

Water Sharing Plan for the Upper and Lower Namoi Groundwater Sources 2003 (2002 SI 1035)

[2002-1035]



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—

- **Note**
This Plan ceases to have effect on 30.6.2017 — see cl 3.

Authorisation

This version of the legislation is compiled and maintained in a database of legislation by the Parliamentary Counsel's Office and published on the NSW legislation website, and is certified as the form of that legislation that is correct under section 45C of the [Interpretation Act 1987](#).

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New South Wales

Contents

Part 1 Introduction	6
1 Name of Plan	6
2 Nature and status of this Plan	6
3 Date of commencement	6
4 Area and waters to which this Plan applies	6
5 Interpretation	7
6 Inspection of detail maps	8
7 Effect on licences, authorities and permits under the Water Act 1912	8
8 State Water Management Outcomes Plan	8
Part 2 Vision, objectives, strategies and performance indicators	8
9 Vision, objectives, strategies and performance indicators.....	8
10 Vision.....	8
11 Objectives.....	9
12 Strategies	9
13 Performance indicators.....	10
Part 3 Basis for water sharing	10
14 Basis for water sharing	10
15 Climatic variability	10
16 Recharge	11

Part 4 Environmental water provisions	12
17 Environmental water provisions	12
18 Planned environmental water.....	12
19 (Repealed).....	13
20 Adaptive environmental water	13
Part 5 Basic landholder rights	14
21 Basic landholder rights.....	14
22 Domestic and stock rights.....	15
23 Native title rights.....	16
Part 6 Bulk access regime	16
24 Bulk access regime.....	16
Part 7 Requirements for water for extraction under access licences	17
25 Requirements for water under access licences	17
25A Share components of domestic and stock access licences	17
25B Share components of local water utility access licences.....	17
25C Share components of aquifer access licences	18
25D Share components of supplementary water access licences	21
25E Changes to share components	22
Part 8 Rules for granting access licences	23
26 Rules for granting access licences.....	23
Part 9 Limits to the availability of water	24
Division 1 Extraction limits	24
27 Extraction limits.....	24
28 Variation of extraction limits.....	25
28A Compliance with the extraction limits	27
Division 2 Available water determinations	28
29 Available water determinations	28
Part 10 Rules for managing access licences	30

Division	30
30 Rules for managing access licences	30
Division 1 Water allocation account management	30
31 Water allocation account management	30
32 Water allocation accounts	30
33 Accrual of water allocations	30
34 Annual accounting for water extraction	30
Division 2 Management of local impact	32
35 Management of local impact	32
36 Extraction interference between neighbouring bores	32
37 Water level management	33
38 Water quality management	34
39 Protection of groundwater dependent ecosystems	34
40 Protection of aquifer integrity	35
41 Extraction restrictions	35
42 Group registration	35
43 Infrastructure failure	36
Part 11 Access licence dealing rules	36
44 Access licence dealing rules	36
45 Rules relating to constraints within a groundwater source	36
46 Rules for change of water source	37
47 Rules for conversion of access licence category	37
48 Rules for interstate access licence transfer	38
49 Rules for water allocation assignments between water sources	38
50 Rules for interstate assignment of water allocations	38
Part 12 Mandatory conditions	39
51 Mandatory conditions on access licences	39
52 Access licences	39
53 Mandatory conditions on water supply work (bore) approvals	39
Part 13 Monitoring and reporting	41

54 Monitoring	41
Part 14 Amendment of this Plan	42
55 Amendment of this Plan	42
56 Amendment relating to planned environmental water	42
Dictionary	42
Schedule 2 Upper and Lower Namoi Groundwater Sources.....	44
Schedule 3 Contribution to relevant targets in the December 2002 State Water Management Outcomes Plan	44
Schedule 4 High priority groundwater dependent ecosystems.....	48
Schedule 5 Aquifer access licence share component	49
Appendix 1 Namoi and Gwydir Water Management Areas	50
Appendix 2 Location of maps.....	50
Appendix 3 Performance indicators.....	51
Appendix 4 Rules for determining history of extraction.....	54

Water Sharing Plan for the Upper and Lower Namoi Groundwater Sources 2003 (2002 SI 1035)



New South Wales

Part 1 Introduction

1 Name of Plan

This Plan is the *Water Sharing Plan for the Upper and Lower Namoi Groundwater Sources 2003* (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, and additional provisions of section 21 of the Act, and other relevant matters.

3 Date of commencement

This Plan takes effect on 1 November 2006, and ceases on the 30 June 2017.

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 the Namoi and Gwydir Water Management Areas known as the Upper and Lower Namoi Groundwater Sources (hereafter **these groundwater sources**) as shown in Schedule 2.

Note—

The Namoi and Gwydir Water Management Areas, published in the NSW Government Gazette in November 2001, are shown on the map in Appendix 1.

- (2) The following groundwater sources referred to in this Plan are shown on the map in Schedule 2:

- (a) Upper Namoi Zone 1, Borambil Creek Groundwater Source (hereafter **Zone 1**),

- (b) Upper Namoi Zone 2, Cox's Creek (Mullaley to Boggabri) Groundwater Source (hereafter **Zone 2**),
- (c) Upper Namoi Zone 3, Mooki Valley (Breeza to Gunnedah) Groundwater Source (hereafter **Zone 3**),
- (d) Upper Namoi Zone 4, Namoi Valley (Keepit Dam to Gin's Leap) Groundwater Source (hereafter **Zone 4**),
- (e) Upper Namoi Zone 5, Namoi Valley (Gin's Leap to Narrabri) Groundwater Source (hereafter **Zone 5**),
- (f) Upper Namoi Zone 6, Tributaries of the Liverpool Range (South to Pine Ridge Road) Groundwater Source (hereafter **Zone 6**),
- (g) Upper Namoi Zone 7, Yarraman Creek, (East of Lake Goran to Mooki River) Groundwater Source (hereafter **Zone 7**),
- (h) Upper Namoi Zone 8, Mooki Valley (Quirindi—Pine Ridge Road to Breeza) Groundwater Source (hereafter **Zone 8**),
- (i) Upper Namoi Zone 9, Cox's Creek (up-stream Mullaley) Groundwater Source (hereafter **Zone 9**),
- (j) Upper Namoi Zone 10, Warrah Creek Groundwater Source (hereafter **Zone 10**),
- (k) Upper Namoi Zone 11, Maules Creek Groundwater Source (hereafter **Zone 11**),
- (l) Upper Namoi Zone 12, Kelvin Valley Groundwater Source (hereafter **Zone 12**), and
- (m) Lower Namoi Groundwater Source (hereafter **the Lower Namoi**).

Note—

This Plan does not recognise separate groundwater sources within the Lower Namoi valley.

- (3) The Upper and Lower Namoi Groundwater Sources include all water contained in the unconsolidated alluvial sediment aquifers associated with the Namoi River and its tributaries.

Note—

Bores drilled through the unconsolidated alluvial sediments into the underlying Great Artesian Basin (GAB) are tapping a different groundwater source. On a map, they may appear to lie within the boundaries of the Lower Namoi, however they are within the deeper GAB groundwater source and are not included as a part 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 to those identified in subclause (1) are defined in Schedule 1.
- (3) Notes in the text of 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 Inspection of detail maps

Maps referred to in this Plan may be inspected at the locations listed in Appendix 2.

7 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.

Note—

To the extent possible, the rules embodied in this Plan will apply to matters administered under the [Water Act 1912](#) in the interim.

8 State Water Management Outcomes Plan

- (1) This Plan is consistent with the State Water Management Outcomes Plan (hereafter ***SWMOP***) in accordance with section 16 (1) (a) of the Act.
- (2) Schedule 3 identifies the SWMOP targets applicable to this Plan and how this Plan contributes to those targets.

Note—

The SWMOP applying at the commencement of this Plan is that gazetted on 20 December 2002 under section 6 of the Act.

Part 2 Vision, objectives, strategies and performance indicators

9 Vision, objectives, strategies and performance indicators

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

10 Vision

The vision for this Plan is ecologically sustainable groundwater sources that provide an assured supply of quality groundwater for the social and economic benefit of the people in the Namoi Valley.

11 Objectives

The objectives of this Plan are to:

- (a) protect, maintain and, where practicable, enhance ecosystems dependent on groundwater, and the cultural and spiritual values of groundwater, by minimising the impacts on these of groundwater extraction,
- (b) protect the structural integrity of the aquifers and groundwater quality, by ensuring groundwater extraction does not result in any aquifer compaction, aquitard compaction, land subsidence or change in the beneficial use of the aquifer,
- (c) manage access to the extraction limits to ensure there are no long-term declines in water levels,
- (d) preserve basic landholder rights access to these groundwater sources and ensure the fair, equitable and reliable access to groundwater through the management of local impacts or interference effects,
- (e) contribute to the protection, maintenance and enhancement of the economic viability of groundwater users and their communities in the Namoi Valley,
- (f) ensure opportunities for market based trading of groundwater access licence rights within sustainability and interference constraints, and
- (g) ensure sufficient flexibility in account management to encourage efficient use of these groundwater sources and to manage these groundwater sources to account for climatic variations.

12 Strategies

The strategies of this Plan are to:

- (a) establish environmental water rules and manage access to groundwater consistent with those rules,
- (b) establish rules for the protection of basic landholder rights,
- (c) establish extraction limits for each groundwater source, taking into account the requirements of the environment,
- (d) reduce the total share component of access licences to the final extraction limit,
- (e) establish rules for granting of access licences,
- (f) establish rules for determining the groundwater available from time to time under access licences,
- (g) establish water allocation account management rules,

- (h) establish rules for minimising local impact of groundwater extraction on the environment, the aquifers themselves, and between users,
- (i) establish the access licence dealing rules, and
- (j) establish the conditions that will apply to all access licences and water supply work (bore) approvals.

13 Performance indicators

For the purpose of section 35 (1) (b) of the Act, the following indicators are to be used to determine the performance of this Plan against its objectives:

- (a) change in groundwater extraction relative to the extraction limits,
- (b) change in climate adjusted groundwater levels,
- (c) change in water levels adjacent to identified groundwater dependent ecosystems,
- (d) change in groundwater quality,
- (e) change in economic benefits derived from groundwater extraction and use,
- (f) change in structural integrity of the aquifers,
- (g) extent to which domestic and stock rights requirements have been met,
- (h) extent to which local water utility requirements have been met,
- (i) extent to which native title rights requirements have been met, and
- (j) extent of recognition of spiritual, social and customary values of groundwater to Aboriginal people.

Note—

Appendix 3 details the objectives to which these performance indicators relate and the methods for assessing these indicators.

Part 3 Basis for water sharing

14 Basis for water sharing

This Part is made in order to give effect to section 5 (3) of the Act, and in accordance with sections 20 (2) (c) and 21 (e) of the Act.

15 Climatic variability

- (1) This Plan recognises climatic variability and therefore that the level of recharge to these groundwater sources will vary.

