

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

## Notes

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

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## Part 1 Introduction

### 1 Name of Plan

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

### 2 Nature and status of this Plan

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

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

### 3 Commencement

This Plan commences on 1 July 2016.

#### Notes.

- 1 This Plan replaces the *Water Sharing Plan for the Gwydir Regulated River Water Source 2002*.
- 2 In accordance with section 43 of the Act this Plan has effect for 10 years from 1 July 2016. The Minister may extend this Plan for a further period of 10 years after it is due to expire, in accordance with section 43A of the Act.
- 3 Under the *Intergovernmental Agreement on Implementing Water Reform in the Murray-Darling Basin* and the associated National Partnership Agreement, NSW agreed to develop water resource plans for Murray-Darling Basin water resources consistent with the requirements of the Basin Plan. This Plan was amended in 2019, partly to meet NSW's commitments under these agreements. The water resource plan for the Gwydir surface water area commences on 1 July 2019. Certain provisions of this Plan form part of that water resource plan.

### 4 Application of Plan

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

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

- (2) The water source consists of:
  - (a) the water between the banks of all rivers, from Copeton Dam water storage downstream to the junction of the Gwydir River and the Barwon River, that have been declared by the Minister to be a regulated river, and
  - (b) the water taken under a floodplain harvesting (regulated river) access licence.

**Notes.**

- 1 The *Gwydir Water Management Area Regulated River Order* was made by the Minister and published in the NSW Government Gazette No 110 on 1 July 2004 at page 5482, and amended by item [89] of Schedule 1 of the *Water Management Amendment Act 2018*. An overview map of the regulated rivers is at Appendix 1.
- 2 **Floodplain harvesting** is defined in the Dictionary.
- 3 The water source does not include the following:
  - (a) the Gwydir Unregulated River Water Sources to which the *Water Sharing Plan for the Gwydir Unregulated River Water Sources 2012* applies,
  - (b) the Gwydir Alluvial Water Sources to which the *Water Sharing Plan for the Gwydir 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 at the end of this Plan have the meaning set out in that Dictionary.
- (3) Unless otherwise specified, a reference to the *Water Sharing Plan for the Gwydir Unregulated River Water Sources 2012* includes a reference to any plan that replaces that plan.
- (4) Unless otherwise specified a clause that applies to a category of access licence also applies to any subcategories of that category of access licence.
- (5) The Dictionary and Schedules to this Plan form part of this Plan.
- (6) A number in brackets following the name of a gauge is the gauge number.
- (7) Notes in the text of this Plan do not form part of this Plan.
- (8) Appendices to this Plan do not form part of this Plan.

## Part 2 Vision, objectives, strategies and performance indicators

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

### 6 Acknowledgement

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

### 7 Vision statement

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

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

### 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 but may also include waterbirds and native frog communities where data is available. 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 downstream water sources.

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

**Notes.**

- 1 Water quality targets for the water source are defined in the *Water quality management plan for the Gwydir 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.

**Note.** Clause 61 outlines the provisions for an environmental water allowance (EWA). The NSW Environmental Water Holder makes decisions about EWA water on any advice of an Environmental Watering Advisory Group according to the rules in this Plan, and guided by the Gwydir Long-term Watering Plan and Gwydir Annual Watering Plans.

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

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

**Notes.**

- 1 Part 3 of this Plan reserves all water remaining above the long-term average annual extraction limit and cumulative annual extraction limit for the environment.
- 2 This strategy will contribute to all the objectives in subclause (2).

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

**Notes.**

- 1 **Flow regimes** is defined in the Dictionary.
  - 2 The rules in clause Division 1 of Part 10 of this Plan mitigate the alterations to low and medium flows in the natural flow regimes of the water source by protecting a portion of tributary flows. These rules contribute to the objectives in subclause (2) (a) (i) – (ii) and (iv) and (b).
  - 3 The rules in clause Division 2 of Part 8 of this Plan mitigate the alterations to medium and high flows in the natural flow regimes of the water source by protecting 50% of
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every supplementary water event for the environment. These rules contribute to all the objectives in subclause (2).

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

**Note.** The rules in clauses Division 1 of Part 10 and Division 2 of Part 8 of this Plan maintain the hydrological connectivity between the water source and connected wetlands by protecting a portion of medium and high natural flows. These rules contribute to all the objectives in subclause (2).

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

**Note.** The rules in clause Division 2 of Part 10 of this Plan ensure that an environmental water allowance is maintained. These rules contribute to all the objectives in subclause (2).

- (e) to contribute to critical environmental and water quality events in downstream water sources.

**Note.** The rules in clause Division 2 of Part 8 and flow targets in Schedule 1 of this Plan regulate the announcement of supplementary water events to provide connectivity between the water source and the Barwon-Darling River. These rules contribute to objectives in subclause (2) (a) (iii) – (iv) 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,
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- (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.

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

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

**Note.** The individual account management rules in Division 1 of Part 8 and priority of extraction rules in clause 66 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 of the objectives in subclause (2).
  - (b) where possible, to provide for flexibility of access to water,

**Note.** The individual account management rules in clause 44, including the limit on the volume of water that can be taken in any water year or over three consecutive water years,



provide flexibility that reflects the characteristics of the licence category. These rules contribute to the objective in subclause (2) (b).

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

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

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

**Note.** The rules in Part 9 of this Plan permit a variety of dealings within environmental and system constraints, including assignment of rights under access licences, assignment of water allocations between access licences and the ability to move the share component of an access licence from one water source to another. These rules contribute to the objective in subclause (2) (a).

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

**Notes.**

- 1 The rules in Division 1 of Part 10 of this Plan describe minimum flows that are protected from supplementary water access. These rules contribute to all the objectives in subclause (2).
- 2 The rules in Division 2 of Part 8 of this Plan describe the conditions for access during supplementary water events. These rules contribute to the objectives in subclause (2) (b).

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

**Notes.**

- 1 The rules in Division 1 of Part 10 of this Plan mitigate the alterations to low and medium flows in the natural flow regime of the water source by ensuring a portion of tributary flows are protected. These rules contribute to all the objectives in subclause (2).
- 2 The rules in Division 2 of Part 8 of this Plan mitigate the alterations to medium and high flows in the natural flow regime of the water source by requiring 50% of a supplementary water event to be protected for the environment. 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 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
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- (b) external influences on the water source during the term of this Plan have affected progress towards achieving the broad objective.

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

- (5) The performance indicators used to measure the success of the strategies for reaching the targeted economic objectives in subclause (2) are the changes or trends in economic benefits, including the 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 change in 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) to manage access to water consistently with the exercise of native title rights,
  - (b) to provide for water associated with Aboriginal cultural values and uses,  
**Note.** The rules in Part 6 of this Plan provide opportunities for Aboriginal people to access water by allowing for the granting of an access licence of the subcategory 'Aboriginal cultural'. This rule contributes to the objective in subclause (2) (b).
  - (c) to reserve a portion of natural flows to mitigate alterations to natural flow regimes in this water source,  
**Notes.**
    - 1 The rules in clause Division 1 of Part 10 of this Plan mitigate the alterations to low and medium flows in the natural flow regime of this water source by ensuring a portion of tributary flows are protected. These rules contribute to the objectives in subclause (2) (c) and (d).
    - 2 The rules in clause Division 2 of Part 8 of this Plan mitigate the alterations to medium and high flows in the natural flow regime of this water source by requiring 50% of a supplementary water event to be protected for the environment and associated identified cultural assets. These rules contribute to the objectives in subclause (2) (c) and (d).
  - (d) to reserve a portion of natural flows to maintain hydrological connectivity between the water source and riparian zones, wetlands and floodplains connected to the water source,  
**Note.** The rules in clauses Division 1 of Part 10 and Division 2 of Part 8 of this Plan maintain the hydrological connectivity between this water source and wetlands connected to

this water source by ensuring a portion of medium and high natural flows are protected. These rules contribute to the objectives in subclause (2) (c) and (d).

