

Water Sharing Plan for the Macquarie and Cudgegong Regulated Rivers Water Source 2016 [2015-630]



New South Wales

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Water Sharing Plan for the Macquarie and Cudgegong Regulated Rivers Water Source 2016

[2015-630]



New South Wales

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Water Sharing Plan for the Macquarie and Cudgegong Regulated Rivers Water Source 2016



New South Wales

Part 1 Introduction

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.

1 Name of Plan

This Plan is the *Water Sharing Plan for the Macquarie and Cudgegong Regulated Rivers Water Source 2016 (this Plan)*.

2 Nature and status of Plan

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

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

3 Commencement

- (1) This Plan commences on 1 July 2016.

Notes.

- (a) 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.
 - (b) Under the *Intergovernmental Agreement on Implementing Water Reform in the Murray-Darling Basin* and the associated National Partnership Agreement, NSW has agreed to develop water resource plans for Murray-Darling Basin water resources consistent with the requirements of the Basin Plan. This Plan was amended in 2022, partly to meet NSW's commitments under these agreements. Certain provisions of this Plan form part of the water resource plan for the Macquarie-Castlereagh surface water resource plan area.
 - (c) **Basin Plan** is defined in the Dictionary.
- (2) Despite subclause (1)—
 - (a) Division 2 of Part 10 of this Plan commences on 1 July 2023, and
 - (b) Division 5 of Part 8 of this Plan commences on 1 December 2023.

Notes.

1 Subclause (2) means that the rules to protect Active Environmental Water from floodplain harvesting will not commence until 1 December 2023.

2 **Active Environmental Water** is defined in the Dictionary.

4 Application of Plan

- (1) This Plan applies to the Macquarie and Cudgegong Regulated Rivers Water Source within the Central West Water Management Area (the water source).

Note. The Central West 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 in the water source consists of the water between the banks of all rivers and parts of rivers that have been declared by the Minister to be regulated rivers, from Windamere Dam water storage downstream to the junction of the Macquarie River and the Barwon River.

Notes.

(a) The *Central West Water Management Area Regulated River Order* was made by the Minister and published in the New South Wales Government Gazette No 110 on 1 July 2004 at page 5486 and amended by Part 5 of Schedule 12 of the Act.

(b) Section 57A(4) of the Act provides that any water taken under a floodplain harvesting (regulated river) access licence from a floodplain for a regulated river identified in clause 4(2) of this Plan is to be treated as having been taken from the regulated river water source for the purposes of this Plan.

5 Management zones

The water source is divided into the following management zones shown on the map in Schedule 1—

- (a) Gum Cowal management zone,
- (b) Lower Bogan Backwater management zone,
- (c) Lower Macquarie River Downstream management zone,
- (d) Lower Macquarie River Upstream management zone,
- (e) Marra Creek management zone,
- (f) Marthaguy Creek management zone,
- (g) Lower Ewenmar Creek management zone,
- (h) Upper Ewenmar Creek management zone.

Note. The management zones established in this clause are relevant to the management of floodplain harvesting (regulated river) access licences.

6 Interpretation

- (1) Unless otherwise defined in this Plan, words and expressions that are defined in the Act or in the regulations made under the Act have the same meaning in this Plan.
- (2) Words and expressions that are defined in the Dictionary at the end of this Plan have the meaning set out in that Dictionary.
- (3) Unless otherwise specified, a clause that applies to a category of access licence also applies to

any subcategories of that category of access licence.

- (4) The Dictionary and Schedules to this Plan form part of this Plan.
- (5) A number in brackets following the name of a gauge is the gauge number.
- (6) Notes in the text of this Plan do not form part of this Plan.
- (7) Appendices to this Plan do not form part of this Plan.
- (8) A reference in this Plan to the calculation of values which do not have the same unit is a reference to the calculation of values in ML, ML/year or unit shares (as the case requires), without regard to the unit.

Note— For example, the sum of 40 unit shares plus 40 ML per year is taken to be 80.

Part 2 Vision, objectives, strategies and performance indicators

Notes.

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

2 This Part describes broad objectives, which are the long-term outcomes sought by this Plan and are not directly measured but evaluated by considering the cumulative achievement of the associated targeted objectives. Targeted objectives described in this Part are specific outcomes that can be achieved by the strategies in this Plan and can be directly measured so that success or failure to achieve the objective can be quantified.

7 Acknowledgement

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

8 Vision statement

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

- (a) the health and enhancement of the water source and its water-dependent ecosystems,
- (b) the continuing productive extraction of surface water for economic benefit,
- (c) the spiritual, social, customary and economic benefits of surface water to Aboriginal communities,
- (d) social and cultural benefits to urban and rural communities that depend on surface water.

9 Environmental objectives

Note. The environmental water objectives, strategies and provisions in this Plan make a contribution towards achieving the Aboriginal cultural objectives of this Plan.

- (1) The broad environmental objective of this Plan is to protect and contribute to the enhancement of the ecological condition of the water source and its water-dependent ecosystems over the term of this Plan.
- (2) The targeted environmental objectives of this Plan are as follows—
 - (a) to protect and contribute to the enhancement of the following over the term of this Plan—
 - (i) the recorded distribution or extent, and the population structure, of target ecological

populations,

Notes.

1 *Target ecological populations* is defined in the Dictionary.

2 Target ecological populations in the water source include known or predicted populations of the following—

- (a) native fish including golden perch, eel-tailed catfish, Murray cod, purple-spotted gudgeon, and olive perchlet,
- (b) native vegetation including river red gum woodland and black box-coolibah woodland,
- (c) high diversity hotspots and significant habitat for native fish, frogs, waterbirds and native vegetation.

3 Ramsar wetlands and the associated ecological communities such as waterbirds and lignum shrubland are primarily managed by the NSW Environmental Water Manager.

- (ii) the longitudinal and lateral connectivity within and between water sources to support target ecological processes,

Notes.

1 Longitudinal connectivity means flows along the length of the river and between hydrologically connected rivers. Lateral connectivity means flows between the river and its anabranches, riparian zones, wetlands and floodplains.

2 Target ecological processes in the water source include the following—

- (a) carbon and nutrient transport pathways, which are the connected networks of streams, riparian zones, floodplains and wetlands that transport dissolved and suspended organic material and nutrients throughout the water source,
- (b) fish movement across significant barriers.

3 Connectivity may be within the water source, between the water source and other water sources.

- (iii) water quality within target ranges for the water source to support water-dependent ecosystems and ecosystem functions,

Note. Water quality targets for the water source are defined in the *Water Quality Management Plan for the Macquarie-Castlereagh Water Resource Plan Area* (SW11).

- (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.

- (3) The strategies for achieving the targeted environmental objectives of this Plan are as follows—

- (a) maintain compliance with the long-term average annual extraction limit and the long-term average sustainable diversion limit,

Note. Divisions 1 to 4 of Part 6 of this Plan sets out the provisions for maintaining compliance with the long-term average annual extraction limit and the long-term average sustainable diversion limit.

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

Notes.

1 *Flow regimes* and *natural flow* are defined in the Dictionary.

2 The provisions in Divisions 1, 2 and 3 of Part 10 partially mitigate the alterations to low and medium

flows in the natural flow regimes of the water source.

- (c) reserve a share of water to maintain longitudinal and lateral connectivity within and between the water sources,

Note. The provisions in Division 3 of Part 8 and Divisions 1, 2 and 3 of Part 10 contribute to maintaining the hydrological connectivity between the water source and connected wetlands.

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

Note. The provisions in Divisions 1, 2 and 3 of Part 10 ensure that environmental water allowances are maintained.

- (4) The performance indicator used to measure the success of the strategies for achieving the broad environmental objective in subclause (1) is an evaluation of the extent to which the combined outcomes of the targeted objectives in subclause (2) have contributed to the achieving the broad objective.
- (5) The performance indicators used to measure the success of the strategies for achieving the targeted environmental objectives in subclause (2) are the changes or trends in ecological condition during the term of this Plan, as assessed using one or more of the following—
 - (a) the recorded range, extent or condition of target ecological populations,
 - (b) measurements of carbon and nutrient transport pathways and fish movements through priority fish passage areas,
 - (c) the recorded values of water quality measurements including salinity, turbidity, total nitrogen, total phosphorous, pH, water temperature and dissolved oxygen,
 - (d) the magnitude, frequency, timing and water quality of environmental water events.
- (6) In evaluating the effectiveness of the strategies in meeting the objectives in this clause, the following will be relevant—
 - (a) the extent to which the strategies in subclause (3) and provisions in this Plan have been implemented and complied with,
 - (b) the extent to which changes in the performance indicators can be attributed to the strategies and provisions in this Plan,
 - (c) the extent to which the strategies in subclause (3) support achievement of the environmental objectives,
 - (d) the extent to which external influences on the water source during the term of this Plan have affected progress toward achieving the environmental objectives.

10 Economic objectives

- (1) The broad economic objective of this Plan is to maintain, and where possible improve, access to water to optimise economic benefits for agriculture, surface water-dependent industries and local economies.
- (2) The targeted economic objectives of this Plan are as follows—

- (a) to provide water trading opportunities for surface water-dependent businesses,

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

- (b) to maintain, and where possible improve access to water for agriculture, surface water-dependent businesses and landholders, up to the long-term average annual extraction limit and the long-term average sustainable diversion limit,

- (c) to contribute to maintaining water quality within target ranges for agriculture, surface water-dependent businesses and landholders.

- (3) The strategies for achieving the targeted economic objectives of this Plan are as follows—

- (a) provide for trade of water allocations and access licence share components subject to environmental and system constraints,

Note. The provisions in Part 9 permit a variety of dealings within environmental and system constraints, including assignment of rights under access licences and assignment of water allocations between access licences.

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

Note. The available water determination provisions in Part 6 and priority of delivery rules in Division 5 of Part 10 provide certainty in how water is to be shared between different categories of access licences.

- (c) provide for flexibility of access to water,

Note. The water allocation account management rules in Part 8 provide flexibility that reflects the characteristics of the licence category.

- (d) manage extractions to the long-term average annual extraction limit and the long-term average sustainable diversion limit, while recognising variability in climatic conditions in different years, including during drought,

Note. The application of the long-term average annual extraction limit and the long-term average sustainable diversion limit and the assessment and compliance provisions in Part 6 manage extractions to different climatic conditions in different years.

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

Notes.

1 The provisions in Division 3 of Part 8 describe the access conditions during supplementary water events.

2 **Uncontrolled flows** is defined in the Dictionary.

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

- (4) The performance indicator used to measure the success of the strategies for achieving the broad economic objective in subclause (1) is an evaluation of the extent to which the combined outcomes of the targeted economic objectives in subclause (2) have contributed to achieving the broad objective.

- (5) The performance indicators used to measure the success of the strategies for achieving the targeted economic objectives in subclause (2) are the changes or trends in economic benefits during the term of this Plan, as assessed using one or more of the following—

- (a) the economic benefits of water extraction and use, including the movement of water to higher value uses,
 - (b) the economic benefits of water trading, as demonstrated by—
 - (i) the annual number or volume of share components of access licences transferred or assigned, and
 - (ii) the weighted average unit price of share components of access licences transferred or assigned, and
- Note.** *Weighted average unit price* is defined in the Dictionary.
- (iii) the annual volume of water allocations assigned, and
 - (iv) the weighted average unit price of water allocations assigned,
- (c) the recorded values of water quality measurements including salinity, sodium adsorption ratio, harmful algal blooms, total nitrogen, total phosphorus, pH, water temperature and dissolved oxygen.
- (6) In evaluating the effectiveness of the strategies in meeting the objectives in this clause, the following will be relevant—
- (a) the extent to which the strategies in subclause (3) and provisions in this Plan have been implemented and complied with,
 - (b) the extent to which the changes in the economic benefits of water extraction and use can be attributed to the strategies in subclause (3) and provisions in this Plan,
 - (c) the water made available during the term of this Plan through available water determinations and the granting of new licences,
 - (d) the extent to which changes in the economic benefits of water extraction and use can be attributed to the strategies in subclause (3) and provisions in this Plan,
 - (e) the extent to which external influences on surface water-dependent businesses during the term of this Plan have affected progress towards achieving the economic objectives.

11 Aboriginal cultural objectives

- (1) The broad Aboriginal cultural objective of this Plan is to maintain, and where possible improve, 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,
 - (c) to protect, and where possible improve, identified surface water-dependent culturally significant areas, including important riparian vegetation communities,
 - (d) to contribute to the maintenance of water quality within target ranges to ensure suitability of

water for Aboriginal cultural use.

- (3) The strategies for achieving the targeted Aboriginal cultural objectives of this Plan are as follows—
- (a) manage access to water consistent with the exercise of native title rights,
 - (b) provide for water associated with Aboriginal cultural values and uses,
Note. The provisions in Part 7 provide opportunities for Aboriginal people to access water by allowing for the granting of an access licence of the subcategory “Aboriginal cultural”.
 - (c) reserve a share of water to partially mitigate alterations to natural flow regimes in the water source,
 - (d) reserve a share of water to maintain longitudinal and lateral connectivity within and between water sources.
- (4) The performance indicators used to measure the success of the strategies for achieving the broad Aboriginal cultural objective in subclause (1) is an evaluation of the extent to which the combined outcomes of the targeted Aboriginal cultural objectives in subclause (2) have contributed to achieving the broad objective.
- (5) The performance indicators used to measure the success of the strategies for achieving the targeted Aboriginal cultural objectives in subclause (2) are the changes or trends in Aboriginal cultural benefits during the term of this Plan as assessed using one or more of the following—
- (a) the use of water by Aboriginal people by measuring factors including—
 - (i) the extent to which native title rights are able to be exercised, consistently with any determination of native title or indigenous land use agreement, and
 - (ii) the extent to which access to water has contributed to achieving Aboriginal cultural outcomes,
 - (b) the recorded range or extent of target populations of native fish,
 - (c) the recorded range or condition of target populations of riparian vegetation,
 - (d) the recorded values of water quality measurements including salinity, harmful algal blooms, total nitrogen, total phosphorus, pH, water temperature and dissolved oxygen.
- (6) In evaluating the effectiveness of the strategies in meeting the objectives in this clause, the following will be relevant—
- (a) the extent to which the strategies in subclause (3) and provisions in this Plan have been implemented and complied with,
 - (b) the extent to which changes in the performance indicators can be attributed to the strategies in subclause (3) and provisions in this Plan,
 - (c) the extent to which the strategies in subclause (3) support achievement of the Aboriginal cultural objectives,

- (d) the water made available for Aboriginal cultural values and uses during the term of this Plan through available water determinations and the granting of new access licences,
- (e) the extent to which external influences on surface water-dependent Aboriginal cultural activities during the term of this Plan have affected progress toward achieving the Aboriginal cultural objectives.

12 Social and cultural objectives

- (1) The broad social and cultural objective of this Plan is to provide access to surface water to support surface water-dependent social and cultural values.
- (2) The targeted social and cultural objectives of this Plan are to maintain, and where possible improve, the following—
 - (a) access to water for basic landholder rights, town water supply and licensed domestic and stock purposes,
 - (b) access to water for surface water-dependent cultural, heritage and recreational uses, including recreational fishing,
 - (c) water quality within target ranges for basic landholder rights, town water supply, licensed domestic and stock purposes and surface water-dependent cultural, heritage and recreational uses, including recreational fishing.
- (3) The strategies for achieving the targeted social and cultural objectives of this Plan are as follows—
 - (a) provide water access for basic landholder rights, town water supply, and for licensed domestic and stock purposes,

Notes.

