Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Sources 2016

[2015-631]



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[2015-631]



New South Wales

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Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Sources 2016



Part 1 Introduction

1 Name of Plan

This Plan is the *Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Sources 2016* (hereafter *this Plan*).

2 Nature and status of this Plan

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

3 Date of commencement

This Plan takes effect on 1 July 2016, and ceases on 30 June 2026.

Note.

1 This Plan replaces the Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Sources 2003.

2 In accordance with section 43 of the Act as it currently stands, this Plan will have effect for 10 years from 1 July 2016. The Minister may extend this Plan for a further period of 10 years after it is due to expire, in accordance with section 43A of the Act.

3 Under the Intergovernmental Agreement on Implementing Water Reform in the Murray-Darling Basin and the associated National Partnership Agreement, NSW has agreed to develop water resource plans for Murray-Darling Basin water resources that are consistent with the requirements of the Commonwealth's *Basin Plan* 2012. The water resource plan for the Namoi surface water area is currently scheduled to commence on 1 July 2018. In order to make a water resource plan that commences by this date, amendments to the Act may be required to enable this Plan to be replaced prior to the end of its 10-year term.

4 Water sources and waters to which this Plan applies

- (1) The water sources in respect of which this Plan is made shall be known as the Upper Namoi Regulated River Water Source and the Lower Namoi Regulated River Water Source (hereafter *these water sources*).
- (2) The Upper Namoi Regulated River Water Source is that between the banks of all rivers, from Split Rock Dam water storage downstream to Keepit Dam water storage, which at the date of commencement of this Plan have been declared by the Minister to be regulated rivers.
- (3) The Lower Namoi Regulated River Water Source is that between the banks of all rivers, from

Keepit Dam water storage downstream to the junction of the Namoi River with the Barwon River, which at the date of commencement of this Plan have been declared by the Minister to be regulated rivers.

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

Note. The regulated rivers referred to in subclauses (2) and (3) are listed in Appendix 1.

- (4) The rivers included in these water sources may be varied under section 45 (1) (b) of the Act, as set out in Part 14 of this Plan.
- (5) These water sources are within the Namoi Water Management Area as constituted by the Ministerial order published in the NSW Government Gazette (hereafter *the Gazette*) on 23 November 2001.

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

(6) This Plan applies to all waters contained within these water sources but does not apply to water contained within aquifer water sources underlying these water sources or to waters on land adjacent to these water sources.

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

5 Interpretation

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

6 Effect on licences, authorities and permits under the Water Act 1912

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

Note. To the extent possible the rules embodied in this Plan shall apply to matters administered under the *Water Act 1912* in the interim.

Part 2 Vision, objectives, strategies and performance indicators

7 Vision, objectives, strategies and performance indicators

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

8 Vision

The vision for this Plan is to have a sustainable, healthy river system that provides equitable water access for all uses and users through flow management.

9 Objectives

The objectives of this Plan are to:

(a) protect, preserve, maintain or enhance the important river flow dependent environmental features and Aboriginal, cultural and heritage values of these water sources,

Note. Although there are no specific strategies directly related to Aboriginal, cultural and heritage values the limits placed on the taking of water under supplementary water access licences and the long-term extraction limit provisions may provide some protection or enhancement.

- (b) manage these water sources to ensure equitable sharing between all users,
- (c) protect basic landholder rights of owners of land,
- (d) provide opportunities for market based trading of regulated water entitlement within sustainability and system constraints,
- (e) provide sufficient flexibility in water account management to encourage responsible use of available water, and
- (f) contribute to the maintenance of water quality.

Note. Although there are no specific strategies directly related to the maintenance of water quality in this Plan, the supplementary water access provisions should contribute to maintenance of water quality in these water sources. It should be recognised that water quality objectives will essentially be addressed through other planning processes.

10 Strategies

The strategies for this Plan are to:

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

11 Performance indicators

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

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

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

Part 3 Environmental water provisions

12 Environmental water provisions

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

13 Planned environmental water

This Plan establishes the following planned environmental water rules:

- (a) water volume in excess of the long-term extraction limit established in clause 30 of this Plan may not be taken from these water sources and used for any purpose, and
- (b) water availability is to be managed as specified in clause 31 of this Plan to ensure water volume in excess of the long-term extraction limit is not being taken.

Note. By limiting long-term average extractions to an estimated 238,000 megalitres per year this Plan ensures that approximately 73% of the long-term average annual flow in these water sources (estimated to be 870,000 megalitres per year) will be preserved and will contribute to the maintenance of basic ecosystem health.

14 Planned environmental water

- (1) This Plan establishes the rule in subclause (2) as a planned environmental water rule.
- (2) In the months of June, July and August, a minimum daily flow which is equivalent to 75% of the natural 95th percentile daily flow for each month shall be maintained in the Namoi River at Walgett (streamflow gauging station number 419091).
- (3) Subclause (2) shall not apply when the sum of the water stored in Keepit Dam and Split Rock

Dam is less than 120,000 megalitres.

Note. Clause 48 of this Plan specifies limits to total extractions by all Lower Namoi supplementary water access licence holders during periods when flows are above specified threshold flow levels. These rules contribute to a number of interim river flow objectives:

- · protecting important rises in water levels,
- maintaining wetland and floodplain inundation, and
- · maintaining natural flow variability.

15 Adaptive environmental water

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

Part 4 Basic landholder rights

16 Basic landholder rights

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

17 Domestic and stock rights

Note. Water from these water sources should not be consumed without prior treatment which is adequate to ensure its safety.

- As at 1 July 2004 the water requirements of holders of domestic and stock rights in the Upper Namoi Regulated River Water Source are estimated to be 160 megalitres per year (hereafter *ML/ year*).
- (2) As at 1 July 2004 the water requirements of holders of domestic and stock rights in the Lower Namoi Regulated River Water Source are estimated to be 1,776 ML/year.
- (3) This Plan recognises that the exercise of domestic and stock rights may increase during the term of this Plan.

Note. Increase in use of domestic and stock rights may occur as a result of an increase in the number of landholdings fronting these water sources or by an increase in the exercise of domestic and stock rights on landholdings.

(4) The water supply system shall be managed so that it would be capable of maintaining supply to those exercising domestic and stock rights through a repeat of the worst period of low inflows into these water sources (based on historical flow information held by the Department as at 1 July 2004).

(5) To achieve subclause (4), sufficient volumes of water must be set aside from assured inflows into these water sources and in reserves held in Split Rock Dam water storage, Keepit Dam water storage and other water storages.

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

18 Native title rights

Note. Water from these water sources should not be consumed without prior treatment which is adequate to ensure its safety.

- (1) As at 1 July 2004 there were no holders of native title rights in the Upper Namoi Regulated River Water Source and therefore native title rights are 0 ML/year.
- (2) As at 1 July 2004 there were no holders of native title rights in the Lower Namoi Regulated River Water Source and therefore native title rights are 0 ML/year.
- (3) This Plan recognises that native title rights may increase during the term of this Plan.

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

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

Part 5 Bulk access regime

19 Bulk access regime

- (1) This Part is made in accordance with section 20(1)(e) of the Act.
- (2) This Plan establishes a bulk access regime for the extraction of water under access licences in these water sources having regard to:
 - (a) the environmental water provisions established under Part 3 of this Plan,
 - (b) the requirements for basic landholder rights identified under Part 4 of this Plan, and
 - (c) the requirements for water for extraction under access licences identified under Part 6 of this Plan.
- (3) The bulk access regime established under subclause (2):
 - (a) establishes rules according to which access licences are granted as provided for in Part 7 of this Plan,

- (b) recognises and is consistent with the limits to the availability of water as provided for in Part 8 of this Plan,
- (c) establishes rules according to which available water determinations are to be made as provided for in Part 8 of this Plan,
- (d) recognises the effect of climatic variability on the availability of water as provided for in Part 8 of this Plan,
- (e) establishes rules with respect to the priorities according to which access licences are to be adjusted as a consequence of any reduction of the availability of water as provided for in Part 8 of this Plan, and
- (f) establishes rules according to which access licences are managed as provided for in Part 9 of this Plan.

Part 6 Requirements for water under access licences

20 Requirements for water under access licences

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

Note. The following clauses in this Part represent the total volumes or unit shares specified in the share components of access licences in these water sources. The actual volume of water available at any time will depend on climate, access licence priority and the rules in this Plan.

21 Share component of domestic and stock access licences

- It is estimated that at the time of commencement of Part 2 of Chapter 3 of the Act, the share components of domestic and stock licences authorised to extract water from the Upper Namoi Regulated River Water Source totalled 46 ML/year.
- (2) It is estimated that at the time of commencement of Part 2 of Chapter 3 of the Act, the share components of domestic and stock licences authorised to extract water from the Lower Namoi Regulated River Water Source totalled 1,967 ML/year.

22 Share component of local water utility access licences

- It is estimated that at the time of commencement of Part 2 of Chapter 3 of the Act, the share components of local water utility licences authorised to extract water from the Upper Namoi Regulated River Water Source totalled 150 ML/year.
- (2) It is estimated that at the time of commencement of Part 2 of Chapter 3 of the Act, the share components of local water utility licences authorised to extract water from the Lower Namoi Regulated River Water Source totalled 2,271 ML/year.

