) access licences that reflect the loss of water that occurs between the points of offtake of water from the water source and the points of delivery to water users within the Jemalong Irrigation Limited area of operation, if, in the Minister's opinion, it

is necessary to do so to prevent third party impacts from dealings that manipulate future regulated river (conveyance) access licence water allocations.

72 Part 10

- (1) Part 10 may be amended to remove or reduce the prohibitions on dealings specified under clauses 59 (1) (c) and 61 (1) (a).
- (2) Before making an amendment to clauses 59 (1) (c) and 61 (1) (a), the Minister is to consult with relevant Government agencies and stakeholders.
- (3) The access licence dealing rules may be amended to provide for the conversion of regulated river (high security) access licences to access licences with share components that specify connected upstream unregulated water sources.

73 Part 11

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

- (a) amend the rules in relation to record keeping including in relation to requirements for metering and Logbooks.
- (b) (Repealed)

73A Amendment relating to individual daily extraction limits

This Plan may be amended to provide for individual daily extraction components.

74 Dictionary

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

75 Other

- (1) This Plan may be amended to include rules for the management of floodplain harvesting within the water source, so long as the amendment does not:
 - (a) affect the outcomes of the long-term extraction limit specified in the Plan, or
 - (b) allow more water being taken pursuant to access licences for floodplain harvesting than permitted under the Murray-Darling Basin Agreement in Schedule 1 to the *Water Act 2007* of the Commonwealth.
- (2) Schedule 1 may be amended to add or remove an office.
- (3) (Repealed)
- (4) (Repealed)
- (5) (Repealed)
- (6) (Repealed)

(7) (Repealed)

76 Effect of certain amendments to this Plan

- (1) A reference to a repealed provision of this Plan extends to the corresponding provision of the amended plan, as the case may be.
- (2) If a provision is omitted and replaced or reinserted by an amendment to this Plan, the omission and the replacement does not affect the operation (if any) or meaning of the provision, and accordingly the provision is to be construed as if it had not been omitted and replaced.
- (3) Subclause (2) applies whether or not the provision is modified but has effect subject to any such modification.

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Dictionary

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

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

Active storage is the total volume of water in Lake Brewster minus dead storage. At the commencement of this Plan, dead storage in Lake Brewster is estimated to be approximately 2,000 ML.

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

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

carbon and nutrient pathways are the connected networks of streams, riparian zones, floodplains and wetlands that transport dissolved and suspended organic material and nutrients. Pathways can move material into and out of streams to support ecosystems throughout the water source. The MER Plan in Appendix 2 details the target ecosystems, monitoring performance indicators and monitoring locations in this water source.

commercial plantation means a commercial forestry plantation as defined in section 1.07 of the Basin Plan.

floodplain harvesting is the collection, extraction or impoundment of water flowing across the floodplain, including rainfall runoff and overbank flow, excluding the take of water pursuant to any of the following:

- (a) a water access licence other than a floodplain harvesting access licence,
- (b) a basic landholder right,
- (c) an exemption from the need to hold a licence to take water under the Act.

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.

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

flow regimes mean, collectively, the magnitudes, durations, frequency and patterns of flows that characterise a river or water source.

Minister means the Minister administering the Act.

NSW Environmental Water Manager means the NSW Government department with the conservation role for water-dependent assets. This responsibility extends to managing the NSW environmental water portfolio.

Note. As at 1 July 2019, this is the Office of the Environment and Heritage.

operator means the operator of the water supply system.

Note. As at 1 July 2019, this is WaterNSW.

replenishment flows are flows provided to unregulated river systems downstream of major headwater dams to address the flow related impacts within those systems caused by dam construction.

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

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

translucent flows are releases made from water storages where some portion of the inflows to the water storage are released coincidentally with their occurrence.

transmission losses are any loss of water volume, through natural influences such as evaporation or seepage, which occurs as water travels down a river.

water source means the Lachlan Regulated River Water Source within the Lachlan Water Management Area.

water storage means a state owned dam, weir or other structure, which is used to regulate and manage river flows in the 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, not taking into account the maximum crop area and crop planting behaviour.

weighted average price means the total price (dollars per ML) of all units sold divided by the number of units sold.

Year 5 of this Plan means from the date of 1 July 2020 to 30 June 2021.

