



New South Wales

Water Sharing Plan for the NSW Border Rivers Regulated River Water Source 2019

under the

Water Management Act 2000

I, Niall Blair, the Minister for Regional Water, do, by this Order, in pursuance of section 50 of the *Water Management Act 2000*, make the following Minister's Plan, being the *Water Sharing Plan for the NSW Border Rivers Regulated River Water Source 2019*.

Dated this day of 2019.

Minister for Regional Water

Explanatory note

This Plan replaces the *Water Sharing Plan for the NSW Border Rivers Regulated River Water Source 2009*.

This Order is made under section 50 of the *Water Management Act 2000*. The concurrence of the Minister for the Environment was obtained prior to the making of this Order.

Contents

Part 1	Introduction.....	3
Part 2	Vision, objectives, strategies and performance indicators	6
Part 3	Bulk access regime	18
Part 4	Planned environmental water provisions	20
Part 5	Requirements for water.....	22
Division 1	General.....	22
Division 2	Requirements for water for basic landholder rights.....	23
Division 3	Requirements for water for extraction under access licences.....	23
Part 6	System operation rules.....	25
Division 1	Environmental flow rules	25
Division 2	General system operation rules.....	27
Part 7	Limits to the availability of water.....	31
Division 1	Calculations under this Part.....	31
Division 2	Long-term average annual extraction limit	32
Division 3	Cumulative annual extraction limit.....	34
Division 4	Compliance with limits	34
Division 5	Available water determinations	36
Part 8	Rules for granting access licences	41
Part 9	Rules for operating water accounts and managing access licences	42
Division 1	Water allocation account management rules	42
Division 2	Supplementary water events.....	46
Part 10	Access licence dealing rules.....	52
Part 11	Mandatory conditions	55
Division 1	General.....	55
Division 2	Access licences	55
Division 3	Water supply work approvals.....	56
Part 12	Amendment of this Plan.....	58
Dictionary	60
Schedule 1	Upstream supplementary water access licences	62
Schedule 2	Downstream supplementary water access licences.....	63
Schedule 3	Flow targets	64
Schedule 4	Offices.....	65
Appendix 1	Overview of the Plan Map	66
Appendix 2	Targeted objectives, strategies and performance indicators.....	67

Water Sharing Plan for the NSW Border Rivers Regulated River Water Source 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.

Part 1 Introduction

1 Name of Plan

This Plan is the *Water Sharing Plan for the NSW Border Rivers Regulated River Water Source 2019 (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 replacement management plan for the purposes of subsection 43(4) of the Act in relation to the NSW Border Rivers Regulated River Water Source and replaces the *Water Sharing Plan for the NSW Border Rivers Regulated River Water Source 2009*.
- (3) 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

This Plan commences on 1 July 2019.

Notes.

- 1 This Plan replaces the *Water Sharing Plan for the NSW Border Rivers Regulated River Water Source 2009*.
- 2 In accordance with section 43 of the Act, this Plan will have effect for 10 years from 1 July 2019. 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.

- 3 Under the Intergovernmental Agreement on Implementing Water Reform in the Murray-Darling Basin and the associated National Partnership Agreement, NSW has agreed to develop water resource plans for Murray-Darling Basin water resources that are consistent with the requirements of the Basin Plan. The water resource plan for the NSW Border Rivers water resource plan area (SW16) commences on 1 July 2019. Provisions of this Plan are included as part of that water resource plan.

4 Application of Plan

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

Note. The Border Rivers 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 bed and banks of all rivers, from:
- (i) the Pindari Dam water storage downstream to the Pindari Dam wall,
 - (ii) the Severn River from the Pindari Dam wall downstream to its junction with the Macintyre River,
 - (iii) the Macintyre River from its junction with the Severn River downstream to the junction of the Barwon River,
 - (iv) the Barwon River from its junction with the Macintyre River downstream to Mungindi Weir,
 - (v) the Dumaresq River from its junction with Pike Creek downstream to the junction of the Macintyre River,

which have been declared by the Minister to be regulated rivers and that is available to New South Wales under the terms of the *New South Wales – Queensland Border Rivers Act 1947*, the Border Rivers Agreement 1946 under that Act and the *New South Wales – Queensland Border Rivers Intergovernmental Agreement 2008 (the IGA)*, and

- (b) the water taken under a floodplain harvesting (regulated river) access licence.

Notes.

- 1 The *NSW Border Rivers Regulated River Water Source Order* was made by the Minister and published in the NSW Government Gazette No 79 of 29 May 2009 at page 2491 and amended by Part 5 of Schedule 12 of the Act.
- 2 The IGA covers water management issues in the Border Rivers and sets out arrangements for the sharing of water between New South Wales and Queensland.

- 3 A separate Water Management Plan and Resource Operations Plan has been developed under the Queensland *Water Act 2000* which covers the water distributed to Queensland under the Border Rivers Agreement 1947.
- 4 ***floodplain harvesting*** is defined in the Dictionary.
- 5 The water source does not include the following:
 - (a) the NSW Border Rivers Unregulated River Water Sources to which the *Water Sharing Plan for the NSW Border Rivers Unregulated River Water Sources 2012* applies,
 - (b) the NSW Border Rivers Alluvial Groundwater Sources to which the *Water Sharing Plan for the Border Rivers Alluvial Groundwater Sources 2019* applies.

5 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 meaning set out in the Dictionary.
- (3) Unless otherwise specified, a clause that applies to a category of access licence also applies to any subcategories of that category of access licence.
- (4) The Dictionary and Schedules to this Plan form part of this Plan.
- (5) The Plan Map forms 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

6 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,
- (d) the spiritual, social, customary and economic benefits to Aboriginal communities that result from the sustainable and efficient use of water.

7 Acknowledgement

Respect is paid to the traditional owners of this country, who are acknowledged as the first natural resource managers within the NSW Border Rivers Water Management Area.

8 Environmental objectives

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

Note. The ecological condition of the water source includes high ecological value aquatic ecosystems, target species, communities, populations and key ecosystem functions as defined in Appendix 2.

- (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 2.

- (ii) the population structure of target ecological populations including native fish and native vegetation communities,

Note. Target ecological populations for the water source are defined in Appendix 2.

- (iii) the connectivity between water sources to support 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 pathways and priority fish passages are defined in Appendix 2.
- 3 Downstream processes may include maintaining connectivity with water sources further downstream.

- (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 Border Rivers water resource plan area.
- 2 Criteria for identifying priority monitoring locations for water quality measurables are defined in Appendix 2.

- (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, and connectivity with downstream water sources.

Note. This Plan provides for access licences to be purchased and used to achieve environmental watering outcomes within the water source or in connected downstream water sources.

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

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

Notes.

- 1 Part 4 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 contributes to all objectives in subclause (2).

- 3 The long-term average annual extraction limit in clause 39 of this Plan is set to achieve the end-of-system flow target for Mungindi as identified in the IGA between NSW and Queensland.

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

Notes.

- 1 **flow regimes** is defined in the Dictionary.
- 2 Division 1 of Part 6 of this Plan contains rules that mitigate the alterations to low, medium and high flows by:
 - (i) providing a minimum daily flow of 10 ML/day from Pindari Dam.
 - (ii) releasing inflows into Pindari Dam to a limit of 50 ML/day or 200 ML/day depending on the month of the year.
 - (iii) setting aside 4000 ML in Pindari Dam each water year to be used as a stimulus flow.

These rules contribute to the objectives in subclauses (2) (a) and (b).

- 3 The rules in clause 59 and 60 of this Plan mitigate the alterations to medium and high flows in the Dumaresq River by protecting 25% of every supplementary water event for the environment, as provide for under the IGA. These rules contribute to all the objectives in subclause (2).

- (c) 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,

Notes.

- 1 Division 1 of Part 6 of this Plan contains rules that mitigate the alterations to low, medium and high flows by:
 - (i) providing a minimum daily flow of 10 ML/day from Pindari Dam.
 - (ii) releasing inflows into Pindari Dam to a limit of 50 ML/day or 200 ML/day depending on the time of year.
 - (iii) setting aside 4,000 ML in Pindari Dam each water year to be used as a stimulus flow.

These rules contribute to objectives in subclauses (2) (a) and (b).

- 2 The rules in clause 59 and 60 of this Plan mitigate the alterations to medium and high flows in the Dumaresq River by protecting 25% of every supplementary water event for the environment, as provide for under the IGA. These rules contribute to all objectives in subclause (2).

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

Note. Clause 28 outlines the provisions for the management of the stimulus flow from Pindari dam. These rules contribute to objectives in subclauses (2) (a) and (b).

- (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 (2) have contributed to achieving the broad objective, and
 - (b) external influences on the water source have affected progress toward achieving the objectives.
- (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 changes or trends in the following:
 - (a) the recorded range or extent of target ecological populations, including native fish and native vegetation, as described in Appendix 2,
 - (b) the recorded condition of target ecological populations including native fish and native vegetation, as described in Appendix 2,
 - (c) measurements of carbon and nutrient transport processes and fish movements through priority fish passage areas as described in Appendix 2,
 - (d) the recorded values of water quality measurements including salinity, turbidity, total nitrogen, total phosphorous, pH, water temperature and dissolved oxygen,
 - (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 2.

