

Water Sharing Plan for the Paterson Regulated River Water Source 2007

[2007-271]



New South Wales

Status Information

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Provisions in force

The provisions displayed in this version of the legislation have all commenced.

Notes—

- **See also**
[Statute Law \(Miscellaneous Provisions\) Bill \(No 2\) 2007](#)
- **Note**
This Plan ceases to have effect on 1.7.2017 — see cl 3.

Authorisation

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Water Sharing Plan for the Paterson Regulated River Water Source 2007



New South Wales

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Water Sharing Plan for the Paterson Regulated River Water Source 2007



New South Wales

Part 1 Introduction

1 Name of plan

This Plan is the *Water Sharing Plan for the Paterson Regulated River Water Source 2007* (hereafter **this Plan**).

2 Nature and status of this Plan

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

3 Date of commencement

This Plan takes effect on 1 July 2007 and ceases 10 years after that date.

4 Area and waters to which this Plan applies

- (1) The area in respect of which this Plan is made is that area of land within part of the Hunter Water Management Area known as the Paterson Regulated River Water Source (hereafter **this water source**).
- (2) The Hunter Water Management Area is as constituted by the Ministerial Order published in the NSW Government Gazette (hereafter **the Gazette**) on 23 November 2001.

Note—

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

- (3) The Paterson Regulated River Water Source is:
 - (a) between the banks of the Paterson River, from the upper limit of Lostock Dam water storage, including all tributaries to the storage (named and unnamed) up to the high water mark of the storage and downstream to the determined tidal limit,

which at the date of commencement of this Plan have been declared by the Minister to be regulated rivers, and

- (b) the unconsolidated alluvial sediments underlying the rivers referred to in subclause (a),
- (c) the unconsolidated alluvial sediments underlying the land that is within 40 metres of the top of the bank of all rivers referred to in subclause (a).

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 river referred to in subclause (3) is listed in Appendix 1.

- (4) This Plan applies to all waters contained within this water source.
- (5) The Minister may under Section 45 (1) (b) of the Act amend the rivers included in this water source as specified under subclause (3) (a) in accordance with clause 61 of this Plan.

5 Interpretation

- (1) Terms that are defined in the Act have the same meaning in this Plan and the effect of these terms may be explained in Notes.
- (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 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.

7 State Water Management Outcomes Plan

- (1) In accordance with section 16 (1) (a) of the Act this Plan is consistent with the State Water Management Outcomes Plan published in the Gazette on 20 December 2002 (hereafter ***the SWMOP***).

- (2) Schedule 2 identifies the SWMOP targets applicable to this Plan and how this Plan contributes to meeting those targets.

Part 2 Vision, objectives, strategies and performance indicators

8 Vision, objectives, strategies and performance indicators

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

9 Vision

- (1) The vision for this Plan is to achieve a healthy, diverse and productive regulated river water source providing sustainable management of the water source for the community, environment, towns, agriculture and industry.
- (2) This Plan also recognises the following respect statement for Aboriginal values in the regulated river water source:

Life giving water is of extreme significance to Aboriginal culture for its domestic, traditional and spiritual values. Whilst water supplied for the environment will provide protection for native flora and fauna, fishing, food gathering and recreational activities, it is important that the community respects the spiritual significance of water to the Aboriginal people.

10 Objectives

The objectives of this Plan are to:

- (a) protect the natural seasonal variation of low flows during dry periods,
- (b) protect the initial flow in natural freshes,
- (c) protect a high proportion of moderate and high flows,
- (d) protect a high proportion of the natural inundation pattern and distribution of floodwaters supporting natural wetland and floodplain ecosystems,
- (e) mimic natural flow variability of medium and high flows,
- (f) maintain rates of rise and fall of river heights within their natural bounds for medium and high flows,
- (g) provide a reserve of water that can be used to assist in management of critical environmental contingencies,
- (h) contribute to maintenance of estuarine processes and habitats,
- (i) contribute to maintenance of the ecological condition of this water source and its riparian areas over the longer term,

- (j) mitigate the impacts of instream structures,
- (k) mitigate downstream water quality impacts of storage releases,
- (l) maintain water supply priority for basic rights for domestic and stock access licences at all times,
- (m) maintain a highly reliable supply of water to towns to meet the existing and potential population needs of urban communities,
- (n) provide clarity of rights for holders of regulated river (high security) access licences,
- (o) provide a defined level of water supply access to the irrigation industry,
- (p) provide clarity of access to supplementary water,
- (q) contribute to protection of recreational and tourism opportunities, and
- (r) recognise priority for traditional water rights of Aboriginal people.

11 Strategies

The strategies for reaching the objectives set out in clause 10 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).

12 Performance indicators

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

- (a) change in ecological condition of this water source and dependent ecosystems,
- (b) change in low flow regime,

- (c) change in moderate to high flow,
- (d) change in water quality in this water source,
- (e) extent to which basic landholder 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 3 details the objectives to which these performance indicators relate and the methods for assessing indicators.

Part 3 Environmental water provisions

13 Environmental water provisions

This Part is made in accordance with sections 5 (3), 8 (1), 8 (1A), 8 (2), 8 (4), 8A, 8B, 8C, 8D, 8E and 20 (1) (a) of the Act.

14 Planned environmental water

- (1) This Plan establishes the following planned environmental water rules:
 - (a) water volume in excess of the long-term average annual extraction limit established in clause 29 of this Plan may not be taken from this water source and used for any purpose, thereby protecting a proportion of river flows for fundamental ecosystem needs from increases in long-term water extraction,
 - (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 average annual extraction limit is not being taken,

Note—

By limiting long-term average annual extractions to 11,156 megalitres per year, this Plan ensures that approximately 95% of long-term average flow in this water source will be preserved and will contribute to the maintenance of basic ecosystem health.

- (c) during periods when the daily flow at Halton Gauge (stream flow gauge number 210022) is greater than the 95th percentile daily flow, this water source shall be managed to ensure that flows in the Paterson River (stream flow gauge number 210079) at Gostwyck exceed:
 - (i) 10 megalitres per day (hereafter **ML/day**) between the first of December and

the end of February,

Note—

10ML/day reflects a pre-existing operational target and is above the 95th percentile flow which is 0 ML/d. However it is recognised that environmental flow requirements may not be met in the estuary during summer as a result of high extraction demands during this period compared to other times of the year.