Schedule 1 Offices

Department of Industry, Water

9 Spring Street

PO Box 291

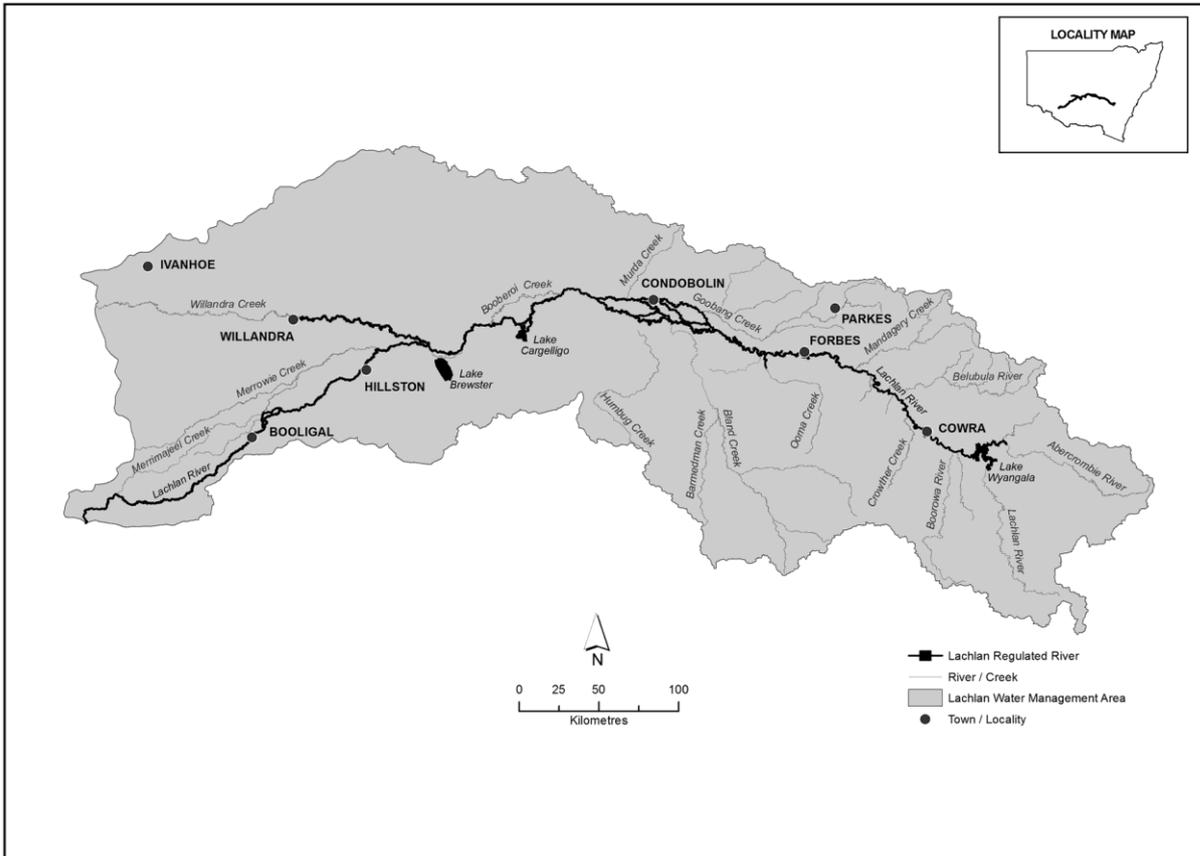
FORBES NSW 2871

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Appendix 1 (Repealed)