1 The provisions for the maintenance of water supply and replenishment flows in Division 5 of Part 10 ensure that water is available for basic landholder rights, town water supply and licensed domestic and stock purposes.

2 *Replenishment flows* is defined in the Dictionary.

- (b) reserve a share of water to partially mitigate alterations to natural flow regimes in the water source,
 - (c) reserve a share of water to maintain longitudinal and lateral connectivity within and between water sources.
- Note.** The provisions in Division 3 of Part 8 and Division 3 of Part 10 contribute to maintaining the hydrological connectivity between this water source and connected wetlands by protecting a portion of medium and high natural flows.
- (4) The performance indicator used to measure the success of the strategies for achieving the broad social and cultural objective in subclause (1) is an evaluation of the extent to which the combined outcomes of the targeted social and cultural objectives in subclause (2) have contributed to achieving the broad objective.
 - (5) The performance indicators used to measure success in achieving the targeted social and cultural objectives in subclause (2) are the changes or trends in social and cultural benefits during the term of this Plan, as assessed using one or more of the following—

- (a) the social and cultural uses of water during the term of this Plan by measuring factors including—
 - (i) the extent to which basic landholder rights and licensed domestic and stock requirements have been met, and
 - (ii) the extent to which major utility access licence and local water utility access licence requirements have been met,
 - (b) the recorded range or extent of target populations of native fish that are important for recreational fishing,
 - (c) the recorded takes of native fish that are important for recreational fishing within legal age and size classes,
 - (d) the recorded values of water quality measurements including salinity, harmful algal blooms, total nitrogen, total phosphorus, pH, water temperature and dissolved oxygen.
- (6) In evaluating the effectiveness of the strategies in meeting the objectives in this clause, the following will be relevant—
- (a) the extent to which the strategies in subclause (3) and provisions in this Plan have been implemented and complied with,
 - (b) the extent to which the changes in the performance indicators can be attributed to the strategies in subclause (3) and provisions in this Plan,
 - (c) the extent to which the strategies in subclause (3) support achievement of the social and cultural objectives,
 - (d) the water made available during the term of this Plan through available water determinations and the granting of new licences,
 - (e) the extent to which external influences on surface water-dependent social and cultural activities during the term of this Plan have affected progress towards achieving the social and cultural objectives.

Part 3 Bulk access regime

13 Bulk access regime

- (1) This Plan establishes a bulk access regime for the extraction of water under access licences, having regard to the following—
- (a) the planned environmental water provisions established under Part 4,
 - (b) the requirements for water to satisfy basic landholder rights identified under Part 5,
 - (c) the requirements for water for extraction under access licences identified under Part 5,
 - (d) the access licence dealing rules established under Part 9.
- (2) The bulk access regime—

- (a) establishes rules according to which—
 - (i) access licences are granted as provided for in Part 7,
 - (ii) available water determinations are to be made as provided for in Part 6,
 - (iii) access licences are managed as provided for in Part 8, 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 long-term average annual extraction above the long-term average annual extraction limit or the long-term average sustainable diversion limit in Part 6, and
- (c) recognises, and is consistent with, the following—
 - (i) the limits to the availability of water as provided for in Part 6,
 - (ii) the water management principles set out in section 5 of the Act,
 - (iii) the effect of climatic variability on the availability of water as described in clause 14, and
- (d) contains provisions with respect to the mandatory conditions imposed on access licences in Part 11.

14 Climatic variability

This Plan recognises the effects of climatic variability on river flow in the water source through provisions contained in Part 6 that—

- (a) manage the sharing of water within the limits of water availability on a long-term basis, and
- (b) 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 extraction against the long-term average annual extraction limit or the long-term average sustainable diversion limit, and
- (c) manage the sharing of water between categories of access licences on an annual basis through available water determinations.

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 4 Environmental water provisions

Note. This Part is made in accordance with section 8 of the Act.

15 General

This Part contains environmental water provisions 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.

16 Commitment and identification of planned environmental water

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

- (a) the physical presence of water in the water source,
- (b) the long-term average annual commitment of water as planned environmental water.

17 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 Translucent releases from Windamere Dam provisions specified in Division 1 of Part 10,

Note. The provisions in Division 1 of Part 10 establish release rules from Windamere Dam which provide environmental flows in the Cudgegong River downstream to Burrendong Dam.

- (ii) the Cudgegong environmental water allowance provisions specified in Division 2 of Part 10,

Note. The provisions in Division 2 of Part 10 establish an environmental water allowance in Windamere Dam which may be used to make releases for environmental purposes in the Cudgegong River downstream to Burrendong Dam.

- (iii) the Macquarie environmental water allowance provisions specified in Division 3 of Part 10,

Note. The provisions in Division 3 of Part 10 establish an environmental water allowance in Burrendong Dam which may be used to make releases for environmental purposes in the Macquarie River downstream to the Macquarie Marshes.

- (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 long-term average sustainable diversion limit in Part 6.

(2) The planned environmental water established under subclause (1) (a) is maintained by the provisions in Divisions 1, 2 and 3 of Part 10.

(3) The planned environmental water established under subclause (1) (b) is maintained by the provisions specified in Divisions 1 to 4 of Part 6.

Note. The provisions in Divisions 1 to 4 of Part 6 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 long-term average sustainable diversion limit. These provisions also provide for reduced available water determinations when either of the limits has been assessed to have been exceeded.

Part 5 Requirements for water

Division 1 General

18 Application

- (1) This Part identifies the requirements for water for basic landholder rights and for extraction under access licences in the water source.

- (2) The volumes of water specified in this Part represent the estimated requirements for water to satisfy basic landholder rights and the total volumes or unit shares specified in the share components of all access licences on commencement of this Plan, excluding floodplain harvesting (regulated river) access licences which are estimated in clause 25 as at 1 July 2022.
- (3) This Plan recognises that requirements for water for basic landholder rights and the total share components of all access licences may change during the term of this Plan.

Notes.

- (a) The total share components of access licences in the water source may change during the term of this Plan as a result of—
- (i) the grant, surrender or cancellation of access licences in the water source, or
- (ii) the variation of local water utility access licences under section 66 of the Act.
- (b) Basic landholder rights requirements may increase as provided for under the Act. This Plan manages changes in basic landholder rights and total share components of all access licences through provisions in Part 6 that manage the sharing of water within the limits of water availability.
- (c) Inherent water quality and land use activities may make the water in some areas unsuitable for human consumption. Water should not be consumed or otherwise used, without first being tested and, if necessary, appropriately treated to ensure it is fit for purpose. Testing and treatment is the responsibility of the water user.

Division 2 Requirements for water for basic landholder rights

Note. Under the Act, basic landholder rights are defined as domestic and stock rights, native title rights and harvestable rights. There are no harvestable rights in the water source.

19 Domestic and stock rights

It is estimated that at the time of commencement of this Plan the water requirements of persons entitled to domestic and stock rights total 1,200 megalitres per year (*ML/year*).

Notes.

- 1 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 for the taking and use of water for domestic consumption or stock watering.
- 2 Under section 331 of the Act, the Minister may direct the holder of a domestic and stock right to take specified measures to protect the environment, to preserve basic landholder rights or to overcome a threat to public health.
- 3 The volumes set out in this clause are separate from any volumes of water that may be taken under an access licence for domestic and stock purposes.

20 Native title rights

The requirement for water to satisfy native title rights is the water that may be taken in the exercise of native title rights in accordance with the *Native Title Act 1993* of the Commonwealth, including—

- (a) any determination of native title, and
- (b) any relevant indigenous land use agreement.

Notes.

- 1 No determinations of native title in relation to the water source have been made in accordance with the *Native Title Act 1993* of the Commonwealth.
- 2 This Plan may be amended if there is a native title determination in accordance with the *Native Title Act 1993* of the Commonwealth by which water is required.
- 3 Native title rights may be exercised in accordance with the *Native Title Act 1993* of the Commonwealth, including section 211 of that Act.

Division 3 Requirements for water under access licences

Notes.

- 1** The share components in this Division include access licences with adaptive environmental water conditions as defined in section 8 of the Act, and other access licences intended to be used for environmental purposes. The Environmental Water Register maintained by the Department provides a record of these licences.
- 2** On the commencement of this Plan, there are two access licences with share components totalling 1,136.9 unit shares that are identified as being licensed environmental water as defined in section 8 of the Act.
- 3** On the commencement of this Plan, there are 20 access licences with share components totalling 182,755.5 unit shares that are not identified as licensed environmental water as defined in section 8 of the Act, but are intended to be used for environmental purposes. These are held by the Commonwealth and NSW Governments. These access licences are regulated river (general 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. The actual volume of water available from year to year will depend on climate, access licence priority and the provisions in this Plan.

21 Share components of domestic and stock licences

It is estimated that at the time of commencement of this Plan, the share components of domestic and stock access licences total 5,963 ML/year.

22 Share components of local water utility access licences

It is estimated that at the time of commencement of this Plan, the share components of local water utility access licences total 18,805 ML/year.

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

It is estimated that at the time of commencement of this Plan, the share components of regulated river (high security) access licences total 17,913 unit shares.

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

It is estimated that at the time of commencement of this Plan, the share components of regulated river (general security) access licences total 632,466 unit shares.

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

It is estimated that on 1 July 2022 the share components of floodplain harvesting (regulated river) access licences total 0 unit shares.

26 Share components of supplementary water access licences

It is estimated that at the time of commencement of this Plan, the share components of supplementary water access licences total 49,998 unit shares.

Part 6 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 extraction limits—

- (a) a long-term average annual extraction limit,
- (b) a long-term average sustainable diversion limit.

Division 1 Calculations under this Part

27 Exclusions, inclusions and variations in calculations

(1) This clause applies to the calculation of the following—

- (a) the long-term average annual extraction limit under clause 28,
- (b) the long-term average annual extraction under clause 29,
- (c) the annual permitted take under clause 32,
- (d) the annual actual take under clause 32.

Note. *Annual permitted take* and *annual actual take* are defined in the Dictionary.

- (2) Any calculation to which this clause applies must include allocations assigned to an access licence in the water source from an access licence in another water source under section 71T or 71V of the Act.
- (3) The calculation of the long-term average annual extraction limit under clause 28 must be adjusted by a volume that appropriately reflects the share components of water access licences in the water source that are subject to a dealing under section 71U of the Act.
- (4) For the avoidance of doubt, the following are not extraction for the purposes of calculations to which this clause applies—
 - (a) allocations assigned from an access licence in the water source to an access licence in another water source under section 71T or 71V of the Act,
 - (b) environmental water delivered under Divisions 1 and 2 of Part 10 of this Plan,
 - (c) delivery of replenishment flows made in accordance with clause 84 of this Plan.
- (5) The calculation of long-term average annual extraction under clause 29 must not include water taken under clause 55.

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 lesser of the following—
 - (a) long-term average annual extraction calculated based on the following—

- (i) the water storages and water use development that existed in the 1999/2000 water year, excluding that which is the subject of subclause (vii),
 - (ii) the basic landholder rights and access licence share components that existed on 1 July 2004,
 - (iii) the level of development for plantation forestry that existed on 1 July 2009,
 - (iv) the maximum crop area and the crop planting behaviour representative of baseline conditions used for assessment of Cap under Schedule E of the Murray-Darling Basin Agreement,
 - (v) the rules in the *Water Sharing Plan for the Macquarie and Cudgegong Regulated Rivers Water Source 2003* as at 1 July 2004, other than the environmental water provisions in Part 3 of that Plan,
 - (vi) the environmental water provisions specified in clause 15 (2), 15 (3), 15 (6), 15 (7), 15 (8), 15 (12), 15 (16) and 15 (22) of the *Water Sharing Plan for the Macquarie and Cudgegong Regulated River Water Source 2003*, as at 1 July 2004,
 - (vii) 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, excluding the collection of rainfall run-off from an irrigated field by a tailwater drain, except where another work on the land, other than a tailwater drain, takes overland flow water, as assessed by the Minister,
- (b) long-term average annual extraction calculated under Cap baseline conditions as agreed under the Murray-Darling Basin Agreement that was in place at the commencement of the *Water Sharing Plan for the Macquarie and Cudgegong Regulated Rivers Water Source 2003*.

Note. *Murray-Darling Basin Agreement* is defined in the Dictionary.

- (3) For the purposes of subclause (2) the long-term average annual extraction limit is to be calculated over the duration of available climate records using the plan limit hydrological computer model approved by the Minister.

Notes.

- (a) Under section 8F of the Act the long-term average annual extraction limit is taken to be varied by the amount of any change to the amount of water committed as licensed environmental water.
- (b) 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.
- (c) **Plantation forestry**, **water storage** and **water use development** are defined in the Dictionary.

29 Calculation of long-term average annual extraction

The Minister, using a current conditions hydrological computer model approved by the Minister, is to calculate the long-term 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 rules in this Plan or in the water sharing plan that this Plan replaces, that applied in that water year,
- (d) the level of development for plantation forestry in that water year.

Note. It is intended that the Department's current conditions hydrological computer model will be extended each water year and used to calculate long-term average annual extraction under this clause.

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 long-term 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 long-term average annual extraction exceeds—
 - (a) the long-term average annual extraction limit by the following—
 - (i) 3% or more,
 - (ii) more than half the difference between the long-term average annual extraction calculated under clause 28 (2) (a) and (b),
 - (b) the long-term average annual extraction calculated under clause 28 (2) (b).

Division 3 Long-term average sustainable diversion limit

31 Calculation of the long-term average sustainable diversion limit

- (1) Subject to any variation under subclause (2), the long-term average sustainable diversion limit for the water source is—
 - (a) the component of the baseline diversion limit for the Macquarie-Castlereagh surface water SDL resource unit as determined under Schedule 3 of the Basin Plan that, in the Minister's opinion, is attributable to the water source, minus
 - (b) 55,000 ML/year, minus
 - (c) the Macquarie-Castlereagh surface water SDL resource unit shared reduction amount as determined under section 6.05 of the Basin Plan, plus
 - (d) the SDL adjustment amount as determined under section 6.05A of the Basin Plan.
- (2) The long-term average sustainable diversion limit is to be varied as determined under Chapter 7 of the Basin Plan.

Notes.

- (a) **Baseline diversion limit, Macquarie-Castlereagh surface water SDL resource unit, SDL resource unit shared reduction amount and SDL adjustment amount** are defined in the Dictionary.
- (b) The long-term average sustainable diversion limit for the Macquarie-Castlereagh surface water SDL Resource Unit as specified in Schedule 2 of the Basin Plan covers extraction from the water source, the Castlereagh Unregulated River Water Sources and the Macquarie Bogan Unregulated Rivers Water Sources.
- (c) The subtraction of 55,000 ML/year, the SDL resource unit shared reduction amount and the SDL adjustment amount are prescribed in Schedule 2 of the Basin Plan.

32 Calculation of annual permitted take and annual actual take for the water year

- (1) Following the end of each water year, the Minister is to calculate the annual permitted take and annual actual take of water for the previous water year 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 SDL resource unit in Division 2 of Part 4 of Chapter 6 of the Basin Plan are taken to be references to the water source.