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

- (1) It is estimated that at the time of commencement of Part 2 of Chapter 3 of the Act, the share components of regulated river (high security) access licences authorised to extract water from the Upper Namoi Regulated River Water Source totalled 80 unit shares.
- (2) It is estimated that at the time of commencement of Part 2 of Chapter 3 of the Act, the volume of regulated river (high security) access licences authorised to extract water from the Lower Namoi

Regulated River Water Source totalled 3,418 unit shares.

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

- (1) It is estimated that at the time of commencement of Part 2 of Chapter 3 of the Act, the share components of regulated river (general security) access licences authorised to extract water from the Upper Namoi Regulated River Water Source totalled 9,729 unit shares.
- (2) It is estimated that at the time of commencement of Part 2 of Chapter 3 of the Act, the volume of regulated river (general security) access licences authorised to extract water from the Lower Namoi Regulated River Water Source totalled 246,692 unit shares.

25 Share component of supplementary water access licences

- (1) There shall be no supplementary water access licences authorised to extract water from the Upper Namoi Regulated River Water Source.
- (2) It is estimated that at the time of commencement of Part 2 of Chapter 3 of the Act, the share components of supplementary water access licences authorised to extract water from the Lower Namoi Regulated River Water Source totalled 115,503 unit shares.

26 Changes to total share component

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

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

Part 7 Rules for granting access licences

27 Rules for granting access licences

- (1) This Part is made in accordance with sections 20 (2) (b), 61 and 63 of the Act.
- (2) Applications may be made for the following access licences in these water sources:
 - (a) local water utility access licences, or

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

- (b) specific purpose access licences for which applications are provided for under the regulations in accordance with section 61 (1) (a) of the Act.
- (3) Applications may not be made for a regulated river (high security) (Aboriginal cultural) access licences if the proposed access licence is more than 10 ML/year.
- (4) In applying for a new licence, the applicant must establish the purpose and circumstances relating to that access licence, and that the share component sought will be the minimum required to meet that purpose and circumstances.
- (5) Subclause (4) does not apply to an application for a new access licence arising from:

- (a) section 61 (1) (c), of the Act, where the right has been acquired by auction, tender or other open market process, or
- (b) an access licence dealing.

Part 8 Limits to the availability of water

Division 1 Long-term extraction limit

28 Limits to the availability of water

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

29 Volume of the long-term extraction limit

- (1) This Plan establishes a long-term extraction limit for these water sources being the lesser of:
 - (a) the long-term average annual extraction from these water sources that would occur with the water storages and water use development that existed in 1999/2000, the share components in this water source that existed on 1 July 2004 and the water management rules that were defined in this Plan on 1 July 2004, or
 - (b) the long-term average annual extraction from these water sources that would occur under Cap baseline conditions.

Notes.

1 The water management rules that were defined in this Plan on 1 July 2004 included limits to the amount of water that could be made available for extraction under supplementary water access licences that were different from those currently specified in clause 48 (11). These limits were 10% of the supplementary event volume occurring between 1 July and 31 October in any water year and 50% of the supplementary event volume occurring between 1 November and 30 June in any water year.

2 An assessment of the long-term average annual extractions that would occur under the conditions specified in subclause (1) (a) has been made using the Namoi IQQM run number 9078. This indicates a long-term average annual extraction volume of 238,000 megalitres.

3 An assessment of the long-term average annual extractions that would result from the Cap baseline conditions in subclause (1) (b) has been made using the Namoi IQQM run number namo3414. This indicates a long-term average annual extraction volume of 256,000 megalitres.

4 The long-term extraction limit recognises the effect of climatic variability on the availability of water, in accordance with section 20 (2) (c) of the Act, as historic climate and river flow information is used in its determination.

- (2) The values referred to in subclauses (1) (a) and (1) (b) shall be adjusted for any access licence dealing under section 71R or 71T of the Act.
- (3) For the purposes of establishing the long-term extraction limit and auditing compliance with it, the following shall be included:
 - (a) all water extractions by holders of all categories of access licences in accordance with the rules used for accounting of Cap diversions for Schedule E of the Murray-Darling Basin Agreement,
 - (b) domestic and stock rights and native title rights extractions,
 - (c) volumes of water delivered as adaptive environmental water,
 - (d) floodplain harvesting extractions determined to be taken for use in conjunction with

extractions from these water sources, and

- (e) water allocations assigned from access licence water allocation accounts in these water sources to access licence water allocation accounts in any other water source.
- (4) For the purposes of establishing the long-term extraction limit and auditing compliance with it, the following shall not be included:
 - (a) replenishment flows made in accordance with this Plan, or
 - (b) diversion of water pursuant to the planned environmental water rules in Part 3 of this Plan.

30 Assessment of the long-term extraction limit, the current long-term average annual extraction from these water sources and growth in water use by Tamworth City Council

- (1) Assessment of the long-term extraction limit and the current long-term average annual extraction from these water sources shall be carried out after the end of each water year, using the hydrologic computer model that, at the time, is approved by the Department for assessing long-term water extraction from these water sources.
- (2) To assess the long-term extraction limit, the model referred to in subclause (1) shall be set to represent as closely as possible the conditions referred to in clauses 29 (1) (a) and 29 (1) (b).
- (3) To assess the current long-term average annual extraction from these water sources, the model referred to in subclause (1) shall be set to represent as closely as possible all water use development, supply system management and other factors affecting the quantity of long-term average annual extraction from these water sources at the time of assessment.
- (4) An assessment shall also be carried out each year to determine the growth in extraction by Tamworth City Council.
- (5) Growth in extraction by Tamworth City Council for the purposes of this clause and clause 31 shall be the greater of:
 - (a) the current long-term average annual extraction from all surface water sources in the Namoi Water Management Area under the local water utility access licences or *Water Act 1912* licences held by Tamworth City Council minus the long-term average annual extraction by Tamworth City Council, under Cap baseline conditions, and
 - (b) zero.
- (6) Assessments under subclause (4) shall be carried out in accordance with procedures established by the Minister, but should be based on the results from a hydrologic computer model where this is possible.

31 Maintaining compliance with the long-term extraction limit

- (1) The current long-term average annual extraction from these water sources plus 95% of the growth in extraction by Tamworth City Council, determined in accordance with clause 30, may not be permitted to exceed the long-term extraction limit specified in clause 29.
- (2) Pursuant to subclause (1):
 - (a) if it has been assessed that the current long-term average annual extraction from these water

sources plus 95% of growth in extraction by Tamworth City Council:

- (i) exceeds the volume specified in clause 29 (1) (a) by 3% or more, or
- (ii) exceeds the volume specified in clause 29 (1) (a) by more than half the difference between the volume specified in clause 29 (1) (a) and the volume specified in clause 29 (1) (b), or
- (iii) exceeds the volume specified in clause 29 (1) (b), or
- (b) if the assessments for 3 consecutive water years indicate that the current long-term average annual extraction from these water sources, plus 95% of growth in extraction by Tamworth City Council, exceeds the long-term extraction limit, then
- (c) the maximum available water determination made for supplementary water access licences under clause 38 shall be reduced, and
- (d) once the maximum available water determination for supplementary water access licences has reduced to zero, the maximum sum of available water determinations to regulated river (general security) access licences in the Upper Namoi Regulated River Water Source under clause 37 (7) and the maximum volumes that may be taken or assigned from a regulated river (general security) access licences in the Lower Namoi Regulated River Water Source under clause 32 shall be reduced.
- (3) The degree of reduction under subclause (2) shall be that necessary to return long-term average annual extractions plus 95% of growth in extraction by Tamworth City Council to the long-term extraction limit.
- (4) Reductions in the amounts specified in clauses 32 (a), 32 (b) and 37 (7), pursuant to subclause (2), are to be of the same proportion.

Note. Subclause (4) means that if the amount specified in clause 32 (a) is reduced from 1.25 megalitres per unit share to say 1 megalitre per unit share (ie by one fifth), then the amount specified in clause 32 (b) is to be reduced from 3 megalitres per unit share to 2.4 megalitres per unit share (ie one fifth) and the amount specified in clause 37 (7) is to be reduced from 1 megalitre per unit share to 0.8 megalitres per unit share (ie one fifth).

- (5) If action has been taken under subclause (2), and a subsequent assessment under clause 30 indicates that the sum of the current long-term average annual extractions and 95% of any growth in extraction by Tamworth City Council is below the long-term extraction limit by more than 3%, then previous reductions under subclause (2) may be reversed to the degree that it is assessed necessary to return the sum to the long-term extraction limit.
- (6) Any reversal of previous reductions under subclause (5) shall:
 - (a) not exceed previous reductions made under subclause (2), and
 - (b) shall first reverse any previous reductions relating to regulated river (general security) access licences.
- (7) The assessment of the degree of any reduction required under subclause (2) or degree of any reversal under subclause (5) shall be made using the same computer model used to carry out assessments under clause 30.