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

**Note.** The rules in clause Division 2 of Part 10 of this Plan ensure that an environmental water account is maintained for purposes including to support environmental assets that have been identified as having Aboriginal cultural value. This rule contributes to the objectives in subclause (2) (c) and (d).

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

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

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

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

- (a) comparing changes, or trends in, the use of water by Aboriginal people during the term of this Plan by measuring factors including:
  - (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) comparing changes, or trends in, the recorded range or extent of target populations of native fish, as described in Appendix 6,
- (c) comparing changes, or trends in, the recorded range or condition of target populations of riparian vegetation,
- (d) 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) considering the extent to which Aboriginal people have considered the operation of this Plan to be beneficial to meeting their needs for water-dependent cultural uses and values,
- (f) 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) 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 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) to provide water access for basic human needs, town water supply, and for domestic and stock purposes,
    - Note.** The rules for the maintenance of water supply and replenishment flows in Part 10 of this Plan ensure that water is available for basic human needs, town water supply and domestic and stock purposes. These rules contribute to the objective in subclause (2) (a).
  - (b) to reserve a portion of natural flows to mitigate alterations to natural flow regimes in this water source,

**Notes.**

- 1 The rules in Division 1 of Part 10 of this Plan mitigate the alterations to low and medium flows in the natural flow regime of this water source by ensuring a portion of tributary flows are protected. These rules contribute to the objective in subclause (2) (b).
- 2 The rules in Division 2 of Part 8 of this Plan mitigate the alterations to medium and high flows in the natural flow regime of this water source by requiring 50% of a supplementary water event to be protected for the environment. These rules contribute to the objective in subclause (2) (c).

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

**Note.** The rules in clauses Division 1 of Part 10 and Division 2 of Part 8 of this Plan maintain the hydrological connectivity between this water source and wetlands connected to this water source by ensuring a portion of medium and high natural flows are protected. These rules contribute to the objective in subclause (2) (c).

- (d) to minimise adverse impacts of water delivery on community values and uses.

**Note.** The rules for water delivery and channel capacity constraints, priority of extractions for access licences and the environmental water account, rates of change to storage releases, supply of orders when remaining allocations are low and dam operation during floods and spills in Part 10 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 (2) have contributed to achieving the broad objective, and
- (b) external influences on this water source during the term of this Plan have affected progress toward achieving the broad objective.

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

- (5) The performance indicators used to measure the success of the strategies for reaching the targeted social and cultural objectives in subclause (2) will be evaluated by the following:

- (a) 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) comparing changes, or trends in, the recorded range or extent of target populations of native recreational fish, as described in Appendix 2,
- (c) comparing changes, or trends in, the recorded takes of native recreational fish within legal age and size classes, as described in Appendix 2,
- (d) 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) 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 Planned environmental water provisions

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

### 12 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.

### 13 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.

### 14 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 in Division 1 of Part 10 of this PlanPart 10Division 1,

**Note.** The rules in Division 1 of Part 10 of this Plan ensure a portion of tributary flows are protected for the Gwydir wetlands and provide an environmental water allowance, to be used to support environmental assets or environmental functions within and downstream of the water source.
  - (ii) an environmental water allowance and release rules for environmental purposes downstream of Copeton Dam, in clause 61,
  - (iii) the limitations on access to flows for supplementary water access licences in Division 2 of Part 8,



- (b) the long-term average annual commitment of water as planned environmental water, resulting from compliance with the long-term average annual extraction limit and the cumulative annual extraction limit in Part 7,
  - (c) water remaining after water has been taken under basic landholder rights and access licences, in accordance with the rules specified in Part 7 and Part 8 of this Plan.
- (2) The planned environmental water established under subclause (1) (a) is maintained by:
- (a) the environmental flow rules specified in Division 1 of Part 10 of this PlanPart 10Division 1,
  - (b) the environmental water allowance and release rules in Division 2 of Part 10 of this Plan, and
  - (c) the limitations on access to flows for supplementary water access licences in Division 2 of Part 8.
- (3) The planned environmental water established under subclause (1) (b) is maintained by the rules specified in Part 7 of this Plan.
- (4) The planned environmental water established under subclause (1) (c) is maintained by the rules specified in Part 7 and Part 8 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 also provide for lower available water determinations when either of those limits has been assessed to have been exceeded.

## Part 4 Requirements for water

### Division 1 General

#### 15 General

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

#### Minister's note.

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

### Division 2 Requirements for water for basic landholder rights

**Note.** Under the Act, basic landholder rights are defined as domestic and stock rights, native title rights and harvestable rights.

## 16 Domestic and stock rights

As at 1 April 2019, the water requirements of persons entitled to domestic and stock rights are estimated to total 6,000 ML 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.

## 17 Native title rights

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

### Notes.

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

## Division 3 Requirements for water for 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 As at 1 April 2019, the licensed environmental water referred to in Note 1 comprises 4 access licences with adaptive environmental water conditions totalling 3,949 ML.
- 3 As at 1 April 2019, there are 12 other access licences with share components totalling 132,016 ML that are not identified as licensed environmental water but are intended to be used for environmental purposes. Some of these are held by the Commonwealth Government and others by the NSW Government. These access licences are regulated river (general security), regulated river (high security) access licences and supplementary water access licences.
- 4 This Division sets out the total volumes or unit shares in the share components of access licences in the water source as at 1 April 2019. The actual volume of water available at any time will depend on climate, access licence priority and the rules in this Plan.

## 18 Share components of domestic and stock access licences

As at 1 April 2019, the share components of domestic and stock access licences total 2,824 ML/year.

## 19 Share components of local water utility access licences

As at 1 April 2019, the share components of local water utility access licences total 3,836 ML/year.

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**20 Share components of regulated river (high security) access licences**

As at 1 April 2019, the share components of regulated river (high security) access licences total 20,260 unit shares.

**21 Share components of floodplain harvesting (regulated river) access licences**

As at 1 April 2019, 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.

**22 Share components of regulated river (general security) access licences**

As at 1 April 2019, the share components of regulated river (general security) access licences total 509,665 unit shares.

**23 Share component of supplementary water access licences**

As at 1 April 2019, the share components of supplementary water access licences total 181,398 unit shares.

## **Part 5 Bulk access regime**

### **24 Bulk access regime**

- (1) This Plan establishes a bulk access regime for the extraction of water under access licences in this water source having regard to the following:
  - (a) the environmental water provisions established under Part 3 of this Plan,
  - (b) the requirements for basic landholder rights identified under Part 4 of this Plan,
  - (c) the requirements for water for extraction under access licences identified under Part 4 of this Plan,
  - (d) the access licence dealing rules established under 0 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 6 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 8 Division 2 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 the cumulative annual extraction limit contained in Division 2 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, and
    - (iii) the effect of climatic variability on the availability of water as described in clause 25, 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.

## 25 Climatic variability

- (1) This Plan recognises the effects of climatic variability on river flow in the water source through provisions:
- (a) contained in Division 2 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 the cumulative annual extraction limit, and
  - (b) contained in Division 5 of Part 7 of this Plan that manage the sharing of water between categories of access licences on an annual basis.