(ii) 7 ML/day between the first of March and the end of May,

(iii) 32 ML/day between the first of June and the end of August, and

(iv) 3 ML/day between the first of September and the end of November,

Note—

The flows specified in subclauses (ii) to (iv) represent the 95th percentile daily flow at Gostwyck.

(d) during periods when flows at Halton Gauge (stream flow gauge number 210022) are less than the 95th percentile daily flow, this water source shall be managed to ensure that flows in the Paterson River at Gostwyck (stream flow gauge number 210079) exceed the equivalent percentile daily flow that is occurring at Halton Gauge.

Note—

The operational details of the reductions specified in subclause (1) (d) and the location of the stream flow gauges 210022 and 210079 will be defined in the Implementation Manual for this Plan.

Note—

It is recognised that State Water will be unable to meet these targets 100% of the time without releasing additional water. To ensure efficient management of the system the level of compliance with these targets will be established as part of the Implementation Manual for this Plan. Methodology will be outlined as part of the Implementation Manual.

Note—

During periods when the environmental target is low, State Water may need to operate at a higher target for operational reasons.

(e) at the start of each water year a total of 2,000 megalitres in Lostock Dam is to be reserved in an environmental contingency allowance account for release as specified in subclause (1) (g) of this Plan,

Note—

While the Implementation Manual for this Plan will provide further detail on the potential uses of the environmental contingency allowance in the Paterson River, it is envisaged that the primary uses would be for purposes such as fish passage, algal management and chemical spill management.

(f) sufficient volumes of water are to be held in storage to ensure the flows specified in subclause (1) (c) and the volume defined in subclause (1) (e) can be provided through the worst drought in this water source for which reliable flow information

is available,

(g) releases of water from the environmental contingency allowance account:

- (i) are to be made in accordance with procedures established by the Minister to assist in management of critical environmental events, such as algal blooms and chemical spills, and to provide flows at critical times for purposes such as fish migration or stony bed scouring, and
- (ii) should only be made for identified environmental benefits within the Plan area,

Note—

The environmental contingency allowance should not be used for flushing of saline water to the benefit of tidal pool users.

Note—

In developing implementation procedures for the environmental contingency allowance key stakeholders such as water users within the plan area and environmental groups should be provided with an opportunity to review proposed management procedures. Any comments made by these stakeholders are to be reviewed by the relevant Environmental Contingency Allowance Committee in determining the final environmental contingency allowance procedures.

- (h) the volume of releases under subclause (1) (e) debited to the environmental contingency allowance account is to be the volume of releases in excess of those necessary to meet all other water requirements,
- (i) any volume remaining in the environmental contingency allowance account at the end of a water year is to be forfeited from the account, and
- (j) when access to flows under supplementary water access licences is permitted under clause 45 of this Plan, the environment is to receive 50% of an amount that is equal to the daily inflow to the water source minus sufficient flow to satisfy:
 - (i) other environmental provisions of this Plan,
 - (ii) domestic and stock rights and native title rights requirements,
 - (iii) water orders placed by access licences, and
 - (iv) water losses associated with the delivery of water in accordance with subclauses (i) to (iii).

- (2) The Minister may under section 45 (1) (b) of the Act amend the end of system flows specified in subclause (1) (c) in accordance with the studies specified in clause 62 (1) of this Plan.
- (3) The Minister may under Section 45 (1) (b) of the Act amend the environmental contingency allowance specified in subclause (1) (e), and forfeiture requirements in

subclause (1) (i), in accordance with clause 62 (3) of this Plan.

15 Adaptive environmental water

- (1) Water may be committed in these water sources for environmental purposes by an adaptive environmental water condition pursuant to sections 8, 8B, 8C, 8D and 8E of the Act.
- (2) The holder of an access licence may request that the Minister impose an adaptive environmental water condition in respect of the whole or a part of the share component of the access licence.
- (3) The condition imposed under subclause (2) will continue until the holder requests its removal.
- (4) An access licence may be granted in these water sources under section 8C of the Act, to the Minister, a catchment management authority or other public body if works or other actions result in water system savings being made in these water source, where system means that part of the water source that is not by this Plan identified for extraction, subject to:
 - (a) the share component of the access licence granted being equal to the value of system water savings made,
 - (b) the category of access licence granted reflecting the water system savings made, and
 - (c) an adaptive environmental water condition being imposed on the granted access licence and that condition not being removed.
- (5) An access licence may be held by the Minister, a catchment management authority or other public body to the extent that the whole or part of that access licence has been surrendered as a result of water use savings made by works or other improvements, subject to:
 - (a) the share component of the access licence held being equal to the value of the water use savings made,
 - (b) the category of access licence held being the same as the surrendered access licence, and
 - (c) an adaptive environmental water condition being imposed on the access licence and that condition not being removed.
- (6) The conditions of the adaptive environmental water condition specified in subclause (1):
 - (a) are to be established by the Minister,

- (b) are to be specified on the access licence, and
 - (c) shall be such as to ensure that there will be a contribution to the objectives of this Plan.
- (7) The allocation of water for access licences with an adaptive environmental water condition will be in accordance with the available water determination for the relevant category of access licence under this Plan.
- (8) If the adaptive environmental water condition on an access licence requires the water to be left in the water source for environmental purposes, then the water allocation account is to be debited with the amount of water delivered to a point on the river, in accordance with the adaptive environmental water condition on the access licence.
- (9) If the adaptive environmental water condition requires the environmental water to be taken from the water source, then the water allocation account is to be debited when it is taken.
- (10) For the purposes of auditing compliance with the long-term average annual extraction limit under this Plan, the delivery of water pursuant to an access licence that has been committed as adaptive environmental water shall not be accounted for as extraction where it occurs pursuant to a licence under subclause (4) but shall be accounted for as extraction where it occurs pursuant to a licence under subclause (2) or subclause (5).
- (11) To the extent that the water allocation of an access licence which is subject to an adaptive environmental water condition is not required to meet the requirement of the condition it may be the subject of an assignment dealing in accordance with the Dealings Rules in Part 10 of this Plan.
- (12) Notwithstanding subclause (11) an access licence with an adaptive environmental water condition may be the subject of any other dealing permitted by the Dealing Rules in this Plan, provided the benefit to the environment provided for in the adaptive environmental condition is not diminished.
- (13) At the commencement of this clause, there were no access licences with an adaptive environmental water condition in these water sources.

