2009 No 348

New South Wales

Water Sharing Plan for the Lower North Coast Unregulated and Alluvial Water Sources 2009

under the

Water Management Act 2000

Pursuant to section 50 of the *Water Management Act 2000*, I, the Minister for Water, make the following Minister's plan.

PHILLIP COSTA, MP
Minister for Water

Published Gazette No 106 of 24 July 2009, page 4545

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Part 1 Introduction

1 Name of this Plan

This Plan is the *Water Sharing Plan for the Lower North Coast Unregulated and Alluvial Water Sources 2009* (hereafter ***this Plan***).

2 Nature and Status of this Plan

(1) This Plan is made under section 50 of the *Water Management Act 2000* (hereafter ***the Act***).

(2) This Plan is a plan for water sharing, and generally deals with the matters set out in sections 20 and 21 of the Act.

3 Date of commencement

This Plan commences on 1 August 2009.

4 Water sources to which this Plan applies

(1) The water sources in respect of which this Plan applies are:

(a) the Avon River Water Source,

(b) the Lower Barrington/Gloucester Rivers Water Source,

(c) the Upper Barrington River Water Source,

(d) the Bowman River Water Source,

(e) the Cooplacurripa River Water Source,

(f) the Dingo Creek Water Source,

(g) the Upper Gloucester River Water Source,

(h) the Lower Barnard River Water Source,

(i) the Manning Estuary Tributaries Water Source,

Note. This water source excludes alluvial groundwater downstream of the tidal limits.

(j) the Manning River Tidal Pool Water Source,

Note. This water source excludes alluvial groundwater.

(k) the Lower Manning River Water Source,

(l) the Mid Manning River Water Source,

(m) the Myall Creek Water Source,

(n) the Nowendoc River Water Source,

(o) the Rowleys River Water Source,

(p) the Upper Barnard River Water Source,

(q) the Upper Manning River Water Source,

(r) the Myall Lakes Water Source,

Note. This water source excludes alluvial groundwater downstream of the tidal limits.

(s) the Myall River Water Source,

(t) the Coolongolook River Water Source, and

Note. This water source excludes alluvial groundwater downstream of the tidal limits.

(u) the Wallamba River Water Source.

Note. This water source excludes alluvial groundwater downstream of the tidal limits.

and shall be known as the Lower North Coast Unregulated and Alluvial Water Sources (hereafter ***these water sources***).

Note. An overview of these water sources is shown in Appendix 1.

(2) These water sources are shown on the registered plan called The Lower North Coast Unregulated and Alluvial Water Sources (WSP001) held by the Department (hereafter the ***registered plan for these water sources***).

Note. Copies of the registered plans for these water sources may be inspected at offices of the Department listed in Appendix 2.

(3) Subject to subclause (4), these water sources include:

(a) all water occurring naturally on or below the surface of the ground shown on the registered plan for these water sources, and

(b) all water in rivers, lakes and wetlands in these water sources, and

(c) all water contained within all alluvial sediments below the surface of the land shown on the registered plan for these water sources (hereafter the alluvial sediments in these water sources).

(4) These water sources do not include:

(a) any water contained in alluvial sediments downstream of the tidal limit in these water sources,

Note. This exclusion applies to the Manning River Tidal Pool Water Source and part of the Manning Estuary Tributaries Water Source.

(b) any water contained in the coastal sands in these water sources,

(c) any water contained in fractured rock aquifers and basement rocks in these water sources,

(d) the area of the Karuah River Water Source as defined in the Water Sharing Plan for the Karuah River Water Source 2003, and

(e) the area of land below the mangrove limit, except Khappinghat Creek in the Wallamba River Water Source and Myall Lakes in the Myall Lakes Water Source.

Note. The mangrove limit is defined in the dictionary.

(5) These water sources are within part of the Lower North Coast Water Management Area.

5 Management zones

For the purpose of this Plan, the following water sources are divided into the following management zones and are shown on the registered plan for these water sources:

(a) Upper Barrington River Water Source is divided into the:

(i) Upper Barrington River Headwaters Management Zone, and

(ii) Upper Barrington River Management Zone,

(b) Bowman River Water Source is divided into the:

(i) Bowman River above Craven Creek Junction Management Zone,

(ii) Craven Creek Management Zone, and

(iii) Lower Bowman River Management Zone,

(c) Cooplacurripa River Water Source is divided into the:

(i) Cooplacurripa River Headwaters Management Zone, and

(ii) Cooplacurripa River Management Zone,

(d) Lower Barrington/Gloucester Rivers Water Source is divided into the:

(i) Lower Barrington River Upper Reaches Management Zone,

(ii) Lower Barrington River Management Zone, and

(iii) Lower Gloucester River Management Zone,

(e) Upper Gloucester River Water Source is divided into the:
  (i) Upper Gloucester River Headwaters Management Zone, and
  (ii) Upper Gloucester River Management Zone,

(f) Lower Barnard River Water Source is divided into the:
  (i) Lower Barnard River Upper Reaches Management Zone, and
  (ii) Lower Barnard River Management Zone,

(g) Manning Estuary Tributaries Water Source is divided into the:
  (i) Landsdowne River Management Zone,
  (ii) Dawson River Management Zone,
  (iii) Cedar Party Creek Management Zone, and
  (iv) Manning Estuary Tributaries Management Zone,

(h) Nowendoc River Water Source is divided into the:
  (i) Nowendoc River Headwaters Management Zone, and
  (ii) Nowendoc River downstream of Cooplacurripa River Confluence Management Zone,

(i) Rowleys River Water Source is divided into the:
  (i) Rowleys River Headwaters Management Zone, and
  (ii) Rowleys River Management Zone,

(j) Upper Manning River Water Source is divided into the:
  (i) Upper Manning River Headwaters Management Zone, and
  (ii) Upper Manning River Management Zone,

(k) Myall River Water Source is divided into the:
  (i) Upper Myall River Management Zone,
  (ii) Tidal Myall River Management Zone, and
  (iii) Crawford River Management Zone,

(l) Coolongolook River Water Source is divided into the:
  (i) Wang Wauk River Management Zone,
  (ii) Upper Coolongolook River Management Zone, and
  (iii) Tidal Coolongolook River Management Zone, and

(m) Wallamba River Water Source is divided into the:
  (i) Khappinghat Creek Management Zone,
  (ii) Upper Wallamba River Management Zone, and
  (iii) Tidal Wallamba River Management Zone.

6 Amendment of this Part

The Minister may amend this Part to:

(a) amend (including to amend the boundaries of) an existing water source or management zone in these water sources, and

(b) establish new or additional water sources or management zones in these water sources.

Note. In instances where in-stream structures such as weirs are removed, this is likely to result in a change to the tidal limit of the water source, and a resultant change in the boundary of the water source and management zones, where applicable.

Note. The registered plan for these water sources may be amended or updated from time to time including as a result of any amendment made by this Plan.

7 Interpretation

(1) Words and expressions that are defined in the Act have the same meaning in this Plan.

(2) Words and expressions that are defined in Schedule 1 of the Plan have the meanings set out in that Schedule.

(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.

Part 2 Vision, objectives, strategies and performance indicators

8 Vision, objectives, strategies and performance indicators

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

9 Vision

(1) The vision of this Plan is to provide sustainable and integrated management of these water sources for the benefit of both present and future generations.

(2) This Plan also recognises the following respect statements for Aboriginal values in these water sources:

(a) life-giving water is of extreme significance to Aboriginal culture for its domestic, traditional and spiritual values, and

(b) whilst water supplied for the environment will provide protection for native flora and fauna, water for fishing, food gathering and recreational activities, it is important that the community respects the spiritual significance of water to the Aboriginal people.

10 Objectives

The objectives of this Plan are to:

(a) protect, preserve, maintain or enhance the important river flow dependent and high priority groundwater dependent ecosystems of these water sources,

(b) protect, preserve, maintain or enhance the Aboriginal, cultural and heritage values of these water sources,

(c) manage these water sources to ensure equitable sharing between users,

(d) protect basic landholder rights,

(e) provide opportunities for market based trading of access licences and water allocations within sustainability and system constraints,

(f) provide sufficient flexibility in water account management to encourage responsible use of available water,

(g) provide recognition of the connectivity between surface water and groundwater, and

(h) adaptively manage these water sources.

Note. For the purposes of the Inter-governmental Agreement on the National Water Initiative (2004) the environmental and other public benefit outcomes provided under this Plan includes:

1. the important river flow dependent environmental, Aboriginal, cultural and heritage values of these water sources are protected, preserved, maintained or enhanced,
2. these water sources are managed to ensure equitable sharing between users, and
3. basic landholder rights of owners, or occupiers, of land are protected.

11 Strategies

The strategies of this Plan are to:

(a) establish environmental water rules,

(b) identify water requirements for basic landholder rights,

(c) identify water requirements for access licences,

(d) establish rules for granting of access licences and approvals,

(e) establish rules that place limits on the availability of water for extraction,

(f) establish rules for making available water determinations,

(g) establish rules for the operation of water accounts,

(h) establish rules which specify the circumstances under which water may be extracted,

(i) establish access licence dealing rules,

(j) establish performance indicators and

(k) identify triggers for and limit to changes to the rules

12 Performance indicators

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

(a) change in low flow regime,

(b) change in moderate to high flow regime,

(c) change in groundwater extraction relative to the long-term average annual extraction limit,

Note. Current alluvial groundwater extraction within the plan area is limited.

(d) change in local water utilities access,

(e) change in, or maintenance of, ecological value of key water sources and their dependent ecosystems,

(f) extent to which basic landholder rights requirements have been met,

(g) extent to which major and local water utility requirements have been met,

(h) extent to which native title rights requirements have been met,

(i) change in economic benefits derived from water extraction and use, and

(j) extent of recognition of spiritual, social, economic and customary values of water to Aboriginal people.

Note. This Plan is to be audited pursuant to section 44 of the Act for the purpose of ascertaining whether its provisions are being given effect to.

Part 3 Basis for water sharing

13 Basis for water sharing

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

14 Climatic variability

This Plan recognises the effects of climatic variability on river flow and groundwater level variability in these water sources by having provisions that manage:

(a) the sharing of water in these water sources within the limits of water availability on a long-term average annual basis,

(b) the sharing of flows that occur in specified water sources on a daily basis, and

(c) water extraction to maintain groundwater dependent ecosystems.

15 Extraction management unit for these water sources

(1) The availability of water for extraction from these water sources on a long-term average annual basis will be determined at the level of an extraction management unit.

(2) The extraction management units for these water sources are the Manning Extraction Management Unit and the Great Lakes Extraction Management Unit, and are shown on the registered plan for these water sources.

(3) The Manning Extraction Management Unit consists of the following water sources:

(a) Avon River Water Source,

(b) Lower Barrington/Gloucester Rivers Water Source,

(c) Upper Barrington River Water Source,

(d) Bowman River Water Source,

(e) Cooplacurripa River Water Source,

(f) Dingo Creek Water Source,

(g) Upper Gloucester River Water Source,

(h) Lower Barnard River Water Source,

(i) Manning Estuary Tributaries Water Source,

(j) Manning River Tidal Pool Water Source,

(k) Lower Manning River Water Source,

(l) Mid Manning River Water Source,

(m) Myall Creek Water Source,

(n) Nowendoc River Water Source,

(o) Rowleys River Water Source,

(p) Upper Barnard River Water Source, and

(q) Upper Manning River Water Source.

(4) The Great Lakes Extraction Management Unit consists of the following water sources:

(a) Myall Lakes Water Source,

(b) Myall River Water Source,

(c) Coolongolook River Water Source, and

(d) Wallamba River Water Source.

16 Flow reference points

(1) For the purposes of this Plan all flows referred to in clause 17 (1) are estimated flows at the flow reference point(s) for each water source or management zone, and are shown on the registered plan for these water sources, or are as otherwise stated in this Plan.

(2) The Minister may amend this Plan to add or remove flow reference points, including if there are any changes to flow classes under subclause 17 (2) of this Plan.

(3) The Minister may amend the flow reference points in the Myall River, Coolongolook River, or the Wallamba River Water Sources, during the term of this Plan, based on the outcomes of further field verification or studies carried out under subclause 17 (2) (h) of this Plan.

Note. The registered plan for these water sources may be amended as a result of the establishment of, or changes to, flow reference points under this Part.

Note. In the event of any failure of a flow reference point in these water sources, flow classes in the water source may be imposed pursuant to an order made under section 324 of the Act.

17 Flow classes for these water sources

(1) This Plan establishes the following flow classes as the basis for sharing of daily flows from these water sources:

Note. Any restrictions specified in an order under section 324 of the Act, for these water sources, may be based on local Water User Association rostering arrangements.

Note. It is recognised that Water User Associations (WUAs) exist in many areas and play an important role in low flow rostering and sharing of water between users. Where appropriate the flow classes specified in this Plan reflect the existing sharing arrangements of these groups. It is intended that WUAs will have an ongoing role in water management and continue to assist in reducing the frequency of triggering the very low flow classes specified within this Plan.

Note. The following flow classes apply to all access licences extracting from surface water specified for each water source from the commencement date of this Plan, excluding those access licences to which clause 76 applies and access licences that nominate a work that is a runoff harvesting dam. They will also apply to all aquifer access licence holders taking water from alluvial aquifers within 40 metres of the high bank of the river from year six of this Plan, except where provided for under clause 67 of this Plan. For those aquifer access licences outside the 40 metres, the flow classes in clause 17 (1) will not apply.

(a) for the Avon River Water Source, as measured at the Gloucester River at Gloucester Gauging Station (908020):

Note. The Gloucester Gauging Station is located outside of the water source, within the Upper Gloucester River Water Source.

(i) no Very Low Flow Class is established by this Plan,

(ii) no A Class is established by this Plan, and

(iii) B Class if when flows are greater than 23 ML/day,

Note. 23 ML/day corresponds to the estimated 50th percentile.

Note. Flow classes may be determined through studies as specified in clause 17 (2) (a). A gauging station is located in the Avon River Water Source (Avon River downstream of Waukivory Creek) but flows will be correlated to the Gloucester River Gauge until further gauging is undertaken on the Avon River.

(b) for the Upper Barrington River Water Source, as measured at the Barrington River at the Forbesdale (Rocky Crossing) Gauging Station (208006):

Note. The Forbesdale Gauging Station is located outside of the water source, within the Lower Barrington/Gloucester Rivers Water Source and is commonly known as Rocky Crossing.

(i) for the first five years of this Plan, the Very Low Flow Class is when there is no visible flow, thereafter the Very Low Flow Class is when flows are equal to or less than 39 megalitres per day (hereafter ***ML/day***) on a rising river, or equal to or less than 32 ML/day on a falling river, and

Note. 32 ML/day corresponds to the estimated 98th percentile, and is referred to as the cease to pump on a falling river, and 39 ML/day corresponds to the estimated 97th percentile, and is referred to as the commence to pump on a rising river.

(ii) for the first five years of this Plan, A Class is when there is a visible flow, thereafter A Class is when flows are greater than 39 ML/day on a rising river, or greater than 32 ML/day on a falling river,

Note. The specified cease and commence to pump levels may be amended through studies as specified in clause 17 (2) (a). The cease to pump level may be amended to a level no less than the 99th percentile (which corresponds to 23 ML/day) and no more than the 95th percentile (which corresponds to 61 ML/day).

(c) for the Lower Barrington River Upper Reach Management Zone of the Lower Barrington/Gloucester Rivers Water Source, as measured at the Barrington River at the Forbesdale (Rocky Crossing) Gauging Station (208006):

(i) for the first five years of this Plan, the Very Low Flow Class is when there is no visible flow, thereafter the Very Low Flow Class is when flows are equal to or less than 39 ML/day on a rising river, or equal to or less than 32 ML/day on a falling river,

Note. 32 ML/day corresponds to the estimated 98th percentile, and is referred to as the cease to pump on a falling river, and 39 ML/day corresponds to the estimated 97th percentile, and is referred to as the commence to pump on a rising river.

(ii) for the first five years of this Plan, A Class is when there is a visible flow and less than or equal to 373 ML/day, thereafter A Class is when flows are greater than 39 ML/day and less than or equal to 373 ML/day on a rising river, or greater than 32 ML/day and less than or equal to 373 ML/day on a falling river, and

(iii) B class if when flows are greater than 373 ML/day,

Note. 373 ML/day corresponds to the estimated 50th percentile.

Note. The specified cease and commence to pump levels may be amended through studies as specified in clause 17 (2) (a). The cease to pump may be amended to a level no less than the 99th percentile (which corresponds to 23 ML/day) and no more than the 95th percentile (which corresponds to 61 ML/day).

Note. The augmentation of the local water utility in this water source may trigger a review of the flow access rules specified within this Plan in accordance with clause 17 (2) (d).

(d) for the Bowman River Water Source, as measured at the Gloucester River at the Doon Ayre Gauge (208003):

Note. The Doon Ayre Gauging Station is located outside of the water source, within the Lower Barrington/Gloucester Rivers Water Source.

(i) for the first five years of this Plan, no Very Low Flow Class is established by this Plan, thereafter the Very Low Flow Class is when flows are equal to or less than 40 ML/day on a rising river, or equal to or less than 27 ML/day on a falling river, and

Note. 27 ML/day corresponds to the estimated 98th percentile, and is referred to as the cease to pump on a falling river, and 40 ML/day corresponds to the estimated 97th percentile, and is referred to as the commence to pump on a rising river.

(ii) for the first five years of the Plan, no A Class is established by this Plan, thereafter A Class is when flows are greater than 40 ML/day on a rising river, or greater than 27 ML/day on a falling river,

Note. The specified cease and commence to pump levels may be amended through studies as specified in clause 17 (2) (a) to a level no less than visible flow and no more than the 95th percentile (which corresponds to 68 ML/day).

(e) for the Nowendoc River Water Source, as measured at the Nowendoc River at the Rocks Crossing Gauge (208005):

(i) for the first five years of this Plan, the Very Low Flow Class is when there is no visible flow, thereafter the Very Low Flow Class is when flows are equal to or less than 64 ML/day on a rising river, or equal to or less than 61 ML/day on a falling river, and

Note. 61 ML/day corresponds to the estimated 95th percentile, and is referred to as the cease to pump on a falling river, and 64 ML/day corresponds to the estimated 94.5th percentile, and is referred to as the commence to pump on a rising river.