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

## Part 6 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.

### 26 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 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**

### **27 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 28,
  - (b) the average annual extraction under clause 29,
  - (c) the cumulative annual extraction limit under clause 31,
  - (d) the cumulative annual extraction under clause 32.
- (2) The calculation by the Minister of the limits and extraction to which this clause applies must:
  - (a) exclude the following:
    - (i) allocations assigned from an access licence in the water source to an access licence in another water source under section 71T of the Act,
    - (ii) planned environmental water provided for in Division 1 of Part 10 of this Plan,
    - (iii) replenishment flows made in accordance with clauses 63 and 64 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

### 28 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 27.
- (2) The long-term average annual extraction limit is the average annual extraction calculated over the duration of available climate records using the hydrological computer model approved by the Minister, based on the following:
  - (a) the water storages and water use development that existed in 1999/2000,
  - (b) the basic landholder rights and access licence share components that existed on 1 July 2004,
  - (c) the rules set out in the *Water Sharing Plan for the Gwydir Regulated River Water Source 2002* as at 1 July 2004, excluding the rules in clause 39 of that Plan,
  - (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 1999/2000 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 Gwydir 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 Gwydir Unregulated River Water Sources 2012*.
- 2 The long-term average annual extraction limit has been assessed using the Gwydir IQQM computer model with system file WSP8TST6.SQQ. As at 1 April 2019, the long-term average annual extraction limit is assessed to be **to be added** ML.

- 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.
- 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.

## **29 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.

## **30 Assessment of compliance with the long-term average annual extraction limit**

- (1) Following the calculations under clauses 28 and 29, 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**

### **31 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 28 minus 42,000 ML/year and minus the shared reduction amount for the Gwydir SDL resource unit as determined under section 6.05 of the Basin Plan.

**Notes.**

- 1 The sustainable diversion limit for the Gwydir 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 Gwydir Unregulated River Water Sources 2012*.
- 2 The subtraction of 42,000 ML/year is prescribed in Schedule 2 of the Basin Plan.

### **32 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.

### **33 Assessment of compliance with the cumulative annual extraction limit**

- (1) Following the calculations under clauses 31 and 32, the Minister is to compare cumulative annual extraction against the cumulative annual extraction limit.
- (2) There is non-compliance with the cumulative annual extraction limit in the circumstances set out in Division 2 of Part 4 of Chapter 6 of the Basin Plan.

## **Division 4 Compliance with extraction limits**

### **34 Action following non-compliance**

- (1) Subject to subclauses (2) to (6), if an assessment under clauses 30 or 33 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 41 of less than 1 ML per unit share,
  - (b) reduce the volumes that may be taken or assigned from regulated river (general security) access licences under clause 44,

- (c) make an available water determination for floodplain harvesting (regulated river) access licences under clause 39 of less than 1 ML per unit share.

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

- (2) An action under subclause (1) may only be taken to the extent to which the Minister considers the following is necessary:
  - (a) in the case of non-compliance with the long-term average annual extraction limit— to return long-term average annual extraction in the water source to the long-term average annual extraction limit, or
  - (b) in the case of non-compliance with the cumulative extraction limit— to meet the requirements of Division 2 of Part 4 of Chapter 6 of the Basin Plan.
- (3) Unless the Minister otherwise determines, any action taken under subclause (1) is to apply to floodplain harvesting to the extent to which the non-compliance was caused by floodplain harvesting.

**Note.** The intent of this subclause is to allow compliance action to more closely 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 volumes that may be taken or assigned under both subclauses 44 (2) (a) and 44 (3) (a).

**Note.** Subclause (5) means that, for example, if the amount specified in clause 44 (2) (a) is reduced from 3 to 2.5 (by one sixth) then the amount specified in clause 44 (3) (a) is to be reduced from 3 to 2.5 (by one sixth).

- (6) Before taking action under subclause (1), the Minister may consult with water user representatives on the following:
  - (a) the data used for the calculations under Divisions 2 and 3, and
  - (b) the proposed actions under Division 4.

## Division 5 Available water determinations

### 35 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 39 (1) or regulated river (general security) 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.

### 36 Available water determinations for domestic and stock access licences

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

**Note.** If the Minister makes an available water determination of less than 100%, the Minister may make further available water determinations during a water year, subject to subclause 35 (2).

### 37 Available water determinations for local water utility access licences

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

**Note.** If the Minister makes an available water determination of less than 100%, the Minister may make further available water determinations during a water year, subject to subclause 35 (2).

### **38 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 an available water determination is to be made for regulated river (high security) access licences of 1 ML per unit share.

**Note.** If the available water determination is less than 1 ML per unit share, the Minister may conduct further assessments of available water resources and may make further available water determinations subject to subclause 35 (2).

- (2) The Minister must not make an available water determination under this clause:
- (a) unless water is available for the following, including for any water losses associated with the holding and delivery of that water:
    - (i) to meet the environmental water rules (including the environmental flow rules and the environmental water allowance rules) under Division 1 and 2 of Part 10 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) 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.

### **39 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 34.

**Minister's note.**

The available water determinations for floodplain harvesting (regulated river) access licences described in clause 39 are linked to the account management rules for these licences outlined in Part 8. 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.

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

- (1) The Minister is to assess if water is available for the making of an available water determination for regulated river (general security) access licences, at least monthly.
- (2) For the purposes of the assessment, water is not available unless:
  - (a) water is available for the following, including for any losses associated with the holding and delivery of that water:
    - (i) to meet the environmental water rules (including the environmental flow rules and the environmental water allowance rules) under Division 1 and Division 2 of Part 10 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) available water determinations totalling 1 ML per unit share for regulated river (high security) access licences,
  - (v) existing water allocations in regulated river (general security) access licence water allocation accounts, and
- (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 is to consider making an available water determination for regulated river (general security) access licences.
- (4) Any available water determination referred to in subclause (3) is to be equal to the following:

$$\left( \frac{\text{sum GS entitlements}}{\text{sum GS entitlements} + 45,000} \right) \times \text{available water}$$

where:

*sum GS entitlements* is the sum of all regulated river (general security) access licence share components, and

*available water* is the water determined by the Minister to be available under subclause (1).

**Note.** This formula ensures that a portion of the available water is shared with the environmental water allowance, in accordance with clause 61.

#### **41 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 34.

**Note.** Taking of water under a supplementary water access licence is subject to Division 2 of Part 8.



## **Part 8 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**

#### **42 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, and regulated river (general security) 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,
  - (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.

#### **43 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— 1 ML per unit share,
    - (c) for a regulated river (general security) access licence— 1.5 ML per unit share,
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- (d) for a floodplain harvesting (regulated river) access licence— 5 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) 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) access licence,
  - (b) floodplain harvesting (regulated river) access licence.

#### **44 Accounting rules**

- (1) The rules in this clause apply to the following:
    - (a) the Minister in managing water allocation accounts,
    - (b) the access licence holder, as provided for by mandatory conditions in Part 12.
  - (2) For a regulated river (general security) access licence, the total water allocation that is taken, 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) 3 ML per unit share (or such lower amount that reflects reductions made in accordance with clauses 34),
    - (b) plus any water allocations assigned to the water allocation account for the access licence under section 71T of the Act in that water year,
    - (c) plus any water allocations recredited to the water allocation account for the access licence in accordance with section 76 of the Act in that water year.
  - (3) For a regulated river (general security) access licence, the total water allocation that is taken, assigned under section 71T of the Act, or otherwise debited or withdrawn, from a
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water allocation account in any three consecutive water years must not exceed the following:

- (a) 3 ML per unit share (or such lower amount that reflects reductions made in accordance with clauses 34),
  - (b) plus any water allocations assigned to the water allocation account for the access licence under section 71T of the Act in those three water years,
  - (c) plus any water allocations recredited to the water allocation account for the access licence in accordance with section 76 of the Act in those three water years.
- (4) 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 5 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.