32 Limit to the volumes that may be taken under or assigned from regulated river (general security) access licences in the Lower Namoi Regulated River Water Source

The maximum volume that may be taken under, or assigned from, a regulated river (general security) access licence in the Lower Namoi Regulated River Water Source:

- (a) during any twelve month period beginning 1 October and ending 30 September shall be equal to 1.25 megalitres multiplied by the number of unit shares specified in the share component of the access licence, or such lower amount that may result from clause 31, plus the volume of water allocations assigned to the access licence from another access licence during that twelve month period, and
- (b) during any 3 consecutive twelve month periods beginning 1 October and ending 30 September shall be equal to 3 megalitres multiplied by the number of unit shares specified in the share component of the access licence, or such lower amount that may result from clause 31, plus the volume of water allocations assigned to the access licence from another access licence during the 3 consecutive 12 month periods.

Note. It is considered that this clause would provide regulated river (general security) licences with flexibility similar to that which was available under the October to September water year that existed prior to the commencement of this water sharing plan.

Division 2 Available water determinations

33 Available water determinations

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

34 Available water determinations for domestic and stock access licences

- (1) The water supply system shall be managed so that available water determinations for domestic and stock access licences of 100% of share components can be maintained in each water source through a repeat of the worst period of low inflows into these water sources (based on historical flow information held by the Department when this Plan commenced).
- (2) Sufficient volumes of water must be set aside from assured inflows into these water sources and reserves held in Split Rock Dam and Keepit Dam water storages to provide for subclause (1).
- (3) The available water determinations for domestic and stock access licences in each water source made for the commencement of each water year shall be 100% of share components, whenever

possible.

- (4) The sum of available water determinations made for domestic and stock access licences in each water source in any water year shall not exceed 100% of share components.
- (5) This Plan recognises that the water requirement of domestic and stock access licences in each water source may increase during the term of this Plan in accordance with clause 27.
- (6) The volumes of water set aside from assured inflows into these water sources and in reserves held in Split Rock Dam and Keepit Dam water storages shall be adjusted as required over the course of this Plan if necessary to do so to ensure that subclause (1) is satisfied.

35 Available water determinations for local water utility access licences

- (1) The water supply system shall be managed so that available water determinations for local water utility access licences of 100% of share components can be maintained in each water source through a repeat of the worst period of low inflows into these water sources (based on historical flow information held by the Department when this Plan commenced).
- (2) Sufficient volumes of water must be set aside from assured inflows into these water sources and reserves held in Split Rock Dam and Keepit Dam water storages to provide for subclause (1).
- (3) The available water determinations for local water utility access licences in each water source made for the commencement of each water year shall be 100% of share components whenever possible.
- (4) The sum of water determinations made for local water utility access licences in each water source in any water year shall not exceed 100% of share components.
- (5) This Plan recognises that the water requirement of local water utility access licences in each water source may increase during the term of this Plan in accordance with clause 27 and section 66 of the Act.
- (6) The volumes of water set aside from assured inflows into these water sources and in reserves held in Split Rock Dam and Keepit Dam water storages shall be adjusted as required over the course of this Plan if necessary to do so to ensure subclause (1) is satisfied.

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

- (1) The water supply system shall be managed so that available water determinations for regulated river (high security) access licences of 1 megalitre per unit share can be maintained in each water source through a repeat of the worst period of low inflows into these water sources (based on historical flow information held by the Department when this Plan commenced).
- (2) Sufficient volumes of water must be set aside from assured inflows into these water sources and reserves held in Split Rock Dam and Keepit Dam water storages to provide for subclause (1).
- (3) The available water determinations for regulated river (high security) access licences in each water source made for the commencement of each water year shall provide an allocation of 1 megalitre per unit share whenever possible.
- (4) If an available water determination made under subclause (3) is less than 1 megalitre per unit share, then further assessments of available water shall be carried out and available water

determinations made until the sum of allocations for the water year is equivalent to 1 megalitre per unit share.

- (5) The sum of available water determinations for regulated river (high security) access licences in each water source in any water year shall not exceed 1 megalitre per unit share.
- (6) Available water determinations made for regulated river (high security) access licences must take into account:
 - (a) the environmental water provisions established by this Plan,
 - (b) requirements for domestic and stock rights,
 - (c) requirements for native title rights,
 - (d) requirements for domestic and stock access licences,
 - (e) requirements for local water utility access licences,
 - (f) allocations remaining in access licence water allocation accounts from previous available water determinations,
 - (g) water losses associated with the holding and delivery of water to meet the requirements specified in subclauses (a) to (f),
 - (h) an appropriate volume to meet water losses associated with the holding and delivery of water resulting from the available water determination, and
 - (i) any other relevant matters.

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

- (1) An available water determination is not to be made for regulated river (general security) access licences in either water source in any water year until the sum of available water determinations for regulated river (high security) access licences in both water sources for the water year is equivalent to 1 megalitre per unit share.
- (2) Providing subclause (1) has been satisfied, an available water determination shall be made for the commencement of each water year and, as required during the course of each water year, to ensure that the sum of available water determinations to regulated river (general security) access licences in the Upper Namoi Regulated River Water source during the water year are equal to:
 - (a) 0 megalitres per unit share, if the volume of water held in Split Rock Dam water storage has not been 5% or more of its full supply volume at any time during the water year,
 - (b) 0.5 megalitres per unit share, if the volume of water held in Split Rock Dam water storage has been 5% or more of its full supply volume at any time during the water year but not 8% or more of its full supply volume,
 - (c) 0.6 megalitres per unit share, if the volume of water held in Split Rock Dam water storage has been 8% or more of its full supply volume at any time during the water year but not 10% or more of its full supply volume, or

- (d) the maximum amount permissible under subclause (7) if the volume of water held in Split Rock Dam water storage has been 10% or more of its full supply volume at any time during the water year.
- (3) The Minister may, under section 45 (1) (b) of the Act, vary the storage volumes specified in subclause (2) if:
 - (a) an increase in the requirements for water under regulated river (high security) access licences or other higher priority access licences in these water sources, or
 - (b) an increase in the requirements for water for extraction under regulated river (general security) access licences in the Upper Namoi Regulated River Water Source,

reduces the long-term reliability of water allocations that can be made for regulated river (general security) access licences in the Upper Namoi Regulated River Water Source below what existed on 1 July 2004.

- (4) Variations under subclause (3) shall be to the extent necessary to reinstate the long-term reliability of water allocations to regulated river (general security) access licences in the Upper Namoi Regulated River Water Source to what existed on 1 July 2004.
- (5) The Minister may, under section 45 (1) (b) of the Act, vary the storage capacity volumes specified in subclause (2) if the issue of new regulated river (general security) access licences in the Upper Namoi Regulated River Water Source means that the allocations provided by the available water determinations required under subclause (2) could not be supplied at the storage capacity volumes specified in the subclause.
- (6) Variations under subclause (5) shall be to the extent necessary to permit the supply of the allocations provided by the required available water determinations.
- (7) The sum of available water determinations made for regulated river (general security) access licences in the Upper Namoi Regulated River Water Source shall not exceed 1 megalitre per unit share, or such lower amount as results from clause 31.
- (8) Whenever the sum of available water determinations made for regulated river (general security) access licences in the Upper Namoi Regulated River Water Source is equivalent to or less than 0.6 megalitres per unit share then:
 - (a) uncontrolled flows may be extracted without debit to regulated river (general security) access licence accounts, subject to the rules specified in subclauses (b) and (c), and to authorisation by the Minister and the terms of that authorisation,
 - (b) the total amount of water that may be extracted without debit to the access licence water allocation account in any water year is limited to a volume which is equal to the lesser of:
 - (i) the difference between the sum of allocations to the regulated river (general security) access licence and the number of unit shares specified in the share component multiplied by 1 megalitre, or
 - (ii) the number of unit shares specified in the share component multiplied by 0.5 megalitres,
 - (c) if the total amount of water extracted exceeds the limits specified in subclause (b) then a

volume equivalent to the exceedance shall be withdrawn from the regulated river (general security) access licence account, and

- (d) available water determinations shall refer to the provisions specified in subclauses (a), (b) and (c).
- (9) Providing subclause (1) has been satisfied, assessments of available water shall be made at least monthly, and available water determinations made for regulated (general security) access licences in the Lower Namoi Regulated River Water Source, if additional water can be provided to them.
- (10) Available water determinations under subclause (9) shall be based on the volume of water available after making provision for:
 - (a) the environmental water provisions established by this Plan,
 - (b) requirements for domestic and stock rights,
 - (c) requirements for native title rights,
 - (d) requirements for domestic and stock access licences,
 - (e) requirements for local water utility access licences,
 - (f) requirements for regulated river (high security) access licences,
 - (g) allocations remaining in access licence water allocation accounts from previous available water determinations,
 - (h) water losses associated with holding and delivery of water to meet the requirements identified in subclauses (a) to (g),
 - (i) an appropriate volume to meet water losses associated with the holding and delivery of water resulting from the available water determination, and
 - (j) any other relevant matters.
- (11) Available water determinations under subclause (9) shall take into account any water in Split Rock Dam water storage exceeding that needed to provide for available water determinations in the Upper Namoi Regulated River Water Source in any water year when an available water determination in excess of 0 megalitres per unit share has been made for regulated river (general security) access licences in that water source.

38 Available water determinations for supplementary water access licences

- (1) An available water determination shall be made for supplementary water access licences in the Lower Namoi Regulated River Water Source at the commencement of each water year and shall define the number of megalitres per unit share that can be taken in that year.
- (2) The available water determination made under subclause (1) shall not exceed 1 megalitre per unit share, or such lower amount that may result from clause 32 (2).