Part 4 Basic landholder rights

16 Basic landholder rights

- (1) This Part is made in accordance with sections 5 (3) and 20 (1) (b) of the Act.
- (2) Basic landholders rights exercised under section 52 of the Act must be exercised in accordance with any guidelines established by the Minister with respect to the reasonable use of water for domestic consumption and stock watering.

Note—

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

Note—

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

Note—

The Minister may enforce any reasonable use guidelines by serving notice on individual landholders under section 325 of the Act.

17 Domestic and stock rights

- (1) It is estimated that at the commencement of this Plan, the water requirements of holders of domestic and stock rights will total 548 megalitres per year (hereafter **ML/year**).
- (2) 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 this water source or as a result of an increase in the exercise of domestic and stock rights on existing landholdings.

- (3) 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 to this water source, as represented in flow information held by the Department at the commencement of this Plan.
- (4) To achieve subclause (3), sufficient volumes of water must be set aside from assured inflows into this water source and in reserves held in Lostock Dam.

18 Native title rights

- (1) At the commencement of this Plan there are no holders of native title rights in this water source and therefore native title rights are 0 ML/year.
- (2) This Plan recognises that the exercise of native title rights may increase during the term of this Plan.

Note—

Increases in native title rights may occur as a result of granting of native title rights under the Commonwealth's [Native Title Act 1993](#).

- (3) 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 this water source, as represented in flow information held by the Department at the commencement of this Plan.

- (4) To achieve subclause (3) sufficient volumes of water must be set aside from assured inflows into this water source and in reserves held in Lostock Dam.

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 this water source having regard to:
- (a) the environmental water provisions identified 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 this water source. There is no commitment to make these volumes available. The actual volumes 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 access licences authorised to extract water from this water source will total 41 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 access licences authorised to access water from this water source will total 75 ML/year.

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

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 access water from this water source will total 190 unit shares.

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

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 access water from this water source will total 9,565 unit shares.

25 Share component of supplementary water access licences

It is estimated that at the time of commencement of Part 2 of Chapter 3 of the Act, the supplementary water access licences authorised to access water from this water source will total 756 unit shares.

Note—

Supplementary water access licences have been calculated based on a history of use assessment over the ten year period from 1995 to 2005.

26 Changes to total share component

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

- (a) the granting, surrender or cancellation of access licences,
- (b) the granting, surrender or cancellation of access licences through a dealing under Part 11 of this Plan, or
- (c) variations to local water utility access licences arising from section 66 of the Act.

Part 7 Rules for granting of 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, having regard to the limits to water availability in this water source and the need to protect dependent ecosystems.
- (2) Applications for access licences may be made and access licences granted in this water source if the application is for:
 - (a) a specific purpose access licence for which application is provided for under clause 19 of the [Water Management \(General\) Regulation 2004](#) (hereafter **the Regulation**) in accordance with section 61 (1) (a) of the Act,

Note—

At the commencement of this Plan, clause 19 of the Regulation provides for the following specific purpose access licences to be applied for:

- (a) a local water utility access licence (subcategory “domestic and commercial”), for the purpose of domestic consumption and commercial activities,
- (b) a domestic and stock access licence (subcategory “domestic”), for the purpose of domestic consumption,
- (c) a regulated river (high security) access licence (subcategory “town water supply”), for the purpose of supply to communities for domestic consumption and commercial activities, and
- (d) any category of specific purpose access licence (subcategory “Aboriginal cultural”), for Aboriginal cultural purposes, and

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 rapid growth in population.

- (b) regulated river (high security) (research) access licences for water supply for research purposes, provided that such research is undertaken by an organisation approved by the Minister as an accredited research body,
- (c) an access licence with a zero share component in accordance with sections 61 (1) (b) and 63 (5) of the Act,
- (d) an access licence that may be granted in accordance with a dealing that is permitted by Part 10 of this Plan,
- (e) any category of access licence following works or other actions resulting in water savings being made by State Water in this water source, subject to:
 - (i) an assessment that the granting of the access licence will not have a negative impact on existing access licences within this water source,

- (ii) a right to apply for the licence has been acquired by auction, tender or other open market process under section 65 of the Act,
 - (iii) the total share components of access licences granted under this subclause not exceeding the annual volume of water saved.
 - (f) any category of access licence following a reduction to the volume of water that is to be reserved in the environmental contingency allowance, under clause 14 (1) (e), subject to:
 - (i) the total share components of access licences granted under this subclause not exceeding an amount that is equal to 2000 megalitres minus the amended environmental contingency allowance volume, and
 - (ii) a right to apply for the licence has been acquired by auction, tender or other open market process under section 65 of the Act, and
 - (g) any category of specific purpose access licence (subcategory “Aboriginal cultural”), for Aboriginal cultural purposes, up to 10 ML/year per application.
- (3) In applying for a new access licence, the applicant must establish the purpose and circumstance relating to that access licence, and that the share component sought will be the minimum required to meet that purpose and circumstance.
- (4) Subclause (3) does not apply to 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 average annual extraction limit

28 Limit 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 average annual extraction limit

- (1) This Plan establishes a long-term average annual extraction limit for this water source of 11,175 ML/year:
 - (a) plus the share component of any access licence cancelled in another water source and issued in this water source under section 71R of the Act,
 - (b) minus the share component of any access licence cancelled in this water source and issued in another water source under section 71R of the Act,

- (b) plus the share component of any access licence granted under clause 27 (2) (e) or 27 (2) (f).

Note—

The long-term average annual extraction limit for the Paterson Regulated River Water Source has been based on calculations of full entitlement.

- (2) For the purposes of auditing compliance with the long-term average annual extraction limit, the following will be included:
 - (a) all water extractions under all categories of access licences,
 - (b) domestic and stock rights and native title rights extractions,
 - (c) volumes of water delivered as adaptive environmental water, except where the access licence has been granted under clause 15 (4) (a), and
 - (d) floodplain harvesting extractions determined to be taken for use in conjunction with extractions from this water source.