## 45 Taking of uncontrolled flows

### Notes.

- 1 This clause is made under section 85A of the Act.
  - 2 **Uncontrolled flows, rainfall runoff** and **registered chemical product** are defined in the Dictionary.
- (1) In this clause:
- developed area** means, in relation to a water supply work approval nominated on a floodplain harvesting (regulated river) access licence, the area 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 a developed area that has been treated with a registered chemical product since the last rainfall runoff event is taken to be calculated.
  - (5) The Minister must debit the water that is taken under this clause in that water year from the relevant water allocation account after making an available water determination for floodplain harvesting (regulated river) access licences at the commencement of the following water year.

### Minister's note.

Modelling is ongoing through the Healthy Floodplains Project. The accounting rules for floodplain harvesting (regulated river) access licences will be defined as part of the process.

## 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.

### 46 Definitions

In this Division, **supplementary water event volume** means the uncontrolled flows downstream of Copeton Dam, excluding flows required to provide any replenishment flows specified in clause 64.

**Note.** Clauses 63 and 64 set out requirements for replenishment flows. Clause 64 provides for replenishment flows to Mongyer Lagoon.

### 47 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.

### 48 Announcement of supplementary water event

- (1) The Minister may announce a supplementary water event if, in the Minister's opinion, the following apply:
  - (a) there will be uncontrolled flows in the river segment to which the announcement applies,
  - (b) in relation to announcements for Mehi River, Carole Creek or a river that receives flows from Mehi River or Carole Creek:
    - (i) uncontrolled flows are not likely to meet any of the flow targets under Schedule 1, or
    - (ii) uncontrolled flows are likely to exceed the flow targets under Schedule 1.

**Note.** Schedule 1 sets out flow targets to ensure the Barwon-Darling River receives a share of uncontrolled flows generated in its tributaries.

- (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

**Note.** As at 1 July 2019, Water NSW, under delegation from the Minister, operates a 3 year rostering arrangement to evenly share access opportunity between all supplementary water access licences.

- (b) ensure that the amount specified under subclause (4) (c) does not allow the extraction of over 50% of the total supplementary water event volume, and
  - (c) be satisfied that, despite the announcement, one or more of the flow targets under Schedule 1 are still likely to be met (in relation to announcements for Mehi River, Carole Creek or a river that receives flows from Mehi River or Carole Creek, where the Minister is of the opinion that flow targets under Schedule 1 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 licence to which the announcement applies (for example, in ML per unit share).

#### **49 Management of residual water**

- (1) The supplementary water event volume that the Minister has not permitted to be taken under an announcement under clause 48 is to be directed by the NSW Environmental Water Manager to manage environmental assets within the water source or the Gwydir Unregulated River Water Sources as defined in the *Water Sharing Plan for the Gwydir Unregulated River Water Sources 2012*, in accordance with subclause (2).
- (2) The NSW Environmental Water Manager is to direct the water referred to in subclause (1), avoiding third party impacts where possible, in accordance with a report prepared by the NSW Environmental Water Manager before the start of the water year, which sets out how the water is to be directed and the environmental assets proposed to be managed during any supplementary water event in that water year.

**Note.** As at 1 July 2019, the Minister's functions as the NSW Environmental Water Manager are delegated to the NSW Office of Environment and Heritage. **NSW Environmental Water Manager** is defined in the Dictionary.

## Part 9 Access licence dealing rules

### Notes.

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

### 50 Conversion of access licence to new category

Dealings under section 71O of the Act are prohibited.

### 51 Assignment of rights dealings within the water source

#### 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 segment, under the Act.
- 2 This clause will be amended once individual daily extraction components are imposed on all licences within each segment of the water source referred to in Table A.
  - (1) A dealing under section 71Q of the Act is prohibited if all of the following apply:
    - (a) the dealing would increase the share component of an access licence which nominates a water supply work,
    - (b) that water supply work is located in a segment of the water source specified in Column 1 of Table A below,
    - (c) the dealing would increase the total share components of all access licences that nominate a water supply work in that segment to an amount that would exceed that specified in Column 2 of Table A for that segment.

**Table A**

<b>Column 1</b>	<b>Column 2</b>
Gwydir River downstream of the Tyreel Regulator	63,412 unit shares
Mehi River downstream of the Moomin Creek Junction	113, 248 unit shares
Moomin Creek	169,974 unit shares
Carole Creek	96,502 unit shares

- (2) A reference to an access licence in this clause does not include a reference to a supplementary water access licence or a floodplain harvesting (regulated river) access licence.

**52 Amendment of share component dealings (change of water source)**

Dealings under section 71R of the Act are prohibited.

**53 Interstate access licence transfer and assignment of water allocations**

Dealings under sections 71U or 71V of the Act are prohibited.

**54 Assignment of water allocations dealings**

- (1) A dealing under section 71T of the Act is prohibited if all of the following apply:
- (a) the dealing is between access licences within the water source,
  - (b) the dealing would increase the water allocation for an access licence which nominates a water supply work,
  - (c) that water supply work is located in a segment specified in Column 1 of Table A in clause 51,
  - (d) the dealing would increase the total water allocations of all access licences, other than supplementary water access licences and floodplain harvesting (regulated river) access licences, that nominate a water supply work in that segment to an amount that would exceed that specified in Column 2 of Table A for that segment.

**Note.** This subclause will be amended once individual daily extraction components are imposed on all licences within each relevant segment of the water source.



(2) A dealing under section 71T of the Act between access licences within the water source is prohibited in any of the following circumstances:

(a) the dealing involves an assignment of water allocation to a supplementary water access licence from an access licence of any other category,

**Note.** As at 1 July 2019, dealings under section 71T of the Act involving the assignment of water allocations from a supplementary water access licence to an access licence of any other category are prohibited under clause 17 of the *Access Licence Dealing Principles Order 2004*.

(b) the dealing involves an assignment of water allocation to or from a floodplain harvesting (regulated river) access licence.

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

## 55 Nomination of water supply works dealings

(1) A dealing under section 71W of the Act is prohibited if all of the following apply:

(a) the dealing nominates a water supply work located in a segment of the water source specified in Column 1 of Table A in clause 51,

(b) following the dealing, the total share components of all access licences, other than supplementary water access licences and floodplain harvesting (regulated river) access licences, that nominate a water supply work in the segment of the water source will exceed the amount specified in Column 2 of Table A for that segment.

**Note.** This clause will be amended once individual daily extraction components are imposed on all licences within each relevant segment of the water source.

(2) Dealings under section 71W of the Act involving an access licence in the water source nominating a water supply work outside of NSW are prohibited.

(3) Dealings under section 71W of the Act involving an access licence from outside NSW nominating a water supply work in the water source are prohibited.

**Minister's Note**

The dealing rules above that relate to floodplain harvesting (regulated river) access licences are provided as an indication of the types of rules that will be applied, once the licences are issued.

Modelling is currently being undertaken that may influence the nature of these rules, although major changes are not expected.