Notes.

- (a) Take of licensed environmental water and take under licences held by the Commonwealth Environmental Water Holder are not included in the calculation as they fall outside the definition of take for consumptive use.
- (b) **Consumptive use** and **take** are defined in section 4 of the [Water Act 2007](#) of the Commonwealth.

33 Assessment of compliance with the long-term average sustainable diversion limit

- (1) Following the calculation under clause 32 the Minister is to undertake an assessment of compliance with the long-term average sustainable diversion limit, in accordance with the requirements of Division 2 of Part 4 of Chapter 6 of the Basin Plan.
- (2) There is non-compliance with the long-term average sustainable diversion limit in the circumstances set out in Division 2 of Part 4 of Chapter 6 of the Basin Plan.

Division 4 Compliance with extraction and diversion limits

34 Action following non-compliance

- (1) Subject to subclauses (2) to (8), if an assessment under clauses 30 or 33 demonstrates non-compliance with either the long-term average annual extraction limit or the long-term average sustainable diversion limit, the Minister must take one or more of the following actions—
 - (a) make future available water determinations for supplementary water access licences under clause 41 of less than 1 ML per unit share,
 - (b) reduce the limit to the sum of available water determinations that may be made for regulated river (general security) access licences as specified in clause 35 (2) (b),
 - (c) make future available water determinations for floodplain harvesting (regulated river) access licences under clause 40 of less than 1 ML per unit share.

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

- (2) The Minister may also take one or more of the actions specified in subclause (1) as a result of any action taken under clause 6.12 (5) of the Basin Plan.
- (3) Any action under subclauses (1) and (2) must only be taken to the extent to which, and only for as long as, the Minister considers the following is necessary—
 - (a) in the case of non-compliance with the long-term average annual extraction limit— to return average annual extraction in the water source to the long-term average annual extraction limit,
 - (b) in the case of non-compliance with the long-term average sustainable diversion limit— to

- meet the requirements of Division 2 of Part 4 of Chapter 6 of the Basin Plan,
- (c) in the case where non-compliance with the long-term average sustainable diversion limit would have occurred but for there being a reasonable excuse—to meet the requirements of Division 2 of Part 4 of Chapter 6 of the Basin Plan.
- (4) The Minister must only take action under subclause (1) (a) if total extractions (excluding extractions under floodplain harvesting (regulated river) access licences) have exceeded the sum of the amounts under clause 28 (2) (a) (i) to (vi).
 - (5) The Minister must only take action under subclause (1) (b) if the Minister has taken action under subclause (1) (a) and made an available water determination of zero for supplementary water access licences.
 - (6) In taking action under subclause (1) (a) and (b), the Minister must have regard to the extent that total extractions (excluding extractions under floodplain harvesting (regulated river) access licences) have exceeded the sum of the amounts under clause 28 (2) (a) (i) to (vi).
 - (7) The Minister must only take action under subclause (1) (c)—
 - (a) if total extractions under floodplain harvesting (regulated river) access licences exceed the amount under clause 28 (2) (a) (vii), and
 - (b) having regard to the extent that total extractions under floodplain harvesting (regulated river) access licences have exceeded the amount under clause 28 (2) (a) (vii).
 - (8) Subclauses (1) (c), (4), (6) and (7) only apply if floodplain harvesting (regulated river) access licences have been issued in the water source.
 - (9) Before taking any action under this clause, the Minister may consult with water user representatives, the NSW Environmental Water Manager and the operator regarding the following—
 - (a) the data used for the calculations under Divisions 2 and 3,
 - (b) the proposed actions under this Division.

Division 5 Available water determinations

35 General

- (1) Available water determinations for access licences are to be expressed as one of the following—
 - (a) for an access licence specifying the share component in ML/year—a percentage of the share component,
 - (b) for an access licence specifying the share component as a number of unit shares— ML per unit share.
- (2) The sum of available water determinations made for any access licence must not exceed the following in any water year, except where subclause (3) applies—
 - (a) for an access licence specifying the share component in 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 share component or any lower limit determined under clause 34.
- (3) The limits specified in subclause (2) do not apply to available water determinations made in the following circumstances—
 - (a) to regulated river (high security) access licences in accordance with clause 38 (3),
 - (b) to regulated river (general security) access licences in accordance with clause 39 (4).

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.

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.

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.
- (2) The Minister must not make an available water determination under this clause unless sufficient water is available for all of the following—
 - (a) to meet the provisions in Divisions 2 and 3 of Part 10,
 - (b) to meet the requirements for basic landholder rights,
 - (c) to make available water determinations totalling 100% of access licence share components for both domestic and stock access licences and local water utility access licences,
 - (d) to provide for existing water allocations in regulated river (general security) access licence water allocation accounts,
 - (e) to account for water losses associated with holding and delivering the water—
 - (i) as a result of the available water determinations made in accordance with subclause (1),
 - (ii) referred to in paragraphs (a) to (d) above.
- (3) Unless the Minister otherwise determines, the Minister is to make an available water determination for regulated river (high security) access licences of 1 ML per unit share after taking any action to withdraw water allocations under clause 52.

Notes.

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

- (b) Clause 52 allows the Minister to withdraw all water allocations remaining in all AWD sub-accounts. If this occurs, the Minister is to make further available water determinations to re-credit regulated river (high security) access licence and regulated river (general security) access licence accounts. Once this has occurred, this process of withdrawal and re-crediting will occur again for the remainder of the water year, each time the water level in Burrendong Dam water storage re-enters the FMZ.

39 Available water determinations for regulated river (general) access licences

- (1) At the commencement of each water year, and at least monthly, the Minister is to assess if water is available for the making of an available water determination for regulated river (general security) access licences.
- (2) For the purposes of the assessment, water is not available unless sufficient water is available for all of the following—
 - (a) to meet the provisions in Divisions 2 and 3 of Part 10,
 - (b) to meet the requirements for basic landholder rights,
 - (c) to make available water determinations totalling 100% of access licence share components for both domestic and stock access licences and local water utility access licences,
 - (d) to make available water determinations totalling 1 ML per unit share for regulated river (high security) access licences,
 - (e) to provide for existing water allocations in regulated river (general security) access licence water allocation accounts,
 - (f) to account for water losses associated with holding and delivering the water—
 - (i) as a result of the available water determination made in accordance with subclause (3),
 - (ii) referred to in paragraphs (a) to (e) above.
- (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) Unless the Minister otherwise determines, an available water determination for regulated river (general security) access licences that is equal to the limit specified in clause 35 (2) (b) is to be made whenever water is withdrawn under clause 52.

Note. Clause 52 allows the Minister to withdraw all water allocations remaining in all AWD sub-accounts. If this occurs, the Minister is to make further available water determinations to re-credit regulated river (high security) access licence and regulated river (general security) access licence accounts. Once this has occurred, this process of withdrawal and re-crediting will occur again for the remainder of the water year each time the water level in Burrendong Dam water storage re-enters the FMZ.

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

Unless the Minister otherwise determines, at the commencement of each water year, the Minister is to make an available water determination for floodplain harvesting (regulated river) access licences of 1 ML per unit share, unless a lower amount is determined under clause 34.

Note. The Minister may also make an available water determination for floodplain harvesting (regulated river) access licences other than at the commencement of a water year pursuant to section 59 of the Act.

41 Available water determinations for supplementary water access licences

Unless the Minister otherwise determines, at the commencement of each water year an available water determination of 1 ML per unit share is to be made for supplementary water access licences, unless a lower amount is determined under clause 34.

Note. The taking of water under a supplementary water access licence is subject to the provisions in Division 3 of Part 8.

Part 7 Rules for granting access licences and water supply work approvals

Notes.

1 This Part is made in accordance with sections 61 and 63 of the Act. Section 61 of the Act provides for applications for specific purpose access licences in accordance with the regulations and the relevant water sharing plan.

2 Access licences granted in the water source will be subject to mandatory conditions required to be imposed by this Plan, the regulations and the Act, and may also be subject to discretionary conditions.

42 Rules for specific purpose access licences

- (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 if—
 - (a) the licence is primarily for the taking of water by an Aboriginal person or Aboriginal community for personal, domestic or communal purposes, including the following—
 - (i) drinking and food preparation,
 - (ii) washing,
 - (iii) manufacturing traditional artefacts,
 - (iv) watering domestic gardens,
 - (v) cultural teaching,
 - (vi) hunting, fishing and gathering,
 - (vii) traditional food production,
 - (viii) purposes to achieve environmental outcomes,
 - (ix) recreational, cultural and ceremonial purposes, and
 - (b) any commercial benefit obtained by the taking or use of the water is only ancillary or incidental to the purpose for which the water was taken.

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

43 Rules for water supply works located near flood-dependent areas

- (1A) A water supply work approval must not be granted or amended to authorise a work if—
- (a) the work is also a flood work,
 - (b) there is no flood work approval in place for the work,
 - (c) the work is on land to which the *Floodplain Management Plan for the Macquarie Valley Floodplain 2016* applies, and
 - (d) granting or amendment of an approval for the work would not be permitted under the *Floodplain Management Plan for the Macquarie Valley Floodplain 2016*.
- (1) A water supply work approval must not be granted if the water supply work is to be—
- (a) nominated by a floodplain harvesting (regulated river) access licence, and
 - (b) located within the Macquarie Management Zone A or Macquarie Management Zone D, as established under clause 5 of the *Floodplain Management Plan for the Macquarie Valley Floodplain 2021*.

Notes.

1 Macquarie Management Zone A includes areas of the Floodplain where a significant discharge of floodwater occurs during floods, with relatively high flood flow velocity and depth.

2 Macquarie Management Zone D is a special protection zone for areas of ecological or cultural significance, or both.

3 An overview of Macquarie Management Zone A and Macquarie Management Zone D are shown in Appendix 1.

- (2) A water supply work approval must not be amended to add a work to which the approval relates if—
- (a) the water supply works currently subject to the approval are nominated by a floodplain harvesting (regulated river) access licence, and
 - (b) the water supply work proposed to be added is not located on the Macquarie Valley Floodplain, as declared under clause 252 of the *Water Management (General) Regulation 2018*.

Note. An overview of the Macquarie Valley Floodplain is shown in Appendix 2.

- (3) A water supply work approval must not be amended to add a work to which the approval relates if—
- (a) the water supply works currently subject to the approval are nominated by a floodplain harvesting (regulated river) access licence, and
 - (b) the water supply work proposed to be added is located within Macquarie Management Zone A or Macquarie Management Zone D (as established under clause 5 of the *Floodplain Management Plan for the Macquarie Valley Floodplain 2021*).
- (4) A water supply work approval must not be amended if all of the following apply—
- (a) the water supply works currently subject to the approval are nominated by a floodplain harvesting (regulated river) access licence, and
 - (b) amending the water supply work approval would increase the capability of water supply

works subject to the approval to take water within Macquarie Management Zone A or Macquarie Management Zone D (as established under clause 5 of the *Floodplain Management Plan for the Macquarie Valley Floodplain 2021*), and

- (c) the increase in capability is not a result of adding a water supply work that is or was previously nominated by that floodplain harvesting (regulated river) access licence.
- (5) Subclause (1) does not apply if all of the following apply—
 - (a) the applicant was determined to be eligible for a replacement floodplain harvesting access licence under Division 1 of Part 2A of the *Water Management (General) Regulation 2018*,
 - (b) the work is the subject of an application made prior to 31 December 2022 to grant a water supply work approval.
- (6) Subclauses (2), (3) and (4) do not apply if all of the following apply—
 - (a) the applicant was determined to be eligible for a replacement floodplain harvesting access licence under Division 1 of Part 2A of the *Water Management (General) Regulation 2018*,
 - (b) the work was constructed on or before 12 February 2021, but was not the subject of a water supply work approval prior to that date,
 - (c) if the work is also a flood work, the work is subject to a flood work approval, and
 - (d) the work is the subject of an application made prior to 30 June 2023 to amend a water supply work approval.

Part 8 Operation of water allocation accounts and managing access licences

Notes.

1 Section 85 of the Act and the regulations provide for the keeping of water allocation accounts for access licences. The provisions 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. The provisions also allow the Minister to withdraw water allocations from a water allocation account if provided for by this plan. 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.

2 The provisions in this Part apply to the following persons—

- (a) the Minister in managing water allocation accounts,
- (b) the access licence holder, as required by mandatory conditions imposed on the access licence under Part 11.

Division 1 Water allocation account management rules

44 Debits from an individual water allocation account

- (1) Unless subclause (2) applies, for any access licence other than a floodplain harvesting (regulated river) access licence or supplementary water access licence, the Minister must debit the volume of water extracted by the water supply works nominated by an access licence from the water allocation account for the licence.
- (2) If the Minister has given written notice to the holder of an access licence in accordance with a water order debiting protocol established by the Minister, the greater of the following must be debited from the water allocation account for the licence—
 - (a) the volume of water extracted by the water supply works nominated by the access licence,

- (b) the water ordered for extraction under the access licence.

Note. The Minister may take action under subclause (2), for example, if water orders from a particular licence holder exceed the volume of water taken under the licence and this cannot be explained by rainfall or other unavoidable factors – as set out in the Macquarie-Cudgegong Water Order Debiting Protocol developed in consultation between the Department, Water NSW and water user representatives.

- (3) For a floodplain harvesting (regulated river) access licence, the Minister must debit from the water allocation account for that access licence the volume of water extracted during a notified measurement period by the water supply works nominated by the access licence, except where subclause (4) applies.
- (4) For a floodplain harvesting (regulated river) access licence, the Minister must not debit the volume of water extracted in accordance with clause 55 from the water allocation account for that licence.
- (5) For a supplementary water access licence, the Minister must, in accordance with any applicable supplementary water announcement, debit from the water allocation account for the licence the volume of water extracted by the water supply works nominated by an access licence.

45 Limits on water allocation accounts and carryover

- (1) Water allocations remaining in a water allocation account must not be carried over from one water year to the next water year for the following access licence categories—
 - (a) domestic and stock access licence,
 - (b) local water utility access licence,
 - (c) regulated river (high security) access licence,
 - (d) supplementary water access licence.
- (2) Subject to clause 48, water allocations remaining in the water allocation accounts of regulated river (general security) access licences must be carried over from one water year to the next water year.
- (3) Subject to subclause (4), water allocations remaining in the water allocation accounts of floodplain harvesting (regulated river) access licences must be carried over from one water year to the next water year.
- (4) The Minister must not allow allocations in a water allocation account for a floodplain harvesting (regulated river) access licence to exceed 5 ML per unit share.

Division 2 Account management rules for regulated river (high security) and regulated river (general security) access licences

Notes.

1 This Division provides for the keeping of water allocation accounts for regulated river (high security) and regulated river (general security) access licences in the form of two sub-accounts, in accordance with clause 17 of the [Water Management \(General\) Regulation 2018](#).

2 This Division sets out when water allocations are to be withdrawn by the Minister in the Cudgegong and Macquarie segments of the water source. **Cudgegong AWD sub-account**, **Cudgegong carryover sub-account**, **Macquarie AWD sub-account** and **Macquarie carryover sub-account** are defined in the Dictionary.