9 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,
 - (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) provide a stable and predictable framework for sharing water among waterusers,

Note. The individual account management rules in Division 1 of 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, provide for flexibility of access to water,
- (c) 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) provide for trade of water allocations and entitlements within the water source, subject to environmental and system constraints,

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) provide for supplementary water access, subject to announcements, to a portion of uncontrolled flows,

Notes.

1 The rules in Division 1 of Part 6 of this Plan describe minimum flows that are protected from supplementary water access. These rules contribute to all objectives in subclause (2).

2 The rules in Division 2 of Part 9 of this Plan describe the conditions for access during supplementary water events. These rules contribute to the objective in subclause (2) (b).

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

Notes.

- 1 Division 1 of Part 6 of this Plan contains rules that mitigate the alterations to low, medium and high flows by:
 - (i) providing a minimum daily flow of 10 ML/day from Pindari Dam.
 - (ii) releasing inflows into Pindari Dam to a limit of 50 ML/day or 200 ML/day depending on the month of the year.
 - (iii) setting aside 4000 ML in Pindari Dam each water year to be used as a stimulus flow.

These rules contribute to objectives in subclauses (2) (a) and (b).

- 2 The rules in clause 59 and 60 of this Plan mitigate the alterations to medium and high flows in the Dumaresq River by protecting 25% of every supplementary water event for the environment, as provide for under the IGA. 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 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 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,

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,
 - (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 2.

10 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,
 - (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 the following:
 - (a) manage access to water consistently with the exercise of native title rights,
 - (b) 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'. These rules contribute to the objective in subclause (2) (b).

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

Notes.

- 1 Division 1 of Part 6 of this Plan contains rules that mitigate the alterations to low, medium and high flows by:

- (i) providing a minimum daily flow of 10 ML/day from Pindari Dam.
- (ii) releasing inflows into Pindari Dam to a limit of 50 ML/day or 200 ML/day depending on the month of the year.
- (iii) setting aside 4000 ML in Pindari Dam each water year to be used as a stimulus flow.

These rules contribute to objectives in clause 8 (2) (a) and (b).

- 2 The rules in clause 59 and 60 of this Plan mitigate the alterations to medium and high flows in the Dumaresq River by protecting 25% of every supplementary water event for the environment, as provide for under the IGA. These rules contribute to all objectives in subclause (2).

- (d) 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,

Notes.

- 1 Division 1 of Part 6 of this Plan contains rules that mitigate the alterations to low, medium and high flows by:

- (i) providing a minimum daily flow of 10 ML/day from Pindari Dam.
- (ii) releasing inflows into Pindari Dam to a limit of 50 ML/day or 200 ML/day depending on the month of the year.
- (iii) setting aside 4000 ML in Pindari Dam each water year to be used as a stimulus flow.

These rules contribute to objectives in clause 8 (2) (a) and (b).

- 2 The rules in clause 59 and 60 of this Plan mitigate the alterations to medium and high flows in the Dumaresq River by protecting 25% of every supplementary water event for the environment, as provide for under the IGA. These rules contribute to all the objectives in subclause (2).

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

- (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 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 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 6,
 - (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,
 - (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.

11 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:
 - (a) access to water for basic human needs, town water supply and domestic and stock purposes, and
 - (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 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) provide water access for basic human needs, town water supply, and for domestic and stock purposes,

Note. Part 6 of this Plan ensures 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) reserve a portion of natural flows to mitigate alterations to natural flow regimes in the water source,

Notes.

- 1 Division 1 of Part 6 of this Plan contains rules that mitigate the alterations to low, medium and high flows by:
 - (i) providing a minimum daily flow of 10 ML/day from Pindari Dam.
 - (ii) releasing inflows into Pindari Dam to a limit of 50 ML/day or 200 ML/day depending on the month of the year.
 - (iii) setting aside 4000 ML in Pindari Dam each water year to be used as a stimulus flow.

These rules contribute to objectives in clause 8 (2) (a) and (b).

- 2 The rules in clause 59 and 60 of this Plan mitigate the alterations to medium and high flows in the Dumaresq River by protecting 25% of every supplementary

water event for the environment, as provide for under the IGA. These rules contribute to all the objectives in subclause (2).

- (c) 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,

Notes.

- 1 Division 1 of Part 6 of this Plan contains rules that mitigate the alterations to low, medium and high flows by:
 - (i) providing a minimum daily flow of 10 ML/day from Pindari Dam.
 - (ii) releasing inflows into Pindari Dam to a limit of 50 ML/day or 200 ML/day depending on the month of the year.
 - (iii) setting aside 4000 ML in Pindari Dam each water year to be used as a stimulus flow.

These rules contribute to objectives in clause 8 (2) (a) and (b).

- 2 The rules in clause 59 and 60 of this Plan mitigate the alterations to medium and high flows in the Dumaresq River by protecting 25% of every supplementary water event for the environment, as provide for under the IGA. These rules contribute to all the objectives in subclause (2).

- (d) 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 the 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 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 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 factors including:

- (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 2,
- (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 2,
- (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,
- (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.

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 rules established under Part 4 of this Plan, and
 - (b) the requirements for water for basic landholder rights identified in Division 2 of Part 5 of this Plan, and
 - (c) the requirements for water for extraction under access licences identified in Division 3 of Part 5 of this Plan, and
 - (d) the access licence dealing rules established under Part 10 of this Plan.
- (2) The bulk access regime established by this Plan:
 - (a) establishes rules according to the following:
 - (i) which access licences are granted as provided for in Part 8 of this Plan,
 - (ii) which available water determinations are to be made as provided for in Part 7 of this Plan,
 - (iii) which access licences are managed as provided for in Part 9 of this Plan, and
 - (b) establishes rules with respect to the priorities according to which water allocations are to be adjusted as a consequence of any reduction in the availability of water due to an increase in average annual extraction against the long-term average annual extraction limit or cumulative extraction limit contained in Divisions 2 and 3 of Part 7 of this Plan, and
 - (c) recognises, and is consistent with, the following:
 - (i) the limits to the availability of water as provided for in 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 are required to be imposed as mandatory conditions on access licences in 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 Divisions 2 and 3 of 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 cumulative 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,
- (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) Planned environmental water is established in the water source as follows:
 - (a) the physical presence of water, resulting from the following:
 - (i) the environmental flow rules for the water source as specified in Division 1 of Part 6, and
 - (ii) the limitations on access to flows for supplementary water access licences in Division 2 of Part 9,
 - (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 extraction limit in clause 45,

Note. By limiting long-term average annual extraction to an estimated 194,500 ML per year, this Plan aims to ensure that approximately 60% of the long-term average annual

flow (estimated to be 565,560 ML per year) in the water source at Mungindi is reserved as an end-of-system flow. This is consistent with section 23 of the IGA.

- (c) the water remaining after water has been taken under basic landholder rights and access licences, in accordance with the rules in Parts 7 and 9 of this Plan.
- (2) The planned environmental water established under subclause (1) (a) is maintained by the environmental flow rules as specified in clauses 27 and 28 and the limitations on access to flows for supplementary water access licences as specified in Division 2 of Part 9 this Plan.
- (3) The planned environmental water established under subclause (1) (b) is maintained by the rules in Part 7 of this Plan.
- (4) The planned environmental water established under subclause (1) (c) is maintained by the rules specified in Parts 7 and 9 of this Plan.

Note. The rules in Part 7 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 and the cumulative annual extraction limit. The rules in Part 7 of this Plan also provide for a reduction in available water determinations when either of those limits has been assessed to have been exceeded.

Part 5 Requirements for water

Minister's note.

The share component amounts outlined in this Part will be updated immediately prior to the Plan's commencement to account for any changes to licences and entitlements that may occur between the preparation of this draft Plan and its commencement.

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, at the commencement of this Plan, 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 Part 7 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.

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

At the commencement of this Plan, the water requirements of persons entitled to domestic and stock rights are estimated to total 8,000 megalitres per year (*ML/year*).

Note. Domestic and stock rights are set out in section 52 of the Act and must be exercised in accordance with any mandatory guidelines established under the Act on the taking and use of water for domestic consumption or stock watering.

19 Native title rights

At the commencement of this Plan, no determinations of native title rights have been made in relation to the water source under the *Native Title Act 1993* of the Commonwealth. Therefore, on the commencement of this Plan, 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 components in this Division include licensed environmental water as defined in section 8 of the Act. The Environmental Water Register maintained by the NSW Department of Industry provides a record of licensed environmental water, as well as other water intended to be used for environmental purposes.
- 2 On the commencement of this Plan, there are 6 access licences with share components totalling 4,243 ML that are not identified as licensed environmental water but are intended to be used for environmental purposes. These are held by the Commonwealth Government. These access licences are regulated river (general security), regulated river (high security) access licences and supplementary water access licences.
- 3 This Division sets out the total volumes or unit shares in the share components of access licences in the water source at the commencement of this Plan. The actual volume of water available at any time will depend on climate, access licence priority and the rules in this Plan.

20 Share components of domestic and stock access licences

At the time of commencement of this Plan the share components of domestic and stock access licences total 1,205 ML/year.

21 Share components of local water utility access licences

At the time of commencement of this Plan the share components of local water utility access licences total 620 ML/year.

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

At the time of commencement of this Plan the share components of regulated river (high security) access licences total 1,233 unit shares.