Appendix 2 Overview map of the Lachlan Regulated River Water Source

Overview map of the Lachlan Regulated River Water Source



Appendix 3 Targeted objectives, strategies and performance indicators

Column 1 Targeted objective	Column 2 Strategies	Column 3 Performance indicators	Column 4 Criteria for selecting priority monitoring locations*	Column 5 Supporting documents	Column 6 Comments
Environmental					
Clause 9 (2) (a) (i) Protect and, where possible, enhance the recorded distribution or extent of target ecological populations including native fish and native vegetation over the term of this Plan	Clause 9 (3) (a) – (f)	Clause 9 (5) (a) and (e)	<p>Priorities for targeted monitoring within this water source are locations that include the following conditions:</p> <ol style="list-style-type: none"> 1. One or more recorded or predicted occurrences of: <ol style="list-style-type: none"> a. Murray cod b. Eel-tailed catfish c. Purple-spotted gudgeon d. Olive perchlet e. Silver perch f. Golden perch g. Flathead galaxias h. High fish diversity locations i. River red gum woodland j. Black box-coolibah woodland k. Lowland Catchment of the Lachlan River Endangered Ecological Community 2. River sections that were identified as medium or high risk in the Risk Assessment for the <i>Lachlan Water Resource</i> 	<p><i>Risk assessment for the Lachlan water resource plan area (SW10)</i> Add Hyperlink -</p> <p><i>Guidelines for setting and evaluating plan objectives for water management</i> Add Hyperlink -</p> <p><i>Lachlan Surface Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -</p> <p><i>Lachlan Long-Term Water Plan</i> Add Hyperlink -</p>	<p>Similar objectives and monitoring targets can be found in other water sharing plan areas</p> <p>Therefore, relevant monitoring data from those water sharing plan areas will be considered when evaluating this objective for this water source.</p>

Column 1 Targeted objective	Column 2 Strategies	Column 3 Performance indicators	Column 4 Criteria for selecting priority monitoring locations*	Column 5 Supporting documents	Column 6 Comments
			<i>Plan area (SW10)</i>		
<p>Clause 9 (2) (a) (ii) Protect and, where possible, enhance the population structure of target ecological populations including native fish and native vegetation communities</p>	<p>Clause 9 (3) (a) – (f)</p>	<p>Clause 9 (5) (b) and (e)</p>	<p>Priorities for targeted monitoring within this water source are locations that include the following conditions:</p> <ol style="list-style-type: none"> 1. One or more recorded or predicted occurrences of: <ol style="list-style-type: none"> a. Murray cod b. Eel-tailed catfish c. Purple-spotted gudgeon d. Olive perchlet e. Silver perch f. Golden perch g. Flathead galaxias h. High fish diversity locations i. River red gum woodland j. Black box-coolibah woodland k. Lowland Catchment of the Lachlan River Endangered Ecological Community 2. River sections that were identified as medium or high risk in the Risk Assessment for the <i>Lachlan Water Resource Plan area (SW10)</i> 	<p><i>Risk assessment for the Lachlan water resource plan area (SW10)</i> Add Hyperlink - <i>Guidelines for setting and evaluating plan objectives for water management</i> Add Hyperlink - <i>Lachlan Surface Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -</p>	<p>Similar objectives and monitoring targets can be found in other water sharing plan areas Therefore, relevant monitoring data from those water sharing plan areas will be considered when evaluating this objective for this water source.</p>
<p>Clause 9 (2) (a) (iii) Protect and, where possible, enhance the longitudinal</p>	<p>Clause 9 (3) (a) – (f)</p>	<p>Clause 9 (5) (a), (c) and (e)</p>	<p>Priorities for targeted monitoring within this water source include the following conditions:</p>	<p><i>Risk assessment for the Lachlan water resource plan area (SW10)</i> Add Hyperlink -</p>	<p>Similar objectives and monitoring targets can be found in other water sharing</p>

Column 1 Targeted objective	Column 2 Strategies	Column 3 Performance indicators	Column 4 Criteria for selecting priority monitoring locations*	Column 5 Supporting documents	Column 6 Comments
and lateral connectivity between and within water sources, including to support surface and groundwater exchange and downstream processes including priority carbon and nutrient pathways and priority fish passages			<ol style="list-style-type: none"> 1. One or more river sections that include: <ol style="list-style-type: none"> a. Tributary catchments that can contribute unregulated carbon and nutrient loads into the regulated river b. Low lying floodplains or benches that can be rich sources of carbon and nutrients c. Catchments that have extensive riparian vegetation d. Significant barriers to migratory fish movement e. Location where hydrologic and hydraulic connectivity may be at risk 2. River sections that were identified as medium or high risk in the <i>Risk Assessment for the Lachlan Water Resource Plan area (SW10)</i> 	<p><i>Guidelines for setting and evaluating plan objectives for water management</i></p> <p>Add Hyperlink - <i>Lachlan Surface Water Monitoring, Evaluation and Reporting Plan</i></p> <p>Add Hyperlink -</p>	<p>plan areas</p> <p>Therefore, relevant monitoring data from those water sharing plan areas will be considered when evaluating this objective for this water source.</p>
<p>Clause 9 (2) (a) (iv)</p> <p>Protect and, where possible, enhance water quality within this water source to support water dependent ecosystems and ecosystem functions</p>	<p>Clause 9 (3) (a) - (f)</p>	<p>Clause 9 (5) (d) and (e)</p>	<p>Priorities for targeted monitoring within this water source are locations that include the following conditions:</p> <ol style="list-style-type: none"> 1. Representative river sections identified in the <i>NSW State Water Quality Assessment and Monitoring Program</i> 	<p><i>Risk assessment for the Lachlan water resource plan area (SW10)</i></p> <p>Add Hyperlink - <i>Water quality management plan for the Lachlan water resource plan area (SW10)</i></p> <p>Add Hyperlink -</p>	<p>Similar objectives and monitoring targets can be found in other water sharing plan areas and programs.</p> <p>Therefore, relevant monitoring data from those water sharing plan areas and programs may be considered</p>