- (2) To give effect to subclause (1), this Plan has provisions that manage:
- (a) the sharing of water in these groundwater sources within the limits of water availability on a long-term average basis, and
 - (b) water extraction to enable the protection of groundwater dependent ecosystems, aquifer integrity and water quality of these groundwater sources.

16 Recharge

- (1) For the purposes of section 5 (3) of the Act, the overall basis for water sharing in this Plan is the estimated average annual recharge to each groundwater source as follows:
- (a) 2,100 megalitres per year (hereafter **ML/yr**), plus the requirements for basic landholder rights at the commencement of this plan in Zone 1,
 - (b) 7,200 ML/yr, plus the requirements for basic landholder rights at the commencement of this plan in Zone 2,
 - (c) 17,300 ML/yr, plus the requirements for basic landholder rights at the commencement of this plan in Zone 3,
 - (d) 25,700 ML/yr, plus the requirements for basic landholder rights at the commencement of this plan in Zone 4,
 - (e) 16,000 ML/yr, plus the requirements for basic landholder rights at the commencement of this plan in Zone 5,
 - (f) 14,000 ML/yr, plus the requirements for basic landholder rights at the commencement of this plan in Zone 6,
 - (g) 3,700 ML/yr, plus the requirements for basic landholder rights at the commencement of this plan in Zone 7,
 - (h) 16,000 ML/yr, plus the requirements for basic landholder rights at the commencement of this plan in Zone 8,
 - (i) 11,400 ML/yr, plus the requirements for basic landholder rights at the commencement of this plan in Zone 9,
 - (j) 4,500 ML/yr, plus the requirements for basic landholder rights at the commencement of this plan in Zone 10,
 - (k) 2,200 ML/yr, plus the requirements for basic landholder rights at the commencement of this plan in Zone 11,
 - (l) 2,000 ML/yr, plus the requirements for basic landholder rights at the commencement of this plan in Zone 12, and

(m) 86,000 ML/yr plus the requirements for basic landholder rights at the commencement of this plan in the Lower Namoi.

(2) The Minister may, under section 45 (1) (b) of the Act, amend subclause (1) after 30 June 2010 to vary the average annual recharge values established in subclause (1), excluding the average annual recharge in Zone 1, following further recharge studies undertaken by the Minister.

Note—

Priority will be given to recharge reviews for groundwater sources that do not currently have a numerical model. These are Zones 2, 4, 5, 11, and 12. A priority for review and update of existing models if new information becomes available should be given to Zones 3 and 8.

Note—

The extent to which this change may impact on access licence holders is limited by clause 28.

(3) The Minister may, under section 45 (1) (b) of the Act, amend subclause (1) (a) after 30 June 2008 to vary the average annual recharge value established for Zone 1, following further recharge studies undertaken by the Minister.

Note—

The extent to which this change may impact on access licence holders is limited by clause 28.

Part 4 Environmental water provisions

17 Environmental water provisions

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

18 Planned environmental water

Note—

It is anticipated that the planned environmental water provisions in this Part and management of local impact provisions in Part 10 of this Plan will also protect the cultural and spiritual values of groundwater (see subclause 11 (a)).

(1) This Plan establishes the following planned environmental water rules:

(a) subject to Part 10 Division 2 of this Plan, the physical water contained in the storage component of Zones 1 to 12, minus the amount required for supplementary water access permitted under clause 25, as varied by clause 29 will be reserved for the environment,

(b) subject to Part 10 Division 2 of this Plan, the long-term average storage component of the groundwater contained in the aquifers of the Lower Namoi Groundwater Source, minus the amount required for supplementary water access permitted under clause 25, as varied by clause 29, will be reserved for the

environment.

Note—

Access to water under supplementary water access licences in this water source will not be permitted after the 30 June 2015 and the physical water contained in the storage component of this groundwater source will be reserved for the environment.

Note—

The model calculation for the long-term average storage component and the recharge in clause 16 (m) has accounted for a 7.1 gigalitres per year out flow from the Lower Namoi Groundwater Source.

- (2) The Minister may under section 45 (1) (b) of the Act amend subclause (1) after 30 June 2010 to include a portion of the average annual recharge to this groundwater source as planned environmental water, based on further studies of groundwater ecosystem dependency undertaken by the Minister.

Note—

The studies may recommend management options other than reservation of a portion of recharge to protect groundwater dependant ecosystems.

Note—

The extent to which this change may impact on access licence holders is limited by clause 28.

19 (Repealed)

20 Adaptive environmental water

- (1) Water may be committed in these water sources for environment purposes by an adaptive environmental water condition pursuant to section 8B 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 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 on farm water 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 on-farm water savings made,
 - (b) the access licence held being the highest priority category in this water source, other than a specific purpose category, and

- (c) an adaptive environmental water condition being imposed on the access licence and that condition not being removed.
- (5) The adaptive environmental water condition specified in subclause (1) and the plan for implementation of that condition, as required by section 8E (7) of the Act:
 - (a) are to be established by the Minister, and
 - (b) shall be such as to ensure that there will be a contribution to the objectives of this Plan.
- (6) 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.
- (7) 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 when the water is available in accordance with the adaptive environmental water condition on the access licence.
- (8) 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.
- (9) For the purposes of auditing compliance with the long-term extraction limit under this plan, the delivery of water pursuant to an access licence that has been committed as adaptive environmental water shall be accounted for as extraction where it occurs pursuant to a licence under subclause (7) or subclause (8).
- (10) 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 this plan.
- (11) Notwithstanding subclause (10) 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.
- (12) At the commencement of this clause, there were no access licences with an adaptive environmental water condition in these water sources.

Part 5 Basic landholder rights

21 Basic landholder rights

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

- (2) If a landholder is unable to exercise their basic landholder rights due to interference of their supply by extraction authorised by access licences:
 - (a) the Minister may amend a water supply works approval to allow the landholder's affected bore to be replaced or deepened to ensure continuing access to water for basic landholder rights', or
 - (b) the Minister may amend another water supply works approval so that basic rights water may be supplied by an alternative water supply work means during critical times.
- (3) In accordance with the legislative requirements, the Minister may impose a charge on access licence holders in these groundwater sources under section 114 of the Act, as a contribution to the costs of activities or works associated with subclause (2).
- (4) 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 by landholders authorised to use water for either or both of those purposes.

Note—

The Minister may, by order made under section 323 of the Act, impose temporary restrictions on basic landholder rights when it is necessary to do so in the public interest, such as to cope with a water shortage or threat to public health or safety.

Note—

The Minister may enforce any reasonable use guidelines by serving orders on individual landholders under section 325 of the Act. The Minister may also order individual landholders accessing basic landholder rights to take specified measures to protect the environment, to preserve basic landholder rights or to overcome a threat to public health under section 328 of the Act.

22 Domestic and stock rights

Note—

It is not recommended that the water from these groundwater sources be consumed without prior treatment. Land use activities may have polluted the groundwater in some areas.

- (1) At the commencement of this Plan the water requirements of holders of domestic and stock rights in these groundwater sources are estimated to be as follows:
 - (a) 39 ML/yr in Zone 1,
 - (b) 359 ML/yr in Zone 2,
 - (c) 470 ML/yr in Zone 3,
 - (d) 667 ML/yr in Zone 4,

- (e) 262 ML/yr in Zone 5,
- (f) 274 ML/yr in Zone 6,
- (g) 89 ML/yr in Zone 7,
- (h) 166 ML/yr in Zone 8,
- (i) 187 ML/yr in Zone 9,
- (j) 36 ML/yr in Zone 10,
- (k) 210 ML/yr in Zone 11,
- (l) 73 ML/yr in Zone 12, and
- (m) 3,304 ML/yr in the Lower Namoi.

- (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 overlying these groundwater sources, or as a result of the increase in the exercise of basic landholder rights by existing landholders.

23 Native title rights

- (1) At the commencement of this Plan there are no holders of native title rights and therefore the water requirements for native title rights are estimated to be a total of 0 ML/yr.
- (2) This Plan recognises that the exercise of 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's [Native Title Act 1993](#).

Part 6 Bulk access regime

24 Bulk access regime

- (1) This Part is made in accordance with section 20 (1) (d) of the Act.
- (2) This Plan establishes a bulk access regime for the extraction of water under access licences in these groundwater sources having regard to:
- (a) the environmental water provisions established under Part 4 of this Plan,
 - (b) the requirements for basic landholder rights identified under Part 5 of this Plan,

and

(c) the requirements for water for extraction under access licences identified under Part 7 of this Plan.

(3) The bulk access regime established in subclause (2):

(a) recognises the effect of climatic variability on the availability of water as provided for under Part 3 of this Plan,

(b) establishes rules according to which access licences are granted as provided for in Part 8 of this Plan,

(c) recognises and is consistent with limits to the availability of water as provided for in Part 9, Division 1 of this Plan,

(d) establishes rules according to which available water determinations are to be made as provided for in Part 9 Division 2 of this Plan,

(e) establishes rules according to which access licences are managed as provided for in Part 10 of this Plan, and

(f) establishes rules with respect to the priorities according to which access licences are to be adjusted as a consequence of any reduction in the availability of water as provided for in Parts 9 and 10 of this Plan.

Part 7 Requirements for water for extraction under access licences

25 Requirements for water under access licences

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

Note—

The amount of water specified in this Part represents the total volumes or total shares specified in the share components on access licence in these groundwater sources. The actual volume of water available at any time will depend on climate, access licence priority and the rules in this Plan.

25A Share components of domestic and stock access licences

It is estimated that at the time of commencement of this Plan, the share components of domestic and stock access licences authorised to extract water from these groundwater sources will total 0 ML/yr.

25B Share components of local water utility access licences

It is estimated that at the time of commencement of this Plan, the share components of local water utility access licences authorised to extract water from these groundwater sources will total 11,194 ML/yr, distributed as follows:

(a) 1,716 ML/yr in Zone 1,

Note—

The total 1,716 ML/yr for local water utility access licences is made up of 1,650 ML/yr for Quirindi and 66 ML/yr for Willow Tree.

(b) 59 ML/yr in Zone 2,

Note—

The total 59 ML/yr for local water utility access licences is for Mullaley.

(c) 199 ML/yr in Zone 3,

Note—

The total 199 ML/yr for local water utility access licences is for Curlewis.

(d) 4,660 ML/yr in Zone 4,

Note—

The total 4,660 ML/yr for local water utility access licences is made up of 3,900 ML/yr for Gunnedah and 760 ML/yr for Boggabri.

(e) 56 ML/yr in Zone 8,

Note—

The total 56 ML/yr for local water utility access licences is for Caroona.

(f) 97 ML/yr in Zone 9,

Note—

The total 97 ML/yr for local water utility access licences is made up of 42 ML/yr for Tambar Springs and 55 ML/yr for Premer.

(g) 4,407 ML/yr in the Lower Namoi.

Note—

The total 4,407 ML/yr for local water utility access licences is made up of 3,500 ML/yr for Narrabri, 900 ML/yr for Wee Waa and 7 ML/yr for Rowena.