46 General

- (1) This Division applies to the water allocation accounts of regulated river (high security) access licences and regulated river (general security) access licences.
- (2) The Minister is to maintain the following sub-accounts within each water allocation account—
 - (a) an available water determination sub-account (the **AWD sub-account**),
 - (b) a carryover sub-account.

47 Credits and debits to water allocation sub-accounts

- (1) Water allocations arising from an available water determination must be credited to the AWD sub-account.
- (2) Water allocations debited under subclauses 44 (1) or (2) must be debited from the carryover sub-account until that sub-account balance reaches zero, and then debited from the AWD sub-account.
- (3) Water allocations assigned under section 71T of the Act from a carryover sub-account must be credited to the receiving carryover sub-account.
- (4) Water allocations assigned under section 71T of the Act from an AWD sub-account must be credited to the receiving AWD sub-account.
- (5) At the end of each water year, water allocations remaining in the AWD sub-account of a regulated river (general security) access licence are to be debited from that account and, subject to the limits specified in clause 48, credited to the carryover sub-account.

48 Limits on carryover sub-accounts

- (1) The Minister must not allow allocations in a Cudgegong carryover sub-account for an access licence, not including an access licence listed in Schedule 2, to exceed 1 ML per unit share.
- (2) The Minister must not allow allocations in a Cudgegong carryover sub-account for an access licence specified in Column 1 of the Table in Schedule 2 to exceed the greater of—
 - (a) 1 ML per unit share, and
 - (b) the amount specified in Column 3 for that licence – if there has been no access licence dealing under the Act which, in the opinion of the Minister resulted in water taken under that licence being used on a landholding other than the landholding on which water taken under that licence was being used as at 1 July 2004, or

- (c) the amount specified in Column 3 for that licence minus the proportion of the share component affected by any access licence dealing under the Act which in the Minister's opinion will result in water taken under the licence being used on a landholding other than the landholding on which water was being used as at 1 July 2004.
- (3) The Minister must not allow allocations in a Macquarie carryover sub-account to exceed 1 ML per unit share.

49 Withdrawals from carryover sub-accounts due to evaporation

At the end of each three-month period, the Minister is to withdraw an amount of water allocation from each carryover sub-account to reflect additional storage losses arising from water carried over under clause 47 (5), as determined by the Minister.

Note. Water which is carried over leads to additional surface area in Windamere Dam and Burrendong Dam, which in turn increases the evaporation losses.

50 Withdrawals from Cudgegong carryover sub-accounts due to dam spills

Notes.

1 The effect of clauses 50, 51 and 52 is to “reset” the water allocation accounts for regulated river (high security) and regulated river (general security) access licences when water levels in the dams reach a certain height, which is effectively following dam spills or if water levels in Burrendong Dam are in the FMZ. When this occurs, the Minister is to make new available water determinations in accordance with clause 38 (3) and 39 (4).

2 *Burrendong Dam water storage*, *Cudgegong carryover sub-account*, *Cudgegong EWA carryover sub-account*, *FMZ* and *Macquarie carryover sub-account* are defined in the Dictionary.

- (1) The Minister must withdraw an amount of water allocation from each Cudgegong carryover sub-account after the end of each month during which both—
 - (a) water spills from Windamere Dam, and
 - (b) the water level in Burrendong Dam water storage is in the FMZ for all or part of the month.
- (2) The total amount of water allocation to be withdrawn from all Cudgegong carryover sub-accounts under subclause (1) is the lesser of the following—
 - (a) the sum of all water allocations in Cudgegong carryover sub-accounts at the end of the month, minus any remaining water allocations assigned from a Macquarie carryover sub-account in that water year, minus the amount debited from the Cudgegong EWA carryover sub-account under clause 72 (1),
 - (b) the total volume of water spilled from Windamere Dam water storage when the water level in Burrendong Dam water storage was in the FMZ for the month, minus the amount debited from the Cudgegong EWA carryover sub-account under clause 72 (1).
- (3) In this clause, the amount of water allocation the Minister is to withdraw under subclause (1) from each Cudgegong carryover sub-account is equal to the amount calculated using the formula—

$$(TA / TC) \times IC$$

where—

TA is the total amount of water allocations to be withdrawn from all Cudgegong carryover subaccounts in accordance with subclause (2),

TC is the total amount of water allocations in all Cudgegong carryover sub-accounts at the end of the month, minus any remaining water allocations assigned from a Macquarie carryover sub-account in that water year,

IC is the amount of water allocations in the individual Cudgegong carryover sub-account at the end of the month, minus any remaining water allocations assigned from a Macquarie carryover sub-account in that water year.

51 Withdrawals from Macquarie carryover sub-accounts due to dam spill

- (1) The Minister must withdraw an amount of water allocation from each Macquarie carryover sub-account at the end of each month in which the water level in Burrendong Dam water storage was in the FMZ for all, or part of, the month.
- (2) The total amount of water allocations to be withdrawn from all Macquarie carryover sub-accounts under subclause (1) is the lesser of the following—
 - (a) the sum of all water allocations in Macquarie carryover sub-accounts at the end of the month, plus any remaining water allocations assigned from a Macquarie carryover sub-account to a Cudgegong carryover sub-account in that water year,
 - (b) the amount calculated using the formula—

$$TI \times TC / (TC + EC)$$

where—

TI is the total volume of inflow to Burrendong Dam water storage when the water level in Burrendong Dam water storage is in the FMZ for that month,

TC is the total amount of water allocations in Macquarie carryover sub-accounts at the end of the month, plus any remaining water allocations assigned from a Macquarie carryover sub-account to a Cudgegong carryover sub-account in that water year,

EC is the volume of water allocations carried over in the Macquarie EWA from the previous water year.

- (3) The amount of water allocations the Minister is to withdraw under subclause (1) from each Macquarie carryover sub-account is equal to the amount calculated using the formula—

$$(TA / TC) \times IC$$

where—

TA is the total amount of water allocations the Minister is to withdraw from all Macquarie carryover sub-accounts in accordance with subclause (2),

TC is the total amount of water allocations in all Macquarie carryover sub-accounts at the end of the month, plus any remaining water allocations assigned from a Macquarie carryover sub-account to a Cudgegong carryover sub-account in that water year,

IC is the amount of water allocations remaining in the individual Macquarie carryover sub-

account, plus any remaining water allocations assigned from that sub-account to a Cudgegong carryover sub-account in that water year.

52 Simultaneous emptying of Cudgegong and Macquarie sub-accounts

- (1) If, as a result of action under subclause 51 (1), the balance of all Macquarie carryover sub-accounts reaches zero, the Minister is to withdraw all water allocations from all Cudgegong and Macquarie AWD sub-accounts.
- (2) If the Minister has taken action under subclause (1) and the water level of Burrendong Dam water storage re-enters the FMZ in that water year, the Minister is to withdraw all water allocations from all Cudgegong and Macquarie AWD sub-accounts.

Note. The effect of this clause and the available water determination rules in clauses 38 and 39 is that all AWD sub-accounts will be emptied and re-credited with a volume equivalent to 1 ML per unit share (or a lower amount if required for extraction limit compliance purposes) when all water allocations held in Macquarie carryover sub-accounts has been withdrawn by the Minister under this clause. Once this has occurred in a water year, all AWD sub-accounts will continue to be emptied and re-credited whenever the water level in Burrendong water storage re-enters the FMZ in that water year.

Division 3 Supplementary water events

Notes.

- 1 This Division is made under section 70 of the Act.
- 2 **Supplementary water event** is defined in the Dictionary.

53 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.

54 Announcement of supplementary water event

- (1) The Minister may announce a supplementary water event in any segment of the water source downstream of the upper limit to Burrendong Dam water storage if all of the following apply—
 - (a) there are, in the Minister's opinion, uncontrolled flows or a release of water from the FMZ (or both) in that segment of the water source that exceed the following—
 - (i) releases made from the Macquarie EWA specified in Division 3 of Part 10,
 - (ii) flows required for domestic and stock rights, native title rights and water orders for access licences downstream of Burrendong Dam water storage,
 - (iii) replenishment flows as specified in clause 84,
 - (b) flows in the Macquarie River will, in the Minister's opinion, exceed the requirements in subclause (1) (a) by 5,000 ML per day or more at Warren Weir (421004).
- (2) The Minister may announce a supplementary water event in any segment of the water source upstream of Burrendong Dam water storage if all of the following apply—
 - (a) there are, in the Minister's opinion, uncontrolled flows in that segment of the water source that exceed the following—
 - (i) releases made from the Cudgegong EWA specified in Division 1 and 2 of Part 10,

- (ii) flows required for domestic and stock rights, native title rights and water orders for access licences upstream of Burrendong Dam water storage,
 - (b) water is spilling from Burrendong Dam or water is being released from the FMZ,
 - (c) flows in the Macquarie River will, in the Minister's opinion, exceed the requirements in subclause (1) (a) by 5,000 ML per day or more at Warren Weir (421004).
- (3) In making an announcement, the Minister must consider whether and how access opportunities can be evenly shared between all holders of supplementary water access licences.

Division 4 Taking of water under floodplain harvesting (regulated river) access licences

55 Taking of uncontrolled flows under floodplain harvesting (regulated river) access licences

Notes.

1 This clause is made under section 85A of the Act.

2 **Uncontrolled flow**, **irrigated field** and **tailwater drain** are defined in the Dictionary.

3 **Overland flow water** is defined in section 4A of the Act.

- (1) This clause does not apply if an exemption from section 60A (1) and (2) of the Act is in force in relation to the taking of water from a tailwater drain for the purpose of collecting rainfall run-off from an irrigated field.
- (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 from uncontrolled flows that have not been credited to the water allocation accounts of the licences in accordance with the rules in this clause.
- (3) This clause only authorises the taking of water from uncontrolled flows if—
 - (a) the water from the uncontrolled flows is captured by means of a tailwater drain, and
 - (b) no other work, other than a tailwater drain, is taking overland flow water at the time the tailwater drain is capturing uncontrolled flows.

56 Taking of water under floodplain harvesting (regulated river) access licences

- (1) For the purposes of this clause **Menindee Lakes Storage** has the same meaning as it does under the Murray-Darling Basin Agreement.
- (2) The taking of water under a floodplain harvesting (regulated river) access licence may only occur if the Minister has announced that the taking of overland flow water is permitted.
- (3) The Minister must not announce that the taking of overland flow water is permitted if the volume of water stored in Menindee Lakes Storage is less than 195 gigalitres.
- (4) Subclause (3) does not apply during periods for which, in the Minister's opinion, a combined flow in Marebone Break at downstream regulator gauge (421 088) and Macquarie River at downstream Marebone Weir gauge (421 090) will remain at or above 3,400 ML/day will occur.

Division 5 Active Environmental Water

57 Access rules to protect Active Environmental Water from floodplain harvesting

- (1) This clause applies to a floodplain harvesting (regulated river) access licence with an extraction component that specifies the Gum Cowal management zone or Lower Macquarie River Upstream management zone.
- (2) The Minister may announce that, for a specified period, water must not be taken under an access licence if the Minister has determined and announced, in accordance with the Active Management Procedures Manual, that there is only Active Environmental Water present in that management zone.

Note. This clause commences on 1 December 2023 (clause 3 (2) of this Plan).

58 Active Management Procedures Manual

The Minister must prepare and publish on the Department's website an Active Management Procedures Manual that includes, but is not limited to, the following—

- (a) the means for identifying and determining Active Environmental Water on any given day,
- (b) any other matter the Minister considers relevant.

Note. This clause commences on 1 December 2023 (clause 3 (2) of this Plan).

Part 9 Access licence dealing rules

Notes.

- 1 Access licence dealings in the water source are subject to the provisions of the Act, the regulations, any access licence dealing principles established under section 71Z of the Act and the access licence dealing rules established under this Part.
- 2 At the commencement of this Plan, 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 under 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.
- 4 This Part may be amended if individual daily extraction components are imposed on access licences in the water source.

59 Conversion of access licence to new category

Dealings under section 71O of the Act are prohibited.

60 Assignment of rights dealings (within the water source or within a water management area)

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

- (1) A dealing under section 71Q of the Act (other than a dealing relating to a floodplain harvesting (regulated river) access licence) is prohibited if the dealing would increase the total share components of the access licences listed in Column 1 of Table A that nominate a water supply work in a segment specified in Column 2, to an amount that exceeds the amount of share components specified in Column 3 for that segment.

Table A

Column 1	Column 2	Column 3
All access licences	The segment of Crooked Creek within the water source	The total as at the time the dealing is determined
All access licences	The segment of the Prohibited Area of the Macquarie Marshes (as defined in the <i>Macquarie Marshes Water Management Plan 1996</i> , published by the Department of Land and Water Conservation and the National Parks and Wildlife Service) within the water source	The total as at the time the dealing is determined
All access licences, excluding supplementary water access licences	Windamere Dam water storage to Burrendong Dam water storage	40,000 unit shares
All access licences, excluding supplementary water access licences	Gunningbar Creek above Fairview Dam	36,000 unit shares
All access licences, excluding supplementary water access licences	Gunningbar Creek below Fairview Dam	1,700 unit shares
All access licences, excluding supplementary water access licences	Duck Creek	5,000 unit shares
All access licences, excluding supplementary water access licences	Bulgeraga Creek	45,000 unit shares

Notes.

- (a) The limit in Table A for Gunningbar Creek above Fairview Dam includes licences that draw from the Albert Priest Channel as the supply to that channel is via Gunningbar Creek.
 - (b) The limit in Table A for Bulgeraga Creek was increased from 33,000 unit shares in 2019 as a result of an updated assessment of Bulgeraga Creek channel capacity. The supply capability of Bulgeraga Creek will be shared amongst water users in accordance with the methodology to be developed by Water NSW in consultation with affected water users under clause 86.
- (2) A dealing under section 71Q of the Act is prohibited if—
- (a) the dealing would increase the total share components of all regulated river (high security) access licences that nominate water supply works in the segment of the water source upstream of Burrendong Dam water storage, and
 - (b) the dealing would, in the Minister’s opinion, significantly affect the reliability of supply to regulated river (general security) access licences in that segment of the water source.
- (3) A dealing under section 71Q of the Act is prohibited if the dealing involves an assignment of rights—
- (a) to a floodplain harvesting (regulated river) access licence that nominates a water supply work not located within the Macquarie Valley Floodplain (as declared under clause 252 of the *Water Management (General) Regulation 2018*) unless the work was nominated by the licence when the licence was first issued in the water source, or
 - (b) to a floodplain harvesting (regulated river) access licence that nominates a water supply work located within Macquarie Management Zone A or Macquarie Management Zone D, as established under clause 5 of the *Floodplain Management Plan for the Macquarie Valley Floodplain 2021* unless the work was nominated by the licence when the licence was first issued in the water source,
 - (c) between floodplain harvesting (regulated river) access licences with extraction components that specify different management zones, unless the dealing will assign rights from an access licence with an extraction component that specifies a management zone specified in Column 1 of Table B to an access licence with an extraction component that specifies a management zone in the corresponding Column 2 of Table B.

Table B

Column 1	Column 2
Gum Cowal management zone	Lower Ewenmar Creek management zone, or Lower Macquarie River Downstream management zone, or Marthaguy Creek management zone.
Lower Bogan Backwater management zone	Marra Creek management zone
Lower Ewenmar Creek management zone	Gum Cowal management zone
Lower Macquarie River Upstream management zone	Gum Cowal management zone, or Lower Macquarie River Downstream management zone, or Marthaguy Creek management zone.