Part 9 Rules for managing access licences

Division 1 General

39 Rules for managing access licences

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

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

Division 2 Water allocation account management

40 Water allocation accounts

In accordance with section 85 of the Act, a water allocation account shall be established for each access licence in these water sources.

41 Accrual of water allocations

Water allocation shall be accrued into each access licence water allocation account in accordance with the available water determinations made for the category of the access licence in the relevant water source.

42 Volume taken under access licences

- (1) The water allocation taken under access licences in the Upper Namoi Regulated River Water Source shall be assessed as:
 - (a) the volume of water taken by the approved water supply works nominated by the access licence, or
 - (b) the greater of:
 - (i) the volume of water extracted by the approved water supply works nominated by the access licence, or
 - (ii) the volume of water ordered for extraction by the approved water supply works nominated by the access licence,

where the Minister has applied such a discretionary condition to the access licence.

(2) The Minister should only apply a discretionary condition in relation to subclause 1 (b) where this has been provided for in a compliance management strategy approved by the Minister.

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

(3) Extraction of water in accordance with provisions of clause 37 (8) (a) and (b) shall not be debited from the access licence water allocation account.

- (4) The water allocation taken under local water utility access licences, domestic and stock access licences, regulated river (high security) access licences and regulated river (general security) access licences in the Lower Namoi Regulated River Water Source shall be assessed as the greater of:
 - (a) the volume of water extracted by the approved water supply works nominated by the access licence, or
 - (b) the water ordered for extraction by the approved water supply works nominated by the access licence.
- (5) The water allocation taken under supplementary water access licences in the Lower Namoi Regulated River Water Source shall be assessed as the volume of water extracted, in accordance with announcements and access licence conditions, by the approved water supply works nominated by the access licence.

43 Accounting of assigned water allocations and return flows

- (1) Water allocations assigned from a water allocation account under Chapter 3 Part 2 Division 4 of the Act shall be debited from that water allocation account and water allocations assigned to a water allocation account under Chapter 3 Part 2 Division 4 of the Act shall be credited to that water allocation account.
- (2) Water allocations may also be recredited to access licence water allocation accounts under section 76 of the Act, in accordance with water return flow rules established under section 75 of the Act.

44 Carrying over of water allocation credits and water allocation account limits

- (1) Water allocation remaining in the water allocation accounts of domestic and stock, local water utility and regulated river (high security) access licences in the Upper Namoi Regulated River Water Source cannot be carried over from one water year to the next.
- (2) The following rules shall apply to the management of water allocations in the water allocation accounts of regulated river (general security) access licences in the Upper Namoi Regulated River Water Source:
 - (a) water allocations remaining in the water allocation account may be carried over from one water year to the next up to a limit that is equal to 0.5 megalitre per unit of share component specified on the respective access licence, and
 - (b) the maximum volume that may be held in the water allocation account at any time shall be equal to:
 - (i) 1 megalitre per unit of share component specified on the respective access licence,
 - (ii) plus any water allocations assigned from another access licence in that water year,
 - (iii) minus any water allocations assigned to another access licence in that water year.
- (3) The following rules shall apply to the management of water allocation in the water allocation accounts of domestic and stock access licences, local water utility access licences and regulated river (high security) access licences in the Lower Namoi Regulated River Water Source:

- (a) the maximum volume that may be held in the accounts of domestic and stock access licences and local water utility access licences at any time shall be equal to 100% of the access licence share component,
- (b) the maximum volume that may be held in the accounts of regulated river (high security) access licences at any time shall be equal to 1 megalitre multiplied by the number of unit shares specified in the share component, and
- (c) water allocation remaining in the accounts cannot be carried over from one water year to the next.
- (4) The following rules shall apply to the management of water allocations in the water allocation accounts of regulated river (general security) access licences in the Lower Namoi Regulated River Water source:
 - (a) water allocation remaining in the accounts may be carried over from one water year to the next, and
 - (b) the maximum volume that may be held in the accounts at any time shall be equal to 2 megalitres multiplied by the number of unit shares specified in the access licence share component.
- (5) Water allocation remaining in the water allocation accounts of supplementary water access licences in the Lower Namoi Regulated River Water Source cannot be carried over from one water year to the next.

Division 3 Extraction conditions

45 General priority of extractions

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

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

46 Numerical specification of extraction components

- (1) As soon as possible after the commencement of this Plan, the Minister should amend the extraction components of access licences in Gunidgera Creek and Pian Creek downstream of the Gunidgera Creek Offtake (hereafter the Gunidgera/Pian system), in accordance with the mandatory conditions on the access licences.
- (2) Action under subclause (1) should be undertaken as follows:
 - (a) the form of the extraction component to regulated river (general security) access licences and their initial distribution should be determined by the Minister after taking into consideration the physical supply constraints within the Gunidgera/Pian system, the water

distribution arrangements existing immediately prior to the commencement of this Plan and any other relevant matters, and

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

47 Extraction of water in the Upper Namoi Regulated River Water Source under clause 37 (8) provisions

- Authorisation of the extraction of water pursuant to the provisions of clause 37 (8) by regulated river (general security) access licences in the Upper Namoi Regulated River Water Source should only be given:
 - (a) for access licences nominating water supply works on the Manilla River downstream of Split Rock Dam, when the flow in the Manilla River at Brabri exceeds the flow needed to satisfy downstream water orders in the Upper Namoi Regulated River Water Source plus any flows resulting from releases made as part of a bulk transfer of water from Split Rock Dam water storage to Keepit Dam water storage, by 100 megalitres or more, and
 - (b) for access licences nominating water supply works on the Namoi River, when the flow in the Namoi River at Manilla Railway Bridge exceeds the flow needed to satisfy downstream water orders in the Upper Namoi Regulated River Water Source plus any flows resulting from releases made as part of a bulk transfer of water from Split Rock Dam water storage to Keepit Dam water storage, by 200 megalitres or more.
- (2) Authorisations by the Minister, pursuant to the provisions of clause 37 (8), should specify the maximum volume that may be extracted as a percentage of the access licence share component and the period in which the extraction may occur.

- (3) The Minister may, under section 45(1)(b) of the Act and by notice published in the Gazette:
 - (a) increase the flow exceedance specified in subclause (1) (a) if the installed pump capacity in the Manilla River downstream of Split Rock Dam increases by 20% or more, or
 - (b) increase the flow exceedance specified in subclause (1) (b) if the installed pump capacity in the Namoi River downstream to Keepit Dam water storage increases by 20% or more.
- (4) An increase under subclause (3) shall be in proportion to the increase in the installed pump capacity.

48 Taking of water under supplementary water licences in the Lower Namoi Regulated River Water Source

- (1) The taking of water under supplementary water access licences in the Lower Namoi Regulated River Water Source shall only be permitted in accordance with announcements made by the Minister.
- (2) The maximum volume of water that may be taken under supplementary water access licences during each period of time to which an announcement applies shall be expressed as a percentage of each supplementary water access licence share component.
- (3) Taking of water under supplementary water access licences during each supplementary water event shall be managed to ensure that pumping by supplementary water access licences with extraction components that designate them as Class B does not constrain the volume of water that can be taken by supplementary water access licences with extraction components that designate them as Class A.

Note. The effect of subclauses (2) and (3) is that no pumping will be permitted by supplementary water access licences with Class B extraction components until there is sufficient flow to fully provide for any pumping allowed under supplementary water access licences with Class A extraction components.

- (4) Taking of water under supplementary water access licences should only be permitted:
 - (a) from uncontrolled flows,
 - (b) when flows are in excess of those required to provide replenishment requirements as specified in clause 59, and
 - (c) in accordance with the rules set out in this clause.
- (5) Taking of water under supplementary water access licences in the Lower Namoi Regulated River Water Source shall not be permitted, or shall be restricted, when this is required to ensure outflows from the Lower Namoi Regulated River Water Source contribute to meeting the requirements of the Interim Unregulated Flow Management Plan for the North West.

Note. The Interim Unregulated Flow Management Plan for the North West is also known as the North-West Unregulated Flow Management Plan.

Note. The Namoi is one of a number of Barwon-Darling tributary rivers covered by the Interim Unregulated Flow Management Plan for the North West. Flow targets in the Barwon-Darling River specified under that Plan may, at times, be met by flows coming from other rivers or may require contributions of flow from several rivers.

(6) The requirements of the Interim Unregulated Flow Management Plan for the North West are:

(a) a flow of 14,000 megalitres per day (hereafter *ML/day*) in the Darling River at Brewarrina for 5 consecutive days, or 10,000 ML/day in the Darling River at Bourke for 5 consecutive days, during the period September to February inclusive, providing two such flow events have not already occurred during that period in that water year,

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

(b) a flow of 2,000 ML/day in the Darling River at Wilcannia for 5 consecutive days during October to April, inclusive, providing flows of this quantity have not already been reached during the preceding three months within the October to April period, and

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

- (c) a flow of:
 - (i) 150 ML/day in the Darling River at Wilcannia,
 - (ii) 280 ML/day in the Darling River at Louth,
 - (iii) 390 ML/day at in the Darling River at Bourke,
 - (iv) 550 ML/day at in the Darling River at Brewarrina, and
 - (v) 700 ML/day in the Barwon River at Walgett.