23 Share components of floodplain harvesting (regulated river) access licences

At the commencement of this Plan the share components of floodplain harvesting (regulated river) access licences total [to be added] unit shares.

Minister's note.

Floodplain harvesting (regulated river) access licence share components are currently being determined through modelling under the NSW Healthy Floodplains Project. Share component estimates for these licences will be updated in the Plan once this process is complete. It is currently anticipated that this will occur prior to the commencement of the amendments to this Plan. Further stakeholder engagement on the floodplain harvesting modelling methodology and key assumptions, together with an independent model peer review process is being undertaken to provide all stakeholders with confidence that the revised modelling is based on best available information.

24 Share components of regulated river (general security – A class) access licences

At the time of commencement of this Plan the share components of regulated river (general security – A class) access licences total 21,000 unit shares.

25 Share components of regulated river (general security – B class) access licences

At the time of commencement of this Plan the share components of regulated river (general security – B class) access licences total 244,000 unit shares.

26 Share components of supplementary water access licences

At the time of commencement of this Plan the share components of supplementary water access licences total 120,000 unit shares.

Part 6 System operation rules

Notes

- 1 The approximate location of the relevant gauges and other locations referred to in this Part are in the overview map at Appendix 1.
- 2 **Operator** and **NSW Environmental Water Manager** are defined in the Dictionary.

Division 1 Environmental flow rules

Note. By limiting long-term average annual extraction in NSW to an estimated 194,500 ML per year, this Plan aims to ensure that approximately 60% of the long-term average annual flow (estimated to be 565,560 ML per year) in the water source at Mungindi is reserved as an end of system flow. This is consistent with section 23 of the IGA.

27 Daily environmental flow

- (1) This clause sets out rules for the delivery of water that forms part of the planned environmental water under this Plan (referred to as *daily environmental flow*).
- (2) The operator is required to ensure that a daily environmental flow of at least 10 megalitres per day (*ML/day*) is released from Pindari Dam.
- (3) Subject to subclause (2), the operator is required to ensure that daily environmental flows released from Pindari Dam are equal to:
 - (a) storage inflow up to a maximum of 50 ML/day between September to May, inclusive, and
 - (b) storage inflow up to a maximum of 200 ML/day between June and August, inclusive.

Note: The effect of subclauses (2) and (3) is that the daily environmental flow must be the same as the volume of the inflow into Pindari Dam, up to the maximum flows set out in subclause (3). However, whatever the volume of the inflow, a minimum daily environmental flow of 10 ML/day must be released,

- (4) The operator is to ensure that a daily environmental flow released under this clause is not released for the purpose of meeting basic landholder rights or access licence water orders or be diverted to or stored in any weir or water storage.

28 Stimulus flow

- (1) This clause sets out rules for the release of water that mirrors a naturally occurring hydrograph, targets pre-season cues to fish breeding and to regularly wet and inundate

interconnected riparian areas (a *stimulus flow*).

- (2) The operator is required to release a stimulus flow from Pindari Dam between 1 August and 1 December, inclusive, if:
 - (a) storage inflow into Pindari Dam is greater than 1,200 ML on any day between 1 April and 31 August, inclusive, in the same calendar year,
 - (b) the Minister and the NSW Environmental Water Manager have determined by agreement the timing, rate, volume and duration of the stimulus flow, and
 - (c) the Minister and the NSW Environmental Water Manager have advised the operator of the timing, rate, volume and duration of the stimulus flow at least seven days prior to the release.

The operator must release the stimulus flow in accordance with the determination and advice of the Minister and the NSW Environmental Water Manager.

- (3) The operator must release a stimulus flow from Pindari Dam between 2 December and 31 July, inclusive, if the Minister and the NSW Environmental Water Manager:
 - (a) have determined by agreement that a release is required, and the timing, rate, volume and duration of the release, and
 - (b) have advised the operator of the timing, rate, volume and duration of the stimulus flow at least seven days prior to the release.

The operator must release the stimulus flow in accordance with the determination and advice of the Minister and the NSW Environmental Water Manager.

Note. The NSW Environmental Water Manager will consult with the Environmental Water Advisory Group on any releases proposed to be made under subclause (1) or (2).

- (4) At the start of each water year, the operator is required to ensure that a maximum of 4,000 ML is set aside from inflows into the water source and in reserves held in Pindari Dam for the purpose of a stimulus flow under subclauses (2) or (3).
- (5) Any water that is not released under subclauses (2) or (3) may be carried over from one water year to the next.
- (6) Despite subclause (5), the maximum volume of water to be made available at the start of a water year for the purpose of a stimulus flow is 8,000 ML.
- (7) In determining the timing, rate, volume and duration of the stimulus flow released

under subclauses (2) or (3), the Minister and the NSW Environmental Water Manager must consider the following:

- (a) antecedent conditions,
 - (b) irrigation demand,
 - (c) flows in the water source, and
 - (d) the ability to monitor environmental outcomes.
- (8) The operator is to ensure that a stimulus flow released under this clause is not released for the purpose of meeting basic landholder rights or access licence water orders or be diverted to or stored in any weir or water storage between Pindari Dam and the junction of the Macintyre River and Dumaresq River.

29 Consultation

The Minister and the NSW Environmental Water Manager may consult with any government agency or the Environmental Water Advisory Group (*EWAG*), or both, and consider any relevant advice from the agency or EWAG, before taking action under this Division, including making a determination under clause 28.

Division 2 General system operation rules

30 Maintenance of water supply

- (1) The operator must operate the water supply system in such a way that water would be able to be supplied during a repeat of the worst drought, to meet the following:
 - (a) the annual water requirements of persons exercising basic landholder rights,
 - (b) available water determinations for domestic and stock access licences and local water utility access licences of 100% of share components,
 - (c) available water determinations for regulated river (high security) access licences of 1 ML per unit share.
- (2) For the purpose of subclause (1), the operator must set aside sufficient volumes of water from inflows into the water source and ensure that water is held in reserves in Pindari Dam and Glenlyon Dam water storages.

Note. *Reserves* is defined in the Dictionary.

- (3) In this clause **worst drought** means the period of lowest inflows into the water source, as identified in flow information which was held by the Department prior to 1 July 2009.

31 Replenishment flows

- (1) Unless the operator otherwise determines, the operator is to provide a replenishment flow for domestic and stock purposes of up to 10,000 ML per water year to the Boomi River.
- (2) The operator must set aside sufficient volumes of water from inflows into the water source and ensure that water is held in reserves in Pindari Dam and Glenlyon Dam water storages to provide for the replenishment flow referred to in subclause (1).

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

32 Water delivery and channel capacity constraints

- (1) Where necessary for determining numerical extraction components, managing water releases or providing water under access licences, the maximum water delivery or operating channel capacity in the water source will be determined by the Minister from time to time, taking into account the following:

- (a) inundation of private land or interference with access,
- (b) the effects of inundation on the floodplain and associated wetlands,
- (c) the transmission losses expected to occur,

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

- (d) the capacity of structures in the water supply system.
- (2) The water supply system must be managed taking into account any channel capacity constraints specified by the Minister under subclause (1).

33 Priority of extractions for access licences

- (1) This clause does not apply to supplementary water access licences or floodplain harvesting (regulated river) access licences.
- (2) If supply capability in any section of the water source is insufficient to satisfy all orders for water, the following rules of priority apply:

- (a) the operator is to give first priority to the daily environmental flow and the requirements for water to satisfy basic landholder rights,
- (b) once the requirements in (a) have been met, the operator is to supply water to domestic and stock access licences, local water utility access licences and regulated river (high security) access licences that have placed orders for water, in that order, and
- (b) once the requirements in (b) have been met, unless otherwise directed by the Minister, any remaining supply capability is to be shared between regulated river (general security – A class) access licences and regulated river (general security – B class) access licences that have placed an order for water in proportion to the share component of each access licence.

Notes.

- 1 **supply capability** is defined in the Dictionary.
- 2 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.

34 Numerical specification of extraction components

- (1) The extraction components of any access licences in the water source that are affected by a physical supply constraint may be amended under section 68A of the Act to specify a volume per unit of time or share of supply capability in order to share the impacts of any physical supply constraint among those access licences.
- (2) The amount specified in the amended extraction components under subclause (1) for:
 - (a) domestic and stock access licences, local water utility access licences and regulated river (high security) access licences, must be the amount which, in the Minister's opinion, is sufficient to satisfy the maximum daily water requirements of the access licences in that order, and
 - (b) regulated river (general security – A class) access licences and regulated river (general security – B class) access licences must be in proportion to the share component of each access licence.
- (3) When action under subclause (1) is undertaken, the Minister may also amend the extraction components of access licences in other sections of the water source that are not affected by the physical supply constraint to exclude extraction components in sections of the water source affected by the action under subclause (1).

35 Rates of change to storage releases

In changing the rate of the release from Pindari Dam or Glenlyon Dam water storages, the operator must consider relevant environmental matters, damage to river banks and public safety.

36 Supply of orders when remaining allocations are low

- (1) The operator may group water orders or periodically release water if the operator determines that the total remaining volume of water in access licence allocation accounts has been reduced to a level where the continuous delivery of water orders would involve unacceptably high delivery losses.
- (2) The operator is to consult with water user representatives and relevant government agencies, as the operator considers appropriate, before grouping water orders and releasing water in accordance with subclause (1).