Column 1 Targeted objective	Column 2 Strategies	Column 3 Performance indicators	Column 4 Criteria for selecting priority monitoring locations*	Column 5 Supporting documents	Column 6 Comments
			2. River sections that were identified as medium or high risk in the <i>Risk Assessment for the Lachlan Water Resource Plan area (SW10)</i>	<i>NSW Cold Water Pollution Strategy</i> Add Hyperlink – <i>NSW Draft algal risk management sub plan</i> Add Hyperlink – <i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink - <i>Lachlan Surface Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	when evaluating this objective for this water source.
Clause 9 (2) (b) Support environmental watering to contribute to maintaining or enhancing ecological condition in streams, riparian zones, dependent wetlands and floodplains	Clause 9 (3) (a), (c), (d) and (f)	Clause 9 (5) (a) – (e)	Priority monitoring sites within this water source include the target assets and locations that EWA water is delivered to during the term of this Plan.	<i>Lachlan Catchment Annual Environmental Watering Priorities</i> Add Hyperlink - <i>Lachlan Long-Term Water Plan</i> Add Hyperlink -	EWA environmental watering priorities and locations are determined by the Environmental Water Advisory Group (EWAG) on an annual basis.
Economic					
Clause 10 (2) (a) Provide water trading opportunities for agriculture, business and landholders	Clause 10 (3) (a), (d) and (e)	Clause 10 (5) (a), (b) and (c)	Priority locations for targeted monitoring within this water source are locations that include one or more of the following conditions: 1. High community dependency	<i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink - <i>Lachlan Planned Environmental</i>	Similar objectives and monitoring targets are found in other water sharing plan areas. The performance indicators

Column 1 Targeted objective	Column 2 Strategies	Column 3 Performance indicators	Column 4 Criteria for selecting priority monitoring locations*	Column 5 Supporting documents	Column 6 Comments
			on surface water extraction (for agriculture, business, landholders) as evidenced by: <ol style="list-style-type: none"> a. the number of Water Access Licence (WAL): by WAL category b. water made available (ML) each year over the past 5 years by WAL licence category c. Water usage (ML) each year over the last five years by WAL category d. Gross value of irrigated production each year over the last five years e. Gross value of dryland agriculture production each year over the last five years f. The number, total value and VWAP of allocation trades in- and out- of the region each year over the last five years g. The number, total value and VWAP of entitlement trades in- and out- of the region each year over the last five years h. Town population i. Economic diversity 	<i>Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	and selection criteria have been chosen to work particularly well in situations where people or the economy are highly dependent on water extraction

Column 1 Targeted objective	Column 2 Strategies	Column 3 Performance indicators	Column 4 Criteria for selecting priority monitoring locations*	Column 5 Supporting documents	Column 6 Comments
			(measured using the Shannon-Weaver Index ¹).		
<p>Clause 10 (2) (b) Maintain or enhance access to water for agriculture, business and landholders</p>	<p>Clause 10 (3) (a), (b), (c) and (e)</p>	<p>Clause 10 (5) (a) and (c)</p>	<p>Priority locations for targeted monitoring within this water source are locations that include one or more of the following conditions:</p> <ol style="list-style-type: none"> 1. High community dependency on surface water extraction (for agriculture, business, landholders) as evidenced by: <ol style="list-style-type: none"> a. the number of Water Access Licence (WAL): by WAL category b. water made available (ML) each year over the past 5 years by WAL licence category c. Water usage (ML) each year over the last five years by WAL category d. Gross value of irrigated production each year over the last five years e. Gross value of dryland agriculture production each year over the last five years f. The number, total value and 	<p><i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink - <i>Lachlan Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -</p>	<p>Similar objectives and monitoring targets are found in other water sharing plan areas</p> <p>The performance indicators and selection criteria have been chosen to work particularly well in situations where people or the economy are highly dependent on water extraction</p>