(ii) for the first five years of this Plan, A Class is when there is a visible flow, thereafter A Class is when flows are greater than 64 ML/day on a rising river, or greater than 61 ML/day on a falling river,

(f) for the Cooplacurripa River Water Source, as measured at the Nowendoc River at the Rocks Crossing Gauge (208005):

Note. The Rocks Crossing Gauging Station is located outside of the water source, within the Nowendoc River Water Source.

(i) for the first five years of this Plan, the Very Low Flow Class is when there is no visible flow, thereafter the Very Low Flow Class is when flows are equal to or less than 64 ML/day on a rising river, or equal to or less than 61 ML/day on a falling river, and

Note. 61 ML/day corresponds to the estimated 95th percentile, and is referred to as the cease to pump on a falling river, and 64 ML/day corresponds to the estimated 94.5th percentile, and is referred to as the commence to pump on a rising river.

(ii) for the first five years of this Plan, A Class is when there is a visible flow, thereafter A Class is when flows are greater than 64 ML/day on a rising river, or greater than 61 ML/day on a falling river,

(g) for the Rowleys River Water Source, as measured at the Nowendoc River at the Rocks Crossing Gauge (208005):

Note. The Rocks Crossing Gauging Station is located outside of the water source, within the Nowendoc River Water Source.

(i) for the first five years of this Plan, the Very Low Flow Class is when there is no visible flow, thereafter the Very Low Flow Class is when flows are equal to or less than 64 ML/day on a rising river, or equal to or less than 61 ML/day on a falling river, and

Note. 61 ML/day corresponds to the estimated 95th percentile, and is referred to as the cease to pump on a falling river, and 64 ML/day corresponds to the estimated 94.5th percentile, and is referred to as the commence to pump on a rising river.

(ii) for the first five years of this Plan, A Class is when there is a visible flow, thereafter A Class is when flows are greater than 64 ML/day on a rising river, or greater than 61 ML/day on a falling river,

(h) for the Dingo Creek Water Source, as measured at the Dingo Creek at the Munyaree Flat Gauge (208019):

(i) for the first five years of this Plan, no Very Low Flow Class is established by this Plan, thereafter the Very Low Flow Class is when flows are equal to or less than the 97th percentile or 2 ML greater than the 98th percentile, whichever is the greater, on a rising river, or equal to or less than the 98th percentile on a falling river,

Note. The estimated 98th percentile (which is currently estimated to corresponds to 2.6 ML/day) will be referred to as the cease to pump on a falling river, and the estimated 97th percentile (which is currently estimated to corresponds to 3.0 ML/day), or 2 ML greater than the 98th percentile, whichever is the greater, will be referred to as the commence to pump on a rising river. Further gauging is required to establish the percentile flow values more accurately.

(ii) for the first five years of this Plan, no A Class is established by this Plan, thereafter A Class is when flows are greater than the 97th percentile or 2 ML greater than the 98th percentile, whichever is the greater, and less than 92 ML/day on a rising river, or greater than the 98th percentile and less than 92 ML/day on a falling river, and

(iii) B Class is when flows are equal or greater than 92 ML/day,

Note. 92 ML/day corresponds to the estimated 50th percentile.

Note. The specified cease and commence to pump levels may be amended through studies as specified in clause 17 (2) (a). The cease to pump may be amended to a level no less than visible flow and no more than the 95th percentile (which is currently estimated to correspond to around 4.4 ML/day). A review of the 50th percentile at year five of this Plan may provide a revised B Class flow as specified in clause 17 (2) (b).

Note. Management via a Water Users Association, or an alternative mechanism, to assist in limiting the taking of water below the gauging station, given that it is not located at the end of the water source, and is upstream of a number of extractors is important for the equitable implementation of the flow class.

Note. Flow classes may be amended under clause 17 (2) (g) of this Plan, following the installation of infrastructure at a point further downstream than existing infrastructure within the water source.

(i) for the Lower Gloucester River Management Zone and the Lower Barrington River Management Zone of the Lower Barrington/Gloucester Rivers Water Source, as measured at the Gloucester River at the Doon Ayre Gauge (208003):

(i) for the first five years of this Plan, the Very Low Flow Class is when there is no visible flow, thereafter the Very Low Flow Class is when flows are equal to or less than 40 ML/day on a rising river, or equal to or less than 27 ML/day on a falling river,

Note. 27 ML/day corresponds to the estimated 98th percentile, and is referred to as the cease to pump on a falling river, and 40 ML/day corresponds to the estimated 97th percentile, and is referred to as the commence to pump on a rising river.

(ii) for the first five years of this Plan, A Class is when there is a visible flow and less than 548 ML/day, thereafter A Class is when flows are greater than 40 ML/day and less than 548 ML/day on a rising river, or greater than 27 ML/day and less than 548 ML/day on a falling river, and

(iii) B Class is when flows are equal or greater than 548 ML/day,

Note. 548 ML/day corresponds to the estimated 50th percentile.

Note. The specified cease and commence to pump levels may be amended through studies as specified in clause 17 (2) (a). The cease to pump may be amended to a level no less than the 99th percentile (which corresponds to 13 ML/day) and no more than the 95th percentile (which corresponds to 68 ML/day). In addition, in the Lower Barrington River Management Zone an equivalent percentile flow level may be established if a new gauge is installed in this water source in accordance with clause 17 (2) (c).

Note. The augmentation of the local water utility in this water source may trigger review of the flow access rules specified within this Plan in accordance with clause 17 (2) (d).

(j) for the Upper Gloucester River Water Source, as measured at the Gloucester River at the Gloucester Gauge (908020):

(i) for the first five years of this Plan, no Very Low Flow Class is established by this Plan, thereafter the Very Low Flow Class is when flows are equal to or less than the 97th percentile or 2 ML greater than the 98th percentile, whichever is the greater, on a rising river, or equal to or less than the 98th percentile on a falling river,

Note. The estimated 98th percentile (which is currently estimated to correspond to 1 ML/day) will be referred to as the cease to pump on a falling river, and the estimated 97th percentile will be referred to as the commence to pump on a rising river. Further gauging is required to establish the percentile flow values more accurately.

(ii) for the first five years of this Plan, no A Class is established by this Plan, thereafter A Class is when flows are greater than the 97th percentile or 2 ML greater than the 98th percentile, whichever is the greater, and less than 73 ML/day on a rising river, or greater than the 98th percentile and less than 73 ML/day on a falling river, and

(iii) B Class is when flows are equal or greater than 73 ML/day,

Note. 73 ML/day corresponds to the current estimated 50th percentile of all days of flow.

Note. The specified cease and commence to pump levels may be amended through studies as specified in clause 17 (2) (a). The cease to pump may be amended to a level no less than visible flow and no more than the 95th percentile (which is currently estimated to correspond to 6.0 ML/day). A review of the 50th percentile at year five of this Plan may provide a revised B Class flow as specified in clause 17 (2) (b).

(k) for the Lower Barnard River Management Zone of the Lower Barnard River Water Source, as measured at the Barnard River at Mackay Gauge (208011):

(i) for the first five years of this Plan, the Very Low Flow Class is when there is no visible flow, thereafter the Very Low Flow Class is when flows are equal to or less than 34 ML/day on a rising river, or equal to or less than 32 ML/day on a falling river, and

Note. 32 ML/day corresponds to the estimated 95th percentile, and is referred to as the cease to pump on a falling river, and 34 ML/day corresponds to the estimated 94.5th percentile, and is referred to as the commence to pump on a rising river.

(ii) for the first five years of this Plan, A Class is when there is a visible flow, thereafter A Class is when flows are greater than 34 ML/day on a rising river, or greater than 32 ML/day on a falling river,

(l) for the Myall Creek Water Source, as measured at the Barnard River at Mackay Gauge (208011):

Note. The Mackay Gauging Station is located outside of the water source, within the Lower Barnard River Water Source.

(i) for the first five years of this Plan, the Very Low Flow Class is when there is no visible flow, thereafter the Very Low Flow Class is when flows are equal to or less than 34 ML/day on a rising river, or equal to or less than 32 ML/day on a falling river, and

Note. 32 ML/day corresponds to the estimated 95th percentile, and is referred to as the cease to pump on a falling river, and 34 ML/day corresponds to the estimated 94.5th percentile, and is referred to as the commence to pump on a rising river.

(ii) for the first five years of this Plan, A Class is when there is a visible flow, thereafter A Class is when flows are greater

than 34 ML/day on a rising river, or greater than 32 ML/day on a falling river,

(m) for the Manning Estuary Tributaries Water Source, no flow classes are established by this Plan,

Note. Flow classes may be determined based on the outcome of studies carried out under clause 17 (2) (a) of this Plan.

(n) for the Manning River Tidal Pool Water Source, no flow classes are established by this Plan,

Note. Flow classes may be established based on the outcome of studies carried out under clause 17 (2) (e) of this Plan. Separate management zones may also be created within the water source allowing for differing access rules for users above and below Abbotts Falls, which has traditionally been viewed as the tidal limit.

(o) for the Lower Manning River Water Source, as measured at the Manning River at Killawara Gauge (208004):

(i) for the first five years of this Plan, the Very Low Flow Class is when there is no visible flow, thereafter the Very Low Flow Class is when flows are equal to or less than 137 ML/day on a rising river, or equal to or less than 98 ML/day on a falling river,

Note. 98 ML/day corresponds to the estimated 98th percentile, and is referred to as the cease to pump on a falling river, and 137 ML/day corresponds to the estimated 97th percentile, and is referred to as the commence to pump on a rising river.

(ii) for the first five years of this Plan, A Class is when there is a visible flow and less than 1,566 ML/day, thereafter A Class is when flows are greater than 137 ML/day and less than 1,566 ML/day on a rising river, or greater than 98 ML/day and less than 1,566 ML/day on a falling river, and

(iii) B Class is when flows are equal or greater than 1,566 ML/day,

Note. 1,566 ML/day corresponds to the estimated 50th percentile.

Note. The specified cease and commence to pump levels may be amended based on the outcome of studies carried out under clause 17 (2) (a). The cease to pump may be amended to a level no less than the 99th percentile (which corresponds to 54 ML/day) and no more than the 95th percentile (which corresponds to 225 ML/day).

Note. The augmentation of the local water utility in this water source may trigger review of the flow access rules specified within this Plan in accordance with clause 17 (2) (d).

Note. Flow classes may be amended under clause 17 (2) (g) of this Plan, following the installation of infrastructure at a point further downstream than existing infrastructure within the water source.

(p) for the Mid Manning River Water Source, as measured at the Manning River at Killawara Gauge (208004):

Note. The Killawarra Gauging Station is located outside of the water source, within the Lower Manning River Water Source.

(i) for the first five years of this Plan, the Very Low Flow Class is when there is no visible flow, thereafter the Very Low Flow Class is when flows are equal to or less than 137 ML/day on a rising river, or equal to or less than 98 ML/day on a falling river,

Note. 98 ML/day corresponds to the estimated 98th percentile, and is referred to as the cease to pump on a falling river, and 137 ML/day corresponds to the estimated 97th percentile, and is referred to as the commence to pump on a rising river

(ii) for the first five years of this Plan, A Class is when there is a visible flow and less than 1,566 ML/day, thereafter A Class is when flows are greater than 137 ML/day and less than 1,566 ML/day on a rising river, or greater than 98 ML/day and less than 1,566 ML/day on a falling river, and

(iii) B Class is when flows are equal or greater than 1,566 ML/day,

Note. 1,566 ML/day corresponds to the estimated 50th percentile.

Note. The specified cease and commence to pump levels may be amended based on the outcome of studies carried out under clause 17 (2) (a). The cease to pump may be amended to a level no less than the 99th percentile (which corresponds to 54 ML/day) and no more than the 95th percentile (which corresponds to 225 ML/day).

(q) for the Lower Barnard River Upper Reaches Management Zone of the Lower Barnard River Water Source, as measured at the Barnard River at the Measuring Weir Gauge (208027):

(i) for the first five years of this Plan, the Very Low Flow Class is when there is no visible flow, thereafter the Very Low Flow Class is when flows are equal to or less than 13 ML/day on a rising river, or equal to or less than 11 ML/day on a falling river,

Note. 11 ML/day corresponds to the estimated 95th percentile, and is referred to as the cease to pump on a falling river, and 13 ML/day corresponds to the estimated 94.5th percentile, and is referred to as the commence to pump on a rising river.

(ii) for the first five years of this Plan, A Class is when there is a visible flow and less than or equal to the 80th percentile flow, thereafter A Class is when flows are greater than 13 ML/day and less than or equal to the 80th percentile

flow on a rising river, or greater than 11 ML/day and less than or equal to the 80th percentile flow on a falling river, and

(iii) B Class if when flows are greater than the 80th percentile flow,

Note. Major utility access licences extracting in this water source may only extract from B class flows. This is indicated as part of the mandatory conditions of this Plan and reflects current licenced operating procedures.

(r) for the Upper Barnard River Water Source, as measured at the Barnard River at the Measuring Weir Gauge (208027):

Note. The Measuring Weir Gauging Station is located outside of the water source, within the Lower Barnard River Water Source.

(i) for the first five years of this Plan, the Very Low Flow Class is when there is no visible flow, thereafter the Very Low Flow Class is when flows are equal to or less than 13 ML/day on a rising river, or equal to or less than 11 ML/day on a falling river, and

Note. 11 ML/day corresponds to the estimated 95th percentile, and is referred to as the cease to pump on a falling river, and 13 ML/day corresponds to the estimated 94.5th percentile, and is referred to as the commence to pump on a rising river.

(ii) for the first five years of this Plan, A Class is when there is a visible flow, thereafter A Class is when flows are greater than 13 ML/day on a rising river, or greater than 11 ML/day on a falling river,

(s) for the Upper Manning River Water Source, as measured at the Manning River at Leslies Bridge Gauge (208029):

(i) for the first five years of this Plan, no Very Low Flow Class is established by this Plan, thereafter the Very Low Flow Class is when flows are equal to or less than the 97th percentile on a rising river, or equal to or less than the 98th percentile on a falling river, and

Note. The estimated 98th percentile (which is currently estimated to corresponds to 14 ML/day) will be referred to as the cease to pump on a falling river, and the estimated 97th percentile (which is currently estimated to correspond to 17 ML/day) will be referred to as the commence to pump on a rising river. Further gauging is required to establish the percentile flow values more accurately.

(ii) for the first five years of the Plan, no A Class is established by this Plan, thereafter A Class is when flows are greater than the 97th percentile on a rising river, or greater than the 98th percentile on a falling river,

Note. The specified cease and commence to pump levels may be amended based on the outcome of studies carried out under clause 17 (2) (a). The cease to pump may be amended to a level no less

than visible flow and no more than the 95th percentile (which is currently estimated to correspond to 22 ML/day).

(t) for the Myall Lakes Water Source, no flow classes are established by this Plan,

(u) for the Upper Myall River Management Zone and the Tidal Myall River Management Zone of the Myall River Water Source, as measured at the end of the freshwater tributaries:

(i) the Very Low Flow Class is when there is no visible flow, and

(ii) A Class is when there is a visible flow,

Note. The Myall River Water Source also has a mandatory condition which only permits extraction from the river where the flow occurring for the first 24 hours after flows have exceeded the Very Low Flow Class has passed.

Note. The specific measurement points for these management zones will be at the Markwell River Bridge on Markwell Road, 2.5km north of Bulahdelah for the Upper Myall River Management Zone, and other specific sites for each tributary as required. These may be amended during the term of this Plan in line with clause 17 (2) (h).

Note. The augmentation of the local water utility in this water source may trigger review of the flow access rules specified within this Plan in accordance with clause 17 (2) (d).

(v) for the Crawford River Management Zone of the Myall River Water Source, as measured at the upstream end of the weir pool:

(i) the Very Low Flow Class is when there is no visible flow, and

(ii) A Class is when there is a visible flow,

Note. The Myall River Water Source also has a mandatory condition which only permits extraction from the river where the flow occurring for the first 24 hours after flows have exceeded the Very Low Flow Class has passed.

Note. The specific measurement points for this management zone it will be a site upstream of the Crawford River weir pool and other specific sites for each tributary as required. These may be amended during the term of this Plan in line with clause 17 (2) (h).

Note. The augmentation of the local water utility in this water source may trigger review of the flow access rules specified within this Plan in accordance with clause 17 (2) (d).

(w) for the Coolongolook River Water Source, as measured at the end of the freshwater tributaries (Coolongolook River and Wang Wauk River):

(i) the Very Low Flow Class is when there is no visible flow, and

(ii) A Class is when there is a visible flow, and

Note. The Coolongolook River Water Source also has a mandatory condition which only permits extraction from the river where the flow occurring for the first 24 hours after flows have exceeded the Very Low Flow Class has passed.

Note. The specific measurement points for this water source will be at the Coolongolook Rivers Locketts Crossing on the Locketts Crossing Road, 1.5km south of Coolongolook for the Coolongolook River Management Zone, and other specific sites for each tributary as required. These may be amended during the term of this Plan in line with clause 17 (2) (h).

(x) for the Wallamba River Water Source, as measured at the end of the freshwater tributary (Wallamba River):

(i) the Very Low Flow Class is when there is no visible flow, and

(ii) A Class is when there is a visible flow.

Note. The Wallamba River Water Source also has a mandatory condition which only permits extraction from the river where the flow occurring for the first 24 hours after flows have exceeded the Very Low Flow Class has passed.

Note. The specific measurement points for this water source will be at Dargavilles Crossing on the Dargavilles Road, 2km west of Nabiac for the Upper Wallamba River Management Zone, and other specific sites for each tributary as required. These may be amended during the term of this Plan in line with clause 17 (2) (h).

Note. The Upper Wallamba River Management Zone of the Wallamba River Water Source may have its flow classes amended, as set out under clause 17 (2) (f) of this Plan.