30 Assessment of current long-term average annual extraction

- (1) Assessment of the current long-term average annual extraction shall be carried out after the end of each water year, using the hydrologic computer model that, at the time, is approved by the Minister for assessing long-term water extraction from this water source.
- (2) To assess the current long-term average annual extraction from this water source, the model referred to in subclause (1) shall be set to represent as closely as possible all water use development, water supply system management and other factors affecting the quantity of long-term average annual water extraction from this water source at the time of the assessment.

31 Maintaining compliance with the long-term average annual extraction limit

- (1) The long-term average annual extraction from this water source shall not be permitted to exceed the long-term average annual extraction limit specified in clause 29 of this Plan.
- (2) Pursuant to subclause (1), the maximum available water determination made in any water year for supplementary water and the maximum sum of available water determinations made in any water year for regulated river (general security) access licences, shall be reduced if:
 - (a) it has been assessed that the current long-term average annual water extraction from this water source exceeds the long-term average annual extraction limit specified in clause 29 by 3%, or

- (b) assessments in accordance with clause 30 for 3 consecutive years indicate that the current long-term average annual extraction from this water source exceeds the long term average annual extraction limit.
- (3) The degree of reduction under subclause (2) shall be the degree that is assessed necessary to return the long-term average annual extraction from this water source to the long-term average annual extraction limit.
- (4) The first reduction to available water determinations under subclause (2) shall be to the maximum available water determinations made for supplementary water access licences under clause 36.
- (5) Once no extractions under supplementary water access licences are allowed as a result of subclause (4), then the limit to the sum of available water determinations made for regulated river (general security) access licences specified in clause 35 shall be reduced.
- (6) If action has been taken under subclause (2), and a subsequent assessment of extractions performed under clause 30 indicates that long-term average annual extractions are below the long-term average annual 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 extractions to the long-term average annual extraction limit.
- (7) Any reversal of previous reductions shall:
 - (a) first be applied to regulated river (general security) access licences, and
 - (b) not exceed the previous reductions made under subclause (2).
- (8) The assessment of the degree of reduction required under subclause (2) or degree of reversal under subclause (6) shall be made using the same computer model used to carry out assessments of extractions compared to the long-term average annual extraction limit under clause 30.

Division 2 Available water determinations

32 Available water determinations

- (1) This Division is made in accordance with section 20 (2) (b) of the Act.
- (2) All available water determinations in this water source shall be expressed as:
 - (a) a percentage of the share component for all categories of access licence where share components are specified as ML/year, or
 - (b) megalitres per unit share for all categories of access licence where share components are specified as unit shares.

33 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 through a repeat of the worst period of low inflows to this water source, represented in flow information held by the Department at the commencement of this Plan.
- (2) Sufficient volumes of water must be set aside from assured inflows into this water source and reserves held in Lostock Dam to provide for subclause (1).
- (3) The available water determination for domestic and stock access licenses made for the commencement of each water year shall be 100% of share components whenever possible.
- (4) The sum of allocations made for domestic and stock access licences 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 may increase during the term of this Plan in accordance with clause 27 of this Plan.
- (6) The volumes of water set aside from assured inflows into this water source and reserves held in Lostock Dam shall be adjusted as required over the course of this Plan if necessary to do so, to ensure that subclause (1) is satisfied.

34 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 through a repeat of the worst period of low inflows to this water source,, represented in flow information held by the Department at the commencement of this Plan.
- (2) Sufficient volumes of water must be set aside from assured inflows into this water source and reserves held in Lostock Dam to provide for subclause (1).
- (3) The available water determination for local water utility access licenses made for the commencement of each water year shall be 100% of share component whenever possible.
- (4) The sum of available water determinations made for local water utility access licences 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 may increase during the term of this Plan in accordance with clause 27 of this Plan and section 66 of the Act.
- (6) The volumes of water set aside from assured inflows into this water source and reserves held in Lostock Dam shall be adjusted as required over the course of this Plan if it is necessary to do so, to ensure subclause (1) is satisfied.

35 Available water determinations for regulated river (high security) access licences and for regulated river (general security) access licences

- (1) The sum of available water determinations to regulated river (high security) access licences in any water year shall not exceed 1 megalitre per unit share.
- (2) The sum of allocations to regulated river (general security) access licences in any water year shall not exceed 1 megalitre per unit share, or such lower amount as results from the operation of clause 31 of this Plan.
- (3) Available water determinations for regulated river (high security) access licences and regulated river (general security) access licences shall be made at the commencement of each water year.
- (4) If the available water determinations made under subclause (3) are less than the maximum amount referred to in subclause (1) or subclause (2), then further assessments of available water shall be carried out during the water year and available water determinations made until the sums of available water determinations for the water year are equal to the maximum amounts referred to in subclause (1) or subclause (2).
- (5) No available water determination is to be made for regulated river (general security) access licences in any water year, until:
 - (a) the sum of available water determinations for regulated river (high security) access licences in the water year reaches 1.0 megalitres per unit share, and
 - (b) there is sufficient water to guarantee an available water determination for regulated river (high security) access licences in the following water year of 1.0 megalitres per unit share.
- (6) Once the sum of available water determinations for regulated river (high security) access licences is equal to 1 megalitre per unit share, then any additional available water shall be made available to regulated river (general security) access licences, subject to the limit at subclause (2).
- (7) Available water determinations made for regulated river (high security) access licences and regulated river (general security) 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 holding and delivery of water to meet the requirements specified in subclauses (a) to (g),
- (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.

36 Available water determinations for supplementary water access licences

- (1) An available water determination for supplementary water access licences shall be made 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 31 (2) of this Plan.

Part 9 Rules for managing access licences

Division 1 General

37 Rules for managing access licences

This Part is made in accordance with sections 20 (2) (b), 20 (2) (e), 21 (a), 21 (c) and 85 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

38 Water allocation accounts

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

39 Accrual of water allocation accounts

Water allocations will be accrued into each access licence water allocation account in accordance with the available water determinations made for the category of the access licence under Part 8 Division 2 of this Plan.

40 Volume taken under access licences

- (1) The water allocation taken under domestic and stock access licences, local water utility access licences, regulated river (high security) access licences and regulated river (general security) access licences shall be assessed as:
 - (a) the volume of water extracted by the approved water supply works nominated by the access licence, or
 - (b) where the Minister has applied such a discretionary condition to the access licence, the greater of:
 - (i) the volume of water extracted by the approved water supply works nominated by the access licence, and
 - (ii) the volume of water ordered for extraction by the approved water supply works nominated by 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.
- (3) The allocation taken under supplementary water access licences will be the volume of water extracted, in accordance with announcements made and access licence conditions, by the approved water supply works nominated by the access licence.