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

- (7) The Minister may, under section 45 (1) (b) of the Act and by order published on the NSW legislation website, alter or replace the rule set out in subclause (5) or the requirements set out under subclause (6) should the Interim Unregulated Flow Management Plan for the North West be altered or replaced by new management arrangements.
- (8) Any action under subclause (7) must:
 - (a) only affect the taking of water under supplementary water access licences,
 - (b) only relate to ensuring the taking of water under supplementary water access licences does not jeopardise critical environmental needs or the supply of water to basic rights holders, domestic and stock access licence holders and local water utility access licence holders in the Barwon-Darling River, and
 - (c) in the Minister's opinion, not substantially alter the long-term average volume of water that can be taken under supplementary water access licences in the Lower Namoi Regulated River Water Source.
- (9) The supplementary water event start flow and supplementary water event finish flow at Narrabri for the purposes of following subclauses shall be:
 - (a) 500 ML/day when the total volume of water allocations in regulated river (general security) access licence accounts is less than or equal to 90,000 megalitres, and
 - (b) those specified in the following table, when the total volume of water allocations in regulated river (general security) access licence accounts is greater than 90,000 megalitres:

Date	Supplementary water event start flow (ML/ day)	Supplementary water event finish flow (ML/ day)	As measured at
1 August–31 December	5,000	3,000	Narrabri Creek at Narrabri plus Namoi River at Narrabri
1 January-31 January	4,000	2,000	Narrabri Creek at Narrabri plus Namoi River at Narrabri
1 February–31 July	2,000	1,000	Narrabri Creek at Narrabri plus Namoi River at Narrabri

- (10) The supplementary water event start flow and supplementary water event finish flow at locations downstream of Narrabri for the purposes of following subclauses shall be:
 - (a) 500 ML/day when the total volume of water allocations in regulated river (general security) access licence accounts is less than or equal to 90,000 megalitres, and
 - (b) those specified in the following table, when the total volume of water allocations in regulated river (general security) access licence accounts is greater than 90,000 megalitres:

Date	Supplementary water event start flow (ML/ day)	Supplementary water event finish flow (ML/ day)	As measured at
1 August–31 December	5,000	3,000	Namoi River at Mollee
	4,000	2,500	Namoi River at Gunidgera Weir
	3,000	2,000	Namoi River at Weeta Weir
1 January–31 January	4,000	2,000	Namoi River at Mollee
	3,000	2,000	Namoi River at Gunidgera Weir
	2,000	1,500	Namoi at River Weeta Weir
1 February-31 July	2,000	1,000	Namoi River at Mollee
	2,000	1,000	Namoi River at Gunidgera Weir
	1,500	1,000	Namoi River at Weeta Weir

Note. Subclauses (11) and (12) deal with the calculation of the volume that can be taken during a supplementary water event. Subclauses (13) to (17) deal with when extractions can commence and when they must cease in sections of the Lower Namoi Regulated River Water Source.

Note. Definitions of *uncontrolled flow* and *supplementary water event* are in Schedule 1 of this Plan.

(11) The volume of water that may be made available for extraction under supplementary water access licences in the Lower Namoi Regulated River Water Source during each supplementary

water event:

- (a) prior to 1 July 2019, should not exceed 50% of the supplementary event volume, and
- (b) after 30 June 2019, should not exceed:
 - (i) 10% of the supplementary event volume between 1 July and 31 October, and
 - (ii) 50% of the supplementary event volume between 1 November and 30 June.

Note. Subclause (11) establishes supplementary water sharing rules that will be applied on a trial basis until 1 July 2019. The outcomes of this trial will inform longer term supplementary water sharing rules to be negotiated through the development of a Water Resource Plan for these water sources that is consistent with the requirements of the Murray-Darling Basin Plan.

- (12) The supplementary event volume for the purposes of subclause (11) shall be the sum of:
 - (a) the volume of uncontrolled flows in the river upstream of Narrabri arising from water which entered:
 - (i) after the flows upstream of Narrabri have increased to a rate sufficient to provide an uncontrolled flow at Narrabri equal to the relevant supplementary water event start flow in subclause (9), and
 - (ii) before the flow upstream of Narrabri has decreased to a rate which is no longer sufficient to provide an uncontrolled flow at Narrabri equal to the relevant supplementary water event finish flows in subclause (9), and
 - (b) the volume of uncontrolled flows arising from water which enters the Lower Namoi Regulated River Water Source downstream of Narrabri and upstream of Weeta Weir, providing that the volume is from water that entered:
 - (i) after the flow upstream of the site nominated in subclause (10) had increased to a rate sufficient to provide an uncontrolled flow at the site equal to the relevant supplementary water event start flow in subclause (10), and
 - (ii) before the flow upstream of the site in subparagraph (i) had decreased to a rate which was no longer sufficient to provide an uncontrolled flow at the site equal to the relevant supplementary water event finish flow in subclause (10), and
 - (c) the volume of uncontrolled flows arising from water which enters the Lower Namoi Regulated River Water Source downstream of Weeta Weir providing that the volume is from water that entered after uncontrolled flows had increased to a rate sufficient to:
 - (i) ensure a flow of 200 ML/day for 5 days would be achieved in the Namoi River at Walgett, when the total volume of water allocations in regulated river (general security) access licence accounts is greater than 90,000 megalitres, or
 - (ii) ensure a flow of 10 ML/day, when the total volume of water allocations in regulated river (general security) access licence accounts is less than 90,000 megalitres.
- (13) The taking of water under supplementary water access licences nominating water supply works upstream of the Namoi River at Narrabri:
 - (a) should not commence until the flows upstream of Narrabri have increased to a rate sufficient

to provide an uncontrolled flow at Narrabri equal to the relevant supplementary water event start flow in subclause (9), and

- (b) should cease when the flows upstream of Narrabri have decreased to a rate which was no longer sufficient to provide an uncontrolled flow at Narrabri equal to the relevant supplementary water event finish flows in subclause (9).
- (14) When all uncontrolled flows are arising from inflows to the water source upstream of Narrabri, the taking of water under supplementary water access licences nominating water supply works downstream of the Namoi River at Narrabri:
 - (a) should not be permitted until "X" days after the uncontrolled flow in the Namoi River at Narrabri has increased to a rate equal to the relevant supplementary water event start flow in subclause (9), and
 - (b) should cease "X" days after the uncontrolled flow in the Namoi River at Narrabri has decreased to a rate equal to the relevant supplementary water event finish flows set out in subclause (9),

where X is the time of travel in days between Narrabri and the location of the water supply works.

- (15) When uncontrolled flows are arising from inflows to the water source downstream of Narrabri and upstream of Weeta Weir, the taking of water under supplementary water access licences nominating water supply works downstream of the Namoi River at Narrabri:
 - (a) may be permitted "Y" days after the uncontrolled flow at a site nominated in subclause (10) has increased to a rate equal to the relevant supplementary water event start flow in subclause (10), and
 - (b) may continue until "Y" days after the uncontrolled flow at the site in subclause (a) has decreased to a rate equal to the relevant supplementary water event finish flows set out in subclause (10),

where Y is the time of travel in days between the site in subclause (a) and the location of the water supply works.

- (16) When uncontrolled flows are arising from inflows to the Lower Namoi Regulated River Water Source downstream of Weeta Weir, the taking of water under supplementary water access licences nominating water supply works downstream of Weeta Weir may be permitted after uncontrolled flows have increased to a rate sufficient to:
 - (a) ensure a flow of 200 ML/day for 5 days would be achieved in the Namoi River at Walgett, when the total volume of water allocations in regulated river (general security) access licence accounts is greater than 90,000 megalitres, or
 - (b) ensure a flow of 10 ML/day when the total volume of water allocations in regulated river (general security) access licence accounts is less than 90,000 megalitres.
- (17) Taking of water under supplementary water access licences nominating water supply works on the Gunidgera/Pian system shall be managed so that the flow passing Dundee Weir during the period when the taking of water is permitted is the lesser of:

- (a) 50 ML/day, or
- (b) the inflows entering the Gunidgera/Pian system as a result of rainfall on its catchment downstream of the Gunidgera Creek offtake.

Note. Taking of water on the Gunidgera/Pian system must not result in subclause (11) or other relevant subclauses being breached. Subclause (17) is an additional provision affecting taking of water on the Gunidgera/Pian system.

Note. Regardless of any announcement permitting supplementary water access, any water orders in the system will be debited against the regulated river (general security) account on release from the Dam as indicated in clause 43 (4). Failure to extract ordered water in the system and the taking of supplementary water instead will result in a debit to the regulated river (general security) account and recording of use against the supplementary water access licence.

Part 10 Access licence dealing rules

49 Access licence dealing rules

- (1) This Part is made in accordance with section 20 (1) (d) of the Act and with the Minister's access licence dealing principles under section 71Z of the Act.
- (2) Applications for access licence dealings may be granted subject to the Minister's access licence dealing principles gazetted from time to time under section 71Z of the Act and the rules in this Part.