(2) The Minister may amend subclause (1) to establish a new or additional flow class or flow classes in:

(a) the Upper Barrington River, the Upper Gloucester River, the Bowman River, the Lower Barrington/Gloucester Rivers, the Dingo Creek, the Lower Manning River, the Mid Manning River, the Upper Manning River, the Avon River and Manning Estuary Tributaries Water Sources, after year five of this Plan and before the completion of the term of this Plan, based on the outcome of field verification and the review of relevant studies carried out under clauses 86 (1) and 86 (2) of this Plan,

(b) the Dingo Creek, the Upper Gloucester River, and the Upper Manning Water Sources, after year five of this Plan, based on sufficient data collection to enable determination of cease to pump and commence to pump levels, and review of B Class flows at the 50^{th} percentile,

(c) the Lower Barrington River Management Zone of the Lower Barrington/Gloucester Rivers Water Source, after year five of this Plan, based on installation of an appropriate gauging station

and sufficient data collection to enable determination of cease to pump and commence to pump levels,

(d) the Lower Barrington/Gloucester Rivers, the Lower Manning River or the Myall River Water Sources during the term of this Plan, based on augmentation of the local water utility,

(e) the Manning River Tidal Pool Water Source, during the term of this Plan, following the outcome of a study carried out under clause 87 of this Plan to determine the appropriate location for the installation of a salinity probe, or other relevant infrastructure, and assessment of the users and extraction within the water source,

Note. It is recognised that tidal pool water sources are different systems from those upstream. Tidal influences and salinity may impact on the ability of users to extract water generally more than instantaneous flow levels. Flow levels are used to manage upstream water sources, however, in tidal pool water sources different management options such as salinity levels may also be considered.

(f) the Upper Wallamba River Management Zone of the Wallamba River Water Source, after year five of this Plan, to specify the Very Low Flow Class as being when flows are at or below the 95th percentile flow, and A Class as being when flows are greater than the 95th percentile flow, following the installation of appropriate infrastructure within the water source,

(g) the Lower Manning River Water Source and/or the Dingo Creek Water Source, during the term of this Plan, following the installation of infrastructure at a point further downstream than existing infrastructure within the water source,

Note. The location of flow reference points can have a significant effect on the resulting water access and the resultant streamflow protection. The existing gauges within these water sources are located upstream of the end of the water source resulting in a number of access licences taking water from the river/creek below the gauge. These extractions are not factored into the triggering of flow classes, and may take water from the flows reserved for environmental or basic landholder right extraction. Options to address this may include the movement of existing gauges to a point further downstream in the water source, or to introduce rationing provisions for those users downstream of the existing gauge linked to gauge trigger levels to ensure sharing of water downstream.

(h) the Wallamba River Water Source, the Coolongolook River Water Source and the Myall River Water Source, during the term of this Plan, based on the outcome of further field verification or studies of the flow reference point within these water sources, and

(i) any water source where management zones are added or amended during the term as per clause 6 of this Plan.

(3) The Minister may amend this Plan to amend the existing flow classes or establish new or additional flow classes based on the introduction of a Flow Accreditation Scheme to a water source.

Note. It is recognised that management of extractions is only one component of river management and many landholders are carrying out on-farm activities to achieve environmental outcomes.

Part 4 Environmental water provisions

18 Environmental water provisions

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

19 Planned environmental water

(1) Planned environmental water is identified and established in these water sources as follows:

(a) water volume in excess of the respective long-term average annual extraction limit established in clause 44 of this Plan may not be taken and used for any purpose in these water sources, thereby protecting a proportion of river flows for fundamental ecosystem needs from increases in long-term water extraction,

(b) for all water sources, excluding the Myall Lakes Water Source, the water remaining in the water source after taking water to meet basic landholder rights and for access licences in accordance with the rules identified in subclause (3), and

(c) for the Myall Lakes Water Source, the water remaining in the water source after taking water to meet basic landholder rights.

(2) The planned environmental water established in subclause (1) (a) for these water sources is maintained by the rules in clause 47 that limit the availability of water for extraction under access licences, thereby protecting a proportion of natural river flows for fundamental ecological needs from increases in long-term water extraction.

(3) The planned environmental water established in subclause (1) (b) is maintained as follows:

(a) in management zones or water sources with a Very Low Flow Class, the holders of access licences, excluding access licences listed in Schedule 2, domestic and stock access licence or a domestic and stock (subcategory "domestic") access licence under clause 76 (8), access licences taking water from the alluvial sediments in these water sources that are not subject to the mandatory conditions under clause 67 of this Plan, and access licences that nominate a runoff harvesting dam, are not permitted to take water when flows are within the Very Low Flow Class,

(b) in all water sources, excluding the Manning River Tidal Pool, the Avon River, the Bowman River, the Upper Gloucester River, the Upper Manning River, the Manning Estuary Tributaries and the Dingo Creek Water Sources from year six of this Plan, and excluding access licences listed in Schedule 2, domestic and stock access licence or a domestic and stock (subcategory

"domestic") access licence under clause 76 (8), access licences taking water from the alluvial sediments in these water sources that are not subject to the mandatory conditions under clause 67 of this Plan, and access licences that nominate a runoff harvesting dam, notwithstanding all other rights and conditions, the taking of water from a river by a nominated water supply work is permitted only where it complies with the flow conditions of the authorised water supply works or in the absence of such condition:

(i) if there is a visible flow in the river in the downstream vicinity of the water supply work, or

(ii) where water is being taken from a pool, a visible inflow and outflow to and from that pool,

(c) in the Myall River Water Source, excluding access licences listed in Schedule 2, domestic and stock access licence or a domestic and stock (subcategory "domestic") access licence under clause 76 (8), access licences taking water from the alluvial sediments in these water sources that are not subject to the mandatory conditions under clause 67 of this Plan, and access licences that nominate a runoff harvesting dam, notwithstanding all other rights and conditions, the taking of water from a river by a nominated water supply work is not permitted within a 24 hour period after flows have exceeded the Very Low Flow Class at the end of the fresh water tributaries (for example Myall River and Crawford River),

(d) in the Coolongolook River Water Source, excluding access licences listed in Schedule 2, domestic and stock access licence or a domestic and stock (subcategory "domestic") access licence under clause 76 (8), access licences taking water from the alluvial sediments in these water sources that are not subject to the mandatory conditions under clause 67 of this Plan, and access licences that nominate a runoff harvesting dam, notwithstanding all other rights and conditions, the taking of water from a river by a nominated water supply work is not permitted within a 24 hour period after flows have exceeded the Very Low Flow Class at the end of the fresh water tributaries (for example Wang Wauk River and Coolongolook River),

(e) in the Upper Wallamba River Management Zone and the Tidal Wallamba River Management Zone of the Wallamba River Water Source, excluding access licences listed in Schedule 2, domestic and stock access licence or a domestic and stock (subcategory "domestic") access licence under clause 76 (8), access licences taking water from the alluvial sediments in these water sources that are not subject to the mandatory conditions

under clause 67 of this Plan, and access licences that nominate a runoff harvesting dam, notwithstanding all other rights and conditions, the taking of water from a river by a nominated water supply work is not permitted within a 24 hour period after flows have exceeded the Very Low Flow Class at the end of the fresh water tributaries (for example Wallamba River),

(f) in the Khappinghat Creek Management Zone of the Wallamba River Water Source, excluding access licences listed in Schedule 2, domestic and stock access licence or a domestic and stock (subcategory "domestic") access licence under clause 76 (8), access licences taking water from the alluvial sediments in these water sources that are not subject to the mandatory conditions under clause 67 of this Plan, and access licences that nominate a runoff harvesting dam, notwithstanding all other rights and conditions, the taking of water from a river by a nominated water supply work is not permitted within a 24 hour period after flows have exceeded the Very Low Flow Class at the pump site, and

(g) in all flows in the Myall Lakes Water Source, the application of Part 8, clause 35 (2) and Part 14 prohibits the extraction of water in this water source under a water access licence.

Note. These rules protect the water for the environment by limiting both water extracted over the long-term and the taking of water in accordance with the objectives of this Plan.

Note. This Plan recognises that the environmental water provisions provide non-extractive benefits, including traditional Aboriginal spiritual, social, customary, economic, cultural and recreational benefits, and contributes to improved water quality.

(4) Following the establishment of a flow class or flow classes within any water source under clauses 17 (2) and 17 (3) of this Plan, the Minister may amend subclauses (1), (2) and (3) to identify, establish and maintain planned environmental water in the relevant water source.

(5) The Minister may amend subclause 19 (3) in accordance with clause 88 of this Plan, within five years of commencement of this Plan, to identify pools in the rivers in the Dingo Creek Water Source, the Upper Gloucester River Management Zone of the Upper Gloucester River Water Source and any other water sources where applicable, that require special protection and establish initial pool control levels at key sites, so that, notwithstanding all other rights and conditions, the taking of water from a designated pool is not permitted below a specified level.

(6) Before undertaking amendment pursuant to subclause (5) the Minister should consult with relevant Government agencies and the water users in the water source, for the purpose of establishing the pool control

levels referred to in subclause (5) in accordance with clause 89 (4) of this Plan.

20 Adaptive environmental water

(1) The holder of an access licence in these water sources may request that the Minister impose an adaptive environmental water condition in respect of the access licence.

(2) An access licence may be granted in these water sources, pursuant to sections 8C or 8D of the Act.

(3) If an adaptive environmental water condition on an access licence is these water sources requires the water to be left in these water source for environmental purposes, then the Minister may establish Total Daily Extraction Limits under clause 58 (4) of this Plan in the relevant water source or management zone.

Note. TDELs referred to in subclause (3) will not be established unless enabling management systems are in place. This includes monitoring and measurement systems which allow for accurate measurement of flows and extraction.

Part 5 Basic landholder rights

21 Basic landholder rights

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

22 Domestic and stock rights

(1) At the commencement of this Plan the water requirements of holders of domestic and stock rights within these water sources are estimated to total 10.81 megalitres per day (hereafter ***ML/day***) and are distributed as follows:

(a) 0.67 ML/day in the Avon River Water Source,

Note. This estimate includes domestic and stock rights for both aquifer and unregulated users.

(b) 0.86 ML/day in the Lower Barrington/Gloucester Rivers Water Source,

Note. This estimate includes domestic and stock rights for both aquifer and unregulated users.

(c) 0.3 ML/day in the Upper Barrington River Water Source,

(d) 0.24 ML/day in the Bowman River Water Source,

(e) 0.42 ML/day in the Cooplacurripa River Water Source,

(f) 0.66 ML/day in the Dingo Creek Water Source,

(g) 0.39 ML/day in the Upper Gloucester River Water Source,

Note. This estimate includes domestic and stock rights for both aquifer and unregulated users.

(h) 0.53 ML/day in the Lower Barnard River Water Source,

(i) 2.95 ML/day in the Manning Estuary Tributaries Water Source,

Note. This estimate includes domestic and stock rights for both aquifer and unregulated users.

(j) 0.19 ML/day in the Manning River Tidal Pool Water Source,

(k) 0.6 ML/day in the Lower Manning River Water Source,

(l) 0.26 ML/day in the Mid Manning River Water Source,

(m) 0.21 ML/day in the Myall Creek Water Source,

(n) 0.71 ML/day in the Nowendoc River Water Source,

(o) 0.33 ML/day in the Rowleys River Water Source,

(p) 0.38 ML/day in the Upper Barnard River Water Source,

(q) 0.35 ML/day in the Upper Manning River Water Source,

(r) 0.11 ML/day in the Myall Lakes Water Source,

(s) 0.39 ML/day in the Myall River Water Source,

(t) 1.11 ML/day in the Coolongolook River Water Source, and

(u) 0.3 ML/day in the Wallamba River Water Source.

(2) This Plan recognises that the exercise of domestic and stock rights may increase during the term of this Plan.

Note. Domestic and stock rights must be exercised in accordance with any mandatory guidelines established under section 336B of the Act with respect to the taking and use of water for domestic consumption or stock watering.

An increase in use of domestic and stock rights may occur as a result of an increase in the number of landholdings fronting rivers and lakes or overlying alluvial groundwater in these water sources and/or as a result of the increase in the exercise of basic landholder rights by existing landholders.

Inherent water quality and land use activities may make the water in some areas unsuitable for human consumption. Water from these groundwater sources should not be consumed without it first being tested and appropriately treated.

23 Native title rights

(1) At the commencement of this Plan there are no native title rights in these water sources and therefore the water requirements for native title rights total 0 ML/year.

(2) This Plan recognises that the exercise of native title rights may increase during the term of this Plan.

Note. A change in native title rights may occur pursuant to the provisions of the *Native Title Act 1993* (Cth).

24 Harvestable rights

The requirement for water under harvestable rights is the amount of water owners of land are entitled to capture pursuant to a harvestable rights order made under section 54 of the Act and published from time to time in the NSW Government Gazette.

Part 6 Bulk access regime

25 Bulk access regime

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

(2) This Plan establishes a bulk access regime for the extraction of water under access licences in these water sources having regard to:

(a) the environmental water provisions established under Part 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 climate 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 10, Division 1 of this Plan,

(d) establishes rules according to which available water determinations are to be made as provided for in Part 10, Division 1 of this Plan,

(e) establishes rules according to which access licences are managed as provided for in Parts 10 and 11 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 Part 10 of this Plan.

Part 7 Requirements for water under access licences

26 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 unit shares specified in the share components on access licences in these water sources. The actual volumes of water available at any time will depend on climate, access licence priority and the rules in this Plan.

27 Share component 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 water sources will total 98 megalitres per year (hereafter ***ML/year***), distributed as follows:

(a) 12 ML/year in the Avon River Water Source,

(b) 39.5 ML/year in the Lower Barrington/Gloucester Rivers Water Source,

(c) 0 ML/year in the Upper Barrington River Water Source,

(d) 8 ML/year in the Bowman River Water Source,

(e) 0 ML/year in the Cooplacurripa River Water Source,

(f) 10 ML/year in the Dingo Creek Water Source,

(g) 3 ML/year in the Upper Gloucester River Water Source,

(h) 0 ML/year in the Lower Barnard River Water Source,

(i) 5 ML/year in the Manning Estuary Tributaries Water Source,

(j) 0 ML/year in the Manning River Tidal Pool Water Source,

(k) 6 ML/year in the Lower Manning River Water Source,

(l) 0 ML/year in the Mid Manning River Water Source,

(m) 0 ML/year in the Myall Creek Water Source,

(n) 5 ML/year in the Nowendoc River Water Source,

(o) 0 ML/year in the Rowleys River Water Source,

(p) 0 ML/year in the Upper Barnard River Water Source,

(q) 0 ML/year in the Upper Manning River Water Source,

(r) 0 ML/year in the Myall Lakes Water Source,

(s) 4.5 ML/year in the Myall River Water Source,

(t) 0 ML/year in the Coolongolook River Water Source, and

(u) 5 ML/year in the Wallamba River Water Source.

28 Share component 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 water sources will total 15,666 ML/year, distributed as follows:

(a) 570 ML/year in the Lower Barrington/Gloucester Rivers Water Source,

(b) 12,500 ML/year in the Lower Manning River Water Source,

(c) 221 ML/year in the Myall River Water Source,

(d) 3000 ML/year in the Manning River Tidal Pool Water Source,

(e) 375 ML/year in the Manning Estuary Tributaries Water Source, and

(d) 0 ML/year in all other water sources.

29 Share component of major utility access licences

It is estimated that at the time of commencement of this Plan, the share components of major utility access licences authorised to extract water from the Lower Barnard River Water Source will total 30,000 ML/year.

Note. Macquarie Generation holds this entitlement to water which is pumped by the Barnard Scheme into the Hunter River system to Jerrys Plains where Macquarie Generation's power stations are located. Accounting provisions as specified at clause 54 of this Plan ensure an average annual diversion of no more than 20,000 ML/yr.

30 Share component of unregulated river access licences

It is estimated that at the time of commencement of this Plan, the share components of unregulated river access licences authorised to extract water from these water sources will total 46,500 unit shares, distributed as follows:

(a) 1,985 unit shares in the Avon River Water Source,

(b) 10,301.5 unit shares in the Lower Barrington/Gloucester Rivers Water Source,

(c) 944 unit shares in the Upper Barrington River Water Source,

(d) 2,249 unit shares in the Bowman River Water Source,

(e) 811 unit shares in the Cooplacurripa River Water Source,

(f) 5,143 unit shares in the Dingo Creek Water Source,

(g) 6,569 unit shares in the Upper Gloucester River Water Source,

(h) 1,369 unit shares in the Lower Barnard River Water Source,

(i) 1,968.5 unit shares in the Manning Estuary Tributaries Water Source,

(j) 1,176 unit shares in the Manning River Tidal Pool Water Source,

Note. Prior to the commencement of this Plan licencing of the taking of water within the tidal pool area was not required. While there are some water users in this area that are already licenced there are likely to be a number of water users who will be identified through a licencing process targeting tidal pool areas to be undertaken by the Department. Entitlement issued to those unlicenced users who have historically not been required to be licenced is likely to be based on a history of extraction. No entitlement will be issued for any new extractions in this area outside of those specified in Part 8 of this Plan.

(k) 7,339 unit shares in the Lower Manning River Water Source,

(l) 632 unit shares in the Mid Manning River Water Source,

(m) 57 unit shares in the Myall Creek Water Source,

(n) 1,153 unit shares in the Nowendoc River Water Source,

(o) 257 unit shares in the Rowleys River Water Source,

(p) 274 unit shares in the Upper Barnard River Water Source,

(q) 2,219 unit shares in the Upper Manning River Water Source,

(r) 0 unit shares in the Myall Lakes Water Source,

(s) 225 unit shares in the Myall River Water Source,

(t) 374 unit shares in the Coolongolook River Water Source, and

(u) 1,454 unit shares in the Wallamba River Water Source.

Note. The total share components for unregulated river access licences specified in the clause above include total share components for unregulated river (subcategory "Aboriginal community development") access licences.

31 Share component of unregulated river (high flow) access licences

It is estimated that at the time of commencement of this Plan, the share components of unregulated river (high flow) access licences authorised to extract water from the following water sources will total 0 unit shares, distributed as follows:

(a) 0 unit shares in the Dingo Creek Water Source,

(b) 0 unit shares in the Lower Barrington/Gloucester Rivers Water Source,

(c) 0 unit shares in the Upper Gloucester River Water Source,

(d) 0 unit shares in the Lower Manning River Water Source,

(e) 0 unit shares in the Mid Manning River Water Source, and

(f) 0 unit shares in the Avon River Water Source.