41 Accounting of assigned 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.

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

- (1) Water allocation remaining in the water allocation accounts of domestic and stock access licences, local water utility access licences, regulated river (high security) access licences and supplementary water access licences at the end of each water year may not carry over into the following water year.
- (2) Water allocation remaining in a water allocation account of a regulated river (general security) access licence may be carried over to the next water year subject to the volume carried over not exceeding 0.1 megalitres multiplied by the number unit shares specified in the share component of the access licence.

Division 3 Extraction conditions

43 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 of time, the following priority of extractions shall apply whenever supply capability is insufficient to satisfy all order for water in any section of this water source:

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

44 Numerical specification of extraction components

- (1) 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 this water source, or in any section of this water source.
- (2) Action under subclause (1) 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.
- (3) When action under subclause (1) 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 this water source to exclude extractions in sections of this water source affected by the action under subclause (1).

45 Extraction under supplementary water access licences

- (1) The taking of water under supplementary water access licences shall only be permitted in accordance with announcements made by the Minister.
- (2) The maximum volume of water that may be taken under each supplementary water access licences during each period of time to which an announcement made under

subclause (1) applies, shall be expressed as a number of megalitres per unit share.

- (3) Extraction of water by supplementary water access licences should only be permitted if:
 - (a) the flows at the flow gauge downstream of Lostock Dam (gauging station number 210021) are sufficient to ensure that the flows at Gostwyck and downstream of Lostock will exceed the threshold flows listed in subclause (4) for at least 12 hours, and
 - (b) the source of the flow is flow over the Lostock spillway, or
 - (c) a discharge through the control valves in the immediately preceding period has prevented a flow over the spillway, or
 - (d) a discharge through the control valves has been made in excess of other requirements.
- (4) Threshold flows for the purposes of permitting extraction under supplementary water access licences under subclause (3) are:
 - (a) twice the flow rates at Gostwyck specified in clause 14 (c), and
 - (b) at the flow gauge downstream of Lostock Dam (gauging station number 210021), the greater of:
 - (i) 40 megalitres per day, or
 - (ii) a flow that is twice the volume of the total installed pump capacity for water supply works nominated on a supplementary water access licence in this water source.
- (5) The maximum volume of water that may be taken by supplementary water access licences on any day during each period of time to which an announcement made under subclause (1) applies shall be equal to 50% of the daily inflows to the water source, minus sufficient flows to satisfy:
 - (a) the environmental water provisions of this Plan,
 - (b) domestic and stock rights and native title rights requirements,
 - (c) water orders placed by higher priority access licences, and
 - (d) water losses associated with the delivery of water in accordance with subclauses (a) to (c).

Part 10 Dealings with access licences

46 Access licence dealings

- (1) This Part is made in accordance with section 20 (1) (d) of the Act and with the Minister's access licence dealing principles gazetted on 1 July 2004, 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—

There are a number of mechanisms within the Act, called access licence dealings, to change either the ownership of all or part of an access licence, or the location within a water source at which all or part of the share and extraction components of access licences can be exercised. These dealings are governed by the principles in section 5 of the Act, the Minister's access licence dealing principles, and the rules in this Part.

Note—

Where there is an inconsistency between access licence dealing rules established in this Plan and Minister's access licence dealing principles gazetted subsequent to the commencement of this Plan, section 71Z of the Act provides for the Minister's access licence dealing principles to prevail.

47 Rules relating to constraints within this water source

- (1) This clause relates to dealings under sections 71Q, 71S and 71W of the Act and to dealings in respect of water allocation assignments within this water source under section 71T of the Act.
- (2) Assignment of water allocations from a supplementary water access licence water allocation account to an access licence of any other access licence category are prohibited.
- (3) Assignment of water allocations to a supplementary water access licence water allocation account from an access licence of any other access licence category are prohibited.

48 Rules for change of water source

- (1) This clause relates to dealings under section 71R and 71W 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 works (by a dealing under section 71W of the Act) in the receiving water source before extraction can commence.

- (2) A new access licence in this water source shall not be issued following cancellation of an access licence in other water sources.

- (3) An access licence in this water source may not be cancelled and a new access licence issues in another water source.

49 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 the subclauses (3) and (4).
- (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 the environmental water, domestic and stock rights, native title rights and the reliability of supply to all other access licences in this water source, and

Note—

Assessments indicate that a conversion factor of 1/1.5 should be used, which would result in 1 megalitre of regulated river (high security) access licence share component resulting from conversion of 1.5 megalitres of regulated river (general security) access licence share component.

- (b) the volume of water in the regulated river (general security) access licence water allocation account being equal to or greater than its share component volume.

Note—

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

- (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 volume of regulated river (general security) access licence share components not increasing above the volume of regulated river (general security) access licence share components at the time of commencement of Part 2 of Chapter 3 of the Act.

Note—

This subclause 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.

50 Rules for interstate access licence transfer

- (1) This clause relates to dealings under section 71U of the Act.
- (2) Dealings that result in the interstate transfer of an access licence into or out of this water sources are prohibited.

51 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.
- (2) Water allocations from the water allocation account of an access licence in this water source may not be assigned to the water allocation account of an access licence in any other water source.
- (3) Water allocations from the water allocation account of an access licence in any other water source may not be assigned to the water allocation account of an access licence in this water source.

52 Rules for interstate assignment of water allocations

- (1) This clause relates to dealings under section 71V of the Act.
- (2) Dealings that result in interstate assignment of water allocations to or from this water sources are prohibited.

Part 11 Mandatory conditions

53 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 at any time on an access licence in accordance with section 66 (1) (b) of the Act.