Note. The operator will use meetings with the relevant Customer Advisory Group as a means to consult with water user representatives.

37 Dam operation during floods and spills

The operator must operate Pindari Dam and Glenlyon Dam during times of flood and spilling of water:

- (a) in a manner that maintains the safety of dam infrastructure, and
- (b) subject to (a), as follows:
 - (i) leave the storage as full as possible after the flood or spilling of water,
 - (ii) ensure the general rate of increase of outflow does not exceed the rate of increase of inflow,
 - (iii) seek to lessen downstream flood damage,
 - (iv) consider the temporary storage of water above the normal maximum storage level to reduce flood effects and manage the rate of release of this water to avoid aggravating downstream flood damage.

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 limit under clause 39,
 - (b) the long-term average annual extraction under clause 40,
 - (c) the cumulative annual extraction limit under clause 42,
 - (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) environmental water provisions contained in Division 1 of Part 6 of this Plan,
 - (iii) replenishment flows made in accordance with clause 31 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 the 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 the 2001/2002 water year,
 - (b) the basic landholder rights and access licence share components that existed on 1 July 2009,
 - (c) the rules set out in the *Water Sharing Plan for the NSW Border Rivers Regulated River Water Source 2009* as at 1 July 2009,
 - (d) a limit on supplementary water access licence available water determinations of 1 ML per unit share,
 - (e) the level of development for commercial plantations that existed on 30 June 2009,
 - (f) the level of development for floodplain harvesting that existed in the 2001/2002 water year in connection with extractions from a regulated river in the water source, as assessed by the Minister.

Minister's note.

The method of calculating the long-term average annual extraction limit is being revised as part of the Healthy Floodplains Project. Further stakeholder engagement on the floodplain harvesting modelling methodology and key assumptions, together with an independent model peer review process is being undertaken to provide all stakeholders with confidence that the revised modelling is based on best available information.

Notes.

- 1 The baseline diversion limit for the Border Rivers 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 limit under the *Water Sharing Plan for the Border Rivers Unregulated River Water Sources 2012*.

- 2 The long-term average annual extraction that would occur under the conditions specified in subclause (2) for NSW and Queensland has been made using the Border Rivers IQQM computer model with system file BorderRivers_2018_09_06.rsproj; Input set NSW_1516, Source 4.6.0.7533 Beta. At the commencement of this Plan, this indicates a long-term average annual extraction volume of 399,400 ML to be shared between NSW and Queensland.
- 3 Under section 8F of the Act the long-term average annual extraction limit is to be varied by any change to licensed environmental water, excluding water committed under section 8C of the Act. The variation under section 8F is to be determined in accordance with a methodology approved by the Minister and published in the Gazette.
- 4 The long-term average annual 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 If a NSW water access licence is used in Queensland, by nominating works in Queensland, the use is still tagged to NSW when assessing compliance with the long-term average annual extraction limit.

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,
- (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 7 ML/year and minus the share reduction amount for the Border Rivers SDL Resource Unit as determined under section 6.05 of the Basin Plan.

Notes.

- 1 The sustainable diversion limit for the Border Rivers 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 limit under the *Water Sharing Plan for the Border Rivers Unregulated River Water Sources 2012*.
- 2 The subtraction of 7 ML/year is prescribed in Schedule 2 of the Basin Plan.

43 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.

44 Assessment of compliance with the cumulative annual extraction

- (1) Following the calculations under clauses 42 and 43, 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 limits

45 Action following non-compliance

- (1) Subject to subclauses (2) to (6), if an assessment under clauses 41 or 44 demonstrates that there is non-compliance with a limit, the Minister may take any of the following

actions for the water year after the assessment:

- (a) make an available water determination for supplementary water access licences under clause 53 of less than 1 ML per unit share,
- (b) reduce the water allocation that may be taken or assigned from regulated river (general security – A class) access licences and regulated river (general security – B class) access licences under clause 57,
- (c) make an available water determination for floodplain harvesting (regulated river) access licences under clause 50 of less than 1 ML per unit share.

Notes.

- 1 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 Action under this clause ensures that end of system flows, as required under section 23 of the IGA, can be met.
- (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) Unless the Minister otherwise determines, any action taken under subclause (1) is to apply to floodplain harvesting (regulated river) access licences to the extent to which the non-compliance was caused by the take of water under floodplain harvesting (regulated river) access licences.
- Note.** The intent of this subclause is to allow compliance action to target where the growth in extractions is occurring, i.e. extractions from the floodplain or from the river.
- (4) The Minister must not take action under subclause (1) (b) unless the Minister has made an available water determination for supplementary water access licences of zero under subclause (1) (a).
- (5) In taking any action under subclause (1) (b), the Minister must make the same reduction to the water allocation that may be taken or assigned for regulated river (general security – A class) access licences and regulated river (general security – B class) access licences under clause 57.

Note. 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,
- (b) the proposed actions under this Division.

Division 5 Available water determinations

46 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,
 - (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 floodplain harvesting (regulated river) access licences under clause 50 (1) and regulated river (general security – B class) 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,
 - (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.

47 Available water determinations for domestic and stock access licences

Unless the Minister otherwise determines, at the commencement of each water year the Minister is to make an available water determination of 100% of the access licence share component 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 clause 46 (2).

48 Available water determinations for local water utility access licences

Unless the Minister otherwise determines, at the commencement of each water year the Minister is to make an available water determination of 100% of the access licence share component 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 clause 46 (2).

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

- (1) Unless the Minister otherwise determines and subject to subclause (2), at the commencement of each water year the Minister is to make an available water determination 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 clause 46 (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 under Division 1 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 both domestic and stock access licences and local water utility access licences,
 - (iv) existing water allocations in regulated river (general security – A class) access licence and regulated river (general security – B class) access licence water allocation accounts, and
 - (b) unless sufficient water is available for water losses associated with holding and delivering water as a result of the available water determination.

50 Available water determinations for floodplain harvesting (regulated river) access licences

- (1) On the establishment of floodplain harvesting (regulated river) access licences for the water source, the Minister is to make an available water determination for floodplain harvesting (regulated river) access licences of [to be added] ML per unit share.
- (2) At the commencement of each water year following the determination in subclause (1), the Minister is to make an available water determination for floodplain harvesting

(regulated river) access licences of 1 ML per unit share, unless a determination is made for a lower amount under clause 45.

Minister's note.

The available water determinations for floodplain harvesting (regulated river) access licences described in clause 50 are linked to the account management rules for these licences outlined in Division 1 of Part 9. Consistent with the NSW Floodplain Harvesting Policy, these measures, together with the draft entitlements (once finalised), will be designed so that the extraction limits are not exceeded.

Importantly, unlike most other water access licences in NSW, floodplain harvesting (regulated river) access licences will be based on average rather than maximum historic water usage. This, together with the highly variable availability of floodplain water, means that account management rules for floodplain harvesting need to provide significantly more flexibility than other licence categories.

Recent amendments to the NSW Floodplain Harvesting Policy provide for different account management rules to be applied in individual valleys given their differing characteristics. It is worth noting that the draft rules in this Plan are more restrictive than the default settings in the original Policy before amendment.

Should revised floodplain harvesting modelling (being undertaken as part of the Healthy Floodplains Project) suggest that growth-in-use could be better managed or individual impacts more equitably distributed through changes to the floodplain harvesting rules set out in this draft Plan, then a second public consultation process will be undertaken on those components.

51 Available water determinations for regulated river (general security – A class) 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 – A class) 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 under Division 1 of Part 6 of this Plan,
 - (ii) to meet the requirements for basic landholder rights,
 - (ii) available water determinations totalling 100% of access licence share components for both domestic and stock access licences and local water

utility access licences,

- (iii) available water determinations totalling 1 ML per unit share for regulated river (high security) access licences,
- (iv) existing water allocations in regulated river (general security – A class) access licence and regulated river (general security – B class) access licence water allocation accounts, and
- (b) water is available for water losses associated with holding and delivering water that would occur as a result of the available water determination.
- (3) If the Minister assesses under subclause (1) that water is available, the Minister may make an available water determination for regulated river (general security – A class) access licences.

52 Available water determinations for regulated river (general security – B class) 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 – B class) 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 under Division 1 of Part 6 of this Plan,
 - (ii) to meet the requirements for basic landholder rights,
 - (ii) available water determinations totalling 100% of access licence share components for both domestic and stock access licences and local water utility access licences,
 - (iii) available water determinations totalling 1 ML per unit share for regulated river (high security) access licences,
 - (iv) available water determinations totalling 1 ML per unit share for regulated river (general security – A class) access licences,

- (v) existing water allocations in regulated river (general security – A class) access licence and regulated river (general security – B class) access licence water allocation accounts, and
 - (b) water is available for water losses associated with holding and delivering water that would occur as a result of the available water determination.
- (3) If the Minister assesses under subclause (1) that water is available, the Minister may make an available water determination for regulated river (general security – B class) access licences.

53 Available water determinations for supplementary water access licences

At the commencement of each water year, the Minister is to make an available water determination for supplementary water access licences of 1 ML per unit share, unless a lower amount is determined under clause 45.

Note. Taking of water under a supplementary water access licence is subject to Division 2 of Part 9.

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 also be subject to discretionary conditions.

54 Rules for granting 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) 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.
- (3) 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.