Note—

Clause 25B represents the total volumes specified on access licences in these groundwater sources, it is not a commitment to supply that water.

25C Share components of aquifer access licences

- (1) For those *Water Act 1912* entitlements that are to become aquifer access licences in Zone 6, 9 and 10 at the commencement of this Plan, the share component is to be equal to the *Water Act 1912* entitlement.
- (2) For each entitlement referred to in Column 1 of Schedule 5 applying to the licences listed in Column 2 of Schedule 5 that are to become aquifer access licences in these groundwater sources at the commencement of this Plan, the share component is to be equal to the share component in Column 3 of Schedule 5.

- (3) For those *Water Act 1912* entitlements that are to become aquifer access licences in Zone 1, 2, 3, 4, 5, 7, 8, 11, 12, and the Lower Namoi at the commencement of this Plan, the share component will be established in accordance with the following formula:

$$SC_{AAL} = (AE/\Sigma AE) \times (R - LWU - SD - \Sigma SC)$$

Where:

(a) **SC_{AAL}** is the share component of the aquifer access licence,

(b) **AE** is the weighted entitlement calculated from the following formula:

$$AE = (HOE_{AAL} \times AR) + ((WAE - HOE_{AAL}) \times (1 - AR))$$

Where:

(i) **HOE_{AAL}** is as defined in subclauses (4), (5) and (6),

(ii) **AR** is 0.85 in Zone 11, 0.8 in Zones 1 and 2, 0.75 in Zone 5, 8 and 12 and 0.7 in Zone 3, 4, 7 and the Lower Namoi,

(iii) **WAE** is the *Water Act 1912* entitlement,

(c) **ΣAE** is the total of all adjusted entitlements for each water source calculated under subclause (b),

(d) **R** is the amount of recharge for each water source established in clause 16 (1),

(e) **LWU** is the total of local water utility access licence share components for each water source at the commencement of this Plan, and

(f) **SD** is the total of domestic and stock access licence share components for each water source at the commencement of the Plan,

(g) **ΣSC** is the sum of share components specified in Column 3 of Schedule 5.

- (4) For the purposes of subclause (2) and for access licences in Zones 1, 2, 3, 4, 5 and 8 HOE_{AAL} is equal to the greater of:

(a) the average metered extraction over the ten years from 1991/92 to 2000/01, not exceeding licence volumes at commencement of this Plan, or

(b) the average metered extraction over the five years from 1992/93 to 1996/97, not exceeding licence volumes at commencement of this Plan and excluding all zero and low extraction years prior to activation.

- (5) For the purposes of subclause (2) and for access licences in Zones 7, 11 and 12 HOE_{AAL} is equal to the greater of:

- (a) the average metered extraction over the ten years from 1991/92 to 2000/01, not exceeding access licence share components at commencement of this Plan, or
 - (b) the average metered extraction over the five years from 1992/93 to 1996/97, not exceeding access licence share components at commencement of this Plan and excluding all zero and low extraction years prior to activation, or
 - (c) the average metered extraction over the five years from 1996/97 to 2000/01, not exceeding access licence share components at the commencement of this Plan, and excluding all zero and low extraction years prior to activation.
- (6) For the purposes of subclause (2) and for access licences in the Lower Namoi HOE_{AAL} is equal to the greater of:
- (a) the average metered extraction over the ten years from 1991/92 to 2000/01, not exceeding licence volumes at commencement of this Plan, or
 - (b) the average metered extraction over the five years from 1992/93 to 1996/97, not exceeding licence volumes at commencement of this Plan and excluding all zero and low extraction years prior to activation,
 - (c) the average metered extraction over the five years from 1999/00 to 2003/04, not exceeding allocation announced volumes in 2000/01 and excluding all zero and low extraction years prior to activation.

Note—

The rules for determining HOE are contained in Appendix 4.

- (7) For the purposes of subclause (4), (5) and (6) zero and low extraction years are years where extraction was less than 20% of the maximum volume of water extracted in any one year between 1991/92 and 2000/01.
- (8) For the purposes of subclause (4), (5) and (6) activation is defined as the first year between 1991/92 and 2000/01 in which a licence holder extracted 20% or more of the maximum volume of water extracted in any one year between 1991/92 and 2000/01.
- (9) It is estimated that at the time of commencement of this Plan, the share components of aquifer access licences authorised to extract water from these groundwater sources will total 191,313 ML/yr, distributed as follows:
 - (a) 384 ML/yr in Zone 1,
 - (b) 7,141 ML/yr in Zone 2,
 - (c) 17,101ML/yr in Zone 3,
 - (d) 21,040 ML/yr in Zone 4,

- (e) 16,000 ML/yr in Zone 5,
- (f) 11,448 ML/yr in Zone 6,
- (g) 3,700 ML/yr in Zone 7,
- (h) 15,944 ML/yr in Zone 8,
- (i) 11,245 ML/yr in Zone 9,
- (j) 1,420 ML/yr in Zone 10,
- (k) 2,200 ML/yr in Zone 11,
- (l) 2,000 ML/yr in Zone 12, and
- (m) 81,593 ML/yr in the Lower Namoi.

25D Share components of supplementary water access licences

- (1) Those [Water Act 1912](#) entitlements that are to be converted to an aquifer access licence in these groundwater sources under subclause 25C (2) may also receive a supplementary water access licence.
- (2) The share component of a supplementary water access licence converted under subclause (1) will be established for those licences where $HOE > SC_{AAL}$ in accordance with the following formula:

$$SC_{SWAL} = HOE_{SWAL} - SC_{AAL}$$

where:

- (a) **SC_{SWAL}** is the share component for the supplementary water access licence,
 - (b) **HOE_{SWAL}** as defined in subclauses (3) and (4),
 - (c) **SC_{AAL}** is the share component of the aquifer access licence established under subclause 25C (2) and 25C (3).
- (3) For the purposes of subclause (2) and for access licences in Zones 1, 2, 3, 4, 5 and 8 and the Lower Namoi HOE_{SWAL} is equal to the greater of:
 - (a) the average metered extraction over the ten years from 1991/92 to 2000/01, not exceeding the announced allocations in 2000/01, or
 - (b) the average metered extraction in the five years from 1992/93 to 1996/97, not exceeding the announced allocation in 2000/01 and excluding all zero and low extraction years prior to activation.
 - (4) For the purposes of subclause (2) and for access licences in Zones 7, 11 and 12

HOE_{SWAL} is equal to the HOE_{AAL} established under subclause 25C (5).

- (5) For the purposes of subclause (3) zero and low extraction years are years where extraction was less than 20% of the maximum volume of water extracted in any one year between 1991/92 and 2000/01.
- (6) For the purposes of subclause (3) activation is defined as the first year between 1991/92 and 2000/01 in which a licence holder extracted 20% or more of the maximum volume of water extracted in any one year.
- (7) It is estimated that at the time of commencement of this Plan the sum of supplementary water access licences established under subclauses (1) for these groundwater sources will total 59,079 ML and be distributed as follows:
 - (a) 1,714 ML/yr in Zone 1,
 - (b) 5,931 ML/yr in Zone 2,
 - (c) 8,070 ML/yr in Zone 3,
 - (d) 13,890 ML/yr in Zone 4,
 - (e) 2,711 ML/yr in Zone 5,
 - (f) 7 ML/yr in Zone 7,
 - (g) 4,977 ML/yr in Zone 8,
 - (h) 15 ML/yr in Zone 11,
 - (h1) 774 ML/yr in Zone 12, and
 - (i) 21,005 ML/yr in the Lower Namoi.

Note—

Not all aquifer access licences amended under clause 25C will receive a supplementary water access licence. Only those licences that have a HOE_{SWAL} as defined in clause 25C (3) and (4) which is greater than their new aquifer access licence share component will receive a supplementary water access licence.

25E Changes to share components

- (1) This Plan recognises that the total requirements for water for extraction within these groundwater sources may change during the term of this Plan as a result of:
 - (a) the granting, surrender or cancellation of access licences, or
 - (b) the variation of local water utility access licences under section 66 of the Act.
- (2) Pursuant to section 68A of the Act the share component of each supplementary water access licence in these groundwater sources will be reduced to 0 ML on 1 July 2015.

- (3) Pursuant to section 77A of the Act supplementary water access licences will be cancelled after 1 July 2015.

Part 8 Rules for granting access licences

26 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 these groundwater sources and the need to protect groundwater dependent ecosystems, aquifer integrity and groundwater quality.
- (2) Applications for access licences may be made and access licences granted in these water sources if they are 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) an aquifer 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.

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) an access licence with a zero share component in accordance with sections 61 (1) (b) and 63 (5) of the Act,
- (c) an access licence that may be granted in accordance with a dealing that is permitted by Part 11 of this Plan.
- (3) In applying for a new access licence, the applicant must establish the purpose and circumstances relating to that access licence, and that the share and extraction component sought will be the minimum required to meet that purpose and circumstance.

- (4) Access licences granted under this Part cannot be used to extract water through a water supply work (bore) located in areas where the extraction authorised by the access licence plus the full extraction authorised by existing access licences nominating water supply works (bores) located in the area and the exercise of basic landholder rights, are likely to cause an adverse local impact, as outlined in Part 10 Division 2 of this Plan.
- (5) An access licences may be granted in these water sources where:
 - (a) a [Water Act 1912](#) licence was not converted at the commencement of this plan, or
 - (b) a licence is found to be taking water from a water source in this plan but has been incorrectly identified as taking water from another groundwater source, and the licence is cancelled in the other water source.
- (6) Aquifer access licences granted under subclause (5) shall be subject to the rules specified in clauses 25C and 25D.

Part 9 Limits to the availability of water

Division 1 Extraction limits

27 Extraction limits

- (1) This Division is made in accordance with sections 20 (2) (a) of the Act.
- (2) The extraction limit for each groundwater source each year of this Plan is the recharge established in clause 16, minus the proportion of recharge reserved as planned environmental water in clause 18, plus total water made available to supplementary water access licences under clause 29, and are initially as follows:
 - (a) 2,100 ML/yr plus total water made available to supplementary water access licences under clause 29, plus basic rights in Zone 1,
 - (b) 7,200 ML/yr plus total water made available to supplementary water access licences under clause 29 plus basic rights in Zone 2,
 - (c) 17,300 ML/yr plus total water made available to supplementary water access licences under clause 29 plus basic rights in Zone 3,
 - (d) 25,700 ML/yr plus total water made available to supplementary water access licence under clause 29 plus basic rights in Zone 4,
 - (e) 16,000 ML/yr plus total water made available to supplementary water access licences under clause 29 plus basic rights in Zone 5,
 - (f) 14,000 ML/yr plus total water made available to supplementary water access licences under clause 29 plus basic rights in Zone 6,

- (g) 3,700 ML/yr plus total water made available to supplementary water access licences under clause 29 plus basic rights in Zone 7,
- (h) 16,000 ML/yr plus total water made available to supplementary water access licence under clause 29 plus basic rights in Zone 8,
- (i) 11,400 ML/yr plus total water made available to supplementary water access licences under clause 29 plus basic rights in Zone 9,
- (j) 4,500 ML/yr plus total water made available to supplementary water access licences under clause 29 plus basic rights in Zone 10,
- (k) 2,200 ML/yr plus total water made available to supplementary water access licences under clause 29 plus basic rights in Zone 11,
- (l) 2,000 ML/yr plus total water made available to supplementary water access licences under clause 29 plus basic rights in Zone 12, and
- (m) 86,000 ML/yr plus total water made available to supplementary water access licences under clause 29 plus basic rights in the Lower Namoi.