- (2) All access licences in this water source shall have mandatory conditions to give effect to the following:
 - (a) the specification of the share component of the access licence as per the rules established in Part 9 of this Plan,
 - (b) the specification of the extraction component of the access licence as per the rules established in Part 9 of this Plan,
 - (c) the requirement that extraction under the access licence will be subject to the available water determinations as per the rules established in Part 8 of this Plan,
 - (d) the requirement that extraction under the access licence will 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 access licence water allocation 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, except supplementary water access licences, shall have a mandatory condition that facilitates the provisions of clause 44 of this Plan.
 - (4) All domestic and stock access licences and local water utility access licences shall have mandatory conditions that only allow the taking of water if it has been ordered in accordance with any procedures established by the Minister.
 - (5) All regulated river (general security) 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 any procedures established by the Minister, except as provided by a relevant available water determination and relevant announcements.
 - (6) All supplementary access water licences shall have mandatory conditions that only allow the taking of water in accordance with announcements made under clause 45 and after satisfying any procedures established by the Minister.
 - (7) 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.
 - (8) 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.
 - (9) 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.
 - (10) All regulated river (high security) (Aboriginal cultural) access licences shall have mandatory water 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.

- (11) All regulated river (high security) (research) access licences shall have mandatory conditions that only allow the taking of water if:
- (a) it is for the conduct of scientific research purposes by an organisation approved by the Minister as an accredited research body, and
 - (b) any resulting crops or produce are not to be sold for profit.

54 Mandatory conditions on water supply works approvals

- (1) All approvals for water supply works in this water source shall have mandatory conditions to give effect to the following:
- (a) flow measurement devices shall be installed and maintained on all water supply 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 accordance with procedures established by the Minister,
 - (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, and
 - (d) any other conditions required to implement the provisions of this Plan.
- (2) Subclause (1) does not apply to approvals for water supply works held by State Water provided such an approval is not nominated by an access licence.

Part 12 System operation rules

55 System operation rules

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

56 Water delivery and channel capacity constraints

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

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

- (d) capacities of water management structures controlled by the Minister, and
- (e) SWMOP targets.

Note—

Operation of the system at the commencement of this Plan has the following constraint on maximum flows from Lostock Dam of 720 ML/day.

57 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 specified in the Implementation Manual for this Plan, and should take into account:

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

58 Dam operation during floods and spills

- (1) The operation of Lostock 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, and
 - (b) should aim to lessen downstream flood damage where possible.

Part 13 Monitoring and reporting

59 Monitoring

The monitoring of the performance indicators identified in clause 13 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 relevant natural resource management standards and targets in the catchment management area (as referred to in section 5 of the [Catchment Management Authorities Act 2003](#)).

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 catchment management area.

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 and 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

60 Amendment of this Plan

This part is made in accordance with section 45 (1) (b) of the Act.

61 Amendment of the Plan Area

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 this water source, or remove a river or section of river from this water source providing that:

- (a) any river or section of river that is to be added is declared to be a regulated river by an Order published in the Gazette,
- (b) any river or section of river that is to be removed is declared not to be a regulated river by an Order published in the Gazette, and
- (c) the Minister is satisfied that there will be no impact on environmental water in this water source or on future water allocations to access licences in this water source.

62 Amendment of Planned Environmental Water

- (1) The Minister may, under section 45 (1) (b) of the Act, during the term of this Plan, amend the minimum flow targets established by clause 14 (1) (c) for end of system flows, based on further studies of the environmental requirements of the estuary.

Note—

The studies referred to in clause 62 (1) may include studies undertaken in the Hunter River, Paterson River or Wallis Creek Tidal Pools as specified within the Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources 2007 (under development).

- (2) Any variation made under subclause (1) should not result in the minimum flow targets exceeding the combined volume as specified in clause 14 (1) (c) of this Plan.

- (3) The Minister may, under section 45 (1) (b) of the Act, during the term of this Plan, amend the volume of water established by clause 14 (1) (e) for the environmental contingency allowance, and the carryover provisions established in clause 14 (1) (i) based on further studies on the appropriate use and amount of water required for releases under this allowance.
- (4) Any variation made under subclause (3) should not result in the environmental contingency allowance being greater than 2000 ML.

Note—

Subclause (3) allows for the volume of the Environmental Contingency Allowance (ECA) and the carryover rules for the ECA to be reviewed. If the studies result in a reduction in the ECA to less than 2000ML, then carryover provisions may be introduced to allow for banking of the ECA to provide for a maximum of 2000 ML being available in any year.

- (5) In undertaking the review of studies specified in subclauses (1) and (3) the Minister should:
 - (a) consult with the Department of Primary Industries, the Department of Environment and Climate Change, and other representatives of interest groups as required, and
 - (b) prepare a report documenting the:
 - (i) studies reviewed,
 - (ii) socio-economic impacts of the recommended changes, and
 - (iii) degree to which any proposed change meets the objectives in clauses 10 (g) and 10 (k) of this Plan.

Dictionary

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

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

assured inflows are the volumes of water which historic hydrologic information indicates are the minimum which can be expected to flow into this 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 Water and Energy or its successor.

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 71B or 71E of the Act.

environmental contingency allowance is a volume of water held in storage from which releases are made for particular environmental purposes or in response to particular environmental circumstances.

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

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

Minister is the Minister for Climate Change, Environment and Water. The Minister may delegate functions under section 389 of the Act.

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

reliability of supply means the frequency with which a given volume of water allocation is available to be taken under an access licence, measures of which may include the long-term average annual allocation available to licence holders, the frequency with which full allocations allowed by this Plan are available and the frequency and sequencing of periods of low and zero allocation levels.

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

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 landholder rights.

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

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

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

water use development includes all privately owned water management structures, and all aspects of farm, industry, town or private household development which affect the volumes of water taken from 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.

Schedule 2 Contribution to relevant targets in December 2002

SWMOP

Levels of assessed contribution:

FULL	contributes to target in full
HIGH	while not fully contributing to target, there is a good level of contribution
PARTIAL	goes some way to contributing to the target
LOW	only small degree of contribution to target

Relevant SWMOP Target	Level of Contribution	Comments
Target 1c Long-term average annual extraction limits which are ecologically sustainable and which minimise downstream impacts, established in all coastal catchments.	PARTIAL	<ul style="list-style-type: none"> An extraction limit is included in this Plan. There is scope for some growth in extractions however the limit would ensure that a high percentage of flows will be protected for the environment when compared to most other developed regulated rivers in the State.
Target 1f Rules for adjustments to future available water determinations in the event that the extraction limits are exceeded, clearly prescribed in consultation with the relevant management committee, and acted upon.	FULL	<ul style="list-style-type: none"> Rules set out in Part 8.
Target 2 All water management plans incorporating mechanisms to protect and restore aquatic habitats, and the diversity and abundance of native animals and plants, with particular reference to threatened species, populations and communities and key threatening processes.	PARTIAL	<ul style="list-style-type: none"> This Plan sets minimum flow levels and sets aside water to help manage critical environmental events. The extraction rules for supplementary water access licences and the Plan limit should also substantially protect current wetland and estuary inflows.
Target 4a Where the frequency of “end of system” daily flows would be less than 60 percent of the predevelopment level without environmental water rules or extraction limits, the flows increased to 60 percent of predevelopment levels or increased by at least 10 percent of the predevelopment frequency.	FULL	<ul style="list-style-type: none"> Frequency of flows are greater than 60% across whole of flow range.