Division 1 Water allocation account management rules

55 Debits from an individual water allocation account for water take

- (1) In managing the water allocation account of a domestic and stock access licence, local water utility access licence, regulated river (high security) access licence, regulated river (general security – A class) access licence and regulated river (general security – B class) access licence, the Minister must 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.
- (2) In managing the water allocation account of a supplementary water access licence, the Minister must, in accordance with any applicable supplementary water announcement, debit the volume of water extracted by the water supply works that are nominated by the access licence.
- (3) In managing the water allocation account of a floodplain harvesting (regulated river) access licence, the Minister must debit the volume of water extracted by the water supply works that are nominated by the access licence.

56 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 a 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, regulated river (general security – A class) access licence or regulated river (general security – B class) access licence — 1 ML per unit share,
 - (c) for a floodplain harvesting (regulated river) access licence— [to be added] 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,
 - (d) supplementary water access licence.
- (3) In any water year in which this Plan has effect, water held in the water allocation account of a supplementary water access licence must not exceed:
 - (a) 1 ML per unit share of the access licence component, plus
 - (b) any water allocations assigned to the access licence under section 71T of the Act, minus
 - (c) any water allocations assigned from the access licence under section 71T of the Act.
- (4) Subject to subclause (1), the Minister must carry over water allocations remaining in the water allocation account from one water year to the next water year for the following categories of licence:
 - (a) regulated river (general security – A class) access licence,
 - (b) regulated river (general security – B class) access licence,
 - (c) floodplain harvesting (regulated river) access licence.

57 Accounting rules for regulated river (general security – A class), regulated river (general security – B class) access licences and floodplain harvesting (regulated river) access licences

- (1) The rules in this clause apply to the following:
 - (a) the Minister in managing water allocation accounts,
 - (b) the access licence holder, as required by mandatory conditions imposed on the licence under Part 11.
- (2) For a regulated river (general security – A class) access licence or regulated river (general security – B class) access licence, the total water allocation that is taken, or assigned under section 71T of the Act, or otherwise debited or withdrawn, from a water allocation account 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 45), plus
 - (b) any water allocations assigned to the water allocation account for the access licence under section 71T of the Act in that water year, plus
 - (c) 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.
- (3) For a floodplain harvesting (regulated river) access licence, the total amount of water taken in the first five water years following the establishment of the licence must not exceed [to be added] ML per unit share.

Minister's Note

Consistent with the NSW Floodplain Harvesting Policy, the available water determinations and account management rules for floodplain harvesting (regulated river) access licences, together with the draft entitlements (once finalised), will be designed so that the extraction limits are not exceeded.

Importantly, unlike most other water access licences in NSW, floodplain harvesting (regulated river) access licences will be based on average rather than maximum historic water usage. This, together with the highly variable availability of floodplain water, means that account management rules for floodplain harvesting need to provide significantly more flexibility than other licence categories.

Recent amendments to the NSW Floodplain Harvesting Policy provide for different account management rules to be applied in individual valleys given their differing characteristics. It is worth noting that the draft rules in this Plan are more restrictive than the default settings in the original Policy before amendment.

Should revised floodplain harvesting modelling (being undertaken as part of the Healthy Floodplains Project) suggest that growth-in-use could be better managed or individual impacts more equitably distributed through changes to the floodplain harvesting rules set out in this draft Plan, then a second public consultation process will be undertaken on those components.

58 Taking of uncontrolled flows**Notes.**

- 1 This clause is made under section 85A of the Act.
- 2 **rainfall runoff** and **registered chemical product** are defined in the Dictionary.

- (1) In this clause:

developed area means an area that, in relation to a water supply work nominated by a floodplain harvesting (regulated river) access licence, is developed for irrigation or that contains associated water supply works.

rainfall runoff event means an occasion during which rainfall runoff occurs.

- (2) The Minister may, by order published on the Department's website, authorise the holders of floodplain harvesting (regulated river) access licences to take water, which is rainfall runoff, that has not been credited to the water allocation account of that licence.
- (3) Holders of floodplain harvesting (regulated river) access licences may take rainfall runoff from a developed area in accordance with the order but must not take more than

0.55 ML per hectare of a developed area that has been treated with a registered chemical product since the last rainfall runoff event.

- (4) The Minister must specify in the order how to calculate or determine a developed area that has been treated with a registered chemical product since the last rainfall runoff event, for the purposes of subclause (3).
- (5) If water is taken under this clause, the Minister is not to debit the relevant water allocation account in the water year that the water was taken. However, in the following water year, the Minister must debit the water that was taken under this clause from the relevant water allocation account after making an available water determination for floodplain harvesting (regulated river) access licences at the commencement of that water year.
- (6) This clause does not affect the accounting rules for floodplain harvesting (regulated river) access licences set out in clause 57.

Minister's note.

The above clause addresses the management of contaminated water in the context of floodplain harvesting. Consistent with the NSW Floodplain Harvesting Policy (as amended in 2018), it allows contaminated water to be captured even when water users have insufficient balance remaining in their floodplain harvesting (regulated river) allocation accounts. The proposed rules set out when this water can be taken and how it is to be accounted for to ensure there is no overall increase in take and it can be properly accounted for within the existing long-term average annual extraction limits.

Division 2 Supplementary water events

Notes.

- 1 This Division is made under section 70 of the Act.
- 2 **Supplementary water event** is defined in the Dictionary. However, that term is given different meanings in clauses 62 and 63.

59 Definitions

In this Division:

uncontrolled flow means, flow in excess of that needed to meet:

- (a) the requirements in clauses 27 and 28 of this Plan,
- (b) basic landholder rights and replenishment flows,

- (c) NSW water orders placed by access licence holders, including associated losses, and
- (d) Queensland water requirements as set out in the IGA.

60 Taking of water under supplementary water access licences

The holder of a supplementary water access licence may only take water in accordance with supplementary water event announcements made by the Minister that are relevant to that licence.

61 Announcement of supplementary water event

- (1) The Minister may announce a supplementary water event if, in the Minister's opinion, each of the following apply:

- (a) there will be uncontrolled flows in the river segment to which the announcement applies,
- (b) in relation to announcements for the Macintyre River, uncontrolled flows are likely to exceed the flow targets under Schedule 3,

Note. Schedule 3 sets out flow targets to ensure the Barwon-Darling River receives a share of uncontrolled flows generated in its tributaries.

- (c) in relation to announcements for the Dumaresq River, the volume of the uncontrolled flow will be shared equally between NSW and Queensland.

Note. This rule is consistent with section 31 (viii) of the IGA.

- (2) In making an announcement, the Minister must:

- (a) consider whether and how access opportunities can be evenly shared between all holders of supplementary water access licences, and
- (b) be satisfied that the amount specified under subclause (3) (c) will not result in the extraction of over 75% of the uncontrolled flow volume at the Barwon River at Mungindi gauge (416001), and

Note. This rule is consistent with section 33 of the IGA and ensures that 25% of uncontrolled flows are protected for the environment.

- (c) for any announcements made between 1 September and 31 March, inclusive, ensure that the amount specified under subclause (3) (c) does not cause the uncontrolled flow, adjusted to account for losses, in the Barwon River at Mungindi gauge (416001) to be less than or equal to 100 ML/day, and

Note. This rule is consistent with section 32 of the IGA and has the objective of improving low flows at the end of the Border Rivers system to support a healthy riverine environment.

- (d) be satisfied that the amount specified under subclause (3) (c) ensures that one or more of the flow targets under Schedule 3 are still likely to be met (in relation to announcements for water supply works located on the Macintyre River, where the Minister is of the opinion that flow targets under Schedule 3 are likely to be exceeded).
- (3) An announcement must include the following:
 - (a) the segments of the water source to which the announcement applies,
 - (b) the start or end date, or both, of the supplementary water event,
 - (c) the amount of water that may be taken by each holder of a supplementary water access licence to which the announcement applies (for example, in ML per unit share).

62 Taking of water under supplementary water access licences upstream of the Macintyre River and Dumaresq River junction

- (1) This clause applies to the taking of water under a supplementary water access licence:
 - (a) that nominates a water supply work located upstream of the junction between the Macintyre River and Dumaresq River, except those listed in Schedule 1, and
 - (b) that nominates a water supply work located downstream of the junction between the Macintyre River and Dumaresq River, being a licence listed in Schedule 2.
- (2) In this clause, a supplementary water event is:
 - (a) when uncontrolled flows are greater than or equal to the volumes specified in column 3 of Table A for the segment of the water source specified in column 1 of Table A during the period specified in column 2 in Table A, when measured at the flow reference point specified in column 5 of Table A, until
 - (b) uncontrolled flows are less than the volumes specified in column 4 of Table A for the segment of the water source specified in column 1 of Table A during the period specified in column 2 in Table A, when measured at the flow reference point in column 5 of Table A.