28 Variation of extraction limits

- (1) The Minister may under section 45 (1) (b) of the Act amend clause 27 after 30 June 2010 to vary the extraction limits in accordance with:
 - (a) any change to the average annual recharge arising from subclause 16 (2) and (3), and
 - (b) any change to the planned environmental water arising from subclause 18 (2).
- (2) If there is any change to the extraction limits arising from subclause (1) then:
 - (a) the extraction limit for Zone 1 will not be greater than 2,625 ML/yr, plus total water made available to supplementary water access licences under clause 29, plus the total requirements for basic landholder rights at the commencement of this plan and will not be less than 1,575 ML/yr, plus total water made available to supplementary water access licences under clause 29 plus the total requirements for basic landholder rights at the commencement of this plan,
 - (b) the extraction limit for Zone 2 will not be greater than 9,000 ML/yr, plus total water made available to supplementary water access licences under clause 29, plus the total requirements for basic landholder rights at the commencement of this plan and will not be less than 5,400 ML/yr, plus total water made available to supplementary water access licences under clause 29 plus the total requirements for basic landholder rights at the commencement of this plan,
 - (c) the extraction limit for Zone 3 will not be greater than 21,625 ML/yr, plus total

water made available to supplementary water access licences under clause 29, plus the total requirements for basic landholder rights at the commencement of this plan and will not be less than 12,975 ML/yr, plus total water made available to supplementary water access licences under clause 29 plus the total requirements for basic landholder rights at the commencement of this plan,

- (d) the extraction limit for Zone 4 will not be greater than 32,125 ML/yr, plus total water made available to supplementary water access licences under clause 29, plus the total requirements for basic landholder rights at the commencement of this plan and will not be less than 19,275 ML/yr, plus total water made available to supplementary water access licences under clause 29 plus the total requirements for basic landholder rights at the commencement of this plan,
- (e) the extraction limit for Zone 5 will not be greater than 20,000 ML/yr, plus total water made available to supplementary water access licences under clause 29, plus the total requirements for basic landholder rights at the commencement of this plan and will not be less than 12,000 ML/yr, plus total water made available to supplementary water access licences under clause 29 plus the total requirements for basic landholder rights at the commencement of this plan,
- (f) the extraction limit for Zone 6 will not be greater than 17,500 ML/yr, plus the total requirements for basic landholder rights at the commencement of this plan and will not be less than 10,500 ML/yr, plus the total requirements basic landholder rights at the commencement of this plan,
- (g) the extraction limit for Zone 7 will not be greater than 4,625 ML/yr, plus total water made available to supplementary water access licences under clause 29, plus the total requirements for basic landholder rights at the commencement of this plan and will not be less than 2,775 ML/yr, plus total water made available to supplementary water access licences under clause 29 plus the total requirements for basic landholder rights at the commencement of this plan,
- (h) the extraction limit for Zone 8 will not be greater than 20,000 ML/yr, plus total water made available to supplementary water access licences under clause 29, plus the total requirements for basic landholder rights at the commencement of this plan and will not be less than 12,000 ML/yr, plus total water made available to supplementary water access licences under clause 29 plus the total requirements for basic landholder rights at the commencement of this plan,
- (i) the extraction limit for Zone 9 will not be greater than 14,250 ML/yr, plus the total requirements for basic landholder rights at the commencement of this plan and will not be less than 8,550 ML/yr, plus the total requirements basic landholder rights at the commencement of this plan,
- (j) the extraction limit for Zone 10 will not be greater than 5,625 ML/yr, plus the total requirements for basic landholder rights at the commencement of this plan and

will not be less than 3,375 ML/yr, plus the total requirements basic landholder rights at the commencement of this plan,

- (k) the extraction limit for Zone 11 will not be greater than 2,750 ML/yr, plus total water made available to supplementary water access licences under clause 29, plus the total requirements for basic landholder rights at the commencement of this plan and will not be less than 1,650 ML/yr, plus total water made available to supplementary water access licences under clause 29 plus the total requirements for basic landholder rights at the commencement of this plan,
- (l) the extraction limit for Zone 12 will not be greater than 2,500 ML/yr, plus total water made available to supplementary water access licences under clause 29, plus the total requirements for basic landholder rights at the commencement of this plan and will not be less than 1,500 ML/yr, plus total water made available to supplementary water access licences under clause 29 plus the total requirements for basic landholder rights at the commencement of this plan,
- (m) the extraction limit for the Lower Namoi will not be greater than 107,500 ML/yr, plus total water made available to supplementary water access licences under clause 29, plus the total requirements for basic landholder rights at the commencement of this plan and will not be less than 64,500 ML/yr, plus total water made available to supplementary water access licences under clause 29 plus the total requirements for basic landholder rights at the commencement of this plan.

28A Compliance with the extraction limits

- (1) Water extraction in each of these groundwater sources will be monitored each water year to determine if there is any growth in volume extracted above the respective extraction limit specified in clause 27, based a comparison of the extraction limit against the extraction within each groundwater source over that year and the preceding 2 years.
- (2) For the purposes of auditing compliance with the extraction limit, if water that:
 - (a) pursuant to an access licence is committed as adaptive environmental water to be left in the aquifer for environmental purposes, then extraction will be assumed to be equal to 100% of the available water determination made under clause 29, or
 - (b) pursuant to an access licence is committed as adaptive environmental water to be extracted for environmental purposes, then extraction will be that measured through the approved water supply work (bore).
- (3) If the 3 year average of extraction in a groundwater source exceeds the extraction limit established in subclause 27 (2) by 5% or greater, then the available water determination made for aquifer access licences under clause 29 in that groundwater

source, for the following water year, should be reduced by an amount that is assessed necessary by the Minister to return subsequent total water extraction to the extraction limit.

Division 2 Available water determinations

29 Available water determinations

- (1) This Division is made in accordance with section 20 (2) (b) of the Act.
- (2) Pursuant to section 58 (4) of the Act this plan amends the relative priorities of the categories of aquifer access licence and supplementary water access licence to the extent necessary to legally make the available water determinations as set out in this clause.
- (3) All available water determinations in these groundwater sources shall be expressed as either:
 - (a) a percentage of the share component for all access licences where share components are specified as megalitres per year, or
 - (b) megalitres per unit of share component for all access licences where share components are specified as a number of shares.
- (4) An available water determination for each category of access licence in each groundwater source should be made at the commencement of each water year.
- (5) The available water determinations made at the commencement of the water year for domestic and stock and local water utility access licences should be 100% of share components.
- (6) The available water determination made at the commencement of each water year for aquifer access licences should be such that the total of available water determinations for each water source under this clause equals the extraction limit for the water source set in clause 27 (2) minus the total requirements for basic landholder rights, minus the total available water determinations for domestic and stock and local water utility access licences and supplementary water access licences, or such lower amount as results from the operation of clause 28A (3) and subclause (7).
- (7) The available water determination for all aquifer access licences in the Zones 6, 9 and 10 will not exceed 1 ML per unit of share component.
- (8) The available water determination for Zone 1 at the commencement of this plan and at the commencement of the 2007/08 water year for supplementary water access licences should be 1 ML per unit of share component.
- (9) The available water determination for Zone 1 made at the commencement of each year after the 2007/08 water year for supplementary water access licences will be

reduced by 0.12 ML per unit of share component each year.

Note—

Subclause (8) and (9) means that allocations for supplementary water access licences in Zone 1 will diminish each year by 0.12 ML per unit share after year 2. For example, the available water determination for year 1 is 1.0 ML, year 2 is 1.0 ML, year 3 is 0.88 ML, year 4 is 0.76 ML, year 5 is 0.64 ML, year 6 is 0.52 ML, year 7 is 0.40 ML, year 8 is 0.28 ML and year 9 is 0.16 ML.

(10) The available water determination for Zones 2, 3, 4, and 8 and the Lower Namoi made at the commencement of this plan for supplementary water access licences should be 0.9 ML per unit of share component.

(11) The available water determination for Zones 2, 3, 4, and 8 and the Lower Namoi made at the commencement of each year after the 2006/07 water year for supplementary water access licences will be reduced by a further 0.1 ML per unit of share component each year.

Note—

Subclause (10) and (11) means that allocations for supplementary water access licences in Zones 2, 3, 4, 8 and the Lower Namoi will diminish each year by 0.1 ML per unit share. For example, the available water determination for year 1 is 0.9 ML, year 2 is 0.8 ML, year 3 is 0.7 ML, year 4 is 0.6 ML, year 5 is 0.5 ML, year 6 is 0.4 ML, year 7 is 0.3 ML, year 8 is 0.2 ML and year 9 is 0.1 ML.

(12) The available water determination for Zones 5, 11, and 12 made at the commencement of this plan and at the commencement of each water year up to and including the 2009/10 water year for supplementary water access licences should be 1 ML per unit of share component.

(13) The available water determination for Zones 5, 11, and 12 made at the commencement of each year after the 2009/10 water year for supplementary water access licences will be reduced by 0.16 ML per unit of share component each year.

Note—

Subclause (12) and (13) means that allocations for supplementary water access licences in Zones 5, 11, and 12 will diminish each year by 0.16 ML per unit share after year 4. For example, the available water determination for year 1 is 1.0 ML, year 2 is 1.0 ML, year 3 is 1.0 ML, year 4 is 1.0 ML, year 5 is 0.84 ML, year 6 is 0.68 ML, year 7 is 0.52 ML, year 8 is 0.36 ML and year 9 is 0.20 ML.

(14) The available water determination for Zone 7 made at the commencement of this plan and at the commencement of each water year up to and including the 2012/13 water year for supplementary water access licences should be 1 ML per unit of share component.

(15) The available water determination for Zone 7 made at the commencement of each year after the 2012/13 water year for supplementary water access licences will be reduced by 0.33 ML per unit of share component each year.

Note—

Subclause (14) and (15) means that allocations for supplementary water access licences in Zone 7 will diminish each year by 0.33 ML per unit share after year 7. For example, the available water determination

for year 1 is 1.0 ML, year 2 is 1.0 ML, year 3 is 1.0 ML, year 4 is 1.0 ML, year 5 is 1.0 ML, year 6 is 1.0 ML, year 7 is 1.0 ML, year 8 is 0.67 ML and year 9 is 0.34 ML.