<p>Target 4b Frequency of “end of system” daily very low flows (as defined by local field investigation) protected or restored to predevelopment levels to maintain or restore their critical ecological functions, drought refuges and habitat connectivity. In the absence of such local assessments, protection extended up to at least the predevelopment 95th percentile.</p>	HIGH	<ul style="list-style-type: none"> Frequency of flows below natural 95th percentile increased.
<p>Target 5 Access rights for water access licensees clearly and legally specified in terms of share and extraction components.</p>	FULL	<ul style="list-style-type: none"> Access for regulated supply licences and supplementary water access licences are specified and tradeable.
<p>Target 9a Flow thresholds for declaration of supplementary water access, which take into account environmental needs, clearly specified.</p>	HIGH	<ul style="list-style-type: none"> The initial 12 hours of flows are protected and thresholds are applied to subsequent extractions. These thresholds may not however be sufficient to cater for all environmental needs.
<p>Target 9b Annual limits on supplementary water extractions, consistent with the long-term average annual extraction limits, established in all regulated river water sources.</p>	FULL	<ul style="list-style-type: none"> This Plan’s rules provide a defined number of supplementary water shares and cap on amount of water available at any time (limit of 1 MLI/units have announced).
<p>Target 9c Rules for sharing between supplementary water licence holders made explicit.</p>	HIGH	<ul style="list-style-type: none"> Limited number of supplementary users and small volume involved—sharing between users on daily basis not expected to be an issue.
<p>Target 9d Supplementary access licence dealings made possible in regulated river water sources, subject to extraction limits and environmental assessment and Aboriginal spiritual and cultural constraints.</p>	FULL	<ul style="list-style-type: none"> Trading of supplementary access water is permitted.
<p>Target 12 Measures in place in all water sources subject to a gazetted water sharing plan to protect domestic and stock rights from the impact of other water access and use.</p>	FULL	<ul style="list-style-type: none"> Obligations are set out in Part 4.

<p>Target 14 Water sources, ecosystems and sites of cultural or traditional importance to Aboriginal people identified, plans of management prepared, and measures put in place to protect and improve them.</p>	PARTIAL	<ul style="list-style-type: none"> • This Plan does not address specific Aboriginal cultural or traditional requirements and has not identified any sites of particular importance. • The application of a long-term average annual extraction limit that protects a substantial portion of river flows, and this Plan's environmental flow and supplementary water access rules should provide some protection.
<p>Target 16a All share components of access licences tradeable.</p>	FULL	<ul style="list-style-type: none"> • All share components for continuing access licences will be tradeable under this Plan.
<p>Target 16c Conversion factors and protocols established to facilitate trading and dealings between water sources, whilst also protecting existing access and environmental water.</p>	PARTIAL	<ul style="list-style-type: none"> • Plan does not allow trade in from other water sources or trade out from this water source to other water sources.
<p>Target 16d Reduced conversion factors only applied when necessary to offset increased losses associated with water supply delivery.</p>	FULL	<ul style="list-style-type: none"> • This Plan does not impose reduction factors to offset increased losses associated with water supply delivery.
<p>Target 16f Zones established where necessary for environmental protection and limits/constraints on water dealings in them made explicit.</p>	FULL	<ul style="list-style-type: none"> • This plan does not include mgt zones (not required).
<p>Target 35 All management plans incorporating water quality objectives that have considered Government approved Interim Environmental Objectives, the current Australian and New Zealand Environment and Conservation Council Guidelines and the recommendations of relevant Healthy Rivers Commission Inquiries.</p>	PARTIAL	<ul style="list-style-type: none"> • Plan includes a water quality objective in relation to releases. • Releases of Environmental Contingency Allowance may be used to address water quality issues.