Note. The Dingo Creek Water Source, the Lower Barrington/Gloucester Rivers Water Source, the Upper Gloucester River Water Source, the Lower Manning River Water Source, the Mid Manning River Water Source and the Avon River Water Sources are the only water sources within this Plan area which have been identified as suitable for unregulated river (high flow) access licences. This

Plan allows for a specified amount of unregulated river access licences to be converted to the unregulated river (high flow) access licences. However, at the commencement of this Plan, there are no existing access licences of this category, hence the 0 unit shares indicated.

32 Share component of aquifer access licences

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 water sources will total 212 unit shares, distributed as follows:

(a) 20 unit shares in the Avon River Water Source,

(b) 5 unit shares in the Lower Barrington/Gloucester Rivers Water Source,

(c) 187 unit shares in the Manning Estuary Tributaries Water Source, and

(d) 0 unit share in all other water sources.

Note. The total share components for aquifer access licences specified in these water sources could be higher as a result of additional share components for unidentified aquifer access licences in the alluvial groundwater.

33 Changes to total share components

This Plan recognises that the total requirements for water for extraction within these water sources may change during the term of this Plan as a result of:

(a) the granting, surrender or cancellation of access licences,

(b) the granting, surrender or cancellation of access licences through a dealing under Part 13 of this Plan,

(c) the variation of local water utility licences under section 66 of the Act, and

(d) any changes due to the volumetric conversion of *Water Act 1912* entitlements that are currently non-volumetric.

Part 8 Rules for granting access licences

34 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 water sources and the need to protect dependent ecosystems.

(2) In addition to those applications for specific purpose access licences permitted under clause 19 of the Water Management (General) Regulation 2004 (hereafter ***the Regulation***), applications may also be made in these water sources, excluding Myall Lakes Water Source, for access licences, as follows:

(a) an access licence that may be granted in accordance with a dealing, and

Note. Dealings include the conversion of unregulated river access licences to unregulated river high flow access licences as specified in clause 71 of this Plan.

(b) an unregulated river (subcategory "Aboriginal community development") access licence, to take water from B Class flows only, provided that the grant of any such access licence will cause no more than minimal harm to the water source at the water source level impact assessment and provided that the total share component of all unregulated river (subcategory "Aboriginal community development") access licence in the water sources listed below do not exceed:

(i) 500 ML/year in the Dingo Creek Water Source,

(ii) 500 ML/year in the Lower Manning River Water Source,

(iii) 500 ML/year in the Lower Barrington/Gloucester Rivers Water Source,

(iv) 500 ML/year in the Upper Gloucester Water Sources, and

(v) 300 ML/year in the Mid Manning River Water Source.

Note. Approval for granting of an unregulated river (subcategory "Aboriginal community development") access licence will be subject to assessment of the application in regard to the level of impact of the proposed extraction. This may include consideration of the potential impact on high flow (e.g. flows greater than the 50th percentile flow) values, and any potential impact on the water source as a whole.

Note. An unregulated river (subcategory "Aboriginal community development") access licence will not be fully commercial. Allocations under these licences will be able to be traded to non-Aboriginal people however the licence itself can only be traded amongst Aboriginal people, and as such will remain in the Aboriginal community for the life of the licence. These licences will not be able to be converted to any other category of licence. Aboriginal communities, enterprises and individuals are encouraged to seek financial assistance from funding bodies to purchase fully commercial licences.

Section 61 (b) of the Act also allows for a person to apply for an access licence with a zero share component and section 61 (c) of the Act allows for a person to apply for an access licence where the right to apply that access licence has been acquired under section 65 of the Act.

(3) An access licence of the subcategory "Aboriginal cultural" shall only be granted if the application does not exceed 10 ML/year.

(4) A specific purpose access licence shall only be granted if the share or extraction component of the access licence is the minimum required to meet the circumstances in which the access licence is proposed to be used.

Note. Any new access licence granted in these water sources may be subject to specific mandatory conditions as set out in Part 13 of this Plan.

Part 9 Rules for granting or amending water supply works approvals

Division 1 General

35 Granting or amending water supply works approvals

(1) This Part is made in accordance with sections 21 (b) and 21 (e) of the Act.

(2) A water supply work approval shall not be granted under section 95 of the Act or amend under section 107 of the Act, where the water supply work to be completed or used is located within the Myall Lakes Water Source, or upstream of the high priority groundwater dependent ecosystem identified in Schedule 4 of this Plan in the Lower Manning River Water Source.

36 Runoff harvesting dams

(1) A water supply work approval for a runoff harvesting dam in these water sources shall not be granted if the dam capacity exceed the volume equivalent to the share component for the access licence proposing to nominate the work.

(2) If the share component of an access licence which nominates a water supply work which is a runoff harvesting dam is reduced either by the Minister, or on application of the access licence holder, or by a dealing under Part 12 of this Plan, the Minister shall amend the water supply work approval for the runoff harvesting dam to impose a condition requiring the dam to be modified so as to reduce its capacity, consistent with the reduction in share component of the access licence.

Note. The taking of water from a runoff harvesting dam requires an access licence and a water supply works approval, except to the extent that the runoff harvesting dam is an owner or an occupier's harvestable right entitlement under section 53 of the Act, in which case it will not require an access licence or water supply work.

Note. Following the assignment of water allocations from a water allocation account of an access that nominates an approval for a runoff harvesting dam, the Minister may impose conditions requiring that runoff harvesting dam to by-pass flows.

37 In-river dams

A water supply work approval for a new in-river dam within these water sources on a 3rd order or higher order stream shall not be granted in the Lower Manning River, the Lower Barrington/Gloucester Rivers, the Bowman River, the Upper Barrington River, the Upper Gloucester River, the Myall River, the Myall Lakes, the Coolongolook River, the Wallamba River, the Rowleys River, the Cooplacurripa River, the

Nowendoc River, the Myall Creek, the Upper Barnard River, the Lower Barnard River, the Upper Manning River and the Mid Manning River Water Sources.

Note. Stream order is defined in the Dictionary.

Note. The taking of water from an in-river dam requires an access licence unless it is taken in accordance with section 52 of the Act (domestic and stock rights). The construction and the use of an in-river dam requires a water supply work approval, unless it is exempted under the Act or the regulations, or it is being used for stock and domestic rights in which case a water supply work approval is required only for the construction of the in-river dam. All new or modified in-river dams require assessment under the *Fisheries Management Act 1994*.

Division 2 Water supply works used to take water from the alluvial sediments in these water sources

38 Rules for granting or amending approvals for water supply works used to take water from the alluvial sediments in these water sources

This division is made in accordance with sections 21 (c) and 21 (e) of the Act.

Note. The taking of groundwater results in the drawdown of water levels in the water source in vicinity of the extraction. Extraction may result in unacceptable water level declines in other water supply works/bore close by, increasing the pumping costs associated with this extraction, or even cutting off supply altogether. It may interfere with the results of the regional water level monitoring undertaken by the Department. It may also lower the water levels in groundwater dependent ecosystems and cultural features close by. Finally, it may mobilise contaminated groundwater in the area, drawing it towards a point of extraction. It is important, therefore, to manage the location at which groundwater is extracted to minimise these local impacts, by applying a minimum distance conditions to water supply works.

39 Rules for granting or amending water supply works approvals

(1) A water supply work approval shall not be granted under section 95 of the Act, amended under section 107 of the Act, or amended under section 71W of the Act, where a water supply work to be constructed or used to take water from the alluvial sediments in these water sources is located within:

(a) 200 metres of a water supply work being constructed or used to take water from the alluvial sediments in these water sources nominated by another access licence,

(b) 200 metres of a water supply work being constructed or used to take water from the alluvial sediments in these water sources for basic landholder rights,

(c) 300 metres from the property boundary,

(d) 100 metres from a water supply works being constructed or used to take water from alluvial sediments in these water sources by a local water utility or a major utility, or

(e) 400 metres of a Departmental observation or monitoring bore.

Note. The distance conditions in this clause apply to new or amended approvals. That is, when the applicant wants to construct a new water supply work being used to take water from the alluvial sediments in these water sources, and add it to an existing approval. The distance conditions also apply when the licence holder wants to nominate new or different works on the licence.

(2) The distance restrictions specified in subclause (1) do not apply where the application:

(a) relates to a water supply work which is constructed or used solely for the purpose of exercising basic landholder rights,

(b) is for a replacement bore, or

Note. Replacement bore is defined in the Dictionary.

(c) relates to a water supply work which is to be constructed or used to take water from the alluvial sediments in these water sources for monitoring, environmental management purposes, or remedial works.

(3) Where the distance restrictions specified in subclause (1) cannot be met, a water supply work approval may be granted provided:

(a) a hydrogeological study undertaken by the applicant, and assessed as adequate by the Department, demonstrates that the water supply work will have no more than minimal impacts on the existing licenced taking of water from the water source,

(b) all potentially affected persons in the near vicinity of the water supply work, holding an access licence or having a right under the Act to take water, have been notified by the applicant, and

Note. These persons may include neighbouring access licence, approval holders or other persons having a right to take water in the near vicinity of the water supply work.

(c) any approval granted contains conditions setting out a process for remediation in the event that any more than minimal impact on existing extraction from the water source occurs in the future.

Note. In some water sources the general size of properties means that the application of exclusion distances would result in no new or replacement bores being able to be installed. Applicants must apply to the Department for special consideration in these instances.

(4) The Minister may amend this Plan to alter the distance restriction in specified in this clause or add additional restrictions, after year 5 of this Plan or if a temporary water restriction order is made in these water sources under section 324 (2) of the Act.

40 Rules for granting or amending water supply works approvals near contamination sources

(1) A water supply work approval shall not granted under section 95 of the Act, amended under section 107 of the Act, or amended under section 71W of the Act, where a water supply work to be constructed or used to take water from the alluvial sediments in these water sources is located within:

(a) 100 metres of a contamination source as listed in Schedule 3, unless the applicant can demonstrate to the Minister's satisfaction, that:

(i) a lesser distance will result in no more than minimal harm to the water source, and

(ii) the taking of water will not impact on the environment or cause a threat to public health as confirmed by the Minister for Health, or

(b) a greater distance than in subclause (a), as determined by the Minister, to ensure that no more than minimal harm will occur to the water source, and that extraction will not impact on the environment or cause a threat to public health as confirmed by the Minister for Health.

(2) A water supply work approval shall not be granted for a new water supply work to be constructed or used to take water from the alluvial sediments in these water sources for any purpose, except basic landholder rights, which is between 100 metres and 500 metres of a contamination source listed in Schedule 3, unless the applicant provides evidence, to the Minister's satisfaction, that no drawdown of groundwater within 100 metres of the respective contamination source will occur.

Note. Schedule 3 is relevant to the granting of access licences and approvals for water supply works to be constructed or used to take water from the alluvial sediments in these water sources.

(3) The distance restrictions specified in subclauses (1) and (2) do not apply to:

(a) a water supply work to be constructed or used for monitoring, environmental management purposes or remedial works, or

(b) an application for a replacement bore.

Note. Replacement bore is defined in the Dictionary.

(4) The Minister may amend this Plan to include or remove a contamination source from Schedule 3, based on the results of a site inspection or any other relevant information provided to the Minister.

(5) Subclauses (1) and (2) may be applied by the Minister in relation to contamination sources not in Schedule 3, based on the results of a site inspection or other relevant information provided to the Minister.

41 Rules for granting or amending water supply works approvals near sensitive environmental areas

(1) A water supply work approval shall not be granted under section 95 of the Act, amended under section 107 of the Act, or amended under section 71W of the Act, where the water supply work to be constructed or used to take water from the alluvial sediments in these water sources is located within:

(a) 100 metres of a high priority groundwater dependent ecosystem, excluding high priority karst environment groundwater dependent ecosystems, listed in and shown on the maps in Schedule 4, for basic landholders rights only, or

(b) 200 metres of a high priority groundwater dependent ecosystems excluding high priority karst environment groundwater dependent ecosystems, listed in and shown on the maps in Schedule 4, for water supply works nominated by an access licence, or

(c) 500 metres of a high priority karst environment groundwater dependent ecosystem, listed in and shown on the maps in Schedule 4, or

(d) 40 metres of the top of the high bank of any third order or above stream, or lagoon, or

(e) 40 metres of first and second order stream, unless the water supply work to be constructed or used to take water from the alluvial sediments in these water sources is drilled into the underlying parent material, and the slotted intervals of the works commences deeper than 30 metres.

Note. Subclause (1) will not apply to current authorised extraction from an existing water supply work being used to take water from the alluvial sediments in these water sources at current or equal share component.

(2) The distance restrictions specified in subclause (1) do not apply to:

(a) a water supply work which is constructed or used for extracting water from alluvial sediments in these water sources for monitoring, environmental management purposes or remedial works, or

(b) a water supply work which is constructed or used for taking water from the alluvial sediments in these water sources that is part of a bore network which is nominated by a major utility access licence, a local water utility access licence or an access licence of subcategory "town water supply".

(3) Where the distance restrictions specified in subclauses (1) (a) and (1) (b) cannot be met, a water supply work approval may be granted provided:

(a) a hydrogeological study undertaken by the applicant, and assessed as adequate by the Department, and

(b) the applicant providing evidence that no drawdown of the groundwater at the outside edge of the perimeter of the groundwater dependent ecosystem in Schedule 4.

(4) The restrictions specified in subclause (1) (e) on the drilling into the underlying parent material and the depth of slotted intervals may be amended if the applicant can demonstrate, to the satisfaction of the Department, that the water supply work to be constructed or used to take water from the alluvial sediments in these water sources will have no more than minimal impact on base flows in the stream.

(5) Subclause 1 (d) and 1 (e) do not apply to a new water supply work which is constructed or used to take water from the alluvial sediments in these water sources required as part of a dealing involving the conversion of an unregulated river access licence to an aquifer access licence under section 71O of the Act.

(6) The Minister may amend this Plan to:

(i) alter the exclusion distances in subclause (1), during the term of this Plan, based on further studies of groundwater ecosystem dependency, or

(ii) include a new identified high priority groundwater dependent ecosystem in Schedule 4 during the term of this Plan, based on further studies of groundwater ecosystem dependency caused to be undertaken by the Minister,

(iii) delete a high priority groundwater dependent ecosystem from Schedule 4 identified as not having groundwater dependency, based on further studies of groundwater ecosystem dependency caused to be undertaken by the Minister.

Part 10 Limits to the availability of water

Division 1 Long-term average annual extraction limit

42 Limits to the availability of water

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

43 Extraction management units for these water sources

The availability of water to be taken from these water sources and the management of the long-term average annual extraction of water limit in these water sources will be undertaken in the Manning and Great Lakes Extraction Management Units (hereafter ***these Units***).

44 Long-term average annual extraction limit

The long-term average annual extraction limit for each of these Units is equal to the total of:

(a) the quantity of water specified in conditions attached to or included in entitlements issued under Part 2 of the *Water Act 1912* in the Unit, immediately prior to the commencement of this Plan, plus

(b) an estimate of annual extraction of water under domestic and stock rights and native title rights in the Unit at the commencement of this Plan, plus

(c) the sum of share components of access licences granted in the Unit under the Regulation, Part 8 of this Plan and any transitional regulations made pursuant to this Plan.

45 Variation of the long-term average annual extraction limit

(1) The long-term average annual extraction limit for one or more of these Units may vary following the granting, cancellation or modification of access licences under the Act or through a dealing under Part 12 of this Plan.

(2) The long-term average annual extraction limit for an extraction management unit may vary following the purchase and cancellation of an access licence in the extraction management unit.

(3) The long-term average annual extraction limit for the Manning and Great Lakes Extraction Management Units may vary upon the conversion of access licences from unregulated river access licence to an unregulated river (high flow) access licence.

(4) The variation in subclause (3) will result in the long-term average annual extraction limit being reduced by the amount of the cancelled

share component of the unregulated river access licence and increased by the amount of the share component of the granted unregulated river (high flow) access licence.

46 Assessment of the long-term average annual extraction limit

(1) This clause applies from the third year of this Plan.

(2) The total water extracted pursuant to basic landholder rights and access licences in these Units will be assessed each water year to determine if the long-term average annual extraction limit established by clause 44 for each extraction management unit has been exceeded.

(3) The assessment referred to in subclause (2) is to be based on a comparison of the water extracted in the current water year in these Units, against the average extraction within these Units over the preceding 2 water years.

47 Compliance with the long-term average annual extraction limits

Note. Compliance with the long-term average annual extraction limit is managed through the making of available water determinations, under section 59 of the Act, for access licences in these water sources. The rules for making the available water determinations contained in Division 2 of this Part, are subject to this clause.

(1) If the assessment in clause 46 determines that the long-term average annual extraction limit for any extraction management unit in these water sources established under clause 44 has been exceeded by 5% or greater, then the available water determination made under Division 2 of this Part for unregulated river access licences, unregulated river (high flow) access licences and aquifer access licences, for the water sources in the respective extraction management unit for the following water year shall be reduced as necessary to return total water extraction under basic landholder rights and access licences in the respective extraction management unit to the long-term average annual extraction limit.

(2) If the assessment in clause 46 determines that the long-term average annual extraction limit for any extraction management unit in these water sources is less than 95% of the respective long-term average annual extraction limit established for any extraction management unit in these water sources under clauses 44, then the available water determination made under Division 2 of this Part for unregulated river access licences, unregulated river (high flow) access licences, and aquifer access licences, for the water sources in the respective extraction management unit for the following water year shall be increased as necessary to allow total water extraction under basic landholder rights and access licences in the respective extraction management unit to increase to the long-term average annual extraction limit.

(3) Any reduction or increase to the available water determination made under Division 2 of this Part for unregulated river access licences, unregulated river (high flow) access licences and aquifer access licences shall be the same.

(4) Any reduction or increase to the available water determinations made Division 2 of this Part for unregulated river access licences, unregulated river (high flow) access licences and aquifer access licences, in these water sources under this clause may be repeated for the subsequent two water years, if necessary, to allow total water extraction under basic landholder rights and access licences in the respective extraction management unit to return to the long-term average annual extraction limit.

(5) For the purposes of auditing compliance against the long-term average annual extraction limit established under clause 44, the taking of water pursuant to an access licence that has been committed as adaptive environmental water where the access licence has been granted under section 8C of the Act shall not be accounted for as extraction under subclause (1).