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## Part 10 System operation rules

### Notes

- 1 The approximate location of the Gwydir wetlands, 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

### 56 Definitions

In this Division:

**extreme wet period** means a 6 month period in which more than 500,000 ML of total flow is recorded at Yarraman Bridge gauge (418004).

**minimum flow** has the meaning set out in clause 57 (1).

**very wet period** means a 6 month period in which more than 300,000 ML of total flow, excluding water provided for extraction under access licences, is recorded at Yarraman Bridge gauge (418004).

### 57 Minimum flow

The operator is required to ensure that the lesser of the following amounts is protected for delivery to the Gwydir wetlands (the **minimum flow**), subject to the remainder of this Division:

- (a) the sum of flows in the Horton River at Rider (Killara) gauge (418015), Myall Creek at Molroy gauge (418017), and Halls Creek at Bingara gauge (418025), plus any water spill and water released for flood mitigation purposes from Copeton Dam water storage,
- (b) 500 ML per day (**ML/day**).

**Note.** As at 1 July 2019, wetland inflow assessment is based on flows in the Gwydir River at Yarraman minus estimated delivery losses and water use between there and the wetland.

### 58 Flow after extreme wet period

- (1) Despite clause 57 (1), following an extreme wet period the operator may redirect some or all of the minimum flow to elsewhere in the water source or the Gwydir Unregulated River Water Sources (as defined in the *Water Sharing Plan for the Gwydir Unregulated River Water Sources 2012*) to support fundamental ecosystem health.
  - (2) The operator may only take action under subclause (1):
-

- (a) for the lesser of 6 months after the extreme wet period or until 31 August, and
- (b) if the NSW Environmental Water Manager determines that the action would not be detrimental to the environmental health of the Gwydir wetlands.

## 59 Flow after very wet period

- (1) Following a very wet period the operator may redirect some or all of the flow in excess of the minimum flow to elsewhere in the water source or the Gwydir Unregulated River Water Sources (as defined in the *Water Sharing Plan for the Gwydir Unregulated River Water Sources 2012*) to support fundamental ecosystem health.
- (2) The operator may only take action under subclauses (1):
  - (a) for the lesser of 6 months after the very wet period or until 31 August, and
  - (b) if the NSW Environmental Water Manager determines that the action would not be detrimental to the environmental health of the Gwydir wetlands.

## 60 Consultation

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, before taking action under this Division.

### Notes.

- 1 The Gwydir EWAG was formerly known as the ECA Operations Advisory Committee.
- 2 As at 1 July 2019, the Minister has delegated the lead role in managing environmental water allowances established under water sharing plans to the NSW Office of Environment and Heritage (*OEH*). OEH also administers and supports EWAGs to inform the management of environmental water allowances and licensed environmental water. For more information on EWAGs, see Cooperative management of environmental water to improve river and wetland health in NSW (2014), available from OEH's website at [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au).

## Division 2 Environmental water allowance

### 61 Environmental water allowance rules

- (1) The operator must maintain an environmental water allowance (*EWA*).
- (2) Immediately after making an available water determination for regulated river (general security) access licences under subclause 40 (3), an amount of water calculated according to the following formula is to be credited to the EWA:

$$(45,000 / (\text{sum GS entitlements} + 45,000)) \times \text{available water}$$

where:

*sum GS entitlements* is the sum of all regulated river (general security) access licence share components, and

*available water* is the available water under clause 40(4).

- (3) Despite subclause (2), the EWA at any time must not exceed 90,000 ML.
- (4) The operator may release water from the EWA on the request of the NSW Environmental Water Manager, in accordance with an applicable environmental watering plan.

**Note.** Section 10.26 of the Basin Plan requires environmental watering to occur as set out in that section, including in a way that is consistent with the environmental watering plan.

## Division 3 General system operation rules

### 62 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 domestic and stock rights and native title rights,
  - (b) available water determinations for domestic and stock access licences and local water utility access licence 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 purposes of subclause (1), the operator must set aside sufficient volumes of water from inflows into the water source and in reserves held in Copeton Dam water storage.
- (3) In this clause:

*worst drought* means the worst period of low inflows into the water source, as identified in flow information held by the Department before 1 July 2004.

**Note.** *Reserves* and *water supply system* are defined in the Dictionary.

### **63 Replenishment flows to Thalaba Creek**

- (1) Unless the operator otherwise determines, the operator is to provide a replenishment flow of 4,000 ML per water year to Thalaba Creek.
- (2) The operator must set aside sufficient volumes of water from inflows into the water source and in reserves held in Copeton Dam water storage to provide for the replenishment flow referred to in subclause (1).

### **64 Replenishment flows to Mongyer Lagoon**

The operator may provide a replenishment flow to Mongyer Lagoon if all of the following circumstances apply:

- (a) the Minister has announced a supplementary water event under clause 48 that covers Moomin Creek,
- (b) the Minister has announced a supplementary water event under clause 48 that covers the segment of the water source downstream of the Mongyer Lagoon block dam regulator after the requirements of supplementary water access licences have been met,
- (c) as a result of the flow, the water in the lagoon is expected to remain below 158.5 metres Australian Height Datum.

### **65 Water delivery and channel capacity constraints**

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

- (a) the inundation of private land or interference with access,
- (b) the effects of inundation on the floodplain and associated wetlands,
- (c) the transmission losses expected to occur, and
- (d) the capacities of structures in the water supply system.

**Note.** Operating channel capacity affects daily supply capability. The following operating channel capacities have been determined as at 1 July 2019:

- (i) Carole Creek and Gil Gil Creek—2,200 ML/day,
  - (ii) Mehi River—5,800 ML/day,
  - (iii) Moomin Creek—2,200 ML/day, and
-

(iv) Gwydir River downstream Tyreel—1,100 ML/day.

## 66 Priority of extraction for access licences and delivery of EWA

- (1) This clause does not apply to supplementary water access licences or floodplain harvesting (regulated river) access licences.
- (2) If supply capability in any segment of the water source is insufficient to satisfy all water orders, basic landholder rights and the minimum flow requirements in Division 1 of Part 10, the following rules of priority apply:
  - (a) the operator is to give first priority to the minimum 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,
  - (c) 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) access licences that have placed an order for water and EWA deliveries that have been requested, in accordance with a method determined by the operator in consultation with the NSW Environmental Water Manager.
- (3) The operator is to consult with water user representatives and relevant government agencies, as the Minister considers appropriate, before determining the method in subclause (2) (c).

### Notes.

- 1 **Supply capability** is defined in the Dictionary.
- 2 This clause may be amended if individual daily extraction components are imposed.

## 67 Rates of change to storage releases

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

## **68 Supply of orders when remaining allocations are low**

- (1) The operator may group water orders and periodically release water if the operator determines that the total remaining volume of water in access licence allocation accounts has 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).

## **69 Dam operation during floods and spills**

The operator must operate Copeton Dam during times of flood and spilling of water from the Copeton Dam spillway:

- (a) in a manner that maintains the safety of dam infrastructure, and
- (b) subject to subclause (1), as follows:
  - (i) leave the storage as full as possible after the flood or spilling of water,
  - (ii) ensure that 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 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 2 of this Plan or to the email address for enquiries on the Department's website.

**Note.** As at 1 April 2019, the email address for enquiries on the Department's website is [water.enquiries@dpi.nsw.gov.au](mailto: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.