Table A — Supplementary water event start and finish flows

Column 1: Segment of the water source	Column 2: Period	Column 3: Supplementary water event start flow (ML/day)	Column 4: Supplementary water event finish flow (ML/day)	Column 5: Flow reference point
Pindari Dam to the Macintyre River and Dumaresq River junction	1 September to 31 March, inclusive	500	150	Severn River at Ashford gauge (416006)
		1,000	250	Macintyre River at Holdfast (Yelarbon crossing) gauge (4126012)
	1 April to 31 August, inclusive	100	50	Severn River at Ashford gauge (416006)
		150	50	Macintyre River at Holdfast (Yelarbon crossing) gauge (4126012)
Dumaresq River and Pike Creek junction to the Dumaresq River and Macintyre River junction	1 September to 31 March, inclusive	750	250	Dumaresq River at Glenarbon Weir gauge (416040)
	1 April to 31 August, inclusive	150	50	

- (3) For the purposes of subclause (2), the supplementary water access licences listed in Schedule 2 are considered to be part of the following segments of the water source:
- (a) Pindari Dam to the Macintyre River and Dumaresq River junction if the uncontrolled flow originates from the Macintyre River,
 - (b) Dumaresq River and Pike Creek junction to the Dumaresq River and Macintyre River junction if the uncontrolled flow originates from the Dumaresq River.
- (4) Water taken under a supplementary water access licence under this clause:
- (a) may only be used for irrigation directly after being taken , and
 - (b) must not be pumped into on-farm storages, and
 - (c) must not exceed 6 ML/day per water supply work (pump).

63 Taking of water under supplementary water access licences downstream of the Macintyre River and Dumaresq River junction

- (1) This clause applies to the taking of water under a supplementary water access licence:
- (a) that nominates a water supply work located downstream of the junction between the Macintyre River and Dumaresq River, except those listed in Schedule 2, and
 - (b) that nominates a water supply work located upstream of the junction between the Macintyre River and Dumaresq River, being the licences listed in Schedule 1.
- (2) In this clause, a supplementary water event is:
- (a) when uncontrolled flows originate from the segment of the water source specified in column 1 of Table B, and
 - (a) those uncontrolled flows are or, in the Minister's opinion, will be greater than or equal to the volumes specified in column 2 of Table B over two consecutive days for the segment of the water source specified in column 1 of Table B, when measured at the reference point in column 4 of Table B, until
 - (b) uncontrolled flows are less than the volumes specified in column 3 of Table B over two consecutive days for the segment of the water source specified in column 1 of Table B, when measured at the reference point in column 4 of Table B.

Table B — Supplementary water event start and finish flows

Column 1: Segment of the water source	Column 2: Supplementary water event start flow (ML over two consecutive days)	Column 3: Supplementary water event finish flow (ML over two consecutive days)	Column 4: Flow reference point
Upstream of Goondiwindi	10,000	3,650	Goondiwindi gauge (to be added)
Downstream of Goondiwindi	2,000	1,550	Combined flow from Boomi River at Kanowna gauge (416029) and Weir River at Mascot gauge (416207A)

Notes.

- 1 These flow targets are consistent with section 3 (iii) and (iv) of Schedule D of the IGA.

- 2 The two-day flow at Goondiwindi is the 24-hour flow at Goondiwindi on the day of the assessment plus the flow for the previous 24 hours in the Macintyre Brook at Booba Sands plus the Dumaresq River at Glenarvon Weir plus the Macintyre River at Holdfast.
- 3 The supplementary water event finish flow volume for upstream of Goondiwindi was developed to ensure an end of system flow consistent with section 23 of IGA.

Minister's note.

Sections 3 (v) & (ix) of Schedule D of the IGA include provisions to enable access to uncontrolled flows if the flows originate from more than one source. These provisions are not present in the existing water sharing plan. Your views are sought on whether these provisions should be included in the replacement plan. The relevant conditions in the IGA can be summarised as:

Access would commence if both of the following occurred:

- a) a minimum 10,000 ML combined flow volume entered or is predicted to enter the system over a two-day period past Goondiwindi, Kanowna and Mascot gauging stations, and
- b) a minimum 8,000 ML flow volume entered or is predicted to enter the system over a two-day period past Goondiwindi gauging station.

Access would cease:

- c) from river sections upstream of Goondiwindi – when the flow past the Goondiwindi gauge falls below 1,825 ML over a two- day period;
- d) from river sections downstream of Goondiwindi – when the flow past the Kanowna and Mascot gauges falls below 775 ML over a two-day period.

Part 10 Access licence dealing rules

Notes.

- 1 Access licence dealings in the 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 Border Rivers 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.

64 Conversion of access licence to new category

Dealings under section 71O of the Act are prohibited.

65 Assignment of rights dealings

Notes.

- 1 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 section, under the Act.
- 2 This clause may be amended once individual daily extraction components are imposed on all licences within each section of the water source.

Dealings under section 71Q of the Act is prohibited if the dealing involves an assignment of rights to a supplementary water access licence that nominates a water

supply work located upstream of the junction of the Macintyre River and Dumaresq River, if it would cause the sum of the share components of all supplementary water access licences that nominate a water supply work located upstream of the junction of the Macintyre River and Dumaresq River to exceed 40,000.

66 Amendment of share components dealings (change of water source)

Dealings under section 71R of the Act are prohibited.

67 Assignment of water allocations dealings

- (1) Dealings under section 71T of the Act are prohibited in the water source if the dealing involves the assignment of water allocation to a supplementary water access licence from an access licence of another licence category.

Note. Dealings under section 71T of the Act within the same water source are prohibited from supplementary water access licence to an access licence of any other category under the access licence dealing principles.

- (2) Dealings under section 71T of the Act between access licences in different water sources are prohibited in the water source.

68 Interstate access licence transfer and assignment of water allocation

- (1) Dealings under section 71U of the Act involving the interstate transfer of access licences to or from the water source are prohibited.
- (2) Subject to account limits specified in Division 1 of Part 9 of this Plan, dealings under section 71V of the Act involving the interstate assignment of water allocations to access licences in the water source from equivalent access licences in Queensland may only be permitted where the Minister is satisfied that administrative and accounting arrangements in relation to such dealings have been agreed to and implemented by the States. Any dealings must be in accordance with those arrangements.
- (3) Dealings under section 71V of the Act involving the interstate assignment of water allocations from access licences in the water source to equivalent access licences in Queensland may only be permitted where the Minister is satisfied that administrative and accounting arrangements in relation to such dealings have been agreed to and implemented by the States. Any dealings must be in accordance with those arrangements.

69 Nomination of water supply works dealings

- (1) Dealings under section 71W of the Act are prohibited if the dealing involves an access

licence being amended to nominate a water supply work located in a different water source to that specified in the share component of the access licence.

- (2) Dealings under section 71W of the Act that involve the nomination of a water supply work located in Queensland, by an access licence in the water source may only be permitted where:
 - (a) the water supply work nominated is located on a river that is regulated by Glenlyon Dam and Coolmunda Dam, and
 - (b) the Minister is satisfied that administrative and accounting arrangements in relation to such dealings have been agreed to and implemented by the States. Any dealings must be in accordance with those arrangements.
- (3) Dealings under section 71W of the Act that involve the nomination of a water supply work in the water source by a licence or other water entitlement or authorisation from Queensland, may only be permitted where:
 - (a) the access licence proposed to nominate a work located in NSW is permitted to extract water from a river that is regulated by Glenlyon Dam and Coolmunda Dam, and
 - (b) the Minister is satisfied that administrative and accounting arrangements in relation to such dealings have been agreed to and implemented by the States. Any dealings must be in accordance with those arrangements.

Part 11 Mandatory conditions

Division 1 General

70 Requirement to notify

In this Part, a requirement to notify the Minister in writing will only be satisfied by writing to the address listed in Schedule 4 of this Plan or to the email address for enquiries on the Department's website.

Note. At the commencement of this Plan, the email address for enquiries on the Department's website is water.enquiries@dpi.nsw.gov.au.

Division 2 Access licences

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

Minister's note.

The conditions and requirements for metering of water extractions within this water source are proposed be set out in a Regulation. A proposed Regulation is currently being finalised following consultation which occurred in September and October 2018. 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.

71 Mandatory conditions on access licences

- (1) Each access licence must have the following mandatory conditions:
 - (a) 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 paragraph (i) is not in writing, confirm this notification in writing within seven days of becoming aware of the breach,
 - (b) extraction under the access licence is subject to the relevant available water determinations,
 - (c) the taking of water in accordance with the access licence may only occur if the

resulting debit to the access licence account does not exceed the volume of water allocation remaining in the licence account.

- (2) Each access licence, other than a supplementary water access licence or floodplain harvesting (regulated river) 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.
- (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 57.
- (5) Each supplementary water access licence must have a mandatory condition that gives effect to Division 2 of Part 9.
- (6) Each floodplain harvesting (regulated river) access licence must have a mandatory condition to give effect to clause 58 (3).

Division 3 Water supply work approvals

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

72 General

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

73 General conditions

- (1) 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.
- (2) The approval holder, upon becoming aware of a breach of any condition of the approval, must:
 - (a) notify the Minister as soon as practicable, and

- (b) if the notification under subclause (a) was not in writing, confirm this notification in writing within seven days of becoming aware of the breach.
- (3) Flow measurement devices must be installed and maintained on all works used for extraction of water under an access licence and must be of a type and maintained in a manner, which is acceptable to the Minister.
- (4) Water extraction, property water management infrastructure and cropping details must be provided on request, in the form and in accordance with procedures established by the Minister.
- (5) The taking of water may only occur in accordance with the conditions applying to the access licence that will have its water allocation account debited for that take.
- (6) Subclauses (3) to (5) do not apply to approvals for water supply works held by WaterNSW provided the approval is not nominated by an access licence.