Division 2 Available water determinations

48 Available water determinations

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

(2) All available water determinations in these water sources shall be expressed as 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 share for all access licences where share components are specified as a number of unit shares.

(3) An available water determination for each category of access licence in these water sources should be made at the commencement of each water year.

(4) No available water determination made after the first year of this Plan is to exceed 100% of access licence share component, or 1 megalitre per unit share of access licence share component.

Note. Section 59 (1A) of the Act provides that an available water determination that is made in relation to a particular category of access licence applies to all subcategories of that category, except to the extent to which it otherwise provides.

Where the long-term average annual extraction limit in these water sources has been exceeded, or not reached, by 5% or more, then available water determinations for certain access licences in these water sources will be

increased or reduced in accordance with Division 1 of this Part, to allow extraction to return to the long-term average annual extraction limit.

49 Available water determinations for domestic and stock access licences

(1) The available water determination made at the commencement of the first year of this Plan, for domestic and stock access licences in these water sources, should be for 200% of access licence share component.

(2) The available water determination made at the commencement of each subsequent water year for domestic and stock access licences in these water sources and should, where possible, be for 100% of access licence share component.

50 Available water determinations for local water utility access licences

(1) The available water determination made at the commencement of the first year of this Plan, for local water utility access licences in these water sources, should be for 200% of access licence share component.

(2) The available water determination made at the commencement of each subsequent water year for local water utility access licences in these water sources and should, where possible, be for 100% of access licence share component.

51 Available water determinations for major utility access licences

An available water determination shall be made at the commencement of each water year for major utility access licences in these water sources and should, where possible, be for 100% of access licence share components.

52 Available water determinations for unregulated river access licences

(1) The available water determination made at the commencement of the first year of this Plan, for unregulated river access licences in these water sources, should be equal to 2 megalitres per unit share of access licence share component.

(2) The available water determination made at the commencement of each subsequent water year for unregulated river access licences in these water sources and should, where possible, be equal to 1 megalitre per unit share of access licence share component, or such lower amount resulting from clause 47.

53 Available water determinations for unregulated river (high flow) access licences

(1) The available water determination made at the commencement of the first year of this Plan, for unregulated river (high flow) access licences

in these water sources, should be equal to 2 megalitres per unit of access licence share component.

(2) The available water determination made at the commencement of each subsequent water year for unregulated river (high flow) access licences in these water sources should, where possible, be equal to 1 megalitre per unit share of access licence share component, or such lower amount resulting from clause 47.

54 Available water determinations for aquifer access licences

(1) The available water determination made at the commencement of the first year of this Plan, for aquifer access licences in these water sources, should be equal to 2 megalitres per unit of access licence share component.

(2) The available water determination made at the commencement of each subsequent water year for aquifer access licences in these water sources should, where possible, be equal to 1 megalitre per unit share of access licence share component, or such lower amount resulting from clause 47.

Part 11 Rules for managing access licences

Division 1 General

55 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 regards to:

(a) environmental water provisions in this Plan,

(b) requirements for water to satisfy basic landholder rights, and

(c) requirements for water for extraction under access licences.

Division 2 Water allocation account management

56 Individual access licence account management rules

(1) Water taken by a nominated water supply work under an access licence will be debited against the water allocation account for the access licence.

Note. The volume of water extracted by a nominated water supply work is used to account for the extractions against an individual access licence water allocation account.

It is an offence under the Act to take water when there is no, or insufficient water allocations credited to a water allocation account for an access licence.

(2) Where a water supply work is being used both to take water for basic landholder rights and an access licence(s), the water is to be accounted on the basis that an annual volume equal to the basic landholder right for the water year will be the first volume regarded as being taken and all other water taken in that year will be accounted as extraction pursuant to the respective access licence(s).

(3) The maximum volume that may be taken under a domestic and stock, local water utility, unregulated river, unregulated river (high flow) and aquifer access licences in these water sources in any 3 consecutive water years may not exceed a volume equal to:

(a) the sum of water allocations accrued under the access licence from available water determinations in those years,

(b) plus any water allocations assigned from another access licence under section 71T of the Act, in those years,

(c) plus any water allocations recredited in accordance with section 76 of the Act, in those years, and

(d) minus any water allocations assigned to another access licence under section 71T of the Act, in those years.

(4) Notwithstanding subclause (3), the maximum volume that may be taken under a domestic and stock, local water utility, unregulated river, unregulated river (high flow) and aquifer access licences in these water sources in the first 3 water years of this Plan may not exceed a volume equal to:

(a) 3 times the access licence share component (for access licences with share components expressed as megalitres per year), or 3 megalitres per unit share of access licence share component (for access licences with share components expressed as a number of unit shares),

(b) plus any water allocations assigned from another access licence under section 71T of the Act, in those years,

(c) plus any water allocations recredited in accordance with section 76 of the Act, in those years, and

(d) minus any water allocations assigned to another access licence under section 71T of the Act, in those years.

(5) The maximum water allocation that can be carried over in the accounts of a domestic and stock, local water utility, unregulated river, unregulated river (high flow) and aquifer access licences in these water sources from one water year to the next shall be equal to:

(a) 100% of access licence share component, for access licences with share components expressed as megalitres per year, or

(b) 1 megalitre per unit share of access licence share component, for access licences with share components expressed as a number of unit shares.

(6) If water that, pursuant to an access licence in these water sources is committed as adaptive environmental water to be left in a water source for environmental purposes, then the water allocation taken under that access licence shall be assumed to be 100% of the available water determination made in Division 2 Part 10 of this Plan.

(7) The maximum volume that may be taken under a major utility access licence in the Lower Barnard River Water Source shall be equal to 100,000 ML over any five consecutive water years.

Note. The five year rolling average accounting period will commence from 1 July 2009 in line with revised licence conditions. This ensures that the annual average extraction will not exceed 20,000 ML/yr. Extractions are limited to a maximum annual diversion of 30,000 ML as specified in clause 28 of this Plan.

Note. The maximum volume that may be taken under a major utility access licence as specified in subclause 56 (7) may be amended during the term of this Plan as outlined in clause 84.

Division 3 Sharing surface water flows on a daily basis

57 Sharing surface water flows on a daily basis

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

58 Establishment and assignment of total daily extraction limits

(1) At the commencement of this Plan, total daily extraction limit (hereafter ***TDELs***) have not been established in the Upper Barrington River, the Bowman River, the Cooplacurripa River, the Lower Barnard River, the Manning Estuary Tributaries, the Myall Creek, the Nowendoc River, the Rowleys River, the Upper Barnard River, the Upper Manning River, the Myall Lakes, the Myall River, the Coolongolook River or the Wallamba River Water Sources.

(2) This Plan establishes and assigns TDELs for unregulated river (high flow) access licences in B Class flows in the following water sources:

(a) 19.6 ML/day for B Class flows in the Dingo Creek Water Source,

(b) 3.3 ML/day for B Class flows in the Mid Manning River Water Source,

(c) 37.7 ML/day for B Class flows in the Lower Manning River Water Source,

(d) 51.6 ML/day for B Class flows in the Lower Barrington/Gloucester Rivers Water Source,

(e) 14.2 ML/day for B Class flows in the Upper Gloucester River Water Source, and,

(f) 2.3 ML/day for B Class flows in the Avon River Water Source.

(3) Following the conversion of an unregulated river access licence to an unregulated river (high flow) access licence under clause 71 of this Plan, the Minister may amend subclause (2) to establish a TDEL for A Class in the relevant water source or management zone.

(4) Following the imposition of an adaptive environmental water condition on an access licence that requires the water to be left in the water source or management zone for environmental purposes, then the Minister may establish TDELs in the relevant water source or management zone.

Note. TDELs referred to in subclauses (3) and (4) will not be established unless enabling management systems are in place. This includes monitoring and measurement systems which allow for accurate measurement of flows and extraction.

59 Unassigned TDEL

At the commencement of this Plan, there is no unassigned TDEL in these water sources.

60 Granting of unassigned TDEL

At the commencement of this Plan, there is no unassigned TDEL in these water sources, therefore rules to grant unassigned TDELs are not specified.

61 Individual daily extraction limits for access licences

(1) At the commencement of this Plan, there are no individual daily extraction limits (hereafter ***IDELs***) established or assigned to access licences in these water sources.

(2) During the term of this Plan, the Minister may amend this Plan to establish and assign IDELs for:

(i) unregulated river (high flow) access licences in B Class flows in the Avon River, the Dingo Creek, the Mid Manning River, the Lower Manning River, the Lower Barrington/Gloucester Rivers and the Upper Gloucester River Water Sources, and

(ii) any other access licence in these water sources for which TDELs are established and assigned.

(3) Notwithstanding subclause (2), when the volume of share component converted to unregulated river (high flow) access licences reach the values specified in (a) to (e) below, the Minister may amend this Plan to assign IDELs to individual unregulated river (high flow) access licences in the respective water source:

(a) 890 unit shares in the Dingo Creek Water Source,

(b) 150 unit shares in the Mid Manning River Water Source,

(c) 1,720 unit shares in the Lower Manning River Water Source,

(d) 2,350 unit shares in the Lower Barrington/Gloucester Rivers Water Source,

(e) 650 unit shares in the Upper Gloucester River Water Source, and,

(f) 210 unit shares in the Avon River Water Source.

(4) Where IDELs are established under subclauses (2) and (3), the IDEL is to be assigned in the same proportion as the TDEL for the access licence bears to the sum of all share components of access licences of that category, in the respective water source.

(5) Notwithstanding subclause (4), where an access licence contains more restrictive conditions than other access licences of the same category in

the water source, then any IDEL resulting from subclause (4) shall be adjusted to reflect as far as possible the more restrictive conditions.

62 Adjustment to TDELS and IDELs

(1) The TDELs established in this Plan may be adjusted, following:

(a) the imposition of new adaptive environmental water conditions that require water to be left in a water source, or

(b) the removal of adaptive environmental water conditions that required water to be left in a water source.

(2) Where an IDEL is assigned under clause 61 and an adaptive environmental water condition requiring water to be left in the water source is:

(a) imposed on an access licence, then the TDEL established under clause 58 may be decreased by the IDEL on the access licence so committed and clauses 58 and 61 adjusted accordingly, or

(b) removed from an access licence, then the TDEL established under clause 58 will be increased by the IDEL on the access licence so uncommitted and clause 58 and 61 adjusted accordingly.

63 Administrative arrangements for managing access to daily flows (approved group)

This Plan allows for the group management of access licences in these water sources which have been assigned an IDEL, subject to the following rules:

(a) all access licences (except local water utility access licences) in these water sources which are assigned an IDEL shall be included in a group (hereafter ***approved group***),

(b) an approved group shall have a group combined IDEL, being the sum of the IDELs assigned to all access licences in the approved group. The daily extraction of water by all access licences in an approved group must not exceed the group combined IDEL. The daily extraction of water under all access licences within an approved group will be assessed as a whole against the group combined IDEL,

(c) the Minister may, by notice in writing, remove one or more access licences from an approved group, if:

(i) the daily extraction of water by an approved group exceeds the group combined IDEL, or

(ii) the Minister is of the opinion that a holder of an access licence within an approved group has caused the combined group IDEL to be exceeded,

(d) the daily extraction of water pursuant to an access licence which is not in an approved group must not exceed the IDEL assigned to the access licence,

(e) the group combined IDEL shall be reduced by the amount of the IDEL assigned to any access licence which is removed from the approved group,

(f) an access licence holder may, by request made in writing to the Minister, apply to have their access licence removed from an approved group. If the Minister consents to the removal of an access licence from an approved group, the access licence will be removed from the approved group,

(g) the holder of an access licence which has been assigned an IDEL and which is not in an approved group, may make a written request to the Minister to:

(i) form a new approved group, or

(ii) be included in an approved group,

(h) the Minister may:

(i) consent or refuse a request to form a new approved group,

(ii) consent or refuse to allow an access licence to be included in an approved group,

(iii) consent or refuse a request for an access licence to be removed from one approved group and included in a new approved group,

(i) where the Minister consents to a new approved group, a new approved group will be formed and will be subject to the rules contained in this clause,

(j) where an access licence is added to an approved group, the group combined IDEL shall be increased by the amount of IDEL assigned to the access licence,

(k) an access licence may not be in more than one approved group at any time,

(l) any part of the IDEL of an access licence which is committed to the environment pursuant to an adaptive environmental water condition:

(i) shall not be included in an approved group, or

(ii) where the IDEL is already included in an approved group, shall be removed from the approved group.

64 Amendments to this Plan for the purposes of sharing of surface water flows on a daily basis

(1) This Part may be amended for the purpose of enabling the sharing of surface water flows on a daily basis.

(2) Any such amendment may include, but need not be limited to:

(a) the establishment or modification of TDELs in these water sources,

(b) the establishment or modification of IDELs for access licences in these water sources,

(c) the establishment or modification of approved groups and rules to govern the operation of those groups, with respect to TDELs or IDELs in these water sources,

(d) the imposition, removal or modification of mandatory conditions, or

(e) to provide for the amendment of the share component or the extraction component of one or more access licences in these water sources pursuant to section 68A of the Act.

65 Accreditation Scheme in these water sources

The Minister may amend this Plan to establish an accreditation scheme in one or more of these water sources.

Note. An accreditation scheme is defined in the Dictionary.

66 Access to the Very Low Flow Class in these water sources

Access to the Very Low Flow Class in these water sources is limited to access licences, as specified in clause 76 of this Plan.

Note. Clause 92 provides for amendments to Schedule 2.

Division 4 Management of surface and groundwater connectivity

67 Access licences which nominated water supply works which may be used to take water from alluvial sediments in these water sources

(1) Except for an aquifer access licence referred to in subclause (2), all aquifer access licences in these water sources which nominate a water supply work which may be used to take water from the alluvial sediments in these water sources, which is located at or less than 40 metres from the top of the high bank of a river, shall, from year six of this Plan, be subject to the same mandatory condition(s) imposed under clause 75 of this Plan on an unregulated river access licence in the same water source or management zone as the aquifer access licence.

(2) Any aquifer access licence arising from a dealing involving the conversion of an unregulated river access licence to an aquifer access licence, under Part 12 of this Plan, shall be subject to the same to mandatory condition(s) imposed under clause 75 of this Plan on an unregulated river access licence in the same water source or management zone as the aquifer access licence.

(3) A local water utility access licence which nominates a new water supply work which may be used to take water from the alluvial sediments in these water sources, which is at or less than 40 metres from the top of the high bank of a river, shall be subject to the same mandatory condition(s) imposed under clause 75 of this Plan on an unregulated river access licence in the same water source or management zone as the local water utility access licence.

(4) A mandatory condition imposed on an unregulated river access licence under clause 75 of this Plan which requires a visible flow at the pump site shall, for the purposes of an aquifer access licence or a local water utility access licence to which this clause applies, be taken to mean a visible flow in the river immediately adjacent to the water supply work nominated by the aquifer access licence or the local water utility access licence.

Part 12 Access licence dealing rules

68 Access licence dealing rules

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

(2) An access licence dealing may only be made in accordance with the water management principles, the access licence dealing rules established by this Plan and any access licence dealing principles order which is in force under section 71Z of the Act.

(3) If permitted pursuant to the principles and rules referred to in subclause (2), an access licence with an adaptive environmental water condition in these water sources may be the subject of an assignment dealing under section 71T of the Act, but only to the extent that any part of the water allocation of an access licence which is subject to an adaptive environmental water condition is not required to meet the adaptive environmental water condition.

(4) If permitted pursuant to the principles and rules referred to in subclause (2), an access licence with an adaptive environmental water condition in these water sources may be the subject of a dealing, provided that the benefit to the environment provided for in the adaptive environmental condition remains the same.

Note. There are a number of mechanisms within the Act, called access licence dealings, to change either the holder 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.

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.

Note. An unregulated river (subcategory "Aboriginal community development") access licence is not fully commercial. Allocations under these licences will be able to be traded to non-Aboriginal people however the licence itself can only be traded amongst Aboriginal people, and as such will remain in the Aboriginal community for the life of the licence. These licences will not be able to be converted to any other category of licence. Aboriginal communities, enterprises and individuals are encouraged to seek financial assistance from funding bodies to purchase fully commercial licences.

69 Rules relating to constraints within these water sources

(1) This clause applies to any dealings under sections 71Q, 71S, 71T and 71W of the Act within these water sources.