- (16) The available water determination for supplementary water access licences will be reduced to 0 ML per unit of share component at the commencement of the 2015/16 water year.

Part 10 Rules for managing access licences

30 Rules for managing access licences

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

- (a) the environmental water rules established in Part 4 of this Plan,
- (b) requirements for water to satisfy basic landholder rights identified in Part 5 of this Plan, and
- (c) requirements for water for extraction under access licences in Part 7 of this Plan.

Division 1 Water allocation account management

31 Water allocation account management

This Division is made in accordance with sections 20 (2) (b) and 21 (c) of the Act.

32 Water allocation accounts

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

Note—

Water allocation may be assigned to, or from, these accounts by a water allocation assignment made under section 71T of the Act, where these are allowed under rules specified in Part 11 of this Plan.

33 Accrual of water allocations

Water allocations will be accrued into water allocation accounts each year in accordance with the Minister's available water determinations as specified in clause 29.

34 Annual accounting for water extraction

- (1) Water taken from these groundwater sources will be accounted for at least annually.
- (2) Water taken by a water supply work (bore) nominated by an access licence will be periodically debited against the access licence water allocation account.
- (3) A water allocation account shall remain at or above zero at all times.
- (4) Unused water allocations in the water allocation accounts of domestic and stock

access licences or of local water utility access licences, cannot be carried over from one water year to the next.

- (5) In any water year, subject to local impact management restrictions arising from Part 10, Division 2 of this Plan, water taken from these groundwater sources under a local water utility access licence or a domestic and stock access licence, and total water in any water allocation account at any time associated with such an access licence, may not exceed a volume equal to:
 - (a) 100% of the share component of the access licence,
 - (b) plus any water allocations assigned from another access licence under section 71T of the Act in that year,
 - (c) plus any water allocations re-credited in accordance with section 76 of the Act in that year, and
 - (d) minus any water allocations assigned to another licence under section 71T of the Act in that year.
- (6) Unused water allocations in the water allocation accounts of aquifer access licences may be carried over from one water year to the next, subject to subclause (7).
- (7) The maximum amount of unused water allocations that can be carried over under subclause (6) is equal to 2 ML per unit of share component.
- (8) In any water year, subject to local impact management restrictions arising from Part 10, Division 2 of this Plan, water taken from these groundwater sources under an aquifer access licence may not exceed a volume that is equal to:
 - (a) 2 ML per unit of aquifer access licence share component,
 - (b) plus any water allocations assigned from another access licence under section 71T of the Act in that year, and
 - (c) minus any water allocations assigned to another access licence under section 71T of the Act in that year.
- (9) Total water in any aquifer access licence water allocation account at any time may not exceed a volume consisting of:
 - (a) 3 ML per unit of aquifer access licence share component,
 - (b) plus any water allocations assigned from another licence under section 71T of the Act in that year,
 - (c) minus any water allocations assigned to another licence under section 71T of the Act in that year.

- (10) Unused water allocations in the water allocation accounts of supplementary water access licences cannot be carried over from one water year to the next.
- (11) In any water year, subject to local impact management restrictions arising from Part 10, Division 2 of this Plan, water taken from any of these groundwater sources under a supplementary water access licence, may not exceed the allocation resulting from the available water determination.
- (12) Where both an aquifer access licence and a supplementary water access licence nominate the same water supply works and use approval, water allocations will be debited from a supplementary water access licence water allocation account before water is debited from an aquifer access licence water allocation account.

Division 2 Management of local impact

35 Management of local impact

This Division is made in accordance with sections 21 (a) of the Act.

36 Extraction interference between neighbouring bores

- (1) With the exception of a water supply work (bore) for the supply of basic landholder rights only, applications for a new water supply work (bore) within 100 metres of any bores for the supply of basic landholder rights, will require an investigation by the proponent of the potential impact on neighbouring bores.
- (2) A new water supply work (bore) to exercise basic landholder rights will be required to be drilled to sufficient depth to maintain long-term access to the water source.
- (3) A minimum distance of 400 metres is to be maintained between all new and replacement water supply works (bores), except those for the supply of basic landholder rights only.
- (4) A new or replacement water supply work (bore) shall be located no closer than 200 metres from a property boundary.
- (5) Notwithstanding the provisions of subclauses (1) to (3), the Minister may, upon application by an access licence holder, vary the distance restrictions specified in subclauses (1) to (3) if:
 - (a) a hydrogeological study undertaken by the licence holder, assessed as adequate by the Minister, demonstrates minimal potential for adverse impact on existing licensed extraction, including consideration of cumulative impact,
 - (b) written consent is obtained by the applicant from adjacent landowners, and
 - (c) there is a process for remediation in the event that an adverse impact occurs in the future, specified as conditions on the licence.

Note—

The onus will be on the applicant to negotiate with neighbouring licence and approval holders, to specify the process for managing pumping, to monitor impact, and to provide plans to mitigate potential impact, and a process for remediation in the event unacceptable impact are reported in the future.

- (6) In the event that there is a dispute between neighbours as to whether the new licensee has had an impact on overall water security, the Minister reserves the right to impose, or amend licence conditions on any or all parties, and the Minister may impose additional requirements such as constructing an additional monitoring bore on the property boundary in order to establish conditions that limit the level of drawdown off-site.
- (7) A new or replacement water supply work (bore), with the exception of a water supply work (bore) for the supply of basic landholder rights only, cannot be constructed within a minimum distance of:
 - (a) 500 metres of a bore nominated by a local water utility access licence,
 - (b) 400 metres of a Departmental monitoring bore,
 - (c) 400 metres of a bore extracting from the Great Artesian Basin,
 - (d) 500 metres of a wetland, or
 - (e) 200 metres of a river.

Note—

These are standard conditions and situations may occur due to the isotropic and heterogeneous conditions of aquifers where interference occurs. In these situations the Minister may place further conditions on a water supply work (bore) location.

37 Water level management

- (1) The Minister may declare that, in order to protect water levels within these groundwater sources, local access restrictions are to apply in a defined area known as a local impact area.
- (2) If water levels in any part of these groundwater sources have declined to such an extent that adverse impact is occurring, or is likely to occur, extraction from all water supply works (bores) nominated by access licences within a local impact area declared under subclause (1) will be restricted to such an extent and for such time as is required to reinstate water levels to such a degree as to mitigate or avoid that impact.

Note—

This provision recognises that in some locations, at certain periods of high groundwater demand, critical water level declines may occur, and that additional extraction limitations may be required.

38 Water quality management

(1) The beneficial uses of these groundwater sources are:

- (a) raw water for drinking, and
- (b) agriculture use,

based on beneficial use classes identified in the Australian and New Zealand Environment and Conservation Council *Water Quality Guidelines 2001*, and the National Health and Medical Research Council *Raw Water for Drinking Purposes Guidelines 1996*.

(2) Pursuant to subclause (1), water quality decline will be deemed unacceptable if extraction is likely to cause water quality to decline to a lower beneficial use class.

Note—

It is not recommended that the water from these groundwater sources be consumed without prior treatment. Land use activities may have polluted the groundwater in some areas.

(3) The Minister may declare that, in order to protect water quality within these groundwater sources, local access rules are to apply in a defined area, known as a local impact area.

(4) If water quality declines are resulting from extraction, extraction from all water supply works (bores) within a local impact area declared under subclause (3) from which access is authorised by an access licence will be restricted to such an extent and for such time as required to halt that decline, or restore the beneficial use of these groundwater sources.

39 Protection of groundwater dependent ecosystems

(1) Extraction of groundwater from a new or replacement water supply work (bore) is excluded within 100 metres of high priority groundwater dependent ecosystems, or any creek or river, or where impact may occur on Aboriginal cultural heritage values for those exercising basic landholder rights, and 200 metres for extraction authorised by all other access licences, unless the water supply work (bore):

- (a) only draws water from an aquifer at depths as approved by the Minister, and
- (b) has an impermeable seal, as specified by the Minister, constructed within the bore to isolate aquifers preventing water ingress from the restricted aquifer.

Note—

Subclause (1) will not apply to extraction from an existing work until such time as the work is replaced.

(2) High priority groundwater dependent ecosystems are listed in Schedule 4.

(3) The Minister may, under section 45 (1) (b) of the Act, identify further high priority

groundwater dependant ecosystems and include them in Schedule 4 after 30 June 2010, based on further studies of groundwater dependency undertaken by the Minister.

- (4) The Minister should consult with the Minister for the Environment before adding further high priority groundwater dependent ecosystems to Schedule 4.

40 Protection of aquifer integrity

- (1) The Minister may declare that, in order to protect the integrity of the aquifers within these groundwater sources, local access restrictions are to apply in a defined area known as a local impact area.
- (2) The Minister may, on presentation of evidence of land subsidence or aquifer compaction, restrict extraction from all water supply works (bores) nominated by access licences within a local impact area declared under subclause (1), to such an extent and for such time as to stabilise that subsidence or compaction.

41 Extraction restrictions

- (1) The Minister may, in the event of local impact restrictions arising from this Division, impose by Order, a reduction in annual, quarterly, monthly, weekly or daily extraction rates from water supply works (bores) nominated by access licences in the affected area.
- (2) Before making an Order under subclause (1) the Minister should consult with representatives of the affected access licence holders.

42 Group registration

This Plan allows for the formation of a group of access licences with respect to the sharing of local impact restrictions arising from this Division, subject to the following rules:

- (a) the group register will be maintained by the Minister,
- (b) holders of access licences must make a request to the Minister to form a group,
- (c) total extraction by all access licences within a group will be assessed as a whole against their combined restricted extraction and must not exceed that amount,
- (d) no access licence holder within the group may extract more than is permitted by Division 1 of this Part in any one water accounting year as a result of participation in a group,
- (e) an access licence holder may apply to be removed by the Minister from the group and the extraction by the group will be reduced by the extraction restriction of that licence holder,
- (f) an access licence holder may apply to be added by the Minister to the group and the

combined restricted extraction of the group will be increased by the extraction restriction of that licence holder, and

- (g) the Minister reserves the right to remove a licence holder from a group where that individual causes the group extraction restriction to be exceeded, or to dissolve a group where its members exceed their combined extraction restriction.

43 Infrastructure failure

- (1) The operational rules relating to local impact management may rely on water levels at specified monitoring bores.
- (2) In the event of a monitoring bore failure the Minister may:
 - (a) continue with the current access rules until the monitoring bore is reinstated,
 - (b) adjust the current access rules based on climatic conditions and any other monitoring bore information, until the monitoring bore is reinstated, or
 - (c) rely on another monitoring bore in the area to provide information.

Part 11 Access licence dealing rules

44 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 gazetted 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, 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.

45 Rules relating to constraints within a groundwater source

- (1) This clause applies to any relevant dealings under sections 71Q, 71S, and 71W of the Act, and section 71T of the Act with respect to allocation assignments within this groundwater source.