74 Conditions to modify a water supply work

A water supply work approval nominated by a floodplain harvesting (regulated river) access licence must have a mandatory condition that the approval holder must comply with any direction by the Minister to modify the work to reflect any reduction in the share component of the access licence arising from any of the following:

- (a) a dealing under section 71Q or 71W of the Act,
- (b) the surrender under section 77 of the Act of the access licence,
- (c) the amendment of the share component of the access licence by the Minister under section 68A of the Act,
- (d) the cancellation of the access licence under section 78 of the Act,
- (e) the compulsory acquisition of the access licence under section 79 of the Act.

Part 12 Amendment of this Plan

Note. This Part sets out the amendments authorised by this Plan.

75 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.

76 Part 1

Part 1 may be amended:

- (a) to add, modify or remove a river or section of river to or from the water source providing that:
 - (i) any amendment is consistent with any applicable regulated river order, and
 - (ii) 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.

77 Amendments relating to access licence dealing rules

This Plan may be amended to provide for the conversion of regulated river (high security) access licences with share components that specify regulated river water sources connected to, and downstream of, the water source to access licences with share components that specify the water source.

78 Amendments relating to floodplain harvesting

This Plan may be amended five years after floodplain harvesting (regulated river) access licences are established in the water source, to amend, omit or insert any rule or provision relating to floodplain harvesting (regulated river) access licences.

79 Amendments relating to individual daily extraction components

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

80 Dictionary

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

81 Schedules

- (1) Schedule 1 may be amended to add or remove an access licence.
- (2) Schedule 2 may be amended to add or remove an access licence.
- (3) Schedule 3 may be amended to add, modify or remove a flow target.
- (3) Schedule 4 may be amended to add or remove an office.

82 Other

- (1) 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.
- (2) Subclause (1) applies whether or not the provision is modified but has effect subject to any such modification.
- (3) Consequential amendments may be made to this Plan as a result of an amendment to the Act or regulations.
- (4) This Plan may be amended following the granting of a native title claim pursuant to the provisions of the *Native Title Act 1993* of the Commonwealth to give effect to an entitlement granted under that claim.
- (5) This Plan may be amended to enable all or part of this Plan to be accredited as all or part of a water resource plan under the *Water Act 2007* of the Commonwealth.
- (6) This Plan may be amended as a result of any amendments made to the *New South Wales – Queensland Border Rivers Intergovernmental Agreement 2008*, any subsequent agreement made between New South Wales and Queensland and any amendments made to the *New South Wales-Queensland Border Rivers Act 1947*.

Dictionary

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

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

IGA means the *New South Wales – Queensland Border Rivers Intergovernmental Agreement 2008*.

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.

Note. The MER Plan in Appendix 2 details the target ecosystems, monitoring performance indicators and monitoring locations in the water source

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

floodplain harvesting means the collection, extraction or impoundment of water flowing across floodplains, 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.

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.

ML means megalitres.

NSW Environmental Water Manager means the NSW Government department or agency 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 NSW Office of the Environment and Heritage.

operator means the operator of the water supply system for the water source.

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

rainfall runoff means that portion of rainfall that runs off the land.

registered chemical product means a registered chemical product as defined in the *Agricultural and Veterinary Chemicals Code Act 1994* of the Commonwealth.

replenishment flows are flows provided to effluent 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.

States means the State of New South Wales and the State of Queensland.

stimulus flow is a release that mirrors a naturally occurring hydrograph, targets pre-season cues to fish breeding and to regularly wet and inundate interconnected riparian areas.

supplementary water event, except for the purposes of clauses 62 and 63, is a continuous period during which the taking of water under supplementary water access licences is being permitted in all or part of the water source.

Note: **supplementary water event** has a specific meaning in clauses 62 and 63.

supply capability means the rate at which the Minister determines water can be supplied to a segment of the water source without incurring unacceptable transmission losses.

the water source means the NSW Border Rivers Regulated River Water Source within the Border Rivers Water Management Area.

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

uncontrolled flow, except for the purposes of Division 2 of Part 9, means flow in excess of that needed to meet the environmental provisions of this Plan, basic landholder rights and water orders placed by access licence holders.

Note: **uncontrolled flow** has a specific meaning for Division 2 of Part 9.

water storage means a state owned dam, weir or other structure that 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 infrastructure that can influence water supply controlled by the Minister.

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

water year means a period of 12 months commencing on 1 July and ending on 30 June.

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

Schedule 1 Upstream supplementary water access licences

On the commencement of this Plan, those licences listed in the table below, which nominate water supply works located upstream of the junction of the Macintyre River and Dumaresq River are not subject to the rules specified in clause 57 of this Plan but are subject to the rules specified in clause 58 of this Plan.

Water access licence
90AL834220
90AL834221
90AL834222
90AL834261
90AL834262
90AL834263
90AL834264
90AL834265
90AL812230
90AL812624
90AL812563

Schedule 2 Downstream supplementary water access licences

On the commencement of this Plan, those licences listed in the table below, which nominate water supply works located downstream of the junction of the Macintyre River and Dumaresq River are not subject to the rules specified in clause 58 of this Plan but are subject to the rules specified in clause 57 of this Plan.

Water access licence
90AL812426
90AL812414
90AL812606
90AL812671
90AL812500
90AL812539

Schedule 3 Flow targets

1 Application

The flow targets under clause 2 of this Schedule apply to clause 61 of this Plan.

2 Flow targets

(1) Flow of each of the following:

- (a) 150 ML/day in the Darling River at Wilcannia gauge (425008),
- (b) 280 ML/day in the Darling River at Louth (gauge 425004),
- (c) 390 ML/day in the Darling River at Bourke gauge (425003),
- (d) 550 ML/day in the Darling River at Brewarrina gauge (422002), and
- (e) 700 ML/day in the Barwon River at Dangar Bridge (gauge 422001).

Note. This subclause is intended to protect flows needed to meet basic landholder rights requirements along the Barwon-Darling River.

(2) Between 1 September and 28 (or, in a leap year, 29) February, inclusive, a flow for 5 consecutive days of (a) or (b), provided two such flow events have not already occurred during that period in that water year:

- (a) 14,000 ML/day in the Darling River at Brewarrina gauge (422002),
- (b) 10,000 ML/day in the Darling River at Bourke gauge (425003).

Note. This subclause is intended to provide opportunity for the passage of fish across the major weirs in the Barwon-Darling River.

(3) Between 1 October and 30 April, inclusive, a flow for 5 consecutive days of 2,000 ML/day in the Darling River at Wilcannia gauge (425008), provided this target has not been reached during the preceding three months.

Note. This subclause is intended to protect flows needed to suppress blue-green algae blooms.

Schedule 4 Office

Department of Industry, Water

PO Box 486

MOREE NSW 2400

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Appendix 1 Overview Map of the NSW Border Rivers Regulated River Water Source

[to be added]

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Appendix 2 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 8 (2) (a) (i) Protect and, where possible, enhance the recorded distribution or extent of target ecological populations including native fish and native vegetation	Clause 8 (3) (a) – (d)	Clause 8 (5) (a), (b), (c) and (e)	<p>Priorities for targeted monitoring within the water source are locations that include the following conditions:</p> <ol style="list-style-type: none"> One or more recorded or predicted occurrences of: <ol style="list-style-type: none"> Murray cod Eel-tailed catfish Purple-spotted gudgeon Olive perchlet Golden perch Silver perch High fish diversity locations River red gum woodland Black box-coolibah woodland EEC Carbeen open forest EEC River sections that were identified as medium or high risk in the Risk Assessment for the <i>Border Rivers Water Resource Plan area</i> 	<p><i>Risk assessment for the Border Rivers water resource plan area</i> Add Hyperlink - <i>Guidelines for setting and evaluating plan objectives for water management</i> Add Hyperlink - <i>Border Rivers Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink - <i>Border Rivers 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 the water source.</p>
Clause 8 (2) (a) (ii) Protect, and where possible,	Clause 8 (3) (a) – (d)	Clause 8 (5) (a), (b) and (e)	Priorities for targeted monitoring within the water source are locations	<i>Risk assessment for the Border Rivers water resource plan area</i>	Similar objectives and monitoring targets can be

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
enhance the population structure of target ecological populations including native fish and native vegetation communities			that include the following conditions: 1. One or more recorded or predicted occurrences of: a. Murray cod b. Eel-tailed catfish c. Purple-spotted gudgeon d. Olive perchlet e. Golden perch f. Silver perch g. High fish diversity locations h. River red gum woodland i. Black box-coolibah woodland EEC j. Carbeen open forest EEC 2. High priority waterbird habitatRiver sections that were identified as medium or high risk in the <i>Risk Assessment for the Border Rivers Water Resource Plan area</i>	Add Hyperlink - <i>Guidelines for setting and evaluating plan objectives for water management</i> Add Hyperlink - <i>Border Rivers Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	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 the water source.
Clause 8 (2) (a) (iii) Protect, and where possible, enhance the connectivity between water sources to support downstream processes including priority carbon and nutrient pathways and priority fish passages	Clause 8 (3) (a) – (d)	Clause 8 (5) (a), (b), (c) and (e)	Priorities for targeted monitoring within the water source include the following conditions: 1. One or more river sections that include: a. Tributary catchments that can contribute unregulated carbon and nutrient loads into the regulated	<i>Risk assessment for the Border Rivers water resource plan area</i> Add Hyperlink - <i>Guidelines for setting and evaluating plan objectives for water management</i> Add Hyperlink - <i>Border Rivers Planned Environmental Water Monitoring, Evaluation and</i>	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 the water source.