(2) The dealings specified in subclause (1) are prohibited if:

(a) the dealing involves an assignment of water allocation under section 71T of the Act, from a major utility access licence or from

an unregulated river high flow access licence to another category of access licence within these water sources,

(b) the dealing would result in the amount of total extraction of water from the alluvial sediments in these water sources, under aquifer access licences which nominate a water supply work used to take water from alluvial sediments in these water sources, plus basic landholder rights extractions, requiring a temporary water restriction order to be made under section 324 (2) of the Act,

(c) the dealing involves an assignment of access rights under section 71Q of the Act, or an allocation assignment under section 71T of the Act from an aquifer access licence that nominates a water supply works which may be used to take water from the alluvial sediments in these water source, which is located more than 40 metres from the top of the bank of a river to a water supply works which may be used to take water from the alluvial sediments in these water source, which is located within 40 metres from the top of the bank of a river,

(d) the dealing involves an assignment of access rights under section 71Q of the Act, or an allocation assignment from an access licence under section 71T of the Act in:

(i) either the Upper Wallamba River Management Zone or the Tidal Wallamba River Management Zone of the Wallamba River Water Source to another access licence in the Khappinghat Creek Management Zone of the Wallamba River Water Source,

(ii) the Manning Estuary Tributaries Water Source, to another access licence in a different management zone,

(iii) the Rowleys River Management Zone to an access licence in the Rowleys River Headwater Management Zone of the Rowleys River Water Source, where it would result in the total share component of all access licences exceeding 10 ML in the Rowleys River Headwater Management Zone,

(iv) the Upper Gloucester River Management Zone to an access licence in the Upper Gloucester Headwater Management Zone of the Upper Gloucester River Water Source, where it would result in the total share component of all access licences exceeding 10 ML in the Upper Gloucester Headwater Management Zone,

(v) the Cooplacurripa River Management Zone to an access licence in the Cooplacurripa River Headwater Management Zone of the Cooplacurripa River Water Source, where it would result in the total share component

of all access licences exceeding 10 ML in the Cooplacurripa River Headwater Management Zone,

(vi) the Nowendoc River Management Zone to an access licence in the Nowendoc River Headwaters Management Zone of the Nowendoc River Water Source, where it would result in the total share component of all access licences exceeding 10 ML in the Nowendoc River Headwaters Management Zone,

(vii) the Lower Barnard River Management Zone to an access licence in the Lower Barnard River Upper Reaches Management Zone of the Lower Barnard River Water Source, where it would result in the total share component of all access licences excluding the major utility share component, exceeding 10 ML in the Lower Barnard River Upper Reaches Management Zone,

(viii) the Upper Manning River Management Zone to an access licence in the Upper Manning River Headwaters Management Zone of the Upper Manning River Water Source, where it would result in the total share component of all access licences exceeding 10 ML in the Upper Manning River Headwaters Management Zone,

(ix) the Upper Barrington River Management Zone to an access licence in the Upper Barrington River Headwaters Management Zone of the Upper Barrington River Water Source, where it would result in the total share component of all access licences exceeding 10 ML in the Upper Barrington River Headwaters Management Zone,

(x) the Craven Creek Management Zone to or from an access licence in the Bowman Creek above Craven Creek Junction Management Zone in the Bowman River Water Source,

(xi) the Lower Bowman River Management Zone to or from an access licence in either the Craven Creek Management Zone or the Bowman Creek above Craven Creek Junction Management Zone in the Bowman River Water Source, and

(xii) the Lower Manning River Water Source, from an access licence downstream to an access licence upstream of the high priority groundwater dependent ecosystem identified in Schedule 4,

(e) the dealing involves an access licence that currently nominates a water supply works:

(i) in either the Upper Wallamba River Management Zone or the Tidal Wallamba River Management Zone being amended under section 71W of the Act to nominate a water supply work in the Khappinghat Creek Management Zone of the Wallamba River Water Source,

(ii) in the Manning Estuary Tributaries Water Source, being amended under section 71W of the Act to nominate a water supply work in a different management zone,

(iii) in the Rowleys River Management Zone being amended under section 71W of the Act to nominate a water supply work in the Rowleys River Headwater Management Zone of the Rowleys River Water Source, where it would result in the total share component of all access licences exceeding 10 ML in the Rowleys River Headwater Management Zone,

(iv) in the Upper Gloucester River Management Zone being amended under section 71W of the Act to nominate a water supply work in the Upper Gloucester Headwater Management Zone of the Upper Gloucester River Water Source, where it would result in the total share component of all access licences exceeding 10 ML in the Upper Gloucester Headwater Management Zone,

(v) in the Cooplacurripa River Management Zone being amended under section 71W of the Act to nominate a water supply work in the Cooplacurripa River Headwater Management Zone of the Cooplacurripa River Water Source, where it would result in the total share component of all access licences exceeding 10 ML in the Cooplacurripa River Headwater Management Zone,

(vi) in the Nowendoc River Management Zone being amended under section 71W of the Act to nominate a water supply work in the Nowendoc River Headwaters Management Zone of the Nowendoc River Water Source, where it would result in the total share component of all access licences exceeding 10 ML in the Nowendoc River Headwaters Management Zone,

(vii) in the Lower Barnard River Management Zone being amended under section 71W of the Act to nominate a water supply work in the Lower Barnard River Upper Reaches Management Zone of the Lower Barnard River Water Source, where it would result in the total share component of all access licences, excluding the major utility share

component, exceeding 10ML in the Lower Barnard River Upper Reaches Management Zone,

(viii) in the Upper Manning River Management Zone being amended under section 71W of the Act to nominate a water supply work in the Upper Manning River Headwaters Management Zone of the Upper Manning River Water Source, where it would result in the total share component of all access licences exceeding 10ML in the Upper Manning River Headwaters Management Zone,

(ix) in the Upper Barrington River Management Zone being amended under section 71W of the Act to nominate a water supply work in the Upper Barrington River Headwaters Management Zone of the Upper Barrington River Water Source, where it would result in the total share component of all access licences exceeding 10ML in the Upper Barrington River Headwaters Management Zone,

(x) in the Craven Creek Management Zone being amended under section 71W of the Act to nominate a water supply work in the Bowman Creek above Craven Creek Junction Management Zone or in the Bowman Creek above Craven Creek Junction Management Zone being amended under section 71W of the Act to nominate a water supply work in the Craven Creek Management Zone of the Bowman River Water Source,

(xi) in the Lower Bowman River Management Zone being amended under section 71W of the Act to nominate a water supply work in the Craven Creek Management Zone or the Bowmans Creek above Craven Creek Junction Management Zone of the Bowman River Water Source, and

(xii) in the Lower Manning River Water Source, downstream of the high priority groundwater dependent ecosystem identified in Schedule 4 being amended under section 71W of the Act to nominate a water supply work upstream of the high priority groundwater dependent ecosystem identified in Schedule 4, and

(f) the dealing involves an access licence that nominate a water supply works which may be used to take water from the alluvial sediments in these water sources, which is located more than 40 metres from the top of the bank of a river being amended under section 71W of the Act to nominate a water supply work which may be used to take water from the alluvial sediment in these water sources which is located within 40 metres from the top of the bank of a river.

(3) The Minister may amend this Plan, during the term of this Plan, to amend the dealing rules to limit dealings within the Manning River Tidal Pool Water Source in association with the development of access rules for this water source.

(4) The Minister may amend this Plan to amend the dealing rules to permit no net dealings between specific management zones within the Bowman Creek Water Source following further studies and/or field verification.

70 Rules for change of water source

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

Note. Section 71R dealings are the mechanism by which access licences can move from one water source to another. Once the change in water source has been affected, 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) Dealings under section 71R and 71W of the Act to change the water source to which an access licence applies are prohibited in these water sources if the dealing involves a change of water source from one extraction management unit to another extraction management unit.

(3) Dealings under section 71R and 71W of the Act to change the water source to which an access licence applies are prohibited in these water sources if the dealing involves an unregulated river (high flow) access licence.

(4) Dealings under section 71R and 71W of the Act to change the water source to which an access licence applies are prohibited in these water sources if the dealing would result in the total extraction pursuant to access licences which nominate a water supply works which may be used to take water from the alluvial sediments in these water sources, plus basic landholder rights extraction requiring a temporary water restriction order to be made under section 324 (2) of the Act.

(5) Unless the application is for a replacement water supply work which may be used to take water from the alluvial sediments in these water sources that is part of a bore network for a local water utility or town water supply or a new water supply works which may be used to take water from alluvial sediments in these water sources required as part of a dealing involving the conversion of an unregulated river access licence to an aquifer access licence under section 71O of the Act and clause 72 of this Plan, consent to a nominated work under section 71W, is not to be granted in these groundwater sources, if it would result in a water supply work which may be used to take water from the alluvial sediments in these water sources being authorised to extract water within 40 metres of the top of the high bank of a river.

(6) Dealings under section 71R and 71W of the Act to change the water source to which an access licence applies are prohibited in these water sources, unless the dealing involves a change of water source from:

(a) the Lower Barrington/Gloucester Rivers, the Rowleys River, the Upper Barrington River, the Upper Barnard River, the Upper Manning River, the Mid Manning River, the Lower Barnard, the Dingo Creek, the Nowendoc River, the Cooplacurripa River, the Myall Creek, the Bowman River, the Upper Gloucester River and the Avon River Water Sources into the Lower Manning River Water Source,

(b) the Lower Manning River Water Source into the Lower Barrington/Gloucester Rivers Water Source, the Rowleys River Management Zone of the Rowleys River Water Source, the Upper Barrington River Management Zone of the Upper Barrington River Water Source, the Upper Manning River Management Zone of the Upper Manning River Water Source, the Mid Manning River Water Source, the Lower Barnard River Water Source, the Dingo Creek Water Source, Nowendoc River downstream of Cooplacurripa River Confluence Management Zone of the Nowendoc River Water Source, the Cooplacurripa River Management Zone of the Cooplacurripa River Water Source, the Bowman River Water Source, the Upper Gloucester River Management Zone of the Upper Gloucester River Water Source and the Avon River Water Source, and the dealing causes the sum of all access licence share components in the water sources or management zones to exceed the sum of all access licence share components for the respective water sources or management zone at the commencement of this Plan,

(c) the Rowleys River and the Cooplacurripa River Water Sources into the Nowendoc River downstream of Cooplacurripa River Confluence Management Zone of the Nowendoc River Water Source,

(d) the Nowendoc River downstream of Cooplacurripa River Confluence Management Zone of the Nowendoc River Water Source into the Rowleys River Management Zone of the Rowleys River Water Source and the Cooplacurripa River Management Zone of the Cooplacurripa River Water Source, and the dealing causes the sum of all access licence share components in the management zone to exceed the sum of all access licence share components in the respective management zone at the commencement of this Plan,

(e) the Upper Barnard River, the Upper Manning River, the Lower Barnard River and the Myall Creek Water Sources into the Mid Manning River Water Source,

(f) the Mid Manning River Water Source into the Upper Manning River Management Zone of the Upper Manning River Water Source and the Lower Barnard Water Source, and the dealing causes the sum of all access licence share components in the water source or management zone to exceed the sum of all access licence share components in the respective water source or management zone at the commencement of this Plan,

(g) the Upper Barnard River and the Myall Creek Water Sources into the Lower Barnard River Water Source,

(h) the Avon River, the Bowman River, the Upper Barrington River and the Upper Gloucester River Water Sources into the Lower Barrington/Gloucester Rivers Water Source,

(i) the Lower Barrington/Gloucester Rivers Water Source into the Avon River Water Source, the Bowman River Water Source, the Upper Gloucester River Management Zone of the Upper Gloucester River Water Source and the Upper Barrington River Management Zone of the Upper Barrington River Water Source, and the dealing causes the sum of all access licence share components in the water source or management zone to exceed the sum of all access licence share components in the respective water source or management zone at the commencement of this Plan,

(j) the Lower Barnard Water Source into either the Upper Barnard River and the Myall Creek Water Sources, and would not result in the sum of all share component exceeding 10 ML in total for all dealings within the Upper Barnard or the Myall Creek Water Sources,

(k) the Lower Manning River Water Source into the Manning River Tidal Pool Water Source,

(l) the Manning River Tidal Pool Water Source into the Lower Manning River Water Source, and

(m) the Manning Estuary Tributaries Water Source into the Lower Manning River Water Source, the Lower Barrington/Gloucester Rivers Water Source, the Rowleys River Management Zone of the Rowleys River Water Source, the Upper Barrington River Management Zone of the Upper Barrington River Water Source, the Upper Manning River Management Zone of the Upper Manning River Water Source, the Mid Manning River Water Source, the Lower Barnard River Water Source, the Dingo Creek Water Source, Nowendoc River downstream of Cooplacurripa River Confluence Management Zone of the Nowendoc River Water Source, the Cooplacurripa River Management Zone of the Cooplacurripa River Water Source, the Bowman River Water

Source, the Upper Gloucester River Management Zone of the Upper Gloucester River Water Source and the Avon River Water Source, and the dealing causes the sum of all access licence share components in the water source or management zone to exceed the sum of all access licence share components in the respective water source or management zone at the commencement of this Plan.

(7) An access licence with a share component specifying a water source in these water sources may be cancelled and a new access licence issued in another water source outside these water sources only if:

(a) the new access licence issued is in a water source that is within the Manning or Great Lakes Extraction Management Unit, and

(b) the access licence dealing rules in the other surface water source permit such a dealing.

(8) An access licence with a share component specifying a water source outside of these water sources may be cancelled and a new licence issued in a water source in these water sources only if:

(a) the access licence cancelled is in a water source that is within the Manning or Great Lakes Extraction Management Unit, and

(b) the access licence dealing rules in the other surface water source permit such a dealing.

(9) The share component on any access licence issued under this clause is to be equal to the cancelled access licence share component.

(10) The extraction component of any cancelled access licence is not to be carried over to the new access licence.

(11) The Minister may amend this Plan, during the term of this Plan, to amend the dealing rules regarding dealings into and/or out of the Manning River Tidal Pool Water Source in association with the development of access rules for this water source.

Note. This may result in no net dealings being permitted into the Manning River Tidal Pool if such a review determines that such dealing rules would be appropriate.

71 Rules for conversion of access licence category

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

(2) Conversion of an access licence of one category to an access licence of another category is permitted only if the conversion is from:

(a) an unregulated river access licence to an aquifer access licence,

(b) an unregulated river access licence to a major utility access licence in the Lower Barnard River Water Source, Upper Barnard River Water Source or the Myall Creek Water Source, or

(c) an unregulated river access licence to an unregulated river (high flow) access licence in the Dingo Creek, the Mid Manning River, the Lower Manning, the Lower Barrington/Gloucester Rivers, the Upper Gloucester River or the Avon River Water Sources.

Note. In the Dingo Creek and Mid Manning River Water Sources, while initial assessment of these water sources did not identify high risk to instream values a precautionary approach was taken, noting that the systems were under high hydrological stress. Allowing for conversion of access to high flows in these water sources was seen as a method to assist in the reduction of hydrologic stress by reducing extraction pressure between users and allowing more equitable sharing of water in periods of low flow.

(3) For any conversion of an access licence under subclauses 2 (a), 2 (b) and 2(c) the access licence being converted shall be cancelled and a new licence issued.

(4) The share component on an access licence issued under subclauses 2 (a) and 2 (b) is to be equal to the cancelled access licence share component.

(5) The volume of share component on an access licence issued under subclause 2 (c) is to be equal to 2.5 times the cancelled access licence share component.

(6) The Plan establishes the following limits for the total amount of all access licence share component that may be converted to unregulated river (high flow) access licences under subclause 2 (c):

(a) 1,227.2 unit shares in the Dingo Creek Water Source,

(b) 120 unit shares in the Mid Manning River Water Source,

(c) 2,552.8 unit shares in the Lower Manning Water Source,

(d) 3,566.8 unit shares in the Lower Barrington/Gloucester Rivers Water Source,

(e) 836.8 unit shares in the Upper Gloucester River Water Source, and

(f) 168 unit shares in the Avon River Water Source.

Note. Approval for conversion of an unregulated river access licence to an unregulated river (high flow) access licence will be subject to assessment of the application in regard to the level of impact of the proposed conversion. This should include consideration of the potential impact on high flow (e.g. flows greater than the 50th percentile flow) values, and any potential impact on the water source as a whole.

72 Rules for interstate access licence transfer and assignments of water allocation

(1) This clause relates to dealings under section 71U and 71V of the Act.

(2) Dealings that result in the interstate transfer of an access licence into or out of these water sources or the interstate assignment of water allocations to or from these water sources are prohibited.

73 Rules for water allocation assignments between water sources

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

(2) Dealings under section 71T of the Act that result in water allocation assignments to or from an access licence in one of these water sources to or from an access licence in another of these water sources are prohibited if the dealing involves a change of water source from one extraction management unit to another extraction management unit.

(3) Dealings under section 71T of the Act that result in water allocation assignments to or from an access licence in one of these water sources to or from an access licence in another of these water sources are prohibited if the dealing involves an unregulated river (high flow) access licence.

(4) Dealings under section 71T that result in water allocation assignments to or from an access licence in one of these water sources to or from an access licence in another of the water sources are prohibited in these water sources if the dealing would result in the total extraction under access licences through nominated water supply works which may be used to take water from alluvial sediments in these water sources, plus basic landholder rights extraction, requiring a temporary water restriction order to be made under section 324 (2) of the Act.

(5) Dealings under section 71T of the Act that result in water allocation assignments to or from an access licence in one of these water sources to or from an access licence in another of these water sources are prohibited unless the dealing involves a change of water source from:

(a) the Lower Barrington/Gloucester Rivers, the Rowleys River, the Upper Barrington River, the Upper Barnard River, the Upper Manning River, the Mid Manning River, the Lower Barnard, the Dingo Creek, the Nowendoc River, the Cooplacurripa River, the Myall Creek, the Bowman River, the Upper Gloucester River and the Avon River Water Sources into the Lower Manning River Water Source,

(b) the Lower Manning River Water Source into the Lower Barrington/Gloucester Rivers Water Source, the Rowleys River Management Zone of the Rowleys River Water Source, the Upper Barrington River Management Zone of the Upper

Barrington River Water Source, the Upper Manning River Management Zone of the Upper Manning River Water Source, the Mid Manning River Water Source, the Lower Barnard River Water Source, the Dingo Creek Water Source, Nowendoc River downstream of Cooplacurripa River Confluence Management Zone of the Nowendoc River Water Source, the Cooplacurripa River Management Zone of the Cooplacurripa River Water Source, the Bowman River Water Source, the Upper Gloucester River Management Zone of the Upper Gloucester River Water Source and the Avon River Water Source, and the dealing causes the sum of all access licence share components in the water source or management zone to exceed the sum of all access licence share components in the respective water source or management zone at the commencement of this Plan,

(c) the Rowleys River and the Cooplacurripa River Water Sources into the Nowendoc River downstream of Cooplacurripa River Confluence Management Zone of the Nowendoc River Water Source,

(d) the Nowendoc River downstream of Cooplacurripa River Confluence Management Zone of the Nowendoc River Water Source into the Rowleys River Management Zone of the Rowleys River Water Source and the Cooplacurripa River Management Zone of the Cooplacurripa River Water Source, and the dealing causes the sum of all access licence share components in the management zone to exceed the sum of all access licence share components in the respective management zone at the commencement of this Plan,

(e) the Upper Barnard River, the Upper Manning River, the Lower Barnard River and the Myall Creek Water Sources into the Mid Manning River Water Source,

(f) the Mid Manning River Water Source into the Upper Manning River Management Zone of the Upper Manning River Water Source and the Lower Barnard Water Source, and the dealing causes the sum of all access licence share components in the water source or management zone to exceed the sum of all access licence share components in the respective water source or management zone at the commencement of this Plan,

(g) the Upper Barnard River and the Myall Creek Water Sources into the Lower Barnard River Water Source,

(h) the Avon River, the Bowman River, the Upper Barrington River and the Upper Gloucester River Water Sources into the Lower Barrington/Gloucester Rivers Water Source,

(i) the Lower Barrington/Gloucester Rivers Water Source into the Avon River Water Source, the Bowman River Water Source, the Upper Gloucester River Management Zone of the Upper Gloucester River Water Source and the Upper Barrington River Management Zone of the Upper Barrington River Water Source, and the dealing causes the sum of all access licence share components in the water source or management zone to exceed the sum of all access licence share components in the respective water source or management zone at the commencement of this Plan,

(j) the Lower Barnard Water Source into either the Upper Barnard River and the Myall Creek Water Sources, if the dealing would result in the sum of all share component exceeding 10 ML in total for all dealings within the Upper Barnard or Myall Creek Water Sources,

(k) the Lower Manning River Water Source into the Manning River Tidal Pool Water Source,

(l) the Manning River Tidal Pool Water Source into the Lower Manning River Water Source, and

(m) the Manning Estuary Tributaries Water Source into the Lower Manning River Water Source, the Lower Barrington/Gloucester Rivers Water Source, the Rowleys River Management Zone of the Rowleys River Water Source, the Upper Barrington River Management Zone of the Upper Barrington River Water Source, the Upper Manning River Management Zone of the Upper Manning River Water Source, the Mid Manning River Water Source, the Lower Barnard River Water Source, the Dingo Creek Water Source, Nowendoc River downstream of Cooplacurripa River Confluence Management Zone of the Nowendoc River Water Source, the Cooplacurripa River Management Zone of the Cooplacurripa River Water Source, the Bowman River Water Source, the Upper Gloucester River Management Zone of the Upper Gloucester River Water Source and the Avon River Water Source, and the dealing causes the sum of all access licence share components in the water source or management zone to exceed the sum of all access licence share components in the respective water source or management zone at the commencement of this Plan.