- (2) Dealings are prohibited under this clause if:
- (a) any of the access licences or water allocations involved are not within these groundwater sources,
 - (b) the dealing results in the total access licence share components or credited water allocations authorised to be extracted through nominated works at a location exceeding 600 ML/yr per square kilometre,
 - (c) the dealing would result in the total extraction under access licences through nominated works in the area, plus basic landholder rights extraction, causing an adverse local impact in accordance with Part 10 Division 2 of this Plan,
 - (d) (Repealed)
 - (e) the dealing involves a supplementary water access licence, or any water allocation credited to a supplementary water access licence.

46 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 works (by a dealing under section 71W of the Act) in the receiving water source before extraction can commence.

- (2) An access licence with a share component specifying one of these groundwater sources may be cancelled and a new licence issued under this dealing only if:
- (a) the access licence cancelled is an aquifer access licence within one of the Upper Namoi Groundwater Sources,
 - (b) the access licence issued is within Zone 10, and
 - (c) the total share components of all access licences in Zone 10 remains below 58% of the recharge established in clause 16 for that Zone until the 30 December 2007,
 - (d) the total share components of all access licences in Zone 10 remains below 70% of the recharge established in clause 16 for that Zone after the 30 December 2007.
- (3) The share component of an access licence issued under a dealing provided for in subclause (2) is to be equal to the share component of the cancelled access licence.

47 Rules for conversion of access licence category

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

- (2) Dealings that result in conversions of an access licence of one category to an access licence of another category are prohibited in these groundwater sources.

48 Rules for interstate access licence transfer

- (1) This clause relates to dealings under section 71U of the Act.
- (2) Dealing that result in interstate access licence transfers into or out of these groundwater sources are prohibited.

49 Rules for water allocation assignments between water sources

- (1) This clause relates to dealings under section 71T of the Act.
- (2) Dealings that assign water allocations between access licences in different water sources are prohibited unless provided for in this clause.
- (3) Dealings that assign water allocations between an access licence in one of these groundwater sources and an access licence in another of these groundwater sources are permitted only if:
 - (a) the access licence from which the water allocation is assigned is an aquifer access licence within one of the Upper Namoi Groundwater Sources,
 - (b) the access licence to which the water allocation is assigned is within Zone 10,
 - (c) the total water allocations credited to all access licences in Zone 10 remains below 70% of the recharge established in clause 16 for that Zone, and
 - (d) the assignment would not result in the total extraction of credited water allocations through nominated works in the area, plus basic landholder rights extraction, causing adverse local impact in accordance with Part 10 Division 2 of this Plan.

Note—

Each water allocation assignment must be applied for. Access licence holders may enter into private contracts to assign water allocations for a number of years. Such contracts are not guaranteed by the Government, and approval must be sought annually. Approval will be subject to the rules in this Plan, including local impact assessment.

50 Rules for interstate assignment of water allocations

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

Part 12 Mandatory conditions

51 Mandatory conditions on access licences

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

52 Access licences

- (1) All access licences shall have mandatory conditions to give effect to the provisions of this Plan in relation to the following:
 - (a) the specification of share components of the licences,
 - (b) the specification of extraction components of the licences,
 - (c) the requirement that all extraction under access licences will be subject to the available water determinations,
 - (d) the requirement that all extraction under access licences will be subject to any local impact management restrictions established in this Plan,
 - (e) the requirement that all extraction under access licences will be subject to the account management rules established in this Plan,
 - (f) the taking of water in accordance with the access licence will only be permitted if the resulting debit from the access licence water allocation account will not exceed the volume of water allocation remaining in the account, and
 - (g) any other conditions required to implement the provisions of this Plan.
- (2) All supplementary water access licences shall have mandatory conditions to give effect to clause 25E (2) and (3), in relation to the amendment of access licence share components and cancellation of supplementary water access licences.
- (3) All supplementary water access licences shall have mandatory conditions to give effect to clause 25, in relation to the amendment of access licence share components.
- (4) All domestic and stock 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.
- (5) 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.

53 Mandatory conditions on water supply work (bore) approvals

All approvals for a water supply work (bore) to which this Plan applies shall have mandatory conditions in relation to the following:

- (a) the water supply work (bore) is only to be constructed by a driller licensed under section 349 of the Act,
- (b) the water supply work (bore) must comply with drilling standards as specified by the Minister,
- (c) construction of a water supply work (bore) must prevent contamination between aquifers through proper bore construction,
- (d) a water supply work (bore) approval holder must ensure decommissioning procedures comply with applicable standards as specified by the Minister,
- (e) a new or replacement water supply work (bore) to access water for basic rights will be required, as a condition of approval, to be constructed to sufficient depth to maintain access to the water source for the life of the work,
- (f) the water supply work (bore) approval holder is, within 2 months of completion, or after the issue of the approval if the water supply work (bore) is existing, to provide the Minister with:
 - (i) details of the work on the prescribed form,
 - (ii) a plan showing accurately the location of the work in relation to portion and property boundaries, and
 - (iii) details of any water analysis and/or pumping tests required by the Minister,
- (g) if, during the construction of the water supply work (bore), saline or contaminated water is encountered above the producing aquifer, such water is to be sealed off by:
 - (i) inserting the appropriate length(s) of casing to a depth sufficient to exclude the saline or contaminated water from the work, and
 - (ii) placing an impermeable seal between the casing(s) and the walls of the bore hole from the bottom of the casing to ground level, as specified by the Minister,
- (h) if a water supply work (bore) is abandoned, the water supply work (bore) approval holder is to:
 - (i) notify the Minister that the work has been abandoned, and
 - (ii) seal off the aquifer by backfilling the work to ground level after withdrawing the casing (lining), as specified by the Minister,
- (i) an extraction measurement device shall be installed and maintained on each water supply work (bore) used for extraction of water under an access licence, and such devices shall be of a type and shall be maintained in a manner which is acceptable to the Minister,

- (j) a water supply work (bore) must comply with the relevant local impact management rules in Part 10 of this Plan,
- (k) notwithstanding the available water determination, it is the responsibility of the water supply work (bore) approval holder to ascertain from the Minister whether or not there are in place any local impact restrictions before commencing to take water from these groundwater sources,
- (l) extraction under an access licence through the approved water supply work (bore) is only authorised with respect to the access licences specified on the water supply work (bore) approval,
- (m) a water supply work (bore) approval holder must supply to the Minister on request, and to the required standards, a report pertaining to the quality of the water obtained from the water supply work (bore), and
- (n) any other conditions required to implement the provisions of this Plan.

Note—

It is recommended that the Minister also apply conditions to water use approvals requiring the supply of information on an annual basis on types and areas of irrigated crops.

Part 13 Monitoring and reporting

54 Monitoring

The monitoring of the performance indicators specified in clause 13 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 in consultation with a water management committee where one exists.

Note—

The 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 will be included in the annual report for the Department.

Part 14 Amendment of this Plan

55 Amendment of this Plan

- (1) This Part is made in accordance with section 45 (1) (b) of the Act.
- (2) This Plan can be amended in accordance with the following clauses of this Plan:
 - (a) clause 16 in respect to the average annual recharge,
 - (b) clause 18 in respect to planned environmental water,
 - (c) clause 28 in respect to the extraction limit, or
 - (d) clause 39 in respect to high priority groundwater dependent ecosystems.

56 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 annual average 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.

Dictionary

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

abandoned refers to a water supply work (bore) that is no longer being used.

aquifer compaction refers to the reduction in the porosity (pore spaces) of an aquifer, and may result from over pumping the aquifer.

aquitards are geologic units that are of low permeability. Aquitards usually form a layer in a geologic

sequence. They may contain water, but would not yield reasonable volumes of water to bores or wells. An example of an aquitard would be a saturated clay layer that is overlying a saturated sandy aquifer.

aquitard compaction refers to the reduction in the porosity (pore spaces) of an aquitard.

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.

Note—

An available water determination gives rise to a water allocation that is credited to a water allocation account for each licensed holder.

compaction see [aquifer compaction](#).

component see [share component](#).

drawdown refers to a lowering of the piezometric surface. Natural drawdown may occur due to seasonal climatic changes. Groundwater pumping may also result in seasonal and long-term drawdown.

extraction limit is the amount of water that can be extracted in each water accounting year of this Plan., subject to water allocation account management rules.

Great Artesian Basin is a 'confined' groundwater basin comprised of a complex multi-layered system of water bearing strata (porous sandstone aquifers) separated by largely impervious rock units, underlying largely arid and semi-arid landscapes to the west of the Great Dividing Range, and extending from Queensland through New South Wales and the Northern Territory, to South Australia.

groundwater is water that occurs beneath the ground surface in the saturated zone.

groundwater dependent ecosystems are ecosystems which have their species composition and natural ecological processes determined by groundwater.

long term average storage component is the volume of water in the aquifer less the combined average annual recharge and requirements for basic rights at the commencement of this plan, and exceeds the combined requirements for basic rights extraction and supplementary access provided for in this Plan.

monitoring bore refers to a bore constructed for the purpose of measuring water levels and/or taking samples for water quality analysis.