¹ <https://implanhelp.zendesk.com/hc/en-us/articles/115009505687-The-Shannon-Weaver-Index-of-Economic-Diversity-An-Overview-and-Descriptive-Analysis>
http://www.jrap-journal.org/pastvolumes/2010/v47/jrap_v47_n2_a4_thorvaldson_squibb.pdf

Column 1 Targeted objective	Column 2 Strategies	Column 3 Performance indicators	Column 4 Criteria for selecting priority monitoring locations*	Column 5 Supporting documents	Column 6 Comments
			<p>VWAP of allocation trades in- and out- of the region each year over the last five years</p> <p>g. The number, total value and VWAP of entitlement trades in- and out- of the region each year over the last five years</p> <p>h. Town population</p> <p>i. Economic diversity (measured using the Shannon-Weaver Index²).</p>		
<p>Clause 10 (2) (c)</p> <p>Maintain or enhance water quality for agriculture, business and landholders</p>	<p>Clause 10 (3) (a), and (e)</p>	<p>Clause 10 (5) (a) and (c)</p>	<p>Priorities for targeted monitoring within this water source are locations that include the following conditions:</p> <ol style="list-style-type: none"> 1. Representative river sections identified in the <i>NSW State Water Quality Assessment and Monitoring Program</i> 2. River sections that were identified as medium or high risk in the <i>Risk Assessment for the Lachlan water resource plan area (SW10)</i> 	<p><i>Risk assessment for the Lachlan water resource plan area (SW10)</i></p> <p>Add Hyperlink -</p> <p><i>Water quality management plan for the Lachlan water resource plan area (SW10)</i></p> <p>Add Hyperlink -</p> <p><i>NSW Draft algal risk management sub plan</i></p> <p>Add Hyperlink -</p> <p><i>Guidelines for setting and evaluating Plan objectives for water</i></p>	<p>Similar objectives and monitoring targets can be found in other water sharing plan areas and programs. Therefore, relevant monitoring data from those water sharing plan areas and programs may be considered when evaluating this objective for this water source.</p>

² <https://implanhelp.zendesk.com/hc/en-us/articles/115009505687-The-Shannon-Weaver-Index-of-Economic-Diversity-An-Overview-and-Descriptive-Analysis>
http://www.jrap-journal.org/pastvolumes/2010/v47/jrap_v47_n2_a4_thorvaldson_squibb.pdf

Column 1 Targeted objective	Column 2 Strategies	Column 3 Performance indicators	Column 4 Criteria for selecting priority monitoring locations*	Column 5 Supporting documents	Column 6 Comments
				<i>management</i> Add Hyperlink - <i>Lachlan Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	
Aboriginal cultural					
Clause 11 (2) (a) Provide access to water for holders of native title	Clause 11 (3) (a)	Clause 11 (5) (a) to (f)	Priorities for targeted monitoring within this water source are locations that include the following conditions: <ol style="list-style-type: none"> 1. the number of Water Access Licence (WAL): by WAL category³ 2. water made available (ML) each year over the past 5 years by WAL licence category⁴ 3. Water usage (ML) each year over the last five years by WAL category⁵ 4. Indigenous population 5. Population / groups holding native title with respect to 	<i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink - <i>Lachlan Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	

³ Aboriginal Cultural Water Access Licence/Aboriginal Community Development Water Access Licences

⁴ WAL categories as above

⁵ WAL categories as above

Column 1 Targeted objective	Column 2 Strategies	Column 3 Performance indicators	Column 4 Criteria for selecting priority monitoring locations*	Column 5 Supporting documents	Column 6 Comments
			water, as determined under the Native Title Act 1993 (Cwlth) ⁶		
Clause 11 (2) (b) Provide access to water for Indigenous cultural use, including recreational fishing	Clause 11 (3) (b)-(e)	Clause 11 (5) (a) to (c), (e) and (f)	Priorities for targeted monitoring within this water source are locations that include the following conditions: <ol style="list-style-type: none"> 1. the number of Water Access Licence (WAL): by WAL category⁷ 2. water made available (ML) each year over the past 5 years by WAL licence category⁸ 3. Water usage (ML) each year over the last five years by WAL category⁹ 4. Indigenous population 5. Population / groups holding native title with respect to water, as determined under the Native Title Act 1993 (Cwlth)¹⁰ 6. Culturally important fishing 	<i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink - <i>Lachlan Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	

⁶ The *Water Management Act 2000* recognises the cultural and spiritual importance of water to Aboriginal people in NSW. Anyone who holds native title with respect to water, as determined under the *Native Title Act 1993* (Cwlth), can take and use water for a range of needs. These include personal, domestic and non-commercial communal purposes such as manufacturing traditional artefacts, hunting, fishing, recreation, cultural and ceremonial purposes.