(6) Dealings that assign water allocations to or from an access licence inside one of these water sources to or from a water source outside these water sources, but inside the respective Manning or Great Lakes Extraction Management Units, are permitted only if the access licence dealing rules in the other water source permit such a dealing.

Part 13 Mandatory conditions

Division 1 Mandatory conditions on access licences

74 Mandatory conditions on all access licences

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

(2) All access licences in these water sources must have mandatory conditions to give effect to the following:

(a) water must not be taken pursuant to an access licence otherwise than:

(i) by means of a water supply work nominated on the access licence, as a work by means of which water credited to the water allocation account for the access licence may be taken from the water source specified on the access licence, unless otherwise allowed pursuant to the Act,

(ii) in accordance with the conditions specified on the water supply work approval for the nominated water supply work,

(iii) in accordance with the IDEL (if any) assigned to the access licence under Part 11 Division 3 of this Plan, or, if the access licence is in an approved group at any time, in accordance with the group combined IDEL for the approved group at that time,

Note. IDELs are covered in Part 11 Division 3 of this Plan.

Note. Approved groups are established in Part 11 Division 3 of this Plan.

(b) water must not be taken pursuant to an access licence in excess of the volume of water allocated to, or assigned to, or recredited to the water allocation account for that access licence,

(c) the water allocation account management rules in Division 2 of Part 11 of this Plan,

(d) any other conditions required to implement the provisions of this Plan.

75 Mandatory conditions relating to the taking of water

(1) Subject to subclause (2), in these water sources, water must not be taken pursuant to an access licence, if any of the following apply:

(a) if flow classes are established in the water source specified on the access licence under clause 17 (1) of this Plan, when the Very Low Flow Class applies in the water source specified on the access licence, subject to clause 76 of this Plan,

(b) if the access licence replaces a *Water Act 1912* entitlement which contained a cease to pump limit, when flows in the water source specified on the access licence are equal to or less than the cease to pump limit (if any) specified on that *Water Act 1912* entitlement,

(c) when there is no visible flow in the water source in the immediate downstream vicinity of the nominated water supply work taking water pursuant to the access licence, or, where the nominated water supply work is taking water from a pool, when there is no visible inflow and outflow to and from that pool.

(2) Subclause (1) does not apply to:

(a) major utility access licences in the Lower Barnard River Upper Reaches Management Zone of the Upper Barnard River Water Source,

Note. See subclause (3) below.

(b) unregulated river (high flow) access licences,

Note. See subclause (4) below.

(c) unregulated river (subcategory "Aboriginal community development") access licences,

Note. See subclause (4) below.

(d) aquifer access licences in these water sources,

Note. See subclause (5) below.

(e) local water utility access licences in these water sources which nominate a new water supply work which may be constructed or used to take water from the alluvial sediments in these water sources,

Note. See subclause (6) below.

(f) access licences which nominate a water supply work which is a runoff harvesting dam, but only in relation to water taken using the runoff harvesting dam,

(g) access licences which nominate a water supply work which is an in-river dam, but only if the in-river dam is passing or releasing the amount of all inflows into the in-river dam,

(3) All major utility access licences in the Lower Barnard River Upper Reaches Management Zone of the Upper Barnard River Water Source must have a mandatory condition specifying that water must not be taken, if any of the following apply:

(a) when the A Class specified in clause 17 (1) (q) (iii) applies,

(b) if the access licence replaces a *Water Act 1912* entitlement which contained a cease to pump limit, when flows in the water source

specified on the access licence are equal to or less than the cease to pump limit (if any) specified on that *Water Act 1912* entitlement,

(c) when there is no visible flow in the immediate downstream vicinity of the nominated water supply work taking water pursuant to the access licence, or, where the nominated water supply work is taking water from a pool, when there is no visible inflow and outflow to and from that pool,

(4) All unregulated river (high flow) access licences and unregulated river (subcategory "Aboriginal community development") access licences in these water sources must have a mandatory condition specifying that water must not be taken, if any of the following apply:

(a) if flow classes are established in the water source specified on the access licence under clause 17 (1) of this Plan, when flows in the water source are below B Class, subject to clause 76 of this Plan,

(b) if the access licence replaces a *Water Act 1912* entitlement which contained a cease to pump limit, when flows in the water source specified on the access licence are equal to or less than the cease to pump limit (if any) specified on that *Water Act 1912* entitlement,

(c) when there is no visible flow in the immediate downstream vicinity of the nominated water supply work taking water pursuant to the access licence, or, where the nominated water supply work is taking water from a pool, when there is no visible inflow and outflow to and from that pool.

(5) All aquifer access licences in these water sources must have mandatory conditions to give effect to clause 67 of this Plan.

(6) All local water utility access licences in these water sources which nominate a new water supply work which may be constructed or used to take water from the alluvial sediments in these water sources, must have a mandatory condition to give effect to clause 67 (4) of this Plan.

76 Mandatory conditions for access to the Very Low Flow Class

(1) This clause only applies to:

(a) an access licence which replaces a *Water Act 1912* entitlement listed in Schedule 2 of this Plan, if the access licence specifies a water source in which flow classes are established under clause 17 (1) of this Plan,

(b) a domestic and stock access licence or a domestic and stock (subcategory "domestic") access licence which replaces a *Water Act 1912* entitlement that allowed water to be taken in the Very

Low Flow Class, if the access licence specifies a water source in which flow classes are established under clause 17 (1) of this Plan.

(2) Subject to subclause (3), a local water utility access licence to which this clause applies must have a mandatory condition specifying that water may be taken when the Very Low Flow Class applies in the water source specified on the access licence:

(a) for the purposes of town water supply only, and

(b) only until major augmentation to the utility's water supply work(s) has taken place.

(3) An access licences held by the local water utility for Bootawa Dam (*Water Act 1912* Licence SL022548) to which this clause applies must have a mandatory condition specifying that water may be taken when the Very Low Flow Class applies in the water source specified on the access licence for the purposes of town water supply only.

Note. The purpose of allowing for very low flow access to continue on some structures held by local water utilities is to provide for the continuing use of storages to supply town water supply.

(4) For the purposes of subclause (2), major augmentation includes anything which enhances or increases the local water utility's capacity to take water to meet town water supply requirements as a result of demand for water exceeding the sustainable yield of the utility's existing infrastructure, for example, a larger pump, a larger storage facility, a larger pipe, or a secondary or additional water source.

(5) An access licence to which this clause applies, other than a local water utility access licence, a domestic and stock access licence or a domestic and stock (subcategory "domestic") access licence, must have a mandatory condition specifying that water may be taken when the Very Low Flow Class applies in the water source specified on the access licence, for any of the following purposes only:

(a) fruit washing,

(b) cleaning of dairy plant and equipment for the purpose of hygiene,

(c) poultry watering and misting, or

(d) cleaning of enclosures used for intensive animal production for the purpose of hygiene.

(6) The maximum daily volume that may be taken under subclause (5) must:

(a) be the minimum required to satisfy the purpose,

(b) be specified on each access licence, and

(c) not exceed 20 kilolitres per day.

(7) Once specified under subclause (6) (b), the maximum daily volume must not be increased.

(8) For the first three years of this Plan only, a domestic and stock access licence or a domestic and stock (subcategory "domestic") access licence to which this clause applies, must have a mandatory condition specifying that water may be taken when the Very Low Flow Class applies in the water source specified on the access licence, for domestic consumption only.

Note. Domestic consumption is defined in section 52 of the Act.

77 Mandatory conditions on domestic and stock access licences

In addition, all domestic and stock access licences in these water sources must have a mandatory condition which specifies that water must only be taken pursuant to the access licence for the purposes of domestic consumption or stock watering.

Note. Domestic consumption and stock watering are defined in section 52 of the Act.

78 Mandatory conditions on aquifer access licences

In addition, all aquifer access licences in these water sources must have a mandatory condition which specifies that water must only be taken from an aquifer in these water sources.

79 Mandatory conditions on Aboriginal cultural and Aboriginal community development access licences

(1) In addition, all access licences of the subcategory "Aboriginal cultural" in these water sources must have a mandatory condition which specifies that water must only be taken pursuant to the access licence by Aboriginal persons or Aboriginal communities for personal, domestic or communal purposes, including drinking, food preparation, washing, manufacturing traditional artefacts, watering domestic gardens, cultural teaching, hunting, fishing, gathering and for recreational, cultural and ceremonial purposes.

(2) In addition, all unregulated river (subcategory "Aboriginal community development") access licences in these water sources must have a mandatory condition which specifies that water must only be taken pursuant to the access licence by Aboriginal persons or Aboriginal communities for commercial purposes.

80 New access licences granted in these water sources

(1) In addition, the following new access licences granted in these water sources must have a mandatory condition specifying that water must not be taken unless flows exceed a level or flow class which is specified on the access licence:

(a) a new local water utility access licence granted pursuant to section 66 (3) or (4) of the Act,

(b) a major utility (subcategory "Urban water") access licence granted pursuant to Part 8 of this Plan, which specifies a water source in which B Class is not established under clause 17 (1) of this Plan,

(c) a new unregulated river (subcategory "Aboriginal community development") access licence granted pursuant to Part 8 of this Plan, which specifies a water source in which B Class is not established under clause 17 (1) of this Plan.

(2) In addition, the following new access licences granted in these water sources, pursuant to Part 8 of this Plan, must have a mandatory condition which specifies that water must not be taken when flows in the water source specified on the access licence are below B Class:

(a) a new local water utility access licence, which specifies a water source in which B Class is established under clause 17 (1) of this Plan,

(b) a new major utility access licence, which specifies a water source in which B Class is established under clause 17 (1) of this Plan,

(c) an access licence of the subcategory "Aboriginal Community Development", which specifies a water source in which B Class is established under clause 17 (1) of this Plan, or

(d) an access licence with a zero share component, which specifies a water source in which B Class is established under clause 17 (1) of this Plan.

Division 2 Mandatory conditions on water supply work approvals

81 Mandatory conditions on all water supply work approvals (except works taking water from the alluvial sediments)

(1) All water supply work approvals which authorise the construction or use of a water supply work in these water sources, other than a water supply work approval which authorises the construction or use of a water supply works to take water from the alluvial sediments in these

water sources, must have mandatory conditions to give effect to the following:

(a) the water supply work must not be used to take water otherwise than pursuant to the conditions of an access licence which nominates the water supply work as a work by means of which water credited to the water allocation account for the access licence may be taken from the water source specified on the access licence, unless otherwise allowed pursuant to the Act,

(b) when required by the Minister by notice in writing:

(i) metering equipment must be installed and maintained for use in connection with the water supply work,

(ii) metering equipment must be operated and maintained in a proper and efficient manner,

(iii) if the Minister has specified that metering equipment must be of a type or standard or has specified other criteria, any metering equipment installed, operated or maintained must comply with that type, standard or other criteria (if any) specified by the Minister,

(c) when required by the Minister by notice in writing, the approval holder must provide details of water extraction, property water management infrastructure and cropping to the Minister, within the time period specified and to the standard specified in the notice,

(d) the water supply work must not be used to take water, if any of the following apply:

(i) if the water supply work approval replaces a *Water Act 1912* entitlement which contained a cease to pump limit, when flows in the water source are equal to or less than the cease to pump limit (if any) specified on that *Water Act 1912* entitlement,

(ii) when there is no visible flow in the water source in the immediate downstream vicinity of the water supply work or, where the water supply work is taking water from a pool, when there is no visible inflow and outflow to and from that pool, and

(e) any other conditions required to implement the provisions of this Plan.

(2) A water supply work approval which authorises the construction or use of a water supply work which is an in-river dam in these water sources must include a mandatory condition requiring the in-river dam to pass or release such flows as the Minister determines to be appropriate.

(3) A water supply work approval which authorises the construction or use of a water supply work which is nominated on a major utility access licence in these water sources, including all subcategories of major utility access licences, must have mandatory conditions to give effect to the release rules for major utility storages specified in Part 14 of this Plan.

(4) A new water supply work approval granted pursuant to clause 39 (3) must have a mandatory condition to give effect to clause 39 (3) (c) of this Plan.

(5) A water supply work approval which authorises the construction or use of a water supply work which is a runoff harvesting dam in these water sources must, if the share component of the access licence that nominates the water supply work is reduced, be amended to impose a mandatory condition to give effect to clause 36 (2) of this Plan.

82 Mandatory conditions on approvals for water supply works taking water from the alluvial sediments in these water sources

A water supply work approval which authorises the construction or use of a water supply work to take water from the alluvial sediments in these water sources must have mandatory conditions to give effect to the following:

(a) the approval holder must not construct the work, or cause or allow the work to be constructed, unless the construction is carried out by a person holding a current driller's licence issued pursuant to the *Water Act 1912* or the *Water Management Act 2000*, which is of a class that allows construction of the work to be constructed,

(b) the approval holder must ensure that the construction of the work complies with:

(i) the construction standards prescribed in the *Minimum Construction Requirements for Water Bores in Australia*, 2003, ISBN 1 9209 2009 9, as may be amended from time to time, or any standards which supersede those standards,

(ii) if the Minister has specified any standards or requirements, in accordance with those standards or requirements (if any) specified by the Minister,

(iii) must prevent contamination between aquifers through appropriate construction,

(c) the approval holder must ensure that any work which is decommissioned or abandoned complies with:

(i) the 'minimum requirements for decommissioning bores' prescribed in the *Minimum Construction Requirements for*

Water Bores in Australia, 2003, ISBN 1 9209 2009 9, as amended from time to time, or any standards which supersede those standards,

(ii) if the Minister has specified any other standards or requirements, in accordance with the standards or requirements (if any) specified by the Minister,

(d) within 2 months of the decommissioning or abandonment of the work, the approval holder must notify the Minister that the work has been decommissioned or abandoned in accordance with subclause (c),

(e) any new or replacement bore to take water for basic landholder rights must be constructed to a sufficient depth to ensure that access to water is not unacceptably impacted by other authorised extractions,

(f) the approval holder must, within 2 months of completion of the construction of the work, or within 2 months after the issue of the approval if the work is existing, submit to the Department the following:

(i) the completed approved form,

(ii) details of the location of the work on a copy of the lot and deposited plan, its GPS reference, and the respective distance(s) of the work from the property boundaries,

(iii) if the Minister has requested any water analysis and/or pumping tests to be carried out, details of the water analysis and/or pumping tests as required by the Minister,

(g) if, during the construction of the work, saline or contaminated water is encountered above the production aquifer, the approval holder must:

(i) notify the Department,

(ii) ensure that such water is sealed off by:

(1) inserting casing to a depth sufficient to exclude the saline or contaminated water from the work,

(2) if specified by the Minister, placing an impermeable seal between the casing(s) and the walls of the work from the bottom of the casing to ground level as specified by the Minister,

(iii) if the Minister has specified any other requirements, comply with the requirements (if any) specified by the Minister,

(h) the approval holder must supply to the Minister on request, and to the required standard, a report pertaining to the quality of any water obtained from the work,

(i) the work must be constructed within 3 years of the approval being granted,

(j) the water supply work must not be used to take water otherwise than pursuant to the conditions of an access licence which nominates the water supply work as a work by means of which water credited to the water allocation account for the access licence may be taken from the water source specified on the access licence, unless otherwise allowed pursuant to the Act,

(k) when required by the Minister by notice in writing:

(i) metering equipment must be installed and maintained for use in connection with the water supply work,

(ii) metering equipment must be operated and maintained in a proper and efficient manner,

(iii) if the Minister has specified that metering equipment must be of a type or standard or has specified other criteria, any metering equipment installed, operated or maintained must comply with that type, standard or other criteria (if any) specified by the Minister.

(l) when required by the Minister by notice in writing, the approval holder must provide details of water extraction, property water management infrastructure and cropping to the Minister, within the time period specified and to the standard specified in the notice,

(m) if the water supply work approval replaces a *Water Act 1912* entitlement which contained a limit(s) on the amount of water that may be taken through the work, the water supply work must not be used to take more water than the limit(s) (if any) contained on the *Water Act 1912* entitlement,

(n) any other conditions required to implement the provisions of this Plan.

83 Mandatory conditions for existing water supply works taking water from the alluvial sediments in these water sources

(1) In addition, a water supply work approval which authorises the use of an existing water supply work to take water from the alluvial sediments in these water sources which is located within 500 metres of a contamination source identified in this Plan, must have a mandatory condition which specifies an annual extraction limit, being the maximum amount of water that may be taken through the water supply work each year, which is the equivalent amount of the share component of the access licence that nominates the water supply work as at the commencement of this Plan.