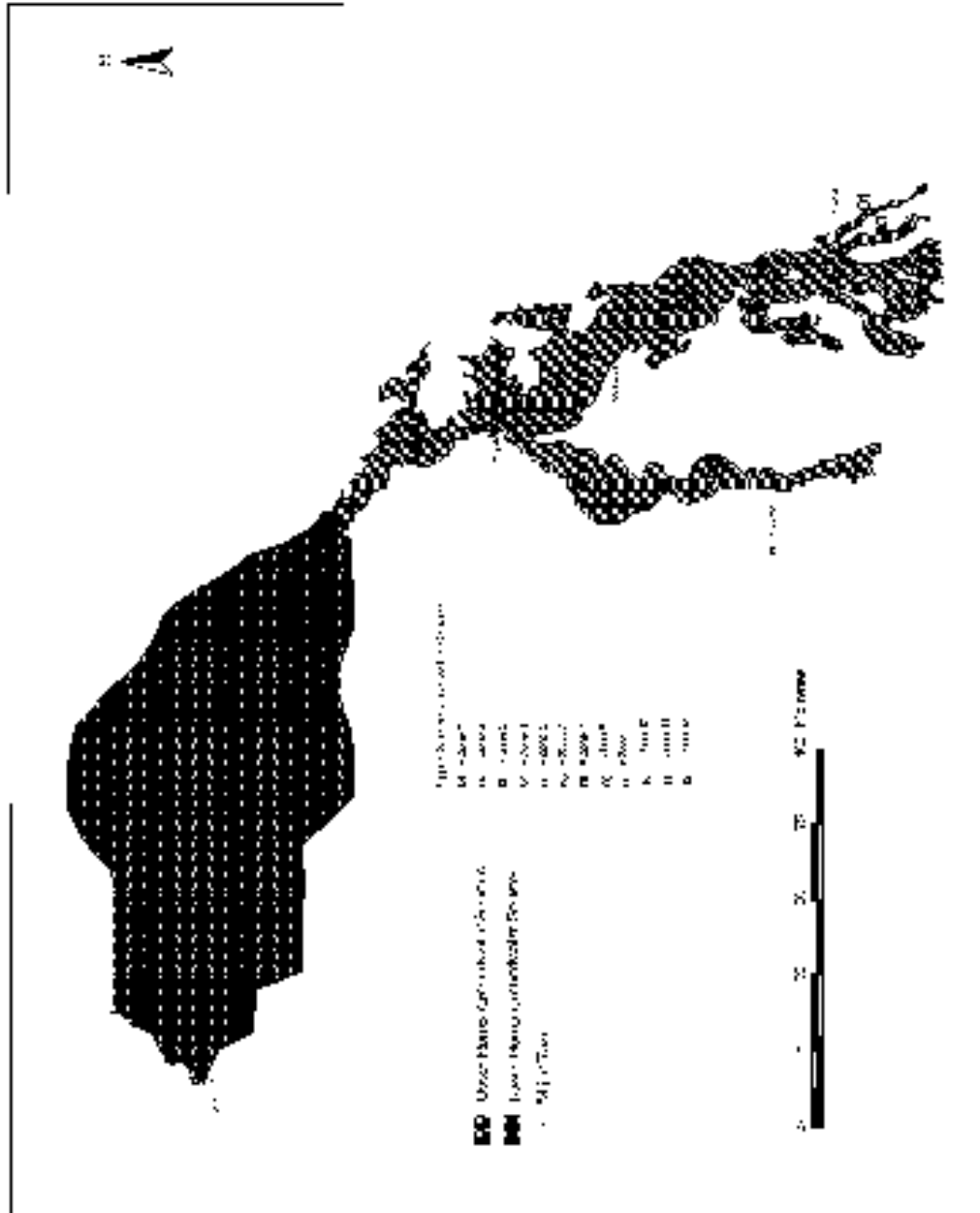
recharge is the addition of water, usually by infiltration, to an aquifer.

share component is the share component of an access licence.

unconsolidated alluvial sediments are sediments deposited by the action of flowing water, in particular along river beds and floodplains, but not including lakes and seas.

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

Schedule 2 Upper and Lower Namoi Groundwater Sources



Schedule 3 Contribution to relevant targets in the December 2002 State Water Management Outcomes Plan

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 the target

Relevant target	Level of contribution	Comments
<p>Target 1e The long term average annual extractions for groundwater limited (or being phased down) to an ecologically sustainable level (the Sustainable Yield) as determined by detailed assessment of each groundwater source and consultation with the relevant management committee. In the absence of such an assessment, the following to apply: 100 percent of average annual recharge for a groundwater source where there is no significant ecosystem dependency; 70 percent of average annual recharge where there is significant ecosystem dependency</p>	PARTIAL	<ul style="list-style-type: none"> • This Plan sets out the Sustainable Yield as 100% of estimated recharge which is also distributed by each water source • Detailed assessment of groundwater dependent ecosystems and their environmental requirements has not been undertaken, however there is a review of groundwater dependent ecosystem requirements and this Plan can be amended in the 2010/11 water year to take account of the results of this
<p>Target 1f Rules for adjustments to future water determinations in the event that the extraction limits are exceeded, clearly prescribed in consultation with the relevant water management committee, and acted upon</p>	FULL	<ul style="list-style-type: none"> • Rules set out in Part 9 of this Plan • Detailed assessment of groundwater dependent ecosystems and their environmental requirements has not been undertaken
<p>Target 2 All 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</p>	PARTIAL	<ul style="list-style-type: none"> • This Plan excludes licensed extraction from within 200 metres of high priority groundwater dependent ecosystems which may be identified during the term of this Plan, creeks and rivers (or 100m for basic rights) • This Plan sets out local extraction rules to prevent the localised decline in water levels • However the water account rules in Part 10 of this Plan allow a high level of extraction to occur and may place the resource and any dependent ecosystems at risk • This Plan allows for a review of groundwater dependent ecosystems by 30 June 2011

<p>Target 5 Access rights for water access licensees clearly and legally specified in terms of share and extraction components</p>	<p>PARTIAL</p>	<ul style="list-style-type: none"> • This Plan establishes transparent Sustainable Yields and allocation rules • Access licence share components are tradeable under this Plan • This Plan recommends embargos on new licence application • The reduction in access licence share components are made explicit in this Plan • The water account rules in Part 10 of this Plan may allow a high level of extraction to occur and place the rights of other licence holders at risk • The local impact management rules means that rights will not be exclusive but affected by the future location of works. Licences with existing water supply works (bores) will have priority over licences requiring new water supply works (bores)
<p>Target 6a The total volume of water specified on access licences reduced over the term of a water sharing plan to no more than 125% of the Sustainable Yield</p>	<p>FULL</p>	<ul style="list-style-type: none"> • The total access licence share components for aquifers (and individual water sources) is greater than 125% of Sustainable Yield • This Plan provides for a reduction in share components in Year 1 to 100% of Sustainable Yield (which is set at recharge).
<p>Target 10 Degree of connectivity between aquifers and rivers assessed, and zones of high connectivity mapped to enable baseflows to the river to be maintained or improved</p>	<p>PARTIAL</p>	<ul style="list-style-type: none"> • Detailed assessment of connectivity has not been undertaken • A review of groundwater dependent ecosystem requirements is being undertaken in the first 5 years, and mechanisms are in this Plan to change the environmental rules as a result of that review

Target 11 Groundwater dependent ecosystems identified and mapped for all priority aquifers, and the ecological water requirements assessed to enable local groundwater extraction rates and/or Sustainable Yields to be reviewed

PARTIAL

- Detailed assessment of groundwater dependent ecosystems and their environmental requirements has not been undertaken
- This Plan excludes licensed extraction from within 200 metres (or 100m for basic rights) of high priority groundwater dependent ecosystems which may be identified during the term of this Plan, and these may not be identified until Year 5
- This Plan allows for a review of groundwater dependent ecosystems by 30 June 2011.

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

HIGH

- This Plan has identified the volumes necessary to meet domestic and stock requirements in each groundwater source
- This Plan protects domestic and stock bores from interference from higher yielding bores and local water level declines

Target 13 The knowledge sharing, training and resources necessary to ensure that Aboriginal people have the capacity to be effectively involved in water management identified and addressed

HIGH

- 2 Aboriginal community representatives have been involved in development of this Plan
- The Namoi Groundwater Management Committee that prepared this Plan attended Aboriginal cultural awareness training
- A Department of Land and Water Conservation (DLWC) Aboriginal Natural Resource Officer supported the Aboriginal representatives
- Meetings were held between the DLWC Aboriginal Natural Resource Officer and indigenous stakeholders, Elders and NSW Aboriginal Lands Council

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

PARTIAL

- This Plan does not address Aboriginal cultural or traditional requirements specifically, but acknowledges that they are likely to be addressed through the environmental health water and local impact management provisions
- This Plan excludes licensed extraction from within 200 metres of high priority groundwater dependent ecosystems and any creeks and rivers where impact may occur on Aboriginal values

Target 16a All share components of access licences tradeable	FULL	<ul style="list-style-type: none"> • Part 11 of this Plan provides for trading of access licences
Target 16c Conversion factors and protocols established to facilitate trading and dealings between water sources, whilst HIGH also protecting existing access and environmental water		<ul style="list-style-type: none"> • This Plan does not allow trading out of these groundwater sources (justifiable) • This Plan does establish rules for transfers between and within these groundwater sources, and establishes rules for minimising the impact of any transfers on existing licence holders and the environment
Target 16d Reduced conversion factors only applied when necessary to offset increased losses associated with water supply delivery	FULL	<ul style="list-style-type: none"> • This Plan does not impose reduction factors
Target 16e Any unassigned access rights identified and clear mechanisms established for their future assignment	N/A	<ul style="list-style-type: none"> • No unallocated water
Target 16f Zones established where necessary for environmental protection and limits/constraints on water dealings in them made explicit	FULL	<ul style="list-style-type: none"> • In the Upper Namoi aquifer this Plan establishes 12 water sources, referred to as Zones 1 to 12, and prohibits trading between them excepting into Zone 10
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	HIGH	<ul style="list-style-type: none"> • This Plan includes a water quality objective • The beneficial use categories and criteria are specified
Target 38 Aquifer water quality vulnerability zones mapped and extraction limits reviewed to reduce the risk of lateral intrusion of poor quality water	PARTIAL	<ul style="list-style-type: none"> • No vulnerability mapping of these groundwater sources is referenced in this Plan • This Plan includes rules to manage the lateral movement of poor quality water

Schedule 4 High priority groundwater dependent ecosystems

Note—

There are no high priority groundwater dependent ecosystems identified and scheduled at the commencement of this Plan.

Note—

High priority groundwater dependant ecosystems may be added to (and removed from) this Schedule during the period of this Plan. The Regional or District Office of the Department of Land and Water Conservation, shown in Appendix 2, should be

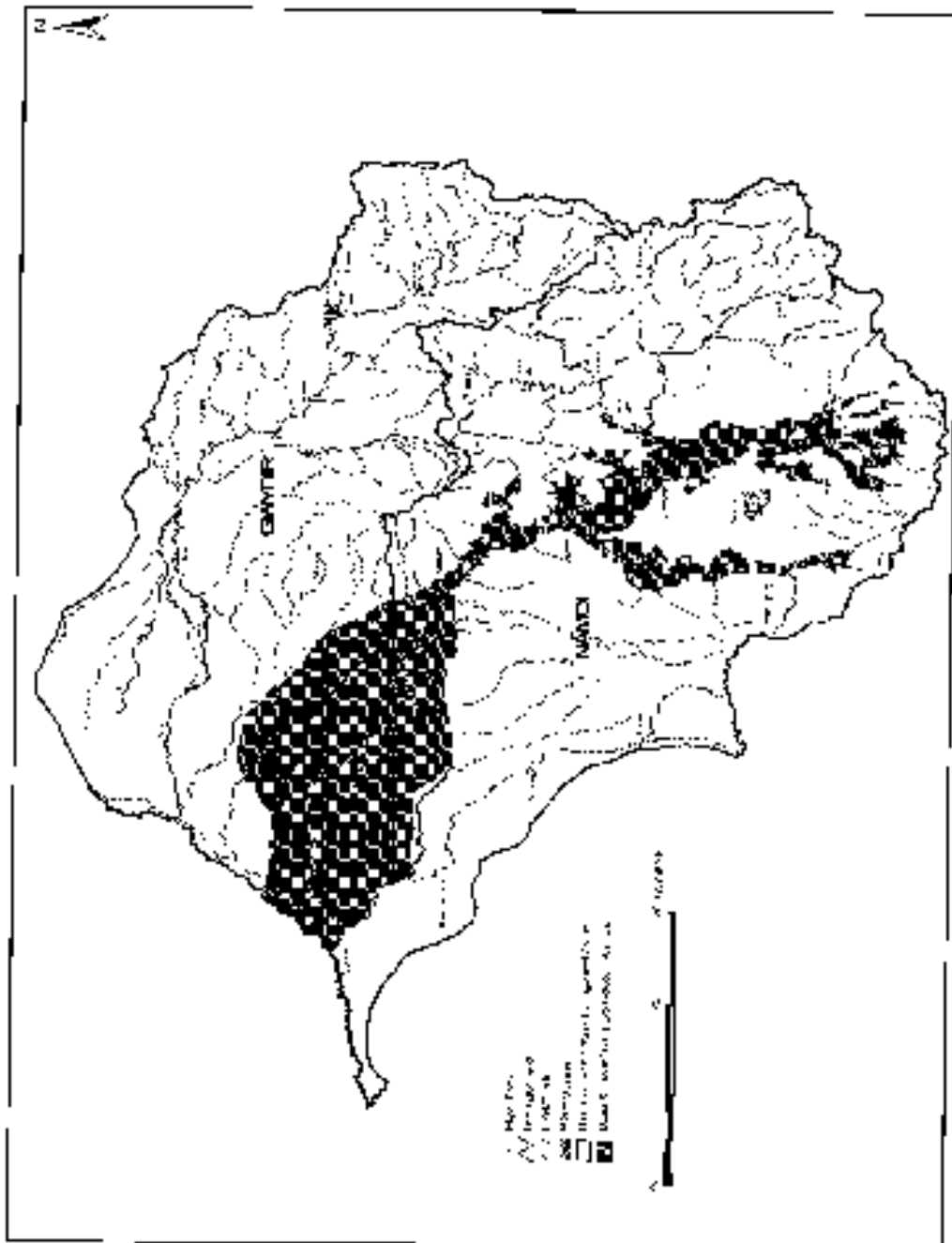
contacted for a current list.