Marra Creek management zone

Lower Bogan Backwater management zone

Marthaguy Creek management zone

Lower Macquarie River Downstream management zone

- (4) A dealing under section 71Q of the Act that is from or to an access licence in another water source is prohibited.

61 Amendment of share component dealings (change of water source)

Dealings under section 71R of the Act are prohibited.

62 Assignment of water allocations dealings

A dealing under section 71T of the Act is prohibited in any of the following circumstances—

- (a) the dealing involves an assignment of water allocations to an access licence that nominates a water supply work located in any of the following—
 - (i) the segment of Crooked Creek within the water source,
 - (ii) the segment of the Prohibited Area of the Macquarie Marshes (as defined in the *Macquarie Marshes Water Management Plan 1996*, published by the Department of Land and Water Conservation and the National Parks and Wildlife Service) within the water source,
- (b) the dealing involves an assignment of water allocations to a supplementary water access licence from an access licence of any other category,
Note. At the commencement of this Plan, 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 also prohibited under clause 17 of the [Access Licence Dealing Principles Order 2004](#).
- (c) the dealing involves an assignment of water allocations to or from an access licence in another water source,
- (d) the dealing involves an assignment of water allocations to or from a floodplain harvesting (regulated river) access licence.

63 Interstate access licence transfer and assignment of water allocations

- (1) Dealings under section 71U of the Act are prohibited.
- (2) Dealings under section 71V of the Act are prohibited.

64 Nomination of water supply works dealings

- (1) A dealing under section 71W of the Act (other than a dealing involving a floodplain harvesting (regulated river) access licence) 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 2 of Table A in clause 60,
 - (b) following the dealing, the total share components of all access licences specified in Column

1 of Table A that nominate a water supply work in the segment of the water source specified in Column 2 will exceed the amount specified in Column 3 for that segment.

(2) A dealing under section 71W of the Act is prohibited if the dealing would—

- (a) increase the total share components of all regulated river (high security) access licences that nominate a water supply work in the segment of the water source upstream of Burrendong Dam water storage, and
- (b) in the Minister's opinion, significantly affect the reliability of supply to regulated river (general security) access licences in that segment of the water source.

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

(3) A dealing under section 71W of the Act is prohibited if it involves a floodplain harvesting (regulated river) access licence being amended to nominate a water supply work located—

- (a) outside the Macquarie Valley Floodplain, as declared under clause 252 of the *Water Management (General) Regulation 2018*, or
- (b) within Macquarie Management Zone A or Macquarie Management Zone D (as established under clause 5 of the *Floodplain Management Plan for the Macquarie Valley Floodplain 2021*), or
- (c) in a different management zone to that specified in the extraction component of the floodplain harvesting (regulated river) access licence, except if the access licence has an extraction component that specifies a management zone specified in Column 1 of Table B of clause 60, and it will be amended to nominate a work located in a management zone specified in the corresponding Column 2 of Table B of clause 60.

(3A) Subclause (3) does not apply to a dealing that involves the amendment of a floodplain harvesting (regulated river) access licence to nominate a work authorised by a water supply work approval (the **new approval**) if—

- (a) the new approval was created as a result of the amendment of a water supply work approval (the **original approval**) that was nominated by the access licence to be amended, and
- (b) the new approval does not authorise any works in addition to those that were authorised by the original approval.

(4) A dealing under section 71W of the Act is prohibited if it involves any of the following—

- (a) an access licence in the water source nominating a water supply work located in a different water source to that specified in the share component of the access licence,
- (b) an access licence in the water source nominating a water supply work outside of NSW.

Part 10 System operation rules

Note. *NSW Environmental Water Manager* and *operator* are defined in the Dictionary.

Division 1 Translucent releases from Windamere Dam

65 General

Division 1 ceases to apply from 1 July 2023.

66 Translucent release rules

- (1) The operator must release water from Windamere Dam water storage whenever the sum of storage inflows plus tributary inflows downstream of the water storage is capable of producing a flow in the Cudgegong River at Rocky Water Hole of at least 150 megalitres per day (hereafter **ML/day**) for 2 days or more, subject to any start and finish dates applied under subclause (3) (a).
- (2) The rate of release under subclause (1) is the lesser of the following—
 - (a) storage inflow,
 - (b) the rate of release necessary to achieve 1,500 ML/day in the Cudgegong River at Rocky Water Hole.
- (3) At the commencement of each water year the Minister may undertake any of the following—
 - (a) set start and finish dates in the water year during which releases under subclause (1) are to be made,
 - (b) alter the Cudgegong River flow at Rocky Water Hole referred to in subclauses (1) and (2)
 - (b) provided they remain within the range of 150 to 1,500 ML/day.
- (4) Before taking action under subclause (3) the Minister may seek advice from the Environmental Water Advisory Group established for the water source regarding the need for, and the extent of any changes.
- (5) The operator must not release water under subclause (1) in the following circumstances—
 - (a) when the storage level in Windamere Dam water storage is at or below 110,000 megalitres,
 - (b) after the total volume of water released under subclause (1) during any water year has reached 10,000 megalitres,
 - (c) when Windamere Dam is spilling.
- (6) The operator must not use water released under subclause (1) to supply access licence water orders between Windamere Dam water storage and Burrendong Dam water storage.
- (7) Any water released under subclause (1) that enters Burrendong Dam water storage is no longer planned environmental water under section 8 (1) (a) of the Act.

Division 2 Cudgegong environmental water allowance

67 General

Note. Division 2 commences on 1 July 2023 (clause 3 (2) of this Plan).

In this Division—

residual Cudgegong environmental water means the water remaining in Windamere Dam storage due to environmental water releases not being released by the operator as required under clause 14 (2) of the *Water Sharing Plan for the Macquarie and Cudgegong Regulated Rivers Water Source 2016* (being the plan that was in force as at 30 June 2022).

68 Cudgegong environmental water allowance (EWA)

- (1) The operator must maintain a Cudgegong EWA for environmental purposes in the Cudgegong River between Windamere Dam and Burrendong Dam water storages in accordance with this Division.
- (2) The operator must keep an account of water credited to and debited from the Cudgegong EWA in—
 - (a) an available water determination sub-account (*Cudgegong EWA AWD sub-account*), and
 - (b) a carryover sub-account (*Cudgegong EWA carryover sub-account*).

Note. *Cudgegong EWA* is defined in the Dictionary.

69 Release rules for the Cudgegong EWA and residual Cudgegong environmental water

- (1) Subject to subclause (2) and (3), the operator is to release water from the Cudgegong EWA in accordance with an order made by the NSW Environmental Water Manager and any procedures established by the Minister with the concurrence of the Minister for the Environment.
- (2) The operator must not release water (other than residual Cudgegong environmental water) from the Cudgegong EWA if any of the following apply—
 - (a) the order made under subclause (1) is not for delivery to the Cudgegong River at Rocky Water Hole (421149),
 - (b) the total volume of water in Windamere Dam water storage is equal to or less than 110,000 ML,
 - (c) the water level of Burrendong Dam water storage is within the FMZ,
 - (d) the release would cause the flow in the Cudgegong River at Rocky Water Hole (421149) to exceed 1,500 ML per day,
 - (e) residual Cudgegong environmental water exists.
- (3) The operator must not release residual Cudgegong environmental water if any of the following apply—
 - (a) the total volume of water in Windamere Dam water storage is equal to or less than 70,000 megalitres,
 - (b) the water level of Burrendong Dam water storage is within the FMZ,
 - (c) the release would cause the flow in the Cudgegong River at Rocky Water Hole (421149) to exceed 1,500 ML per day.
- (4) The operator must not use releases of water from the Cudgegong EWA or residual Cudgegong environmental water to supply basic landholder rights or access licence requirements between Windamere Dam and Burrendong Dam water storage.
- (5) Water released under this clause that enters Burrendong Dam water storage is no longer planned environmental water under section 8 (1) (a) of the Act.

Note. The effect of this subclause is that any releases made under this clause that flow into Burrendong Dam can be captured by the operator and may be used in the operation of the water supply system or re-allocated to access licences by AWDs made in accordance with this Plan.

70 Credits, debits and carryover of the Cudgegong EWA sub-accounts

- (1) On 1 July 2023, the operator is to credit the Cudgegong EWA carryover sub-account with an amount equal to the residual Cudgegong environmental water that has not been released by that date.
- (2) Whenever the Minister makes an available water determination for regulated river (general security) access licences pursuant to clause 39 (3), the Cudgegong EWA AWD sub-account is to be credited with an amount equal to 11,400 ML multiplied by the ML per unit share specified in the available water determination.
- (3) If the Minister does not make an available water determination for regulated river (general security) access licences because the Minister has taken action under clause 34 (1) (b)—
 - (a) the Minister is to assess if water is available for the making of an available water determination in accordance with clause 39 (1), and
 - (b) if the Minister determines that water is available for the making of the available water determination, the operator is to credit the Cudgegong EWA AWD sub-account as if the Minister had not taken action under clause 34 (1) (b) and instead made the available water determination.

Note. This subclause means that the Cudgegong EWA AWD sub-account is not affected if action is taken in relation to regulated river (general security) access licences to ensure compliance with an extraction limit.

- (4) The operator is to debit the lesser of the following from the Cudgegong EWA after releasing water under clause 69 (1)—
 - (a) the volume of Cudgegong EWA ordered for delivery to the Cudgegong River at Rocky Water Hole (421149),
 - (b) the flow at Rocky Water Hole (421149) on the days that water from the Cudgegong EWA arrives at Rocky Water Hole, minus any downstream water orders and associated losses.
- (5) Water debited under subclause (4) is to be debited from the Cudgegong EWA carryover sub-account first and then from the Cudgegong EWA AWD sub-account.
- (6) If the Minister has taken action under clauses 38 (3) and 39 (4), the Cudgegong EWA AWD subaccount is to be credited with an amount necessary to bring the total amount of water in the allowance to 11,400 ML.
- (7) The operator must carry over any water remaining in the Cudgegong EWA from one water year to the next water year as follows—
 - (a) water in the Cudgegong EWA carryover sub-account is to remain in that sub-account,
 - (b) water in the Cudgegong AWD sub-account is to be debited from that sub-account and credited to the Cudgegong EWA carryover sub-account,
 - (c) the Minister must not allow water in the Cudgegong EWA carryover sub-account to exceed 11,400 ML, plus the residual Cudgegong environmental water that has not been released by the end of that water year.
- (8) In this clause, ***downstream water orders and associated losses*** means the volume of water required to meet orders to take water downstream of Rocky Water Hole, and the transmission losses associated with delivery of those water orders.

Notes.

(a) The effect of subclause (7) is that the Cudgegong EWA will be topped up to 1,400 ML whenever the water allocations in the accounts of regulated river (high security) and regulated river (general security) access licences are withdrawn under clause 52 and new AWDs are made under clauses 38 (3) and 39 (4).

(b) **Transmission losses** is defined in the Dictionary.

71 Withdrawals from Cudgegong EWA due to evaporation

At the end of each three-month period during which the volume of water in Windamere Dam water storage has continually been greater than 110,000 ML, the Minister is to withdraw an amount from the Cudgegong EWA carryover sub-account to reflect additional storage losses (evaporation) arising from water carried over under clause 70 (7), as determined by the Minister.

Note. Water which is carried over leads to additional surface area in Windamere Dam, which in turn increases the evaporation losses.

72 Withdrawals from Cudgegong EWA due to spills

(1) The Minister must withdraw an amount of water from the Cudgegong EWA carryover sub-account after the end of each month during which—

- (a) water spills from Windamere Dam, and
- (b) the water level in Burrendong Dam water storage is in the FMZ for all or part of the month.

(2) The amount withdrawn under subclause (1) is to be the lesser of the following—

- (a) the amount of water allocation in the Cudgegong EWA carryover sub-account at the end of the month,
- (b) the amount calculated using the formula—

$$(TS / (TC + EC)) \times EC$$

where—

TS is the total volume of water spilled from Windamere Dam in the month,

TC is the total water allocations in Cudgegong carryover sub-accounts at the end of the month (excluding any water assigned from Macquarie carryover sub-accounts),

EC is the water allocations remaining in the Cudgegong EWA carryover sub-account at the end of the month.

Division 3 Macquarie environmental allowance (EWA)

Note. **Macquarie EWA** is defined in the Dictionary.

73 Account for the Macquarie EWA

- (1) The operator must maintain a Macquarie EWA in Burrendong Dam in accordance with the provisions of this Division.
- (2) The Macquarie EWA is to be used to improve environmental outcomes in the Macquarie

Marshes, and the Macquarie River between Burrendong Dam and the Macquarie Marshes.

- (3) The operator must keep an account of water credited to and debited from the Macquarie EWA with the following sub-allowances—
 - (a) translucent sub-allowance,
 - (b) active sub-allowance.

74 Release rules for translucent sub-allowance water

- (1) The operator is to release translucent sub-allowance water in accordance with this clause.
- (2) Subject to subclause (5), releases of translucent sub-allowance water are only to be made if all of the following apply—
 - (a) the release is made between 15 March and 30 November (inclusive) of each year, or such narrower period within those dates as determined by the Minister at the beginning of the water year,
 - (b) the translucent sub-allowance balance is greater than zero (or the NSW Environmental Water Manager has determined to use water from the active sub-allowance under subclause (6)),
 - (c) the sum of inflows to Burrendong Dam water storage and tributary inflows downstream of Burrendong Dam are, in the operator's opinion, likely to provide a flow of at least 500 ML per day for five days or more in the Macquarie River at Marebone Weir (or such other flow as determined by the Minister at the start of each water year),
 - (d) the water level in Burrendong Dam water storage is not within the FMZ,
 - (e) the sum of tributary inflows between Burrendong Dam and Marebone Weir is no more than 1,000 ML per day.

Note. Clause 90 requires that water releases from the FMZ be made to provide beneficial flooding for the regulated Macquarie River, the Macquarie Marshes, Marebone floodplain and effluent creeks.

- (3) Translucent sub-allowance water must be released at a rate that is the lesser of the following—
 - (a) the rate of inflow to Burrendong Dam water storage,
 - (b) the rate of release necessary to achieve a flow of 4,000 ML/day in the Macquarie River at Marebone Weir (or such lower flow determined by the Minister at the start of each water year).
- (4) Releases must cease if any of the following apply—
 - (a) the sum of inflows to Burrendong Dam water storage and tributary inflows downstream of Burrendong Dam are, in the operator's opinion, not likely to provide a flow of at least 500 ML per day for five days or more in the Macquarie River at Marebone Weir (or such higher flow as determined by the Minister at the start of each water year),
 - (b) the translucent sub-allowance balance reaches zero and the NSW Environmental Water Manager has not determined to use water from the active sub-allowance under subclause (6),

- (c) the sum of tributary inflows between Burrendong Dam and Marebone Weir exceeds the flow specified in subclause (2) (e).
 - (5) Releases must not be made, or must cease, if the Minister determines that the release of translucent sub-allowance water will not significantly improve the health of the Macquarie River segment of the water source, its effluent rivers, or the Macquarie Marshes.
 - (6) If the translucent sub-allowance balance has reached zero, water may continue to be released from the active sub-allowance if the NSW Environmental Water Manager determines, after considering advice from the Environmental Water Advisory Group or the Minister for the Environment, that active sub-allowance water may be used for the release.
- Notes.**
- (a) Release of active sub-allowance water under clause (6) will be debited from the active sub-allowance.
 - (b) The Minister may seek advice from the Environmental Water Advisory Group at the commencement of each water year on the timing of releases under subclause (2), and the circumstances in which releases may cease under subclause (5) or be extended under subclause (6). If this advice is not provided, the Minister may seek the advice of the Minister for Environment before taking action under this subclause for the purposes of subclauses (2) and (5).
- (7) Unless this clause is suspended by an order made under section 49A or 49B of the Act, if for operational reasons the amounts in this clause are not released, the operator must release any outstanding amount at a later date in accordance with a plan prepared by the NSW Environmental Water Manager and approved by the Minister.