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

50 Rules relating to constraints within these water sources

- (1) This clause relates to dealings under sections 710, 71Q, 71T and 71W of the Act.
- (2) Any dealing that would result in an increase in the total share components of regulated river (high security) access licences nominating water supply works downstream of the Namoi River at Mollee Weir is prohibited.
- (3) Until extraction components for access licences in the Gunidgera/Pian system have been amended in accordance with clause 46, a dealing is prohibited if it would result in:
 - (a) the sum of A + B exceeding the sum of A + B as at 1 July 2004, where:
 - (i) *A* is the total number of megalitres specified in share components of domestic and stock access licences nominating water supply works in the Gunidgera/Pian system, and
 - (ii) B is the total number of unit shares specified in share components of regulated river (high security) access licences and regulated river (general security) access licences nominating water supply works on the Gunidgera/Pian system,
 - (b) the total volume of water allocations assigned to access licences, other than supplementary water access licences, nominating water supply works on the Gunidgera/Pian system during a water year exceeding the total volume of water allocations assigned from access licences,

other than supplementary water licences, nominating water supply works in the Gunidgera/ Pian system to access licences nominating water supply works not on the Gunidgera/Pian system during the water year.

- (4) A dealing is prohibited if it would result in:
 - (a) the total number of unit shares in share components of supplementary water access licence nominating water supply works in the Gunidgera/Pian Creek system exceeding the total number of unit shares as at 1 July 2004, or
 - (b) the total volume of water allocations assigned to supplementary water access licences nominating water supply works on the Gunidgera/Pian system during a water year exceeding the total volume of water allocations assigned from supplementary water licences nominating water supply works in the Gunidgera/Pian system to access licences nominating water supply works not on the Gunidgera/Pian system during the water year.
- (5) Assignment of water allocations from a supplementary water access licence water allocation account to an access licence of any other access licence category is prohibited.
- (6) Assignment of water allocations to a supplementary water access licence water allocation account from an access licence of any other access licence category is prohibited.
- (7) Any dealing that would result in the assignment of all or part of the share component of a supplementary water access licence whose extraction component is designated as B class to a supplementary water access licence whose extraction component is designated as A class is prohibited.
- (8) Any dealing that would result in the assignment of water allocations from the water allocation account of a supplementary water access licence whose extraction component is designated as B class to the water allocation account of a supplementary water access licence whose extraction component is designated as A class is prohibited.

51 Rules for change of water source

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

Note. Section 71R dealings are the mechanism by which access licences can move from one water source to another. Once the change in water source has been effected, if permitted, the new licence will have to nominate specified water supply works (by a dealing under section 71W of the Act) in the receiving water source before extraction can commence.

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

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

Note. The access licence dealing principles prohibit a change of water source dealing where the movement is from an unregulated river water source to a regulated river water source.

- (4) An access licence in one of these water sources may be issued following cancellation of an access licence in the other of these water sources.
- (5) The share component of a new access licence issued in accordance with subclause (4) is to be equal to the share component of the cancelled access licence.

52 Rules for conversion of access licence category

- (1) This clause relates to dealings under section 710 of the Act.
- (2) Conversion of an access licence of one category to an access licence of another category is prohibited except as provided for under this clause.
- (3) On application of the access licence holder, the Minister may cancel a regulated river (general security) access licence, and issue a regulated river (high security) access licence, subject to:
 - (a) the application of a conversion factor established by the Minister and published in an Order made under section 71Z of the Act that protects environmental water, domestic and stock rights, native title rights and the reliability of supply to all other access licences in these water sources, and
 - (b) the number of megalitres of water in the regulated river (general security) access licence water allocation account being equal to or greater than the number of unit shares in its share component.

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

Note. Clause 50 constraints also apply to conversions. This means that conversion of regulated river (general security) access licences to regulated river (high security) access licences cannot occur if the resulting high security licence would nominate works downstream of the Namoi River at Mollee Weir.

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

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

- (5) On application of the access licence holder, the Minister may cancel a domestic and stock access licence and issue a domestic and stock (domestic only) access licence and a domestic and stock (stock only) access licence, subject to:
 - (a) the sum of the share component volumes of the two new access licences being equal to the share component volume of the cancelled access licence, and
 - (b) the share component volume of the new domestic and stock (domestic only) access licence being able to meet the needs of domestic consumption as defined in section 52 of the Act.
- (6) On application of the access licence holder, the Minister may cancel a domestic and stock (stock only) access licence and issue a regulated river (high security) access licence. The number of unit shares in the regulated river (high security) access licence share component shall be equal to the number of megalitres per year in the share component of the cancelled domestic and stock (stock only) access licence.

53 Rules for interstate access licence transfer

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

54 Rules for water allocation assignment between water sources

(1) This clause relates to dealings under section 71T of the Act in relation to water allocation assignments between water sources.

Note. Rules in clause 50 also apply to such assignments.

- (2) Water allocations from the water allocation account of an access licence in these water sources may not be assigned to the water allocation account of an access licence in another water source, except where subclauses (4) and (5) apply.
- (3) Water allocations from the water allocation account of an access licence in another water source may not be assigned to the water allocation account of an access licence in these water sources, except where subclauses (4), (5) and (6) apply.
- (4) The assignment of water allocations from access licences in the Upper Namoi Regulated River Water Source to access licences in the Lower Namoi Regulated River Water Source are permitted unless there is a significant risk that the rate at which water can be released from Keepit Dam during the remainder of the water year will be insufficient to meet likely water orders.

Note. The maximum rate of water release from Keepit Dam is severely reduced when water storage levels are low.

(5) The assignment of water allocations from access licences in the Lower Namoi Regulated River Water Source to access licences in the Upper Namoi Regulated River Water Source are permitted unless:

- (a) the sum of available water determinations made for regulated river (general security) access licences in the Upper Namoi Regulated River Water Source during the water year is less than the maximum percentage possible under clause 37, and
- (b) there is insufficient water available in Split Rock Dam water storage to supply the assigned water allocations.
- (6) The assignment of water allocations from access licences in the Peel Regulated River Water Source to access licences in the Lower Namoi Regulated River Water Source are permitted subject to the rules specified in the *Water Sharing Plan for the Peel Valley Regulated, Unregulated, Alluvium and Fractured Rock Water Sources 2010.*

55 Rules for interstate assignment of water allocations

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

Part 11 Mandatory conditions

56 Mandatory conditions on access licences

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

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

- (2) All access licences in these water sources shall have mandatory conditions to give effect to the following:
 - (a) the specification of the share component of the access licence,
 - (b) the specification of the extraction component of the access licence,
 - (c) the requirement that extraction under the access licence shall be subject to the available water determinations,
 - (d) the requirement that extraction under the access licence shall be subject to the water allocation account management rules established in Part 9 of this Plan,
 - (e) the requirement that the taking of water in accordance with the access licence may only occur if the resulting debit to the access licence account will not exceed the volume of water allocation remaining in the licence account,
 - (f) the requirement that water may only be taken by water supply works nominated on the access licence, and
 - (g) any other conditions required to implement the provisions of this Plan.

- (3) All access licences shall have a mandatory condition that facilitates the provisions of clause 46 of this Plan.
- (4) All domestic and stock access licences, local water utility access licences and regulated river (high security) access licences shall have mandatory conditions that only allow the taking of water if it has been ordered in accordance with procedures established by the Minister.
- (5) All regulated river (general security) access licences in the Upper Namoi Regulated River Water Source shall have mandatory conditions that only allow the taking of water if it has been ordered in accordance with procedures established by the Minister, except in relation to water extracted under the provisions of clause 37 (8).
- (6) All regulated river (general security) access licences in the Lower Namoi Regulated River Water Source shall have mandatory conditions:
 - (a) that only allow the taking of water if it has been ordered in accordance with procedures established by the Minister, and
 - (b) to give effect to the provisions of clause 32 of this Plan.
- (7) All supplementary water access licences shall have mandatory conditions that only allow the taking of water in accordance with announcements, as specified in clause 48, and after satisfying any procedures established by the Minister, and
 - (a) where the supplementary water access licence has arisen from a "section 18 entitlement" or a "section 20B entitlement", where section 18 entitlement or section 20B entitlement is as defined in the Water Management (General) Regulation 2011, provide for the Minister to designate that the access licence extraction component is class A, and
 - (b) where the supplementary water access licence has arisen from a "general security entitlement", where *general security entitlement* is as defined in the *Water Management* (*General*) Regulation 2011, provide for the Minister to designate that the access licence extraction component is class B.

Note. A section 18 entitlement means a licence under section 18 (2) of the *Water Act 1912*. A section 20B entitlement means an authority for a joint water supply scheme under section 20B of the *Water Act 1912* that was subject to a high flow condition. A general security entitlement means a *Water Act 1912* entitlement that was replaced by a regulated river (general security) access licence.