⁷ WAL categories as above

⁸ WAL categories as above

⁹ WAL categories as above

¹⁰ The *Water Management Act 2000* recognises the cultural and spiritual importance of water to Aboriginal people in NSW. Anyone who holds native title with respect to water, as determined under the *Native Title Act 1993* (Cwlth), can take and use water for a range of needs. These include personal, domestic and non-commercial communal purposes such as manufacturing traditional artefacts, hunting, fishing, recreation, cultural and ceremonial purposes.

Column 1 Targeted objective	Column 2 Strategies	Column 3 Performance indicators	Column 4 Criteria for selecting priority monitoring locations*	Column 5 Supporting documents	Column 6 Comments
			locations and species		
Clause 11 (2) (c) Protect identified water-dependent culturally significant areas, including important riparian vegetation communities.	Clause 11 (3) (c) to (e)	Clause 11 (5) (a) – (g)	<p>Priorities for targeted monitoring within this water source are locations that include the following conditions:</p> <ol style="list-style-type: none"> 1. the number of Water Access Licence (WAL): by WAL category¹¹ 2. water made available (ML) each year over the past 5 years by WAL licence category¹² 3. Water usage (ML) each year over the last five years by WAL category¹³ 4. Indigenous population 5. Population / groups holding native title with respect to water, as determined under the Native Title Act 1993 (Cwlth)¹⁴ 6. Identified cultural assets including vegetation communities and regions 	<p><i>Guidelines for setting and evaluating Plan objectives for water management</i></p> <p>Add Hyperlink -</p> <p><i>Lachlan Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i></p> <p>Add Hyperlink -</p>	
Clause 11 (2) (d)	Clause 11	Clause 11	Priorities for targeted monitoring	<i>Water quality management plan for</i>	

¹¹ Aboriginal Cultural Water Access Licence/Aboriginal Community Development Water Access Licences

¹² WAL categories as above

¹³ WAL categories as above

¹⁴ The *Water Management Act 2000* recognises the cultural and spiritual importance of water to Aboriginal people in NSW. Anyone who holds native title with respect to water, as determined under the *Native Title Act 1993* (Cwlth), can take and use water for a range of needs. These include personal, domestic and non-commercial communal purposes such as manufacturing traditional artefacts, hunting, fishing, recreation, cultural and ceremonial purposes.

Column 1 Targeted objective	Column 2 Strategies	Column 3 Performance indicators	Column 4 Criteria for selecting priority monitoring locations*	Column 5 Supporting documents	Column 6 Comments
Maintain or enhance water quality to ensure suitability of water for Indigenous cultural use	(3) (c) to (e)	(5)(a) to (g)	within this water source are locations that include the following conditions: <ol style="list-style-type: none"> 1. the number of Water Access Licence (WAL): by WAL category¹⁵ 2. water made available (ML) each year over the past 5 years by WAL licence category¹⁶ 3. Water usage (ML) each year over the last five years by WAL category¹⁷ 4. Indigenous population 5. Population / groups holding native title with respect to water, as determined under the Native Title Act 1993 (Cwlth)¹⁸ 6. Identified cultural assets 	<i>the Lachlan water resource plan area (SW10)</i> Add Hyperlink – <i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink - <i>Lachlan Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	
Social and cultural					
Clause 11A (2) (a) Maintain or improve access to water for basic human needs, town water supply	Clause 11A (3) (a) and (d)	Clause 11A (5) (a) and (d)	Priorities for targeted monitoring within this water source are locations that include the following conditions:	<i>Water quality management plan for the Lachlan water resource plan area (SW10)</i>	

¹⁵ Aboriginal Cultural Water Access Licence/Aboriginal Community Development Water Access Licences

¹⁶ WAL categories as above

¹⁷ WAL categories as above

¹⁸ The *Water Management Act 2000* recognises the cultural and spiritual importance of water to Aboriginal people in NSW. Anyone who holds native title with respect to water, as determined under the *Native Title Act 1993* (Cwlth), can take and use water for a range of needs. These include personal, domestic and non-commercial communal purposes such as manufacturing traditional artefacts, hunting, fishing, recreation, cultural and ceremonial purposes.