75 Release rules for active sub-allowance water

- (1) The operator is to release active sub-allowance water to the Macquarie River downstream of Marebone Weir, or Marebone Break at downstream Marebone Regulator (or both of those locations) in accordance with an order made by the NSW Environmental Water Manager and any procedures established by the Minister with the concurrence of the Minister for the Environment.
- (2) The operator must release active sub-allowance water carried over from the previous water year before releasing active sub-allowance water credited in that water year.

76 Credits and carryover of the Macquarie EWA

- (1) If the Minister makes an available water determination for regulated river (general security) access licences under clause 39 (3), the Macquarie EWA is to be credited with an amount—
 - (a) equal to 160,000 ML multiplied by the ML per unit share specified in that available water determination, and
 - (b) distributed as follows—
 - (i) 40% to the translucent sub-allowance,
 - (ii) 60% to the active sub-allowance.
- (2) If the Minister does not make an available water determination for regulated river (general security) access licences because the Minister has taken action under clause 34 (1) (b)—
 - (a) the Minister is to assess if water is available for the making of an available water determination in accordance with clause 39 (1), and
 - (b) if the Minister determines that water is available for the making of the available water

determination, the operator is to credit the Macquarie EWA as if the Minister had not taken action under clause 34 (1) (b) and instead made the available water determination.

- (3) The operator must carry over any water remaining in the Macquarie EWA from one water year to the next water year—
 - (a) up to a limit of 160,000 ML, and
 - (b) re-distribute the water carried over according to the distribution set out in subclause (1) (b).

77 Accounting rules for debits from the translucent sub-allowance

- (1) Whenever translucent sub-allowance water is released under clause 74, the translucent sub-allowance is to be debited as follows—
 - (a) if the flow arriving at Marebone Weir in relation to the release, minus downstream water orders and associated losses, is less than or equal to the flow specified in clause 74 (3) (b)— a volume equal to the flow arriving at Marebone Weir, minus downstream water orders and associated losses, and minus the daily flow rate specified in clause 74 (2) (c),
 - (b) if the flow arriving at Marebone Weir in relation to the release, minus downstream water orders and associated losses, is greater than the flow specified in clause 74 (3) (b)— a volume equal to the flow specified in clause 74 (3) (b) minus the daily flow rate specified in clause 74 (2) (c).
- (2) In this clause, *downstream water orders and associated losses* means the volume of water required to meet orders to take water downstream of the Marebone Weir, and the transmission losses associated with delivery of those water orders.
- (3) In accounting for any releases of translucent sub-allowance water under subclause (1), water carried over from the previous water year is to be debited before debiting any water credited in the current water year.

Note. At the commencement of this Plan, the flow arriving at Marebone Weir is determined by the summation of flows at streamflow gauges 421090 and 421088.

78 Accounting rules for debits from the active sub-allowance

- (1) Whenever active sub-allowance water is released under clause 75, the active sub-allowance is to be debited with the lesser of the following—
 - (a) the volume of active sub-allowance water requested for delivery on the days that the active sub-allowance water arrives at Marebone Weir minus downstream water orders and associated losses,
 - (b) the flow at Marebone Weir minus downstream water orders and associated losses, on the days that the active sub-allowance water arrives at Marebone Weir.
- (2) In this clause, *downstream water orders and associated losses* means the volume of water required to meet orders to take water downstream of the Marebone Weir, and the transmission losses associated with delivery of those water orders.

79 Withdrawals from Macquarie EWA due to evaporation

At the end of each three-month period, the Minister is to withdraw an amount from the Macquarie

EWA that reflects additional storage losses (evaporation) generated by water carried over under clause 76 (3), as determined by the Minister.

Note. Water which is carried over leads to additional surface area in Burrendong Dam, which in turn increases the evaporation losses.

80 Withdrawals from Macquarie EWA due to spills

- (1) The Minister is to withdraw an amount of water carried over from the previous water year from each sub-allowance of the Macquarie EWA at the end of each month in which the water level in Burrendong Dam water storage was in the FMZ for all or part of that month.
- (2) The amount withdrawn under subclause (1) from each sub-allowance is to be the lesser of the following—
 - (a) the amount of water carried over from the previous water year in that sub-allowance,
 - (b) the amount calculated using the formula—

$$TI \times EC / (TC + EC)$$

where—

TI is the total volume of inflow to Burrendong Dam water storage while the water level in Burrendong Dam water storage is in the FMZ for that month,

TC is the total water allocations in Macquarie carryover sub-accounts of regulated river (high security) and regulated river (general security) access licences at the end of the month, and

EC is the amount of water carried over from the previous water year in that sub-allowance at the end of the month.

- (3) If the Minister has taken action under clauses 38 (3) and 39 (4), the Macquarie EWA is to be credited with an amount necessary to bring the total amount of water in the allowance to 160,000 ML.

81 Variations to distribution of Macquarie EWA between sub-allowances

- (1) At the commencement of each water year the Minister may alter the distribution specified in clause 76 (1) (b), but each sub-allowance must receive at least 40% of the total allowance.
- (2) Before altering the distribution, the Minister may seek advice from the NSW Environmental Water Manager on the need for, and recommended extent of changes under subclause (1), which considers the following—
 - (a) the environmental outcomes which have been achieved by releases of water from the Macquarie EWA and other flows in the water source in the previous 12 months,
 - (b) the current and likely condition of the Macquarie Marshes over the next 12 months,
 - (c) the desired environmental outcomes for the regulated Macquarie River and the Macquarie Marshes.

Division 4 Consultation

82 Consultation

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

Notes.

1 At the commencement of this Plan, the Minister has conferred the lead role in managing environmental water allowances established under water sharing plans to the NSW Department of Planning and Environment – Environment and Heritage Group (EHG). EHG 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 the following website: www.environment.nsw.gov.au.

2 In undertaking its role in managing the Cudgegong EWA, EHG will seek advice from both the EWAG and from local Cudgegong stakeholders.

Division 5 General system operation rules

83 Maintenance of water supply

- (1) In this clause, the period of lowest accumulated inflow to the water source is identified by flow information held by the Department prior to 1 July 2004.
- (2) 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 period of lowest accumulated inflows to the water source to meet the following—
 - (a) the replenishment flow in clause 84 (2),
 - (b) the annual water requirements of persons exercising domestic and stock rights and native title rights,
 - (c) available water determinations for domestic and stock access licences and local water utility access licence of 100% of share components,
 - (d) available water determinations for regulated river (high security) access licences of 1 ML per unit share.
- (3) For the purposes of subclause (2), the operator must set aside sufficient volumes of water from inflows into the water source and in reserves held in Burrendong Dam and Windamere Dam water storages.
- (4) By 30 June 2026, the Minister will undertake a review of this clause that considers the following—
 - (a) options for redefining the period of lowest accumulated inflows to the water source,
 - (b) whether different periods should apply to different categories of access licences,
 - (c) the impact of any options for change on planned environmental water and each category of access licence, and
 - (d) the views of stakeholders and the broader community.

- (5) On the basis of the review referred to in subclause (4), the Minister may make such amendments to this clause as are reasonably necessary to not jeopardise the critical needs of basic landholder rights, domestic and stock access licence holders and local water utility access licence holders.
- (6) Any amendments made under subclause (5) cannot substantially alter the long-term average annual amount of water able to be extracted under water access licences.

Notes.

- (a) 1 July 2004 was the date of commencement of the first water sharing plan for the water source made under the Act, namely the *Water Sharing Plan for the Macquarie and Cudgegong Regulated River Waters Source 2003*.
- (b) **Water supply system** and **reserves** are defined in the Dictionary.
- (c) If satisfied that it is in the public interest to do so, the Minister may amend this clause under s.45 (1) (a) of the Act to such an extent that it substantially alters the long-term average annual amount of water able to be extracted under water access licences. If this occurs, compensation may be payable under Chapter 3 Part 2 Division 9 of the Act.
- (d) Section 10.28 of the Basin Plan requires that a water resource plan must ensure there is no net reduction in the protection of planned environmental water from the protection provided under State water management law immediately before the commencement of the Basin Plan.

84 Replenishment flows

- (1) Unless the operator otherwise determines, the operator is to provide the following replenishment flows each water year when water is available from uncontrolled flows—
 - (a) up to 10,000 ML/yr to the Gum Cowal/Terrigal system,
 - (b) up to 4,000 ML/yr to Crooked Creek below “Mumblebone”,
 - (c) up to 1,000 ML/yr to the Bogan River, from Nyngan to the Gunningbar Creek confluence,
 - (d) up to 1,000 ML/yr to Beleringar Creek, downstream of Albert Priest Canal,
 - (e) up to 1,500 ML/yr to Reddenville Break,
 - (f) up to 5,000 ML/yr to Beleringar Creek.

Note. The replenishment requirements may vary considerably from year to year due to seasonal conditions. The volumes in subclause (1) are what may be necessary to replenish the entire river length in dry antecedent conditions.

- (2) Unless the operator otherwise determines, the operator is to provide the following replenishment flows each water year—
 - (a) up to 15,000 ML/yr to Marra Creek, from its offtake, downstream to its junction with the Barwon River,
 - (b) up to 15,000 ML/yr to the lower Bogan River, downstream of its junction with Gunningbar Creek to its junction with the Barwon River.
- (3) At least twice a year, the operator is to provide a replenishment flow of up to 50 ML/day below the Macquarie Marshes, from “Miltara” to the Barwon River.
- (4) The operator is to provide a replenishment flow of 100 ML/day in the Macquarie River at Oxley Station gauge (421022) for up to 20 days in one of the following months—
 - (a) September, if the total flow at the Oxley Station gauge for the period 1 March to 31 August did not exceed 2,500 ML,

- (b) March, if the total flow at Oxley Station gauge for the period 1 September to 29 February did not exceed 4,500 ML.
- (5) The operator may provide a replenishment flow of 100 ML/day in the Macquarie River at Oxley Station gauge (421022) for up to 20 days in one of the following months—
 - (a) September if the following occurred—
 - (i) the total flow at the Oxley Station gauge for the period 1 March to 31 August exceeded 2,500 ML, and
 - (ii) a flow of 60 ML/day or more at the Oxley Station gauge did not occur for 10 consecutive days within the period 1 March to 31 August,
 - (b) March if the following occurred—
 - (i) the total flow at Oxley Station gauge for the period 1 September to 29 February exceeded 4,500 ML, and
 - (ii) a flow of 60 ML/day or more at the Oxley Station gauge did not occur for 10 consecutive days within the period 1 September to 29 February.
- (6) Without limiting the operator's discretion under subclause (5), the operator is not required to provide a replenishment flow in accordance with subclause (5) if the operator has provided a replenishment flow in accordance with subclause (4).
- (7) Whenever possible, the operator is to use inflows entering the water source from tributary streams downstream of Burrendong Dam to provide replenishment flows under subclauses (2), (3), (4) and (5).

Note. The Northern By-pass Channel may be used to provide the flows under subclause (3), supplementing natural flows through the marshes to maintain the target flow.

85 Water delivery and channel capacity constraints

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

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

86 Priority of delivery for access licences and EWA water

- (1) If supply capability due to channel capacity is insufficient in any segment of the water source to satisfy all water orders, basic landholder rights and delivery of EWA water, the following rules of priority apply—
 - (a) the operator is to give first priority to the requirements for water to satisfy basic landholder rights,
 - (b) once the requirements in paragraph (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 paragraph (b) have been met, unless otherwise directed by the Minister, any remaining supply capability is to be shared between the following—
 - (i) EWA deliveries that have been ordered,
 - (ii) regulated river (general security) access licences that have placed an order for water.
- (2) The sharing of water under subclause (1) (c) must be undertaken by the operator in accordance with any procedures established by the Minister and agreed by the Minister for the Environment.
- (3) The Minister is to consult with water user representatives and relevant government agencies (as the Minister considers appropriate) before determining the procedures in subclause (2).

Notes.

- (a) **Supply capability** is defined in the Dictionary.
- (b) This clause may be amended if individual daily extraction components are imposed.
- (c) This clause does not apply to supplementary water access licences as water is not delivered to these licences.

87 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 impacts, damage to river banks, public safety, and operational efficiency in accordance with any procedures established by the Minister.

88 Bulk transfer rules between storages

- (1) The operator is to make high volume transfer releases of water from Windamere Dam as required to prevent the volume of water in Burrendong Dam water storage becoming insufficient to supply downstream basic landholder rights, access licence water allocations, the Macquarie EWA and to meet any water losses associated with the delivery of that water.
- (2) Releases made under subclause (1) must be undertaken in accordance with protocols (if any) established by the Minister that address the following—
 - (a) the determination of volumes to be transferred,
 - (b) seasonality of flows,
 - (c) total duration of transfer events,
 - (d) maximum discharge rates and their duration,
 - (e) rates of rise and fall in flow heights,
 - (f) access and agronomic requirements of landholders,
 - (g) ecological and geomorphological benefits,
 - (h) likely effects on native species and their habitat, particularly platypus and threatened aquatic species,
 - (i) any other matters that may impact on the riverine environment or community.
- (3) Prior to establishing the protocols under subclause (2), the Minister may seek advice from

representatives of the local community along the Cudgegong River downstream of Windamere Dam, in regard to the issues specified in subclause (2).

- (4) The operator must make the proposed dates and rates of releases under subclause (1) publicly available.

89 Dam operation during floods and spills

- (1) The operator must operate Windamere Dam and Burrendong Dam during times of flood and spilling of water from those dams in a manner that maintains the safety of dam infrastructure.
- (2) Providing it is consistent with subclause (1), the operator must aim to—
 - (a) leave the storages at full supply level after the flood or spilling of water, subject to the FMZ operation rules in clause 90, and
 - (b) minimise downstream flood damage.