- (8) All domestic and stock access licences, other than domestic and stock (domestic only) access licences shall have mandatory conditions that only allow the taking of water for the purpose of domestic consumption or stock watering as defined in section 52 of the Act.
- (9) All domestic and stock (domestic only) access licences shall have mandatory conditions that only allow the taking of water for the purpose of domestic consumption as defined in section 52 of the Act.
- (10) All local water utility access licences shall have mandatory conditions that only allow the taking of water for the exercise of a water supply function of the local water utility or for other such purpose provided for under the Act.
- (11) All regulated river (high security) (Aboriginal cultural) access licences shall have mandatory conditions that only allow the taking of water by Aboriginal persons or communities for

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

57 Mandatory conditions on water supply works approvals

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

Part 12 System operation rules

58 System operation rules

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

59 Replenishment flows

- (1) Replenishment flows of up to a total volume of 14,000 megalitres in any water year shall be provided to Pian Creek downstream of Dundee Weir if required.
- (2) Sufficient volumes of water must be set aside from assured inflows into these water sources and in reserves held in Split Rock Dam water storage, Keepit Dam water storage, or other water storages, to provide for subclause (1).

60 Water delivery and channel capacity constraints

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

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

Note. The following capacities have been assessed:

- Pian Creek channel downstream from Gunidgera offtake has a capacity of 2,000 ML/day—80% being 1,600 ML/ day, and
- Gunidgera offtake, which regulates flows into Pian Creek, has a capacity of 1,250 ML/day.

61 Rates of change to releases from water storages

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

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

62 Bulk transfer rules between storages

- (1) Any bulk transfer of water from Split Rock Dam water storage to Keepit Dam water storage should be carried out in a manner that minimises adverse environmental impacts.
- (2) Prior to making any bulk transfer from Split Rock Dam water storage to Keepit Dam water storage the Minister should:
 - (a) determine an appropriate pattern of release from Split Rock Dam, taking into consideration the volume and time requirements of the bulk transfer and the need to minimise downstream environmental impacts,
 - (b) consult with water users on the upper Namoi and Manilla Rivers regarding the pattern of release,
 - (c) provide a minimum of 14 days' notice of the intended release to water users between Split Rock Dam and Keepit Dam water storage,
 - (d) conduct appropriate monitoring, and
 - (e) advise the community regarding the intended water releases through media releases.

Note. Bulk transfer releases from Split Rock Dam water storage can have significant impacts on farming operations and the river environment.

63 Supply of orders when remaining allocations are low

- (1) If, in the opinion of the Minister, the total remaining volume of water in access licence allocation accounts has reduced to a level where the continuous delivery of water orders would involve unacceptably high delivery losses, water orders may be grouped and released periodically.
- (2) The Minister should seek advice from irrigation industry representatives regarding the circumstances under which action under subclause (1) should be taken and the manner of management.

64 Dam operation during floods and spills

(1) The operation of Keepit Dam during times of flood and spilling of water is to be undertaken in a

manner that maintains the safety of dam infrastructure.

- (2) Providing it is consistent with subclause (1), operation:
 - (a) should leave the storage at full supply level at the completion of the flood or spilling of water,
 - (b) during floods should ensure the general rate of increase of outflow from the water storage does not exceed the rate of increase of inflow to the water storage, and
 - (c) should aim to lessen downstream flood damage, where possible.

Note. Split Rock Dam has a free overflow spillway and as such there are no flood operation procedures.

Part 13 Monitoring and reporting

65 Monitoring

The monitoring of the performance indicators specified in clause 11 of this Plan shall be undertaken by the Minister.

Note. Review and Audit of this Plan

In accordance with section 43A of the Act, the Natural Resources Commission must undertake a review of this Plan prior to any decision to extend its term or to make a new plan. The review must consider the extent to which the Plan's water sharing provisions have contributed to achieving or not achieving the State priorities for local land services relevant to natural resource management (as referred to in the *Local Land Services Act 2013*).

When undertaking this review the Natural Resources Commission is required to call for public submissions. The Commission will take into consideration any submission received as well as any other relevant State-wide or regional government policies or agreements that apply to the Local Land Services region.

In accordance with section 44 of the Act, this Plan will be audited at intervals of no more than five years, for the purpose of ascertaining whether its provisions are being given effect to. This audit is to be carried out by an audit panel appointed by the Minister in consultation with the water management committee, where one exists.

Note. Implementation Program

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

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

The results of the review of the Implementation Program are included in the annual report for the Department.

Part 14 Amendment of this Plan

66 Changes to these water sources

The Minister, under section 45 (1) (b) of the Act and by notice published in the Gazette, may add a river or section of river to one of these water sources or remove a river or section of river from one of these water sources providing that:

(a) any river or section of river that is added has been declared to be a regulated river by an order published in the Gazette, and

(b) the Minister is satisfied that there will be no impact on environmental water, or on the water available to any access licences in these water sources.

67 Other amendments of this Plan

The Minister, under section 45 (1) (b) of the Act and by notice published in the Gazette amend this Plan in accordance with the following clauses:

- (a) clause 37 in respect the specified storage capacity volumes relating to available water determinations made for regulated river (general security) access licences in the Upper Namoi Regulated River Water Source,
- (b) clause 47 in respect to flow exceedances required for authorisation of extraction of water by regulated river (general security) access licences in the Upper Namoi Regulated River Water Source pursuant to the provisions of clause 37 (8), and
- (c) clause 39 (7) in respect to the requirements or arrangements affecting taking of water under supplementary water access licences in the Lower Namoi Regulated River Water Source.

68 Amendment relating to planned environmental water

- (1) The Minister may amend this Plan to provide for the recovery of planned environmental water as follows:
 - (a) the recovery is only to apply where the Minister has cancelled an access licence held by the Minister in accordance with section 8A of the Act,
 - (b) the amount of additional water to be provided as planned environmental water is to be equivalent to the average annual extraction of water under the cancelled licence over the long-term,
 - (c) the average annual long-term availability of water for the remaining access licences that relate to the water source concerned is to be reduced by the average annual long-term extraction of water under the cancelled licence.
- (2) The Minister may amend this Plan to specify the purposes for which planned environmental water committed under section 8A of the Act is to be used.

69 Amendment of Plan relating to floodplain harvesting

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

- (a) if the Plan has already taken into consideration floodplain harvesting extractions, do not affect the outcomes of the long-term extraction limit specified in the Plan, or
- (b) if the Plan has not already taken into consideration floodplain harvesting extractions, do not allow more water being taken pursuant to access licences for floodplain harvesting than permitted under Schedule E to the Agreement within the meaning of the *Murray–Darling Basin Act 1992*.

70 Amendment relating to the taking of water under supplementary water licences

Clause 48 (11) may be amended so that the sharing arrangements specified in clause 48 (11) (b) apply prior to 1 July 2019, should an assessment made under clause 31 indicate that the long-term extraction limit has been exceeded.

Schedule 1 Dictionary

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

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

available water in relation to a water management area or water source, is the water that is available in that area or water source in accordance with an available water determination that is in force in respect of that area or water source.

available water determination is a written order by the Minister as to the availability of water for the various categories of access licence in relation to a specified water management area or water source.

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

bulk transfer is the release of water from an upstream water storage for the purpose of supplementing the volume of water held in a downstream water storage, generally so that the downstream storage can maintain releases necessary to meet downstream water requirements in times of drought.

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

Cap baseline conditions are those used for assessment of the Cap in Schedule E of the Murray Darling Basin Agreement and relate to the level of water resource development at June 1994.

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

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

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

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

full supply volume is the volume of water held in a water storage at the full supply level.

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

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

Murray-Darling Basin Agreement is the agreement between the Commonwealth of Australia and the states of New South Wales, Victoria and South Australia as referred to in the *Murray Darling Basin Act 1992*, for the purpose of promoting and co-ordinating effective planning and management for the equitable, efficient and sustainable use of the water, land and other environmental resources of the Murray-Darling Basin.

natural 95th percentile daily flow for each month is the computer model generated daily flow that is exceeded in 95% of days over the entire modelled period in each of the 12 calendar months, using the hydrologic computer model that, at the time, is approved for determining natural flows (i.e. river flows without water storages or water

extractions) in these water sources.

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

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

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

supplementary water event is a continuous period during which the taking of water under supplementary water access licences is being permitted in all or part of the Lower Namoi Regulated River Water Source.

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

uncontrolled flow is flow in excess of that needed to meet the environmental provisions of this Plan, basic landholder rights and water orders placed by regulated river (general security) access licences and higher priority access licences in a water source.

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

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

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

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

Appendix 1 Rivers and lakes within this water source

The Upper Namoi Regulated River Water Source includes the following:

- (1) Manilla River from Split Rock Dam wall, being the point at latitude -30.575872 and longitude 150.697240 in decimal degrees GDA94, downstream to its junction with the Namoi River,
- (2) Split Rock Dam water storage,
- (3) Namoi River, from its junction with the Manilla River downstream to Keepit Dam water storage,
- (4) Keepit Dam water storage.