Schedule 5 Aquifer access licence share component

(Clauses 25C (2) and 25C (3))

Column 1	Column 2	Column 3
Water Act Entitlement	Licence(s)	Aquifer Access Licence Share Component
90PT980271	90BL250529	81
90PT980280	90BL030943, 90BL247191	60
90PT980281	90BL252426	81
90PT980289	90BL007886, 90BL144330	80
90PT980317	90BL015957, 90BL017120, 90BL103321, 90BL108726, 90BL111867, 90BL112201, 90BL112202, 90BL130751, 90BL130813, 90BL130816, 90BL131165, 90BL133650, 2024 90BL150003, 90BL246190, 90BL246217, 90BL246218, 90BL247195, 90BL247196, 90BL247784	
90PT980332	90BL015357, 90BL018566, 90BL030575, 90BL134303, 90BL246157, 90BL248805, 90BL248807, 90BL248808	818
90PT980373	90BL250758	187
90PT980382	90BL020633, 90BL249468, 90BL249469	295
90PT980437	90BL020452	164
90PT980438	90BL019872	497
90PT980477	90BL030435	80
90PT980611	90BL018469, 90BL021356, 90BL022688, 90BL112694, 90BL130855, 90BL153304, 90BL248824	1127
90PT980710	90BL018204	146
90PT980762	90BL141564, 90BL251709	135
90PT980781	90BL152624	43
90PT980890	90BL104355	5
90PT980985	90BL154441, 90BL249193	128
90PT981062	90BL155179	5
90PT981074	90BL155351	130
90PT981249	90BL246680	123
90PT981424	90BL150027	11

Appendix 1 Namoi and Gwydir Water Management Areas



Appendix 2 Location of maps

The maps in relation to this Plan may be inspected at:

Regional Office
Department of Land and Water Conservation
155-157 Marius St
TAMWORTH NSW 2340

District Office
 Department of Land and Water Conservation
 53 Maitland St
 NARRABRI NSW 2390

District Office
 Department of Land and Water Conservation
 35-37 Abbott Street
 GUNNEDAH NSW 2380

Appendix 3 Performance indicators

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

Performance indicator	Related objective	As measured by	Commentary
(a) Change in groundwater extraction relative to the extraction limit.	11 (a) 11 (b) 11 (c) 11 (g)	<ul style="list-style-type: none"> Extraction volume for the groundwater source as a percentage of the extraction limit. 	<ul style="list-style-type: none"> Plan provisions will set the mechanism to remain within the recharge over the long-term.
(b) Change in climate adjusted groundwater levels.	11 (a) 11 (b) 11 (c) 11 (g)	<ul style="list-style-type: none"> Average annual frequency and duration (in days) of water level drawdown below pre-plan baseline. Density of extraction in critical areas. 	<ul style="list-style-type: none"> Note that water levels will fluctuate with climate and resultant variable recharge. Some level declines will be expected during dry times, just as level rises are expected during wetter periods.

(c) Change in water levels adjacent to identified groundwater dependent ecosystems.	11 (a) 11 (c)	<ul style="list-style-type: none"> • Identification of groundwater dependent ecosystems (GDEs). • Assessment of the relationship between selected GDEs and local groundwater levels in terms of the water requirements of these GDEs. • Assessment of the adequacy of buffer zones or local impact restrictions by comparison of water levels near in or GDEs compared to plan baseline. • Frequency and duration of water level drawdown below critical levels. 	<ul style="list-style-type: none"> • Groundwater dependent ecosystems should be identified in the water sharing plans.
(d) Change in groundwater quality.	11 (a) 11 (b) 11 (c)	<ul style="list-style-type: none"> • Trends in selected water quality parameters at selected monitoring bores that are likely to be affected by groundwater extraction. 	<ul style="list-style-type: none"> • Note that some water quality issues are a function of contamination by land based activities, rather than extraction.
(e) Change in economic benefits derived from groundwater extraction and use.	11 (c) 11 (e) 11 (f) 11 (g)	<ul style="list-style-type: none"> • Change in regional gross margins. • Change in unit price of water transferred. • Number of trades. 	<ul style="list-style-type: none"> • Note that there are many factors affecting economic status of a region, for example commodity prices, other sources of water (ie surface water) etc. • Assessment undertaken as part of plan performance monitoring will make assumptions to attempt to identify the impact of the plan provisions.
(f) Change in structural integrity of the aquifer.	11 (a) 11 (b) 11 (c)	<ul style="list-style-type: none"> • Annual number of reports of new land subsidence and reduced bore yields. • Survey if necessary. 	

<p>(g) Extent to which domestic and stock rights requirements have been met.</p> <p>11 (c) 11 (d)</p>	<ul style="list-style-type: none"> • Monitor increase in applications for water supply work (bore) approvals. • Number of reports of interference between high yield extraction and basic rights, or number of domestic and stock bores deepened. • Assess frequency and duration of water level drawdown below critical thresholds. 	<ul style="list-style-type: none"> • Basic rights usage figures in water sharing plans are estimated (not actual use). • Increases in licences may be due to past unlicensed works.
<p>(h) Extent to which local water utility requirements have been met.</p> <p>11 (c)</p>	<ul style="list-style-type: none"> • Monitor increase in access by local water utilities. • Monitor impact of interference between high yield extraction and local water utility extraction. 	
<p>(i) Extent to which native title rights requirements have been met.</p> <p>11 (c) 11 (d)</p>	<ul style="list-style-type: none"> • Monitor increase in applications for water supply work (bore) approvals for native title basic rights. • Number of reports of interference between high yield extraction and native title rights holders, or number of bores deepened. • Assess frequency and duration of water level drawdown below critical thresholds. 	
<p>(j) Extent of recognition of spiritual, social and customary values of groundwater to Aboriginal people.</p> <p>11 (a) 11 (c) 11 (e) 11 (f)</p>	<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 five years there should be relevant information collected for each groundwater source, as a minimum requirement.

Appendix 4 Rules for determining history of extraction

(Clause 25C (4))

Rule 1

The history of extraction for each entitlement is calculated separately, irrespective of ownership.

Rule 2

When meter failure has prevented the measurement of actual extraction, extraction will be estimated on the basis of:

- (a) the extraction that was estimated at the time of meter failure held on record by the Department,
or
- (b) pump running times held on record by the Department, or
- (c) areas of crops grown and water usage for similar crops.

Rule 3

Estimates made under Rule 2 will be capped at licensed access to water for the entitlement for the year in question.

Rule 4

Where non-volumetric entitlement have been converted to volumetric entitlement during or after the period being used to calculate HOE, any relevant historical extraction or other data used in converting the entitlements will be used to calculate HOE.

Rule 5

In the event of zero or reduced extraction resulting from bore failure the year in which the bore failed will be excluded in calculating HOE.

If a licence holder substantiates a case that the failure of a bore had a greater impact on extraction in the water year following bore failure, then this year rather than the year in which the failure occurred, will be the year excluded.

The licence holder must provide documented evidence of the bore failure.

Rule 6

Failure of associated bore equipment (eg motor, gearbox etc) will not be considered bore failure for the purpose of calculating HOE.

Rule 7

Reduced levels of extraction from a bore due to lower aquifer levels will not be considered bore failure for the purpose of determining HOE.

Rule 8

In the event of lower extraction resulting from crop failure no allowance will be made in calculating the

HOE.

Rule 9

Water extracted pursuant to a temporary transfer of entitlement will be accounted in the HOE of the seller or transferor.

Rule 10

Where properties have been amalgamated, all extraction prior to amalgamation will be combined and together with extraction occurring after amalgamation will be used to calculate HOE.

Where entitlement is subdivided extraction under the original entitlement is allocated to the new entitlements.

Rule 11

When new entitlements have been created due to subdivision, extractions under the original entitlement will be apportioned to each new entitlement in proportion to the entitlement at the commencement of the plan and together with extraction occurring after subdivision will be used to calculate HOE.

Alternately, where all the new entitlement holders unanimously agreed, extraction under the original entitlement will be calculated for each bore licence and together with extraction occurring after the subdivision will be used to calculate HOE.

Rule 12

Where extractions have not been metered extraction will be assessed on the basis of (in priority order):

- (a) any relevant historical extraction data used in converting non-volumetric entitlement to volumetric entitlement,
- (b) recorded pump usage hours if available, and
- (c) areas of crops grown and water usage for similar crops each year.

Rule 13

Where an entitlement holder is unable to or does not provide information on which to base an assessment for a year the extraction for that year will be assessed as zero megalitres.

Rule 14

All extractions that a licence holder 'carried over' and/or 'borrowed' that were in accordance with management rules applying at the time will be included as extraction for determining history of extraction.

Rule 15

Metered extraction will first be allocated to:

- (a) groundwater only extraction capped at the allocation for that year, then,

- (b) conjunctive groundwater allocation (where applicable) capped at the conjunctive groundwater entitlement for that year, then,
- (c) carry over within management rule limits and then,
- (d) borrowing within management rule limits.

The sum of extraction from groundwater only entitlement, conjunctive groundwater entitlement, carry over & borrowing provision and temporary transfers will be used to calculate the HOE. Any remaining extraction will not be used to calculate HOE.