Column 1 Targeted objective	Column 2 Strategies	Column 3 Performance indicators	Column 4 Criteria for selecting priority monitoring locations*	Column 5 Supporting documents	Column 6 Comments
and domestic and stock purposes			<ol style="list-style-type: none"> 1. High community dependency on water extraction (for basic human needs, town water supply and domestic and stock purposes) as evidenced by: <ol style="list-style-type: none"> a. the number of Water Access Licence (WAL): by WAL category¹⁹ b. water made available (ML) each year over the past 5 years by WAL licence category²⁰ c. Water usage (ML) each year over the last five years by WAL category²¹ d. Town population e. Turbidity (NTU), colour (HU) and E.coli and chemicals less than Australian Drinking Water Guidelines and utility service level limit at offtake. 	Add Hyperlink – <i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink - <i>Lachlan Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	
Clause 11A (2) (b) Maintain or improve access to water for water dependent	Clause 11A (3) (b), (c) and (d)	Clause 11A (5) (a), (b), (c) and (d)	Priority locations for targeted monitoring within this water source are locations that include the	<i>Water quality management plan for the Lachlan water resource plan area (SW10)</i>	Similar objectives and monitoring targets can be found in other water sharing plan areas and programs.

¹⁹ High (Town water supply)/Domestic And Stock/Domestic And Stock (Domestic)/Unregulated River (Town water supply)/Local Water Utility/Major Utility/ Aquifer (Town Water Supply)

²⁰ WAL categories as above

²¹ WAL categories as above

Column 1 Targeted objective	Column 2 Strategies	Column 3 Performance indicators	Column 4 Criteria for selecting priority monitoring locations*	Column 5 Supporting documents	Column 6 Comments
cultural, heritage and recreational uses, including recreational fishing			following conditions: <ol style="list-style-type: none"> 1. One or more recorded or predicted occurrences of: <ol style="list-style-type: none"> a. Murray cod b. Eel-tailed catfish c. Purple-spotted gudgeon d. Olive perchlet e. Silver perch f. Golden perch g. High fish diversity locations 2. Recorded takes of native fish that are important for recreational fishing within legal age and size classes as described in Appendix 2 3. River sections that were identified as medium or high risk in the Risk Assessment for the Lachlan water resource plan area (SW10) 4. Number of recreational water sites with Red blue-green algae in past 3 years 5. Recreational water sites with Amber blue-green algae in past 3 years 	Add Hyperlink – <i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink - <i>Lachlan Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	Therefore, relevant monitoring data from those water sharing plan areas and programs may be considered when evaluating this objective for this water source.
Clause 11A (2) (c) Maintain or improve water quality for basic human needs, town water supply,	Clause 11A (3) (b), (c) and (d)	Clause 11A (5) (a), (d) and (e)	Priorities for targeted monitoring within this water source are locations that include the following conditions:	<i>Risk assessment for the Lachlan water resource plan area (SW10)</i> Add Hyperlink -	Similar objectives and monitoring targets can be found in other water sharing plan areas and programs.

Column 1 Targeted objective	Column 2 Strategies	Column 3 Performance indicators	Column 4 Criteria for selecting priority monitoring locations*	Column 5 Supporting documents	Column 6 Comments
domestic and stock purposes and water dependent cultural, heritage and recreational uses, including recreational fishing			<ol style="list-style-type: none"> 1. Representative river sections identified in the <i>NSW State Water Quality Assessment and Monitoring Program</i> 2. River sections that were identified as medium or high risk in the <i>Risk Assessment for the Lachlan water resource plan area (SW10)</i> 	<p><i>Water quality management plan for the Lachlan water resource plan area (SW10)</i> Add Hyperlink –</p> <p><i>NSW Cold Water Pollution Strategy</i> Add Hyperlink –</p> <p><i>NSW Draft algal risk management sub plan</i> Add Hyperlink –</p> <p><i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink -</p> <p><i>Lachlan Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -</p>	Therefore, relevant monitoring data from those water sharing plan areas and programs may be considered when evaluating this objective for this water source.