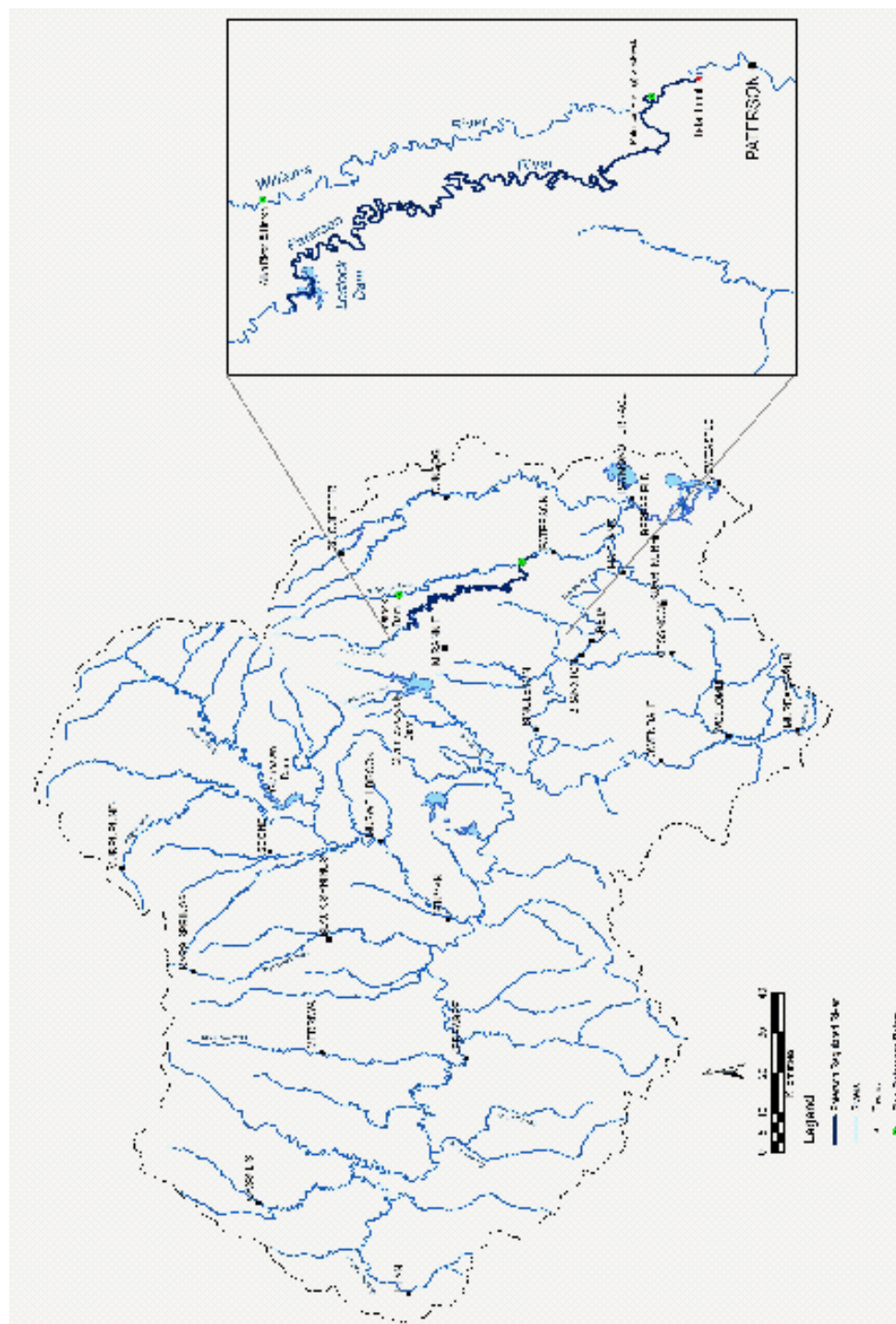
Appendix 1 Rivers in the Paterson Regulated River Water Source

- (1) At the commencement of this Plan the Paterson Regulated River Water Source includes the Paterson River from the upper limit of Lostock Dam storage water storage including all tributaries to the storage (named and unnamed) up to the high water mark of the storage, downstream to the determined tidal limit.
- (2) The upper limit of Lostock Dam corresponds to a point adjacent to:
 - (a) the northern most point of Lot 2, DP54850 (Parish of Glendon, County of Durham) on the western bank of the Paterson River, and

- (b) a point 280 metres upstream of the southern most point of Lot PT34, DP 4321 (Parish of Colonna, County of Durham) on the eastern bank of the Paterson River.
- (3)** The determined tidal limit is 980 metres downstream from the Gostwyck Bridge over the Paterson River on the road from Maitland to Dungog and corresponds to:
 - (a) 410 metres downstream from a point adjacent to where the north-eastern corner of Lot 5, DP 13089 (Parish of Houghton, County of Durham) fronts the western bank of the Paterson River, and
 - (b) 660 metres downstream from a point where the north-western corner of Lot 115, DP 848634

(Parish of Barford, County of Durham) fronts the eastern bank of the Paterson River.

Appendix 2 Hunter Water Management Area



Appendix 3 Performance Indicators

Performance indicators for the Paterson Regulated River Water Sharing Plan

Performance indicator	Related objective	As measured by:	Commentary
(a) Change in ecological condition of the water source and dependent ecosystems.	clause 10 (a) to clause 10 (i)	<ul style="list-style-type: none"> Monitoring of ecological response to changed flow regimes, by IMEF (each water source will have specific hypotheses from the set developed under IMEF). Other relevant studies as may be undertaken in specific water sources. 	<ul style="list-style-type: none"> IMEF tests a number of hypotheses to indicate how elements of river ecology respond to different aspects of the flow regime (including EFRs, irrigation flows, and floods and wetland connectivity).
(b) Change in low flow regime	clause 10 (a)	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Government's River Flow Objectives (RFOs) 1 and 6. 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 audit should be the modelled WSP scenario (rather than natural flows).

		<ul style="list-style-type: none"> Number of days per water year where flow is above natural 30th 15th and 5th percentiles. 	
(c) Change in moderate to high flow regime.	clause 10 (c) to clause 10 (f) and clause 10 (j)	<ul style="list-style-type: none"> 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 the water source. 	<ul style="list-style-type: none"> RFO 3
(d) Change in water quality.	clause 10 (k)	<ul style="list-style-type: none"> Assessment and statistical analysis of key water quality parameters, and relationship to flow. 	<ul style="list-style-type: none"> The Plan 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 (l)	<ul style="list-style-type: none"> Basic rights allowances made according to plan provisions/ implementation program requirements. Flows adequate to meet basic rights requirements (taking into consideration allowances for delivery). 	<ul style="list-style-type: none"> Basic rights usage figures in water sharing plans are estimated volumes (not actual use). Basic rights represents a very small proportion of water extraction in regulated systems.
(f) Extent to which local water utility requirements.	clause 10 (m) clause 10 (n)	<ul style="list-style-type: none"> Percentage of years that reserves were adequate to satisfy urban water requirements. 	

(g) Change in economic benefits derived from water extraction and use.	clause 10 (o) to clause 10 (s)	<ul style="list-style-type: none"> • Change in regional gross margins versus annual total extractions based on year 1 benchmarks (as represented in IQQM). • Movement of water to higher value crops as measured by increases in area and/or water extracted by these enterprises versus lower value uses. • Change in unit price of water transferred. • Annual total volume of access licence transferred (ML) in each water year. 	<ul style="list-style-type: none"> • There are many factors affecting economic status of a region, for example commodity prices, other sources of water (eg groundwater). • The PI 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 the plan provisions.
(h) Extent of recognition of spiritual, social and customary values of water to Aboriginal people.	clause 10 (t)	<ul style="list-style-type: none"> • Assessment of amount and type of information collected to identify the range of values of water to Aboriginal people. 	<ul style="list-style-type: none"> • 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 5 years there should be relevant information collected for the water source, as a minimum requirement.
(i) Extent to which native title rights have been met.	clause 10 (t)	<ul style="list-style-type: none"> • Native title rights allowances made according to plan provisions/ implementation program requirements. 	