#### 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.
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- (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 44.
- (5) Each supplementary water access licence must have a mandatory condition that gives effect to Division 2 of Part 8.
- (6) Each floodplain harvesting (regulated river) access licence must have a mandatory condition to give effect to clause 45(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 8.
  - (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, 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.
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- (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 Amendments relating to Part 1

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

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

**Note.** *Regulated river* is defined in the Dictionary to the Act.

### 77 Amendments relating to supplementary water access licences

Clause 48 may be amended in relation to announcements for Mehi River, Carole Creek, or a river that receives flows from Mehi River or Carole Creek.

### 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.

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## **81 Schedules**

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

## **82 Effect of certain amendments to this Plan**

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

## Dictionary

**Aboriginal person** has the same meaning as under section 4 of 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.

**carbon and nutrient pathways** means the connected networks of streams, riparian zones, floodplains and wetlands that transport dissolved and suspended organic material and nutrients to support ecosystems.

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

**EWA** means the environmental water allowance referred to in clause 61.

**floodplain harvesting** means the collection, extraction or impoundment of water flowing across floodplains, including rainfall runoff and overbank flow.

**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.

**natural flow** means a flow that occurs in a watershed or waterbody under natural unregulated conditions.

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

**Note.** As at 1 July 2019, the NSW Environmental Water Manager is the NSW Office of Environment and Heritage.

**operator** means the operator of the water supply system.

**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** means flows provided to refill pools and water holes in river systems downstream, and outside of, the water source.

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**reserves** means volumes of water put aside in a water storage to provide for future water requirements.

**supplementary water event** means a period during which the taking of water under supplementary water access licences is permitted in all or part of the water source.

**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.

**uncontrolled flow** means flow in excess of that needed to meet the environmental provisions of this Plan, basic landholder rights and water orders placed by access licences.

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

**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** means the water storages and all other infrastructure that can influence water supply controlled by the Minister, including regulators and weirs.

**water use development** means all privately owned water management structures, and all aspects of farm, industry, town and private household development that 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 price** means the total price (dollars per ML) of all units sold divided by the number of units sold.

## Schedule 1 Flow targets

(clause 48)

### 1 Application

The flow targets under clause 2 of this Schedule apply to clause 48 of the Plan.

### 2 Flow targets

(1) Flows 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 paragraph is intended to protect flows for basic landholder rights along the Barwon-Darling River.

(2) Between September and February inclusive— one flow event 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 paragraph is intended to provide opportunity for the passage of fish across the major weirs in the Barwon-Darling River.

(3) Between October and April inclusive— one flow event 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 paragraph is intended to protect flows needed to suppress blue-green algae blooms.



**Schedule 2 Offices**

(clause 70)

Department of Industry, Water

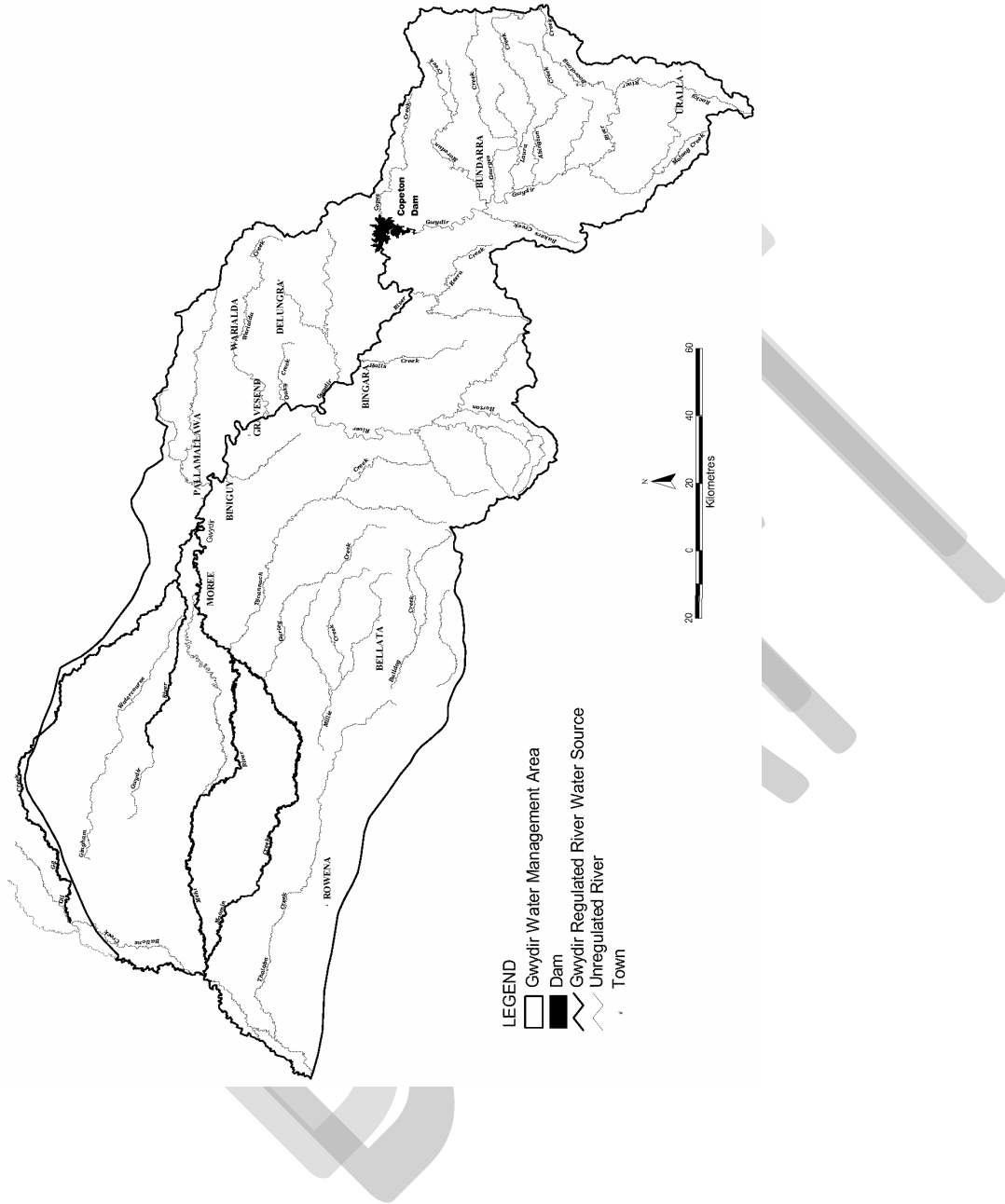
PO Box 486

MOREE NSW 2400

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## Appendix 1 Overview map of the Gwydir Regulated River Water Source