The Lower Namoi Regulated River Water Source includes the following:

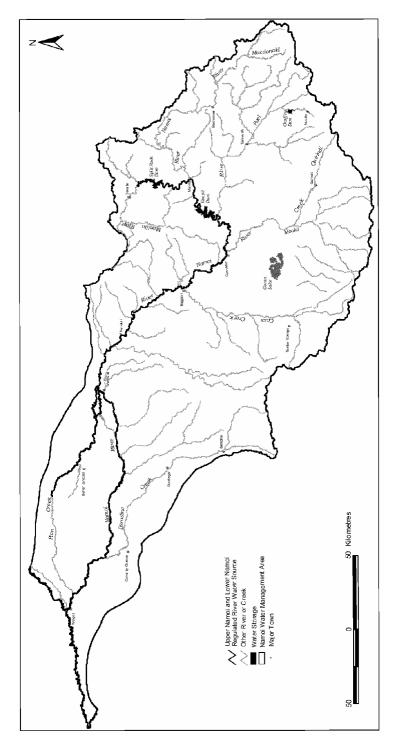
- (1) Anabranch of Namoi River, offtaking in TSR 31104, Parish of Tipereena, County of Nandewar,
- (2) Duncan Warrambool,
- (3) Gunidgera Creek, offtaking from the Namoi River within TSR 10783, Parish of Tulladunna, County of Jamison, downstream to the northern boundary of portion 21, Parish of Merah, County of Jamison,
- (4) Horsearm Creek, from its confluence with Narrabri Creek upstream to a point coinciding with the upstream alignment of the Narrabri to Wee Waa road bridge on Main Road No 127 located in the town of Narrabri,

Parish of Narrabri, County of Nandewar,

- (5) Namoi River from Keepit Dam wall, being the point at latitude -30.878622 and longitude 150.491625 in decimal degrees GDA94, downstream to the offtake of Narrabri Creek,
- (6) Namoi River from its confluence with Narrabri Creek to Barwon River,
- (7) Narrabri Creek,
- (8) Pian Creek, from the confluence of unnamed watercourse within portion 27, Parish of Pian, County of Jamison, the confluence being approximately 200 metres east of the western boundary of portion 27 and approximately 400 metres north of the southwestern boundary of that portion, downstream to the northernmost western boundary of portion 37, Parish of Murra Murra, County of Denham,
- (9) Ulled lagoon,
- (10) Unnamed watercourse, offtaking from Gunidgera Creek within portion 4, Parish of Weeta Waa, County of Jamison, downstream to its confluence with Pian Creek, within TSR 27151, Parish of Pian, County of Jamison,
- (11) Unnamed watercourse off taking from the Namoi River within Lot 63 DP 753929, Parish of Drildool, County of Jamison to its confluence with the Namoi River within Lot 63 DP 753929 Parish of Drildool, County of Jamison
- (12) Unnamed watercourse, from its offtake from Namoi River, in portion 10, Parish of Bullerawa, County of Baradine, to its re-entry in portion 11, said Parish, and
- (13) Warrian lagoon.

Note. Pian Creek from Dundee Weir to its junction with the Namoi receives domestic and stock replenishment flows from these water sources, but does not itself, form part of these water sources.

Note. The Namoi Regulated River Water Source does not include the Peel River.



Appendix 2 Namoi Water Management Area

Appendix 3 State floodplain harvesting principles

Section 1 Definition and categories of floodplain harvesting

- (1) Floodplain harvesting is the collection, extraction or impoundment of water flowing across floodplains. The floodplain flows can originate from local runoff that has not yet entered the main channel of a river, or from water that has overflowed from the main channel of a river during a flood. For the purposes of this policy the floodplain is defined as extending to the 1 in 100 year flood line.
- (2) Floodplain harvesting can generally be put into one of three categories:
 - (a) diversion or capture of floodplain flows using purpose built structures or extraction works to divert water into storages, supply channels or fields or to retain flows,
 - (b) capture of floodplain flows originating from outside of irrigated areas using works built for purposes other than floodplain harvesting. Examples are:
 - (i) levees and supply works such as off river storages constructed in billabongs or depressions that fill from floodplain flows, and
 - (ii) below ground level water channels from which the water is pumped into on farm storages, and
 - (c) opportunistic diversions from floodplains, depressions or wetlands using temporary pumps or other means.

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

Section 2 Floodplain harvesting management issues

- (1) The harvesting of water from floodplains reduces the amount of water reaching or returning to rivers. This decreases the amount of water available to meet downstream river health, wetland and floodplain needs and the water supply entitlements of other users.
- (2) Floodplain harvesting can seriously affect the connectivity between the local floodplain, wetlands and the river, through the loss of flow volume and redirection of water flows.
- (3) The *Water Act 1912* provided powers to license floodplain harvesting. However this was never applied as there was generally no requirement to restrict total overall water extractions or off-allocation diversions. Harvested floodplain water has been treated as a freely available bonus to a farmer's licensed entitlement.
- (4) This situation has now changed. The Murray-Darling Basin cap applies to all water diverted from inland NSW catchments and rivers. Licensed and off-allocation access has been subject to increasing restrictions. Embargoes on water licences are also in place on many areas on the coast.
- (5) Floodplain harvesting works and water extractions also clearly fall into those activities that the Water Management Act 2000 requires to be only undertaken by way of a licence. The Act also requires such licensing to consider the ecological functioning of floodplains.
- (6) Floodplain harvesting can no longer be left outside of the State's water management and compliance system or as a source of increase in further water extractions. Given this, it is the

Government's intention that floodplain harvesting works and taking of water from floodplains be licensed and managed. It will take a number of years to complete the process. However, the water sharing plans must signal the basic principles that will govern the process.

Section 3 Management of floodplain harvesting

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

Section 4 Floodplain harvesting principles

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

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

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

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

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

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

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

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

Note. It is likely that there has been some growth in floodplain harvesting works and extractions since 1994.

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

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

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

Appendix 4 Performance indicators

Performance indicators for the Upper Namoi and Lower Namoi Regulated River Water Sources Water Sharing Plan

Performance indicator	Related objective	Assessed by	Commentary
 (a) Change in ecological condition of this water source and dependent ecosystems. 	clause 10 (a)	 Monitoring of ecological response to changed flow regimes, under the Integrated Monitoring of Environmental Flows program (<i>IMEF</i>) (each water source will have specific hypotheses from the set developed under IMEF). Other relevant studies as may be undertaken in specific water sources. 	• IMEF tests a number of hypotheses to indicate how elements of river ecology respond to different aspects of the flow regime (including environmental flow rules, irrigation flows, and floods and wetland connectivity).
(b) Change in low flow regime.	clause 10 (a)	 Number of days per water year where flow is below natural 95th and 80th percentiles. Average and maximum number of days per water year of continuous periods of flow which is below natural 95th and 80th percentiles. Measurement at end of system and specified key sampling sites. 	 River Flow Objectives (RFOs) 1 and 6. RFOs are the objectives agreed to by the NSW Government aimed at safeguarding river flows for environmental health. Note. Not every objective is relevant to every river in NSW. Analysis would need to incorporate reference to seasonal indicators. Long-term modelling will reflect the influence of climate on flows. Appropriate data relating to flow distribution, such as summer/winter cropping balance, agronomical practices, on farm storage development, management and operation of environmental releases etc. Baseline should be the modelled water sharing plan scenario (rather than natural flows).

(c)	Change in moderate to high flow regime.	clause 10 (a)	• Number of days per water year where flow is above natural 30th , 15th and 5th percentiles.	• RFO 3.
			 Average and maximum number of days per water year of continuous periods of flow which is above natural 30th, 15th and 5th percentiles. 	
			• Measurement at end of system and other key sampling sites in these water sources.	
(d)	Change in water quality.	clause 10 (a) clause 10 (f)	• Assessment and statistical analysis of key water quality parameters, and relationship to flow.	• This Plan's rules will contribute to a long-term change in water quality by affecting flow regimes and flow management to address issues such as algal management.
				• There are many non-water sharing plan related factors that affect water quality (eg land-based activities and thermal pollution).
(e)	Extent to which basic landholder rights requirements have been met.	clause 10 (c)	 Basic rights allowances made according to plan provisions/implementation program requirements. 	 Basic rights usage figures in water sharing plans are estimated volumes (not actual use).
			• Flows adequate to meet basic rights requirements (taking into consideration allowances for delivery).	 Basic rights represents a very small proportion of water extraction in regulated systems.
(f)	Extent to which local water utility and major utility requirements (where major utilities are involved in urban water provision) have been met.	clause 10 (b)	• Percentage of years that reserves were adequate to satisfy local water utility water requirements.	

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(g)	Change in economic benefits derived from water extraction and use.	clause 10 (d) clause 10 (e)	• Change in regional gross margins versus annual total extractions based on year 1 benchmarks (as represented in IQQM).	• There are many factors affecting economic status of a region, for example commodity prices, other sources of water (eg groundwater).
			 Movement of water to higher value crops as measured by increases in area and/or water taken by these enterprises versus lower value uses. Change in unit price of water transferred. Annual total volume of access licence assigned in each water year. 	 The Performance Indicator is intended to isolate as much as possible the effects of water availability and price on the gross margin returns at a regional level. Assessment undertaken as part of plan performance monitoring will make assumptions to attempt to identify the impact of this Plan provisions.
(h)	Extent of recognition of spiritual, social and customary values of water to Aboriginal people.	clause 10 (a)	• Assessment of amount and type of information collected to identify the range of values of water to Aboriginal people.	• The collection of information on the values associated with water is considered the first step in addressing the objects of the Act. It would be expected that at the end of five years there should be relevant information collected for each water source, as a minimum requirement.
(i)	Extent to which native title rights have been met.	clause 10 (b)	 Native title rights allowances made according to plan provisions/implementation program requirements 	

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