90 Burrendong Dam flood mitigation zone operation rules

- (1) The operator must manage the FMZ of Burrendong Dam in accordance with this clause.
- (2) When not in flood operation, the operator may make releases from the Burrendong Dam FMZ to provide beneficial flooding for the regulated Macquarie River, the Macquarie Marshes, Marebone floodplain and the effluent rivers and creeks of the Macquarie River.
- (3) Unless the Minister determines otherwise, the sharing and distribution of releases from the FMZ are to be as follows—
 - (a) when flows at Warren Weir (421004) are less than 4,000 ML/day— to the Macquarie River and Macquarie Marshes,
 - (b) when flows at Warren Weir (421004) are between 4,000 and 12,000 ML/day— to the Macquarie River, Macquarie Marshes and Marebone floodplain, then to Crooked, Gunningbar and Duck Creeks,
 - (c) when flows at Warren Weir (421004) are greater than 12,000 ML/day – to the Macquarie River, Macquarie Marshes and Warren floodplain, then to Crooked, Gunningbar, Duck, Ewenmar and Beleringar Creeks.
- (4) In managing the FMZ, the operator must, where possible, seek to make controlled releases during the flood event so that the water level of Burrendong Dam water storage does not increase.

Notes.

- (a) This attempts to balance the benefits of providing airspace in Burrendong Dam to mitigate large inflow events with the damage of controlled releases that can extend the duration of flooding on the Warren floodplains.
 - (b) Releases from the FMZ will vary according to the level of water in storage, rates of inflow and the need to maintain airspace to capture likely future inflows into the storage. The following subclause sets maximum release rates that vary depending on the water level in Burrendong Dam.
- (5) The maximum rate of release from each bay of the FMZ in excess of that required to meet water orders is to be the rate of inflow to Burrendong Dam up to the following rates, calculated including downstream tributary flow—
 - (a) when Burrendong Dam water storage is between 100% and 120% (*Bay 1*)— 5,000 ML/day

at Warren Weir (421004), equating to a river level of approximately 5.5 metres at Warren Town (412014),

- (b) when Burrendong Dam water storage is between 120% and 130% (*Bay 2*)— 12,000 ML/day at Gin Gin (421031), equating to a river level of approximately 6.5 metres at Warren Town (412014),
 - (c) when Burrendong Dam water storage is between 130% and 142% (*Bay 3*)— 18,000 ML/day at Gin Gin (421031), equating to a minor flood level of 7.5 metres at Warren Town (412014).
- (6) The operator may vary the release rates in subclause (5) if, in the operator's opinion, the rates specified will result in any of the following—
- (a) prolonged inundation of the floodplain and economic losses to agriculture,
 - (b) restricted landholder access to the landholder's properties for extended periods,
 - (c) benefits to the environment and community.
- Note.** As at the commencement of this Plan, Water NSW seeks the advice from its Flood Panel on the matters specified in (a), (b) and (c) before taking action under subclause (7).
- (7) The operator may use releases from the FMZ to meet water orders made by the holders of regulated river (high security) access licences, regulated river (general security) access licences and (subject to Division 3 of Part 8) supplementary water access licences.

Part 11 Mandatory conditions

Note. Mandatory conditions relating to metering equipment and recording of information are imposed by the [Water Management \(General\) Regulation 2018](#). Clauses in this Plan that provide for mandatory conditions to be imposed in relation to metering apply only until the commencement of the metering and reporting mandatory conditions as prescribed in Part 10 and Part 11 of the [Water Management \(General\) Regulation 2018](#).

Division 1 General

91 Requirement to notify

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

Note. As at 1 July 2022, the email address for enquiries on the Department's website is water.enquiries@dpie.nsw.gov.au.

Division 2 Access licences

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

92 Mandatory conditions on access licences

- (1) Each access licence must have mandatory conditions to give effect to the following—
- (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 practical, and

- (ii) if the notification under paragraph (i) is not in writing, confirm the notification in writing within seven days of becoming aware of the breach,
 - (b) any other condition required to implement the provisions of this Plan.
 - (2) Each access licence, other than a supplementary water access licence and 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 supplementary water access licence must have a mandatory condition that gives effect to Division 3 of Part 8.
 - (4) Each floodplain harvesting (regulated river) access licence must have a mandatory condition requiring that the licence holder only take water from overland flow within the Macquarie Valley Floodplain, as declared under clause 252 of the *Water Management (General) Regulation 2018*.
- Note.** *Overland flow* is defined under section 4A of the Act.
- (5) Each floodplain harvesting (regulated river) access licence must have a mandatory condition that gives effect to Division 4 of Part 8.
 - (6) Each floodplain harvesting (regulated river) access licence with an extraction component that specifies the Gum Cowal management zone or Lower Macquarie River Upstream management zone must have a mandatory condition prohibiting the take of water in contravention of an announcement made under clause 57 of this Plan.

Division 3 Water supply work approvals

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

93 General conditions

- (1) Each water supply work approval must have mandatory conditions to give effect to—
 - (a) the clauses set out in this Division, and
 - (b) any other condition required to implement the provisions of this Plan.
- (2) Upon becoming aware of a breach of any condition of the approval, the approval holder, must—
 - (a) notify the Minister as soon as practical, and
 - (b) if the notification under subclause (a) was not in writing, confirm the notification in writing within seven days of becoming aware of the breach.
- (3) Flow measurement devices must be installed and maintained on all water supply works used for extraction of water under an access licence (other than a floodplain harvesting (regulated river) access licence) and must be of a type and maintained in a manner, which is acceptable to the Minister.

Note. The *Water Management (General) Regulation 2018* provides that measurement devices must be installed by the date specified in the Regulation for all water supply works used for extraction of water under a floodplain harvesting (regulated river) access licence.

- (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.
- (6) Subclauses (3) to (5) do not apply to approvals for water supply works held by Water NSW provided the approval is not nominated by an access licence.
- (7) Subclauses (3) and (4) are taken to be repealed on the day on which the temporary exemption from the mandatory metering equipment condition ceases to apply to the water source in accordance with clause 230 (1) of the *Water Management (General) Regulation 2018*.

Notes.

- (a) **Mandatory metering equipment condition** is defined in clause 228 of the *Water Management (General) Regulation 2018*.
- (b) Clause 230 of the *Water Management (General) Regulation 2018* provides that the mandatory metering equipment condition applies to existing and new water supply works required to have a meter from 1 April 2019, and to other access licences and approvals in the water source from 1 December 2021.

Part 12 Amendment of this Plan

Notes.

- 1 This Part sets out amendments authorised by this Plan.
- 2 For the purposes of section 87 of the Act, the initial period for the water source expired on the commencement of this Plan.
- 3 The Department intends to consult with relevant stakeholders before making any material amendments to this Plan in accordance with this Part.

94 General

For the purposes of section 45 (1) (b) of the Act, this Part and clause 81 (5) set out when this Plan may be amended and any such amendment is taken to be authorised by this Plan.

95 Amendments relating to Part 1

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

- (a) any amendment is consistent with any applicable regulated river order, and
- (b) the Minister is satisfied that the amendment will not have an adverse impact on the water available to the environment under Division 1 and 2 of Part 10, or on the water available to any access licence in the water source.

96 Amendments relating to Part 2

Part 2 may be amended following a review of the monitoring, evaluation and reporting plan that has been developed for water sources in the Macquarie Castlereagh surface water resource plan area (as referred to in the Basin Plan) which considers the need for alternate performance indicators for the environmental, economic, Aboriginal cultural, and social and cultural objectives of this Plan.

97 Amendments relating to Part 8

- (1) Clause 54 (1) may be amended if it can be demonstrated that there has been no progress on improving the ability to provide regulated flows in excess of 5,000 ML/day at Warren.

- (2) The primary factors for demonstrating progress as referred to in subclause (1) are the alteration of structures on the Warren floodplain to permit higher operational flows in that area, and an increased ability to release volumes larger than 8,200 ML/day from the valves of Burrendong Dam.
- (3) The Minister may seek advice from the Environmental Water Advisory Group regarding whether or not progress (as described in subclause (2)) can be demonstrated, and if so, what changes should be made to the flow threshold and the times at which they should apply.
- (4) Any amendment of clause 54 (1) that increases the flow threshold at specified times is to also alter the threshold at other times so that the long-term access to flows by supplementary water access licences is not impacted as a result of that variation.

Note. This clause provides that the supplementary flow threshold may be increased to protect flows that promote the breeding success of native fish, if there has been no progress in removing barriers to floodplain flows or impediments that limit the management of regulated flow.

98 Amendments relating to Part 10

- (1) Division 2 of Part 10 may be amended to do the following—
 - (a) reduce the 110,000 ML total volume of water that is required to be in Windamere Dam water storage before water from the Cudgegong EWA can be released under clause 69, subject to amendments under subclause (b) being considered at the same time,
 - (b) alter the 11,400 ML referred to subclause 70,
 - (c) specify a flow in the Cudgegong River at Rocky Water Hole (421149) that is greater than 1,500 ML per day subject to infrastructure changes being made to address flow constraints at Rocky Water Hole so that community assets are not at risk from higher Cudgegong EWA releases.
- (2) The 4,000 ML/day maximum flow target in clause 74 (3) (b) for release of the translucent sub-allowance may be increased if,
 - (a) changes have been made to the flow constraints on the Warren floodplain or water management outlet works during the term of this Plan, so that community and private assets are not at risk from higher storage releases, or
 - (b) an assessment using the performance indicators specified in clause 9 demonstrates that the Macquarie River or the Macquarie Marshes would benefit from a higher maximum flow target to maintain ecological condition.
- (3) Before making any amendment authorised by subclause (1) or (2), the Minister is to—
 - (a) seek advice from the NSW Environmental Water Manager regarding the need for and extent of changes, considering—
 - (i) the outcomes achieved from the use of the Macquarie EWA to date, and
 - (ii) the current and likely future condition of the Macquarie Marshes, and
 - (iii) the desired environmental outcomes for the regulated Macquarie River and its effluents and the Macquarie Marshes, and
 - (b) consult with water user representatives on the proposed changes.

- (4) Actions under subclause (1) or (2) must not substantially alter the long-term average annual total amount of water able to be extracted under water access licences in the Macquarie and Cudgegong Regulated Rivers Water Source.

99 Amendment of Plan relating to floodplain harvesting

- (1) This Plan may be amended to add, modify or remove provisions relating to floodplain harvesting (regulated river) access licences in response to the following—
 - (a) the need to protect overland flow for environmental purposes,
 - (b) monitoring, evaluation and reporting outcomes,
 - (c) an improved understanding of the influence of floodplain harvesting on downstream flows,
 - (d) a review that assesses the potential benefits and impacts of new access provisions for floodplain harvesting (regulated river) access licences,
 - (e) a review of dealing rules in the *Water Sharing Plan for the Macquarie Bogan Unregulated Rivers Water Sources 2012*,
 - (f) other circumstances determined by the Minister.
- (2) Clause 40 may be amended to provide available water determinations for floodplain harvesting (regulated river) access licences that are—
 - (a) less than 1 ML per unit share if the Minister is satisfied they are appropriate because the determination of the amount under clause 28 (2) (a) (vii) is less than the determination of the amount under clause 28 (2) (a) (vii) when floodplain harvesting (regulated river) access licences were first issued in the water source,
 - (b) greater than 1 ML per unit share if the Minister is satisfied they may be made without total extractions exceeding the long-term average annual extraction limit, because the determination of the amount under clause 28 (2) (a) (vii) is greater than the determination of the amount under clause 28 (2) (a) (vii) when floodplain harvesting (regulated river) access licences were first issued in the water source.
- (3) Before making an amendment in accordance with subclause (2) the Minister may consult with water user representatives, the NSW Environmental Water Manager and the operator regarding the following—
 - (a) the data used for the calculations under clause 28 (2) (a) (vii),
 - (b) the proposed amendment under subclause (2).
- (4) The Plan may be amended to add, remove or modify rules in clauses 57 and 58 to protect Active Environmental Water from floodplain harvesting.
- (5) Actions under subclause (1) or subclause (6) must not substantially alter the long-term average annual total amount of water able to be extracted under floodplain harvesting (regulated river) access licences in the water source.
- (6) This Plan may be amended to add, remove or modify rules in clause 56.
- (7) Before making any amendment under subclause (6) and before 1 July 2025, the Minister will—
 - (a) seek, consider and publish independent expert advice on the adequacy of the rules in clause 56 including—
 - (i) the needs of the environment, basic landholder rights, domestic and stock access licence

holders and local water utility access licence holders,

- (ii) the adequacy of the existing flow targets and volumes to meet those needs,
 - (iii) any changes to the flow targets and volumes that would be required to meet those needs, and
 - (iv) the impact of those changes to flow targets and volumes on the long-term average annual total amount of water able to be extracted under floodplain harvesting (regulated river) access licences in the water source,
- (b) consider the views of stakeholders and other community members on the independent expert advice.

100 Amendments relating to individual daily extraction components

This Plan may be amended to include provisions to establish and manage individual daily extraction components of access licences.

101 Dictionary

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

102 Other amendments (general)

- (1) This Plan may be amended to include provisions for the following—
- (a) the interception of water by plantations or other means before it reaches a stream or aquifer,
 - (b) the management of salt interception schemes,
 - (c) water return flows, as referred to in Division 5 of Part 2 of Chapter 3 of the Act,
 - (d) the conversion of regulated river (high security) licences with share components that specify the water source to access licences with share components that specify connected upstream unregulated river water sources.
- (2) This Plan may be amended to facilitate total long-term average annual extractions reaching the long-term average annual extraction limit or long-term average sustainable diversion limit, subject to—
- (a) an assessment of compliance with the limits made under Part 6 verifying that total average annual extractions are less than those limits over the long term,
 - (b) a review and report on the reasons for total extractions being less than the limits over the long term, including recommendations for potential changes to this Plan to increase extractions to the limits and assessment of the impacts of the recommendations on future water allocations to all categories of water access licences, and
 - (c) there being no net reduction in the protection of planned environmental water established under clause 17 of this Plan.

Note. Section 10.28 of the Basin Plan requires that a water resource plan must ensure there is no net reduction in the protection of planned environmental water from the protection provided under State water management law immediately before the commencement of the Basin Plan.

- (3) Division 3 of Part 6 may be amended to establish a long-term average sustainable diversion limit

that combines the long-term average sustainable diversion limits for the water source and any of the following water sources—

- (a) the Macquarie Bogan Unregulated Rivers Water Sources,
 - (b) the Castlereagh Unregulated River Water Sources.
- (4) This Plan may be amended to give effect to, or in connection with, a determination of native title under the *Native Title Act 1993* of the Commonwealth.
- (5) This Plan may be amended to enable all or part of this Plan to be accredited as part of a water resource plan under the *Water Act 2007* of the Commonwealth.
- (6) This Plan may be amended to do any of the following for the protection of water-dependent Aboriginal cultural assets—
- (a) identify water-dependent Aboriginal cultural assets,
 - (b) establish rules for the granting and amending of water supply work approvals,
 - (c) establish dealing rules.
- (7) An amendment authorised by this Plan is taken to include any consequential amendments to this Plan required to give effect to that particular amendment.
- (8) Consequential amendments may be made to this Plan as a result of an amendment to the Act or regulations.

Parts 13, 14

(Repealed)

Dictionary

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

Aboriginal person has the same meaning as it has in section 4 of the [Aboriginal Land Rights Act 1983](#).

Active Environmental Water is the water in the water source identified or determined by the Minister on any given day as requiring protection from extraction, in accordance with the Active Management Procedures Manual, that arises from held environmental water flowing from a water source that is upstream of the Gum Cowal management zone or Lower Macquarie River Upstream management zone.

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

annual actual take has the same meaning as it has in section 6.10 of the Basin Plan.

annual permitted take has the same meaning as it has in section 6.10 of the Basin Plan.