### Overview map of the Gwydir Regulated River Water Source



## 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
<b>Environmental</b>					
Clause 9 (2) (a) (i) Protect and, where possible, enhance the recorded distribution or extent of target ecological populations including native fish and native vegetation over the term of this Plan	Clause 9 (3) (a) – (e)	Clause 9 (5) (a) (i) and (iv), (b) and (c)	<p>Priorities for targeted monitoring within this water source are locations that include the following conditions:</p> <ol style="list-style-type: none"> <li>1. One or more recorded or predicted occurrences of: <ol style="list-style-type: none"> <li>a. Murray cod</li> <li>b. Eel-tailed catfish</li> <li>c. Purple-spotted gudgeon</li> <li>d. Olive perchlet</li> <li>e. Golden perch</li> <li>f. High fish diversity locations</li> <li>g. River red gum woodland</li> <li>h. Black box-coolibah woodland EEC</li> <li>i. High frog diversity locations</li> <li>j. High priority waterbird habitat</li> </ol> </li> <li>2. River sections that were identified as medium or high risk in the Risk Assessment for the <i>Gwydir Water Resource Plan area</i></li> </ol>	<p><i>Risk assessment for the Gwydir water resource plan area</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>Gwydir Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i></p> <p>Add Hyperlink -</p> <p><i>Gwydir Long-Term Water Plan</i></p> <p>Add Hyperlink -</p>	<p>Similar objectives and monitoring targets can be found in other water sharing plan areas</p> <p>Therefore, relevant monitoring data from those water sharing plan areas will be considered when evaluating this objective for this water source.</p>
Clause 9 (2) (a) (ii) Protect, maintain or enhance the population structure of target ecological	Clause 9 (3) (a) – (e)	Clause 9 (5) (a) (i) and (iv), (b) and (c)	<p>Priorities for targeted monitoring within this water source are locations that include the following conditions:</p> <ol style="list-style-type: none"> <li>1. One or more recorded or predicted</li> </ol>	<p><i>Risk assessment for the Gwydir water resource plan area</i></p> <p>Add Hyperlink -</p> <p><i>Guidelines for setting and evaluating</i></p>	<p>Similar objectives and monitoring targets can be found in other water sharing plan areas</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
populations including native fish and native vegetation communities over the term of this Plan			occurrences of: <ol style="list-style-type: none"> <li>a. Murray cod</li> <li>b. Eel-tailed catfish</li> <li>c. Purple-spotted gudgeon</li> <li>d. Olive perchlet</li> <li>e. Golden perch</li> <li>f. High fish diversity locations</li> <li>g. River red gum woodland</li> <li>h. Black box-coolibah woodland EEC</li> <li>i. High frog diversity locations</li> <li>j. High priority waterbird habitat</li> </ol> 2. River sections that were identified as medium or high risk in the <i>Risk Assessment for the Gwydir Water Resource Plan area</i>	<i>plan objectives for water management</i> Add Hyperlink - <i>Gwydir Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	Therefore, relevant monitoring data from those water sharing plan areas will be considered when evaluating this objective for this water source.
Clause 9 (2) (a) (iii) Protect, maintain or enhance the connectivity between water sources to support downstream processes including priority carbon and nutrient pathways and priority fish passages during the term of this Plan	Clause 9 (3) (a) – (e)	Clause 9 (5) (a) (iii) and (iv), (b) and (c)	Priorities for targeted monitoring within this water source include the following conditions: <ol style="list-style-type: none"> <li>1. One or more river sections that include:                             <ol style="list-style-type: none"> <li>a. Tributary catchments that can contribute unregulated carbon and nutrient loads into the regulated river</li> <li>b. Low lying floodplains or benches that can be rich sources of carbon and nutrients</li> <li>c. Catchments that have extensive riparian vegetation</li> <li>d. Significant barriers to migratory</li> </ol> </li> </ol>	<i>Risk assessment for the Gwydir water resource plan area</i> Add Hyperlink - <i>Guidelines for setting and evaluating plan objectives for water management</i> Add Hyperlink - <i>Gwydir 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  Therefore, relevant monitoring data from those water sharing plan areas will be considered when evaluating this objective for this 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
			fish movement  2. River sections that were identified as medium or high risk in the <i>Risk Assessment for the Gwydir Water Resource Plan area</i>		
Clause 9 (2) (a) (iv) Protect, maintain or enhance water quality to support water dependent ecosystems and ecosystem functions within this water source	Clause 9 (3) (a) - (e)	Clause 9 (5) (a) (iv) and (v), (b) and (c)	Priorities for targeted monitoring within this water source are locations that include the following conditions: 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 Gwydir Water Resource Plan area</i>	<i>Risk assessment for the Gwydir water resource plan area</i> Add Hyperlink - <i>Water quality management plan for the Gwydir water resource plan area</i> Add Hyperlink - <i>NSW Cold Water Pollution Strategy</i> Add Hyperlink - <i>NSW Draft algal risk management sub plan</i> Add Hyperlink - <i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink - <i>Gwydir 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 this 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
<p>Clause 9 (2) (b)</p> <p>Support environmental watering to contribute to the maintenance or enhancement of ecological condition in streams, riparian zones, dependent wetlands and floodplains within this water source, including the purposes outlined in clause 57A</p>	<p>Clause 9 (3) (a), (c) and (d)</p>	<p>Clause 9 (5) (a) (i) – (iv), (b) and (c)</p>	<p>Priority monitoring sites within this water source include the target assets and locations that EWA water is delivered to during the term of this Plan.</p>	<p><i>Gwydir Wetlands Adaptive Environmental Management Plan</i> Add Hyperlink -</p> <p><i>Gwydir Catchment Annual Environmental Watering Priorities</i> Add Hyperlink -</p> <p><i>Gwydir Long-Term Water Plan</i> Add Hyperlink -</p>	<p>EWA environmental watering priorities and locations are determined by the NSW Environmental Water Manager on an annual basis. Monitoring is undertaken by the NSW Environmental Water Manager and coordinated with other monitoring activities that can contribute to evaluating this objective</p>
<b>Economic</b>					
<p>Clause 10 (2) (a)</p> <p>Maintain or enhance water trading opportunities for agriculture, business and landholders</p>	<p>Clause 10 (3) (a), (d) and (f)</p>	<p>Clause 10 (5) (a), (b), (c) and (d)</p>	<p>Priority locations for targeted monitoring within this water source are locations that include one or more of the following conditions:</p> <ol style="list-style-type: none"> <li>1. High community dependency on surface water extraction (for agriculture, business, landholders' evidence by:                             <ol style="list-style-type: none"> <li>a. the number of Water Access Licence (WAL): by WAL category</li> <li>b. water made available (ML) each year over the past 5 years by WAL licence category</li> <li>c. Water usage (ML) each year over the last five years by</li> </ol> </li> </ol>	<p><i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink -</p> <p><i>Gwydir Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -</p>	<p>Similar objectives and monitoring targets are found in other water sharing plan areas.</p> <p>The performance indicators and selection criteria have been chosen to work particularly well in situations where people or the economy are highly dependent on water extraction</p>

Column 1 Targeted objective	Column 2 Strategies	Column 3 Performance indicators	Column 4 Criteria for selecting priority monitoring locations*	Column 5 Supporting documents	Column 6 Comments
			<p>WAL category</p> <p>d. Gross value of irrigated production each year over the last five years</p> <p>e. Gross value of dryland agriculture production each year over the last five years</p> <p>f. The number, total value and VWAP of allocation trades in- and out- of the region each year over the last five years</p> <p>g. The number, total value and VWAP of entitlement trades in- and out- of the region each year over the last five years</p> <p>h. Town population</p> <p>2. Economic diversity (measured using the Shannon-Weaver Index<sup>1</sup>).</p>		
<p>Clause 10 (2) (b)</p> <p>Maintain or enhance access to water for agriculture, business and landholders</p>	<p>Clause 10 (3) (a), (b), (c), (e) and (f)</p>	<p>Clause 10 (5) (a), (c) and (d)</p>	<p>Priority locations for targeted monitoring within this water source are locations that include one or more of the following conditions:</p> <p>1. High community dependency on surface water extraction (for agriculture, business, landholders' evidence by:</p> <p>a. the number of Water Access</p>	<p><i>Guidelines for setting and evaluating Plan objectives for water management</i></p> <p>Add Hyperlink - <i>Gwydir Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i></p>	<p>Similar objectives and monitoring targets are found in other water sharing plan areas</p> <p>The performance indicators and selection criteria have been chosen to work particularly well in situations where people or the economy</p>