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
			<ul style="list-style-type: none"> 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 <p>2. River sections that were identified as medium or high risk in the <i>Risk Assessment for the Border Rivers Water Resource Plan area</i></p>	<p><i>Reporting Plan</i> Add Hyperlink -</p>	
<p>Clause 8 (2) (a) (iv)</p> <p>Protect, and where possible, enhance water quality within the water source to support water dependent ecosystems and ecosystem functions</p>	<p>Clause 8 (3) (a) - (d)</p>	<p>Clause 8 (5) (d) and (e)</p>	<p>Priorities for targeted monitoring within the water source are locations that include the following conditions:</p> <ul 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 Border Rivers Water Resource Plan area</i> 	<p><i>Risk assessment for the Border Rivers water resource plan area</i> Add Hyperlink -</p> <p><i>Water quality management plan for the Border Rivers water resource plan area</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>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 the 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>Border Rivers Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	
Clause 8 (2) (b) Support environmental watering to contribute to maintaining or enhancing ecological condition in streams, riparian zones, dependent wetlands and floodplains	Clause 8 (3) (a) and (d)	Clause 8 (5) (a) - (e)	Priority monitoring sites within the water source include the target assets and locations that environmental water is delivered to during the term of this Plan.	<i>Border Rivers Catchment Annual Environmental Watering Priorities</i> Add Hyperlink - <i>Border Rivers Long-Term Water Plan</i> Add Hyperlink -	Environmental watering priorities and locations are determined by the LTWP. Monitoring is undertaken and coordinated with other monitoring activities that can contribute to evaluating this objective
Economic					
Clause 9 (2) (a) Provide water trading opportunities for water-dependent opportunities	Clause 9(3) (a), (d) and (f)	Clause 9 (5) (a) and (b), and Clause 9 (6)(a) and (b)	Priority locations for targeted monitoring within the water source are locations that include one or more of the following conditions: 1. High community dependency on surface water extraction (for agriculture, business, landholders) as evidenced by: 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	<i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink - <i>Border Rivers Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	Similar objectives and monitoring targets are found in other water sharing plan areas. 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

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
			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 2. Economic diversity (measured using the Shannon-Weaver Index ¹).		
Clause 9 (2) (b) Maintain or enhance access to water for agriculture, business and landholders	Clause 9 (3) (a), (b), (c), (e) and (f)	Clause 9 (5) (a) and (b), and Clause 9 (6)(a) and (b)	Priority locations for targeted monitoring within the water source are locations that include one or more of the following conditions: 1. High community dependency on surface water extraction (for agriculture, business, landholders) as evidenced by:	<i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink - <i>Border Rivers Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	Similar objectives and monitoring targets are found in other water sharing plan areas The performance indicators and selection criteria have been chosen to work particularly well in situations

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
			<ul 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 <p>2. Economic diversity (measured using the Shannon-Weaver Index²).</p>		where people or the economy are highly dependent on water extraction

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
Clause 9 (2) (c) Contribute to maintaining water quality for agriculture, business and landholders	Clause 9 (3) (a), (c) and (f)	Clause 9 (5) (c) and Clause 9 (6)(a) and (b)	Priorities for targeted monitoring within the water source are locations that include the following conditions: <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 Border Rivers Water Resource Plan area</i> 	<i>Risk assessment for the Border Rivers water resource plan area</i> Add Hyperlink - <i>Water quality management plan for the Border Rivers water resource plan area</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>Border Rivers Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	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 the water source.
Aboriginal cultural					
Clause 10 (2) (a) Provide access to water in the exercise of native title rights	Clause 10 (3) (a)	Clause 10 (5) (a) - (f)	Priorities for targeted monitoring within the 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. Population / groups holding native 	<i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink - <i>Border Rivers Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	

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

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
			title with respect to water, as determined under the Native Title Act 1993 (Cwlth) ⁴		
Clause 10 (2) (b) Provide access to water for Aboriginal cultural use, including fishing	Clause 10 (3) (b)-(e)	Clause 10 (5) (a) - (f)	Priorities for targeted monitoring within the 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 category⁵ 2. population / groups holding native title with respect to water, as determined under the Native Title Act 1993 (Cwlth)⁶ 3. Culturally important fishing locations and species identified 	<i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink - <i>Border Rivers Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	
Clause 10 (2) (c) Protect identified water-dependent culturally significant areas, including important riparian vegetation communities.	Clause 10 (3) (b) - (e)	Clause 10 (5) (d) - (f)	Priorities for targeted monitoring within the 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 	<i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink - <i>Border Rivers Planned Environmental Water Monitoring, Evaluation and</i>	

⁴ 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.

⁵ Aboriginal Cultural Water Access Licence/Aboriginal Community Development Water Access Licences

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

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. population / groups holding native title with respect to water, as determined under the Native Title Act 1993 (Cwlth) ⁸ 3. Identified cultural assets including vegetation communities and regions	<i>Reporting Plan</i> Add Hyperlink -	
Clause 10 (2) (d) Maintain or enhance water quality to ensure suitability of water for Aboriginal cultural use	Clause 10 (3) (c) to (e)	Clause 10 (5)(a) - (g)	Priorities for targeted monitoring within the water source are locations that include the following conditions: 1. the number of Water Access Licence (WAL): by WAL category ⁹ 2. population / groups holding native title with respect to water, as determined under the Native Title Act 1993 (Cwlth) ¹⁰ 3. Identified cultural assets	<i>Water quality management plan for the Border Rivers water resource plan area</i> Add Hyperlink – <i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink - <i>Border Rivers Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	
Social and cultural					
Clause 11 (2) (a)	Clause 11 (3) (a) and (d)	Clause 11 (5) (a), (b), (c) and	Priorities for targeted monitoring within the water source are locations	<i>Water quality management plan for the Border Rivers water resource plan</i>	

⁸ 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.

⁹ Aboriginal Cultural Water Access Licence/Aboriginal Community Development Water Access Licences

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
Maintain or improve access to water for basic human needs, town water supply and domestic and stock purposes		(d)	that include the following conditions: 1. High community dependency on water extraction (for basic human needs, town water supply and domestic and stock purposes) as evidenced by: a. the number of Water Access Licence (WAL): by WAL category ¹¹ b. water made available (ML) each year over the past 5 years by WAL licence category ¹² c. Water usage (ML) each year over the last five years by WAL category ¹³ d. Town population 2. Turbidity (NTU), colour (HU) and E.coli and chemicals less than Australian Drinking Water Guidelines and utility service level limit at offtake.	<i>area</i> Add Hyperlink – <i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink - <i>Border Rivers Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	
Clause 11 (2) (b) Maintain or improve access to water for water dependent	Clause 11 (3) (b), (c) and (d)	Clause 11 (5) (a), (b), (c) and (d)	Priority locations for targeted monitoring within the water source are locations that include the following	<i>Water quality management plan for the Border Rivers water resource plan area</i>	Similar objectives and monitoring targets can be found in other water sharing plan areas and programs.

¹¹ 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)

¹² WAL categories as above

¹³ 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			<p>conditions:</p> <ol style="list-style-type: none"> One or more recorded or predicted occurrences of: <ol style="list-style-type: none"> Murray cod Eel-tailed catfish Purple-spotted gudgeon Olive perchlet Golden perch Silver perch High fish diversity locations Recorded takes of native fish that are important for recreational fishing within legal age and size classes as described in Appendix 2 River sections that were identified as medium or high risk in the Risk Assessment for the Border Rivers Water Resource Plan area Number of recreational water sites with Red blue-green algae in past 3 years Recreational water sites with Amber blue-green algae in past 3 years 	<p>Add Hyperlink – <i>Guidelines for setting and evaluating Plan objectives for water management</i></p> <p>Add Hyperlink - <i>Border Rivers Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i></p> <p>Add Hyperlink -</p>	Therefore, relevant monitoring data from those water sharing plan areas and programs may be considered when evaluating this objective for the water source.
Clause 11 (2) (c) Maintain or improve water quality for basic human needs, town water supply,	Clause 11 (3) (b), (c) and (d)	Clause 11 (5) (a), (d) and (e)	<p>Priorities for targeted monitoring within the water source are locations that include the following conditions:</p> <ol style="list-style-type: none"> Representative river sections 	<p><i>Risk assessment for the Border Rivers water resource plan area</i></p> <p>Add Hyperlink -</p>	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			<p>identified in the <i>NSW State Water Quality Assessment and Monitoring Program</i></p> <p>2. River sections that were identified as medium or high risk in the <i>Risk Assessment for the Border Rivers Water Resource Plan area</i></p>	<p><i>Water quality management plan for the Border Rivers water resource plan area</i></p> <p>Add Hyperlink –</p> <p><i>NSW Cold Water Pollution Strategy</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 management</i></p> <p>Add Hyperlink –</p> <p><i>Border Rivers Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i></p> <p>Add Hyperlink –</p>	Therefore, relevant monitoring data from those water sharing plan areas and programs may be considered when evaluating this objective for the water source.