AWD sub-account means the available water determination sub-account maintained within the water allocation account for each regulated river (high security) access licence and regulated river (general security) access licence, as referred to in clause 46.

baseline diversion limit has the same meaning as it has in section 1.07 of the Basin Plan.

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

Burrundong Dam water storage is as defined in the *Central West Water Management Area Regulated River Order* (Government Gazette No 110 of 1 July 2004), as amended by item [89] of Schedule 1 of the [Water Management Amendment Act 2018](#).

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.

carryover sub-account means the carryover sub-account maintained within the water allocation account for each regulated river (high security) access licence and regulated river (general security) access licence, as referred to in clause 46.

Cudgegong AWD sub-account means the AWD sub-account of a licence that nominates a water supply work upstream of Burrundong Dam water storage.

Cudgegong carryover sub-account means the carryover sub-account of a licence that nominates a water supply work upstream of Burrundong Dam water storage.

Cudgegong EWA means an environmental water allowance within Windamere Dam water storage, comprised of the water in the Cudgegong EWA AWD sub-account and the Cudgegong EWA carryover sub-account.

Cudgegong EWA AWD sub-account is as defined in clause 68 (2) (a) of this Plan.

Cudgegong EWA carryover sub-account is as defined in clause 68 (2) (b) of this Plan.

EWA means an environmental water allowance referred to in Divisions 1 and/or 2 of Part 10 of this Plan, as relevant.

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

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

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

FMZ means flood mitigation zone of Burrendong Dam.

individual daily extraction component is the volume of water that may be extracted under an individual access licence from a regulated river on a daily basis.

irrigated field means an area of land that is used for the growing of crops using irrigation.

Macquarie AWD sub-account means the AWD sub-account of a licence that nominates a water supply work from, and downstream of, Burrendong Dam water storage.

Macquarie carryover sub-account means the carryover sub-account of a licence that nominates a water supply work from, and downstream of, Burrendong Dam water storage.

Macquarie-Castlereagh surface water SDL resource unit has the same meaning as provided for in section 6.02 of the Basin Plan.

Macquarie EWA means an environmental water allowance within Burrendong Dam water storage, comprised of water in the translucent sub-allowance and the active sub-allowance.

management zone is an area within a water source in which provisions particular to that area will apply, for example, restrictions on dealings.

Minister means the Minister administering the Act.

ML means megalitres.

Murray-Darling Basin Agreement means the Murray-Darling Basin Agreement as set out in Schedule 1 of the [Water Act 2007](#) of the Commonwealth (as in force from time to time, unless the context provides otherwise).

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 or agency whose responsibility it is to manage licensed environmental water that is held by the NSW Government.

Note. At the commencement of this Plan, this is the NSW Department of Planning and Environment – Environment and Heritage Group (EHG).

operator means the operator of the water supply system.

Note. At the commencement of this Plan, this is Water NSW.

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

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

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

residual Cudgegong environmental water is as defined in clause 67 of this Plan.

SDL adjustment amount has the same meaning as it has in section 1.07 of the Basin Plan.

SDL resource unit shared reduction amount has the same meaning as it has in section 1.07 of the Basin Plan.

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.

tailwater drain means a channel or trench that collects excess water from an irrigated field.

target ecological populations are communities of one or more species that are monitored to evaluate the success of targeted objectives for the environment. Populations must be easily monitored (i.e. not rare or cryptic) and may be linked to conservation or other environmental priorities.

transmission losses means the additional water required to ensure that a specified quantity of water is delivered to a specified delivery point.

uncontrolled flows are—

- (a) other than for the purposes of clause 55, flows not able to be captured in an operator managed water storage that are in excess of that needed to meet the following—
 - (i) the environmental water provisions in Divisions 1 and 2 of Part 10,
 - (ii) the requirements of basic landholder rights in the water source,
 - (iii) the requirements for the delivery of replenishment flows set out in clause 84,
 - (iv) access licence water orders and the water required to meet transmission losses associated with those water orders, or
- (b) for the purposes of clause 55, rainfall runoff from an irrigated field.

water source is as defined in clause 4.

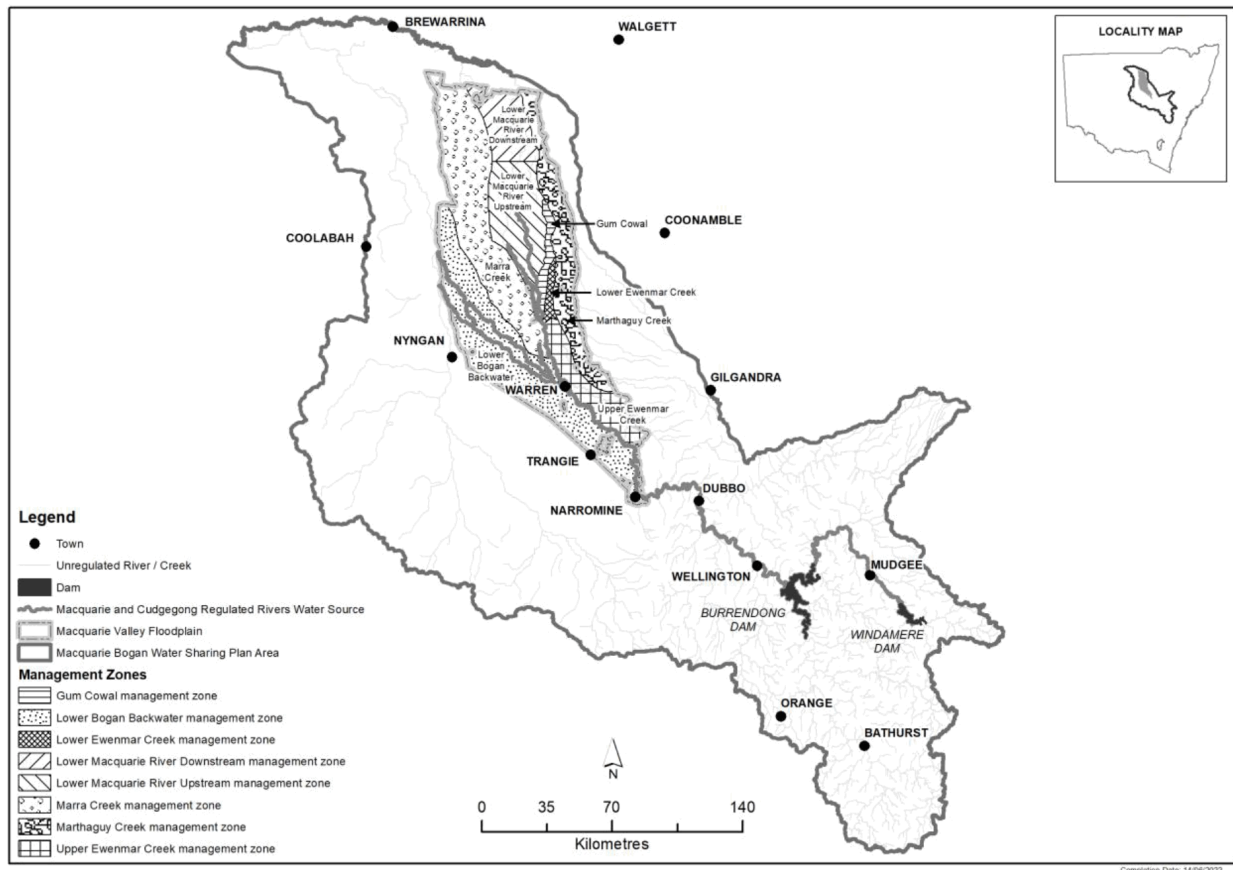
water storage means a state-owned dam, weir or other structure that is used to regulate and manage river flows in the water source and the water body impounded by this structure.

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.

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

Schedule 1 Management zones



Schedule 2 Cudgegong regulated river (general security) access licence carryover sub-account limits

(clause 48)

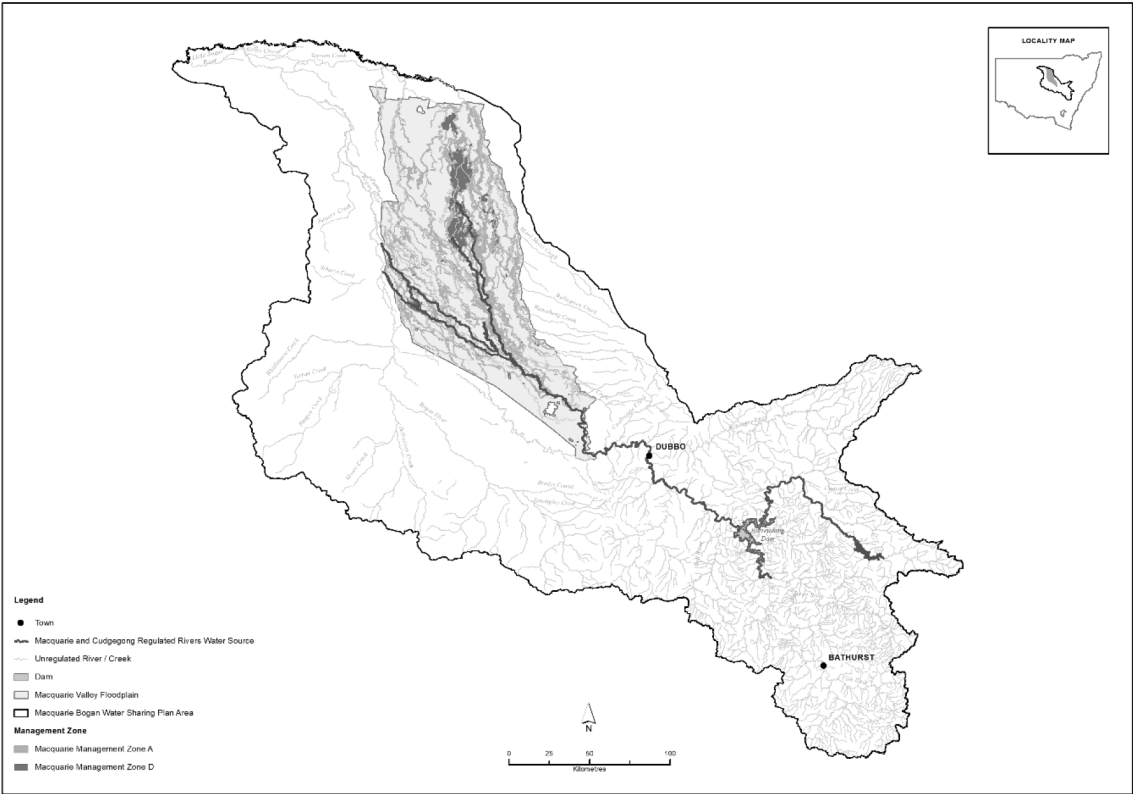
Table

Column 1	Column 2	Column 3
Water Act Licence number	Area developed at 1 July 2004 (hectares)	Carryover volume (ML)
80SA010585	470.7	7061
80SA010582	527	7905
SL095112	101.6	1524
SL095604	140	2100
SL095477	98	1470
SL095474	8	120
SL095671	39.5	593
SA010562	428	6416

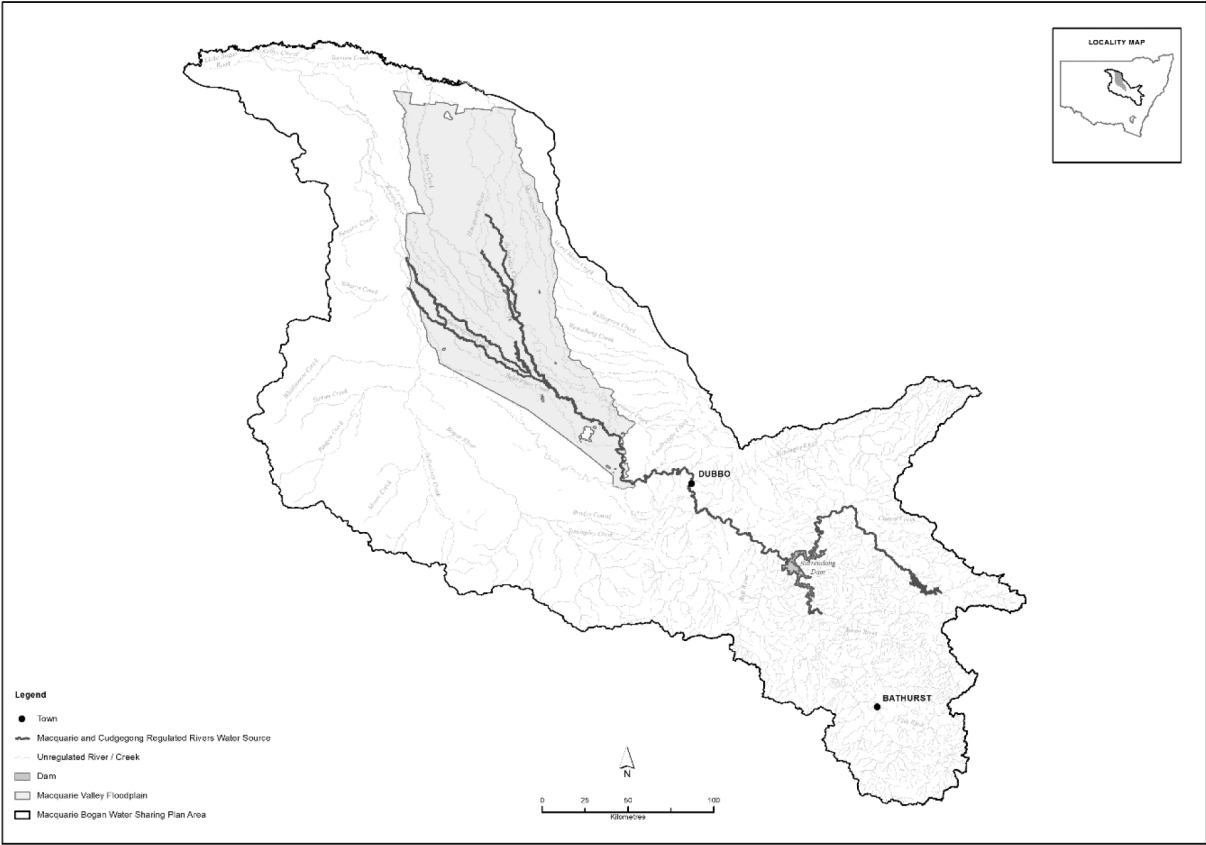
SL095343	40	600
SL095663	5	75
SL095586	4.5	68
SL095276	56	840
SL095739	62.2	933
SL095581	101.4	1521
SA010580	79.3	1190
SL095053	33	495
SL050028	32.5	488
SL095449	21	315
SL039504	53	795
SL039799	122	1830
SL095833	20	300
SL095351	190	2850
SL095880	27.7	416
SL095747	12.1	182
SL051987	230	3450
SL095265	70	1050
SL095720	440	6600
SA010581	53	795
SL029394	10.5	158
SL095682	40	600

Note. The carryover volume calculated in the table above is the result of the area developed as at 1 July 2004, multiplied by 15.

Appendix 1 Overview of the Macquarie Management Zone A and Macquarie Management Zone D



Appendix 2 Overview of the Macquarie Valley Floodplain



Appendices 3, 4 (Repealed)