<sup>1</sup> <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](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
			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 2. Economic diversity (measured using the Shannon-Weaver Index <sup>2</sup> ).	Add Hyperlink -	are highly dependent on water extraction
Clause 10 (2) (c)	Clause 10	Clause 10	Priorities for targeted monitoring	<i>Risk assessment for the Gwydir water</i>	Similar objectives and monitoring targets can be

<sup>2</sup> <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](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
Maintain or enhance water quality for agriculture, business and landholders	(3) (a) and (f)	(5) (a), (c) and (e)	within this water source are locations that include the following conditions: <ol style="list-style-type: none"> <li>1. Representative river sections identified in the <i>NSW State Water Quality Assessment and Monitoring Program</i></li> <li>2. River sections that were identified as medium or high risk in the <i>Risk Assessment for the Gwydir Water Resource Plan area</i></li> </ol>	<i>resource plan area</i> Add Hyperlink - <i>Water quality management plan for the Gwydir 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>Gwydir Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	found in other water sharing plan areas and programs. Therefore, relevant monitoring data from those water sharing plan areas and programs may be considered when evaluating this objective for this water source.
<b>Aboriginal cultural</b>					
Clause 11 (2) (a) Maintain or improve access to water for holders of native title	Clause 11 (3) (a)	Clause 11 (5) (a) to (f)	Priorities for targeted monitoring within this water source are locations that include the following conditions: <ol style="list-style-type: none"> <li>1. the number of Water Access Licence (WAL): by WAL category<sup>3</sup></li> </ol>	<i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink - <i>Gwydir Planned Environmental Water</i>	

<sup>3</sup> 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) <sup>4</sup>	<i>Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	
Clause 11 (2) (b) Maintain or improve access to water for Aboriginal cultural use, including recreational fishing	Clause 11 (3) (b)	Clause 11 (5) (a) to (c), (e) and (f)	Priorities for targeted monitoring within this water source are locations that include the following conditions: 1. the number of Water Access Licence (WAL): by WAL category <sup>5</sup> 2. population / groups holding native title with respect to water, as determined under the Native Title Act 1993 (Cwlth) <sup>6</sup> 3. Culturally important fishing locations and species identified	<i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink - <i>Gwydir Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	
Clause 11 (2) (c) Protect identified water-	Clause 11 (3) (c) to (e)	Clause 11 (5) (a), (b),	Priorities for targeted monitoring within this water source are locations	<i>Guidelines for setting and evaluating Plan objectives for water</i>	

<sup>4</sup> 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.

<sup>5</sup> Aboriginal Cultural Water Access Licence/Aboriginal Community Development Water Access Licences

<sup>6</sup> 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
dependent culturally significant areas, including important riparian vegetation communities.		(d) to (f)	that include the following conditions: <ol style="list-style-type: none"> <li>1. the number of Water Access Licence (WAL): by WAL category<sup>7</sup></li> <li>2. population / groups holding native title with respect to water, as determined under the Native Title Act 1993 (Cwlth)<sup>8</sup></li> <li>3. Identified cultural assets including vegetation communities and regions</li> </ol>	<i>management</i> Add Hyperlink - <i>Gwydir Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	
Clause 11 (2) (d) Maintain or enhance water quality to ensure suitability of water for Aboriginal cultural use	Clause 11 (3) (c) to (e)	Clause 11 (5)(a) to (g)	Priorities for targeted monitoring within this water source are locations that include the following conditions: <ol style="list-style-type: none"> <li>1. the number of Water Access Licence (WAL): by WAL category<sup>9</sup></li> <li>2. population / groups holding native title with respect to water, as</li> </ol>	<i>Water quality management plan for the Gwydir water resource plan area</i> Add Hyperlink – <i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink -	

<sup>7</sup> Aboriginal Cultural Water Access Licence/Aboriginal Community Development Water Access Licences

<sup>8</sup> 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.

<sup>9</sup> 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
			determined under the Native Title Act 1993 (Cwlth) <sup>10</sup> 3. Identified cultural assets	<i>Gwydir Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	
<b>Social and cultural</b>					
Clause 11A (2) (a) Maintain or improve access to water for basic human needs, town water supply and domestic and stock purposes	Clause 11A (3) (a) and (d)	Clause 11A (5) (a), (b), (c) and (d)	Priorities for targeted monitoring within this water source are locations that include the following conditions: 1. High community dependency on water extraction (for basic human needs, town water supply and domestic and stock purposes) evidence by: a. the number of Water Access Licence (WAL): by WAL category <sup>11</sup> b. water made available (ML) each year over the past 5 years by WAL licence category <sup>12</sup>	<i>Water quality management plan for the Gwydir water resource plan area</i> Add Hyperlink – <i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink - <i>Gwydir Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i> Add Hyperlink -	

<sup>10</sup> 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.

<sup>11</sup> 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)

<sup>12</sup> 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
			<ul style="list-style-type: none"> <li>c. Water usage (ML) each year over the last five years by WAL category<sup>13</sup></li> <li>d. Town population</li> <li>2. Turbidity (NTU), colour (HU) and E.coli and chemicals less than Australian Drinking Water Guidelines and utility service level limit at offtake.</li> </ul>		
<p>Clause 11A (2) (b)</p> <p>Maintain or improve access to water for water dependent cultural, heritage and recreational uses, including recreational fishing</p>	<p>Clause 11A (3) (b) and (d)</p>	<p>Clause 11A (5) (a), (b), (c) and (d)</p>	<p>Priority locations for targeted monitoring within this water source are locations that include the following conditions:</p> <ul style="list-style-type: none"> <li>1. One or more recorded or predicted occurrences of: <ul style="list-style-type: none"> <li>a. Murray cod</li> <li>b. Eel-tailed catfish</li> <li>c. Purple-spotted gudgeon</li> <li>d. Olive perchlet</li> <li>e. High fish diversity locations</li> </ul> </li> <li>2. Recorded takes of native recreational fish within legal age and size classes as described in Appendix 2</li> <li>3. River sections that were identified as medium or high risk in the Risk Assessment for the Gwydir Water Resource Plan area</li> <li>4. Number of recreational water</li> </ul>	<p><i>Water quality management plan for the Gwydir water resource plan area</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>Gwydir Planned Environmental Water Monitoring, Evaluation and Reporting Plan</i></p> <p>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 this water source.</p>

<sup>13</sup> 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
			sites with Red blue-green algae in past 3 years 5. Recreational water sites with Amber blue-green algae in past 3 years		
Clause 11A (2) (c) Maintain or improve water quality for basic human needs, town water supply, domestic and stock purposes and water dependent cultural, heritage and recreational uses, including recreational fishing	Clause 11A (3) (b), (c) and (d)	Clause 11A (5) (a), (d) and (e)	Priorities for targeted monitoring within this water source are locations that include the following conditions: 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 Gwydir Water Resource Plan area</i>	<i>Risk assessment for the Gwydir water resource plan area</i> Add Hyperlink - <i>Water quality management plan for the Gwydir water resource plan area</i> Add Hyperlink - <i>NSW Cold Water Pollution Strategy</i> Add Hyperlink - <i>NSW Draft algal risk management sub plan</i> Add Hyperlink - <i>Guidelines for setting and evaluating Plan objectives for water management</i> Add Hyperlink - <i>Gwydir 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 this water source.

*DRAFT*