(2) In addition, a water supply work approval which authorises the use of an existing water supply work to take water from the alluvial sediments in these water sources which is located within the distance criteria specified in clauses 39, 40 or 41, must have a mandatory condition which specifies an annual extraction limit, being the maximum amount of water that may be taken through the water supply work each year, which is the equivalent amount of the share component of the access licence that nominates the water supply work as at the commencement of this Plan.

Part 14 System operation rules

84 Rules for major utility storages

(1) In the Lower Barnard River Water Source up to 30,000 ML/year may be diverted from the Barnard River Dam provided that:

(a) releases obtain a minimum of either:

(i) the 80th percentile flow in the Barnard River at the gauging weir downstream of the junction of the Barnard River and Orham Creek, or

(ii) the inflow to the Dam,

(b) the maximum volume taken is equal to 100,000 ML over any five consecutive water years, in accordance with clause 56 (7) of this Plan,

(c) releases of water are not required to be made when Barnard River Dam is spilling at a rate that equals or exceeds the minimal flow release requirement referred to in subclause (a), and

(d) the Minister may suspend or alter the release requirements under subclause (a) for the purpose of an emergency or maintenance activity that has the potential to temporarily affect the flow volume or behaviour of water for periods of more than 24 hours.

(2) Based on the outcomes of the 'Studies into Barnard Losses' to be undertaken by Macquarie Generation, in consultation with the Department, and assessment of implementation of release rules, if the estimated volume of water reaching Jerrys Plains does not meet the shortfall from the Hunter System for the major utility to operate at 80% capacity factor through the worst drought on record (1936-46), then the Minister will amend this Plan to increase accordingly the Barnard long-term average annual diversion as specified in clause 56 (7) and/or the maximum annual diversion as specified in clause 84 (1).

Part 15 Amendment of this Plan

85 Amendment of this Plan

(1) This Plan may be amended as specified in this Plan, pursuant to section 45 of the Act.

(2) Any amendment to this Plan, that is authorised by a provision of this Plan, which results in a variation to the bulk access regime, is an amendment authorised by this Plan for the purposes of section 87 (2) (c) of the Act.

86 Amendment of very low flow provisions

(1) The Minister may amend this Plan to amend the Very Low Flow Classes and the bottom of A Classes established in clauses 17 (1) (b), (c), (d), (h), (i), (j), (o), (p) and (s) following field verification and the review of relevant studies.

(2) Any amendment made under subclause (1) should not result in the Very Low Flow Class being:

Note. Visible flow was chosen as the lower limit of the bounds of change taking into account submissions during the public exhibition period in the Dingo Creek, Bowman Creek, Upper Manning and Upper Gloucester River Water Sources. The 99th percentile was chosen as the lower limit of the bounds of change taking into account submissions by Water User Associations during the targeted consultation period in the Lower Manning, Mid Manning, Upper Barrington, and Lower Barrington/Gloucester River Water Sources. This approach was used to ensure equity between water sources and to take into account the cumulative relationship between water sources. Science will be the basis for the setting of the CTP levels and water users should be aware that this figure may be set as high as the 95th percentile if the science supports this.

(a) less than visible flow or greater than 95th percentile in the Dingo Creek Water Source,

Note. Further data collection is required before flow levels can be determined more accurately. The estimated 95th percentile corresponds to around 3 to 10 ML/day of flows.

(b) less than 54 ML/day or greater than 225 ML/day in the Lower Manning and Mid Manning River Water Sources,

Note. 54 ML/day corresponds to the estimated 99th percentile and 225 ML/day corresponds to the estimated 95th percentile.

(c) less than visible flow or greater than 95th percentile in the Upper Gloucester River Water Source,

Note. Further data collection is required before flow levels can be determined more accurately. The estimated 95th percentile corresponds to around 4.5 to 7.5 ML/day of flows.

(d) less than 23 ML/day or greater than 61 ML/day in the Upper Barrington River Water Source and Lower Barrington Upper Reaches Management Zone of the Lower Barrington/Gloucester Rivers Water Source,

Note. 23 ML/day corresponds to the estimated 99th percentile and 61 ML/day corresponds to the estimated 95th percentile.

(e) less than 13 ML/day or greater than 68 ML/day in the Lower Barrington River Management Zone and the Lower Gloucester River Management Zone of the Lower Barrington/Gloucester Rivers Water Source,

Note. 13 ML/day corresponds to the estimated 99th percentile and 68 ML/day corresponds to the estimated 95th percentile.

(f) less than visible flow or greater than 68 ML/day in the Bowman River Water Source,

Note. 68 ML/day corresponds to the estimated 95th percentile.

(g) less than visible flow or greater than the 95th percentile in the Upper Manning River Water Source, and

Note. Further data collection is required before flow levels can be determined more accurately. The estimated 95th percentile corresponds to around 22 ML/day of flows.

(h) greater than visible flow at the end of the water source in the Avon River Water Source and Manning Estuary Tributaries Water Source.

Note. Visible flow at the end of the water source is the highest level of management initially proposed for these water sources and will form the upper bound of change for any amendment of the flow classes. Provision for pool protection through inflow/outflow rules are the environmental water provisions form the lower bound of change.

(3) For the purpose of such amendments, the field verification in subclause (1) is to be undertaken by year five of this Plan where possible, and no later than year ten of this Plan.

(4) The field verification should assess the degree to which the objectives of clause 10 (a) and (b) of this Plan are met.

(5) In preparing the field verification:

(a) consultation with the Department of Environment and Climate Change, the Department of Primary Industries, the relevant Catchment Management Authority, and representatives of interest groups and water users should be undertaken, as required, and

Note. Interest groups may include representatives of local Water User Associations, Landcare or environment groups, local industry and commerce representatives, Aboriginal groups, local government etc.

(b) a report should be prepared documenting:

(i) the methodology adopted

(ii) the hypotheses tested,

(iii) the field results and conclusions in terms of the degree to which the objectives in clause 10 (a) and (b) are met,

(iv) the consideration of relevant studies including, but not limited to:

(a) studies completed by Midcoast Water in relation to estuarine flow requirements, and

Note. Other studies being completed by individuals or organisations will also be considered, such as work being carried out by Great Lakes Shire Council in relation to Wallis, Smiths and Myall Lakes, and their tributaries.

(b) modelling to show if percentiles derived for estuary needs should be applied to upstream catchments,

(v) any Aboriginal cultural values or sites which may need to be protected by a specific flow regime,

(vi) the flow level recommended to meet the objectives, and

(vii) the socio-economic impacts of the recommended changes to the flow levels.

87 Amendment of tidal pool provisions

(1) The Minister may amend this Plan to:

(i) establish or modify flow classes, or

(ii) amend access licence dealing rules,

in the Manning River Tidal Pool Water Source, following review of the study referred to in clause 17 (2) (e) and the determination of licence entitlements.

(2) The Minister should cause the development of access rules, and review of dealing rules in subclause (1) to be undertaken by year five of this Plan where possible, and no later than year ten of this Plan.

(3) In developing the access rules and reviewing the dealing rules:

(a) consultation with the Department of Environment and Climate Change, the Department of Primary Industries, the relevant Catchment Management Authority and representatives of interest groups and water users should be undertaken, as required, and

Note. Interest groups may include representatives of local Water User Associations, Landcare or environment groups, local industry and commerce representatives, Aboriginal groups, local government etc.

(b) a report should be prepared to be used by the agencies and stakeholders specified in subclause (a) documenting:

(i) the methodology adopted,

(iii) the field results and conclusions in terms of the degree to which the objectives in clause 10 (a) and 9 (b) are met,

(iv) the field results and conclusions in regard to whether to adopt access rules based on salinity levels, inflows from upstream water sources or other management approaches, including consideration of:

(a) the homogeneity of the tidal pool indicating whether rules apply across the water source or whether specific rules may apply to management zones or areas within the water source,

(b) the suitability of sites for measurement of flow or salinity levels,

(c) the significance of extraction on salinity levels, if required,

(d) ecosystem requirements, and

(e) where access rules are based on upstream hydrology, the Very Low Flow Class should be consistent with the bounds of change specified in clause 88 (2), that is, less than 99th percentile or greater than the 95th percentile.

(v) the proposed access and dealing rules recommended to meet the objectives,

(vi) the consideration of relevant studies including the outcomes of low flow verification studies undertaken in clause 86 (5), and

(vii) the socio-economic impacts of the recommended rules.

88 Amendment of pool protection provisions

(1) The Minister may amend this Plan to establish pool control levels and key sites for the Dingo Creek Water Source, the Upper Gloucester River Management Zone of the Upper Gloucester River Water Source and any other water source where appropriate.

(2) For the purpose of such amendments, a study to identify pool control levels and key sites should be undertaken as soon as practicable, but before year six of this Plan.

(3) The study should assess whether the pool control levels and key sites are required and whether they meet the objective specified in clause 10 (a) of this Plan, and specifically considering:

(a) the suitability of the location of the key sites used in assessing pool health upstream of the site,

(b) the drawdown of the water levels from the pool upstream of the key site during periods of extraction, and

(c) the significance of the pools that are impacted by the drawdown.

(4) In preparing the study:

(a) consultation with the Department of Environment and Climate Change, the Department of Primary Industries, the relevant Catchment Management Authority and representatives of interest groups and water users should be undertaken, as required, and

Note. Interest groups may include representatives of local Water User Associations, Landcare or environment groups, local industry and commerce representatives, Aboriginal groups, local government etc.

(b) a report should be prepared to be used by the agencies and stakeholders specified in subclause (a) documenting:

(i) the methodology adopted

(ii) the hypotheses tested,

(iii) the field results and conclusions in terms of the degree to which the objective in clause 10 (a) is met,

(iv) the pool control levels and key sites recommended to meet the objective, and

(v) the socio-economic impacts of the recommended changes to the pool controls.

Note. Changes to the geomorphology of reaches of the Upper Gloucester River and Dingo Creek Water Sources has led to conditions whereby flow may cease in some sections of the river despite levels at the reference site being above the cease to pump.

89 Amendments due to floodplain harvesting

This Plan may be amended to provide for the floodplain harvesting of water, subject to the amendments not affecting the outcomes of the long-term average annual extraction limit specified within this Plan.

Note. This means that this Plan can be changed to issue and manage floodplain harvesting licences provided that the long-term average annual extraction limit (LTAAEL) does not increase or decrease. Floodplain harvesting in coastal systems is limited compared to inland systems. By not amending the LTAAEL with the granting of these licences, coastal systems are being consistent with inland systems where growth is managed within the existing LTAAEL.

90 Amendments for alluvial aquifers downstream of the tidal limit

The Minister may amend this Plan, where required, to include provisions and rules for any alluvial aquifer that is downstream of the tidal limit and within or outside of the area of this Plan.

91 Amendments for stormwater harvesting

The Minister may amend this Plan to include rules for any new category of access licence established under the Act for the purpose of stormwater harvesting.

92 Amendments in relation to Schedule 2 (Very Low Flow)

The Minister may amend this Plan to:

(a) add a *Water Act 1912* entitlement to Schedule 2, but only if the taking of water under that entitlement was for a purpose referred to in this clause and the purpose existed prior to 1 July 2008, or

(b) remove a *Water Act 1912* entitlement from Schedule 2, if:

(i) any access licence dealing results in water being extracted, under the access licence which replaced the *Water Act 1912* entitlement, from a different location, or

(ii) an alternative water supply is obtained that satisfies the requirement(s) for water for the purposes listed in this clause, or the purpose no longer exists, or

(iii) the access licence which replaced the *Water Act 1912* entitlement is surrendered or cancelled.

(c) amend or remove Schedule 2 to this Plan, following an assessment which determines that the requirement for access to water in the Very Low Flow Class under this clause is no longer required generally or for specific access licences.

Schedule 1 Dictionary

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

accreditation scheme means the "Water Use Accreditation Scheme" operated by the NSW Department of Primary Industries and assessed as adequate by the Department

drawdown refers to a lowering of the level to which water will rise in cased bores. Natural drawdown may occur due to seasonal climatic changes. Groundwater pumping may also result in seasonal and long-term drawdown.

flow gauging station is a device that is used to measure the height of a river or flow in a river.

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

groundwater dependent ecosystems include ecosystems which have their species composition and natural ecological processes wholly or partially determined by groundwater.

high priority groundwater dependent ecosystems include groundwater dependent ecosystems which are considered high priority for protection or restoration.

in-river dam is a dam located in or on a river.

individual daily extraction limit (IDEL) is described in clause 61 of this Plan.

karst environment means an area of land, including subterranean land, that has developed in soluble rock through the processes of solution, abrasion or collapse, together with its associated bedrock, soil, water, gases and biodiversity.

management zone is an area within the surface water source in which daily extraction limits may be defined or where dealing restrictions are approved. Management zones may be designated where the surface water source to which the plan applies is divided into areas and total daily extraction limits are defined for each area. They may also be designated where local dealing restrictions are in place.

mangrove limit has the same meaning as defined in the '*DIPNR Survey of tidal limits and mangrove limits in NSW estuaries 1996 to 2003*' (NSW Dept of Commerce, Manly Hydraulics Laboratory) 2005.

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.

registered plan for these water sources means the registered plan called The Lower North Coast Unregulated and Alluvial Water Sources (WSP001) maintained by the Department.

Note. An overview of the registered plan is shown in Appendix 1. Copies of the registered plan may be inspected at offices of the Department listed in Appendix 2.

replacement bore, for the purposes of this Plan, refers to the replacement of an existing water supply work constructed or used to take water from the alluvial sediments in these water sources, where the share component for the access licence nominating the water supply work has not increased and is within the specifications of the water supply work approval, provided that:

(a) the replacement water supply work is within 20 metres of the existing water supply work,

(b) the water supply work approval does not compromise any other rules for granting water supply works being used to take water from alluvial sediments in these water sources,

(c) the water supply work approval will be subject to the provisions relating to the amendment of an approval under section 107 of the Act.

runoff harvesting dam is a privately owned dam that captures surface or rainfall runoff.

Note. The taking of water from a runoff harvesting dam requires an access licence and a water supply work approval, except to the extent that the runoff harvesting dam is within an owner or an occupier's harvestable rights entitlement under section 53 of the Act, in which case it will not require an access licence or water supply work approval.

stream order is defined by the Strahler stream ordering method.

Note. The Strahler stream ordering methods is explained as follows.

- Starting at the top of a catchment, any watercourse that has no other watercourses flowing into it is classed as a 1st order watercourse,
- Where two 1st order watercourses join, the watercourse becomes a 2nd order watercourse,
- If a 2nd order watercourse is joined by a 1st order watercourse - it remains a 2nd order watercourse,
- When two or more 2nd order watercourses join they form a 3rd order watercourse, and
- A 3rd order watercourse does not become a 4th order watercourse until it is joined by another 3rd order watercourse and so on.

Note. The Strahler stream ordering method is described in the order made under section 5 of the Water Act 1912 published in the NSW Government Gazette no. 37 on 24 March 2006 page 1500, or as may be amended or updated from time to time by further order.

tidal limit has the same meaning as defined in the '*DIPNR Survey of tidal limits and mangrove limits in NSW estuaries 1996 to 2003*' (NSW Dept of Commerce, Manly Hydraulics Laboratory) 2005.

tidal pool is defined, for the purposes of this Plan, as the area of water between the upper mangrove limit and the lower tidal limits.

Note. Mangrove limit and tidal limit are defined in the '*DIPNR Survey of tidal limits and mangrove limits in NSW estuaries 1996 to 2003*' (NSW Dept of Commerce, Manly Hydraulics Laboratory).

total daily extraction limit (TDEL) is described in clause 58 of this Plan.

visible flow is the continuous downstream movement of water that is perceptible to the eye.

water year means a year commencing 1 July.

Schedule 2 Licences with access to very low flows

Schedule 2 currently lists *Water Act 1912* licences from which access licences will be derived upon commencement of the Water Sharing Plan.

VERY LOW FLOW ACCESS LICENCES

20SL021370	20SL033839	20SL060028	20SL060246
20SL021476	20SL034011	20SL060029	20SL060251
20SL021507	20SL034799	20SL060057	20SL060256
20SL021509	20SL035247	20SL060093	20SL060258
20SL021559	20SL035393	20SL060108	20SL060294
20SL021660	20SL035645	20SL060110	20SL060305
20SL021717	20SL036378	20SL060126	20SL060307
20SL021964	20SL040731	20SL060127	20SL060308
20SL023478	20SL041763	20SL060131	20SL060320
20SL024073	20SL043052	20SL060143	20SL060323
20SL024444	20SL044477	20SL060173	20SL060333
20SL024596	20SL049302	20SL060200	20SL060356
20SL026774	20SL050162	20SL060217	20SL060361
20SL027211	20SL050357	20SL060230	20SL060363
20SL027959	20SL050676	20SL060235	20SL060367
20SL028376	20SL051915	20SL060236	20SL060376
20SL031506	20SL060015	20SL060237	20SL060400
20SL031541	20SL060023	20SL060240	20SL060409
20SL031823	20SL060027	20SL060242	20SL060415

20SL060439	20SL061087
20SL060443	20SL061089
20SL060561	20SL061094
20SL060564	20SL061096
20SL060574	20SL061119
20SL060575	20SL061127
20SL060578	20SL061133

20SL060646	20SL061142
20SL060647	20SL061145
20SL060760	20SL061176
20SL060764	20SL061183
20SL060840	20SL061453
20SL060865	20SL061591
20SL060873	20SL061611
20SL060879	20SL061632
20SL060925	20SL021737
20SL060927	20SL061102
20SL060989	20SL061119
20SL061075	20SL061127

LOCAL WATER UTILITY ACCESS LICENCES

Lower Manning	20SL018032 20SL022548 20SL046844	Myall River	20SL022558
Manning Estuary Tributaries	20SL022548 20SL029347	Lower Barrington/Gloucester	20SL060565 20SL045139
Manning Tidal Pool	20SL029347		

Schedule 3 Contamination sources in the Lower North Coast Unregulated and Alluvial Water Sources

Contamination sources in these water sources include:

(a) on site sewage disposal systems or septic tanks,

(b) any sites where contamination has been assessed as presenting a significant risk of harm under *Contaminated Land Management Act 1997*,

(c) any sites with an historical use listed in Table 1 of "*Managing Land Contamination. Planning Guidelines. SEPP 55 – Remediation of Land*", and

(d) any relevant sites listed in an agency database relating to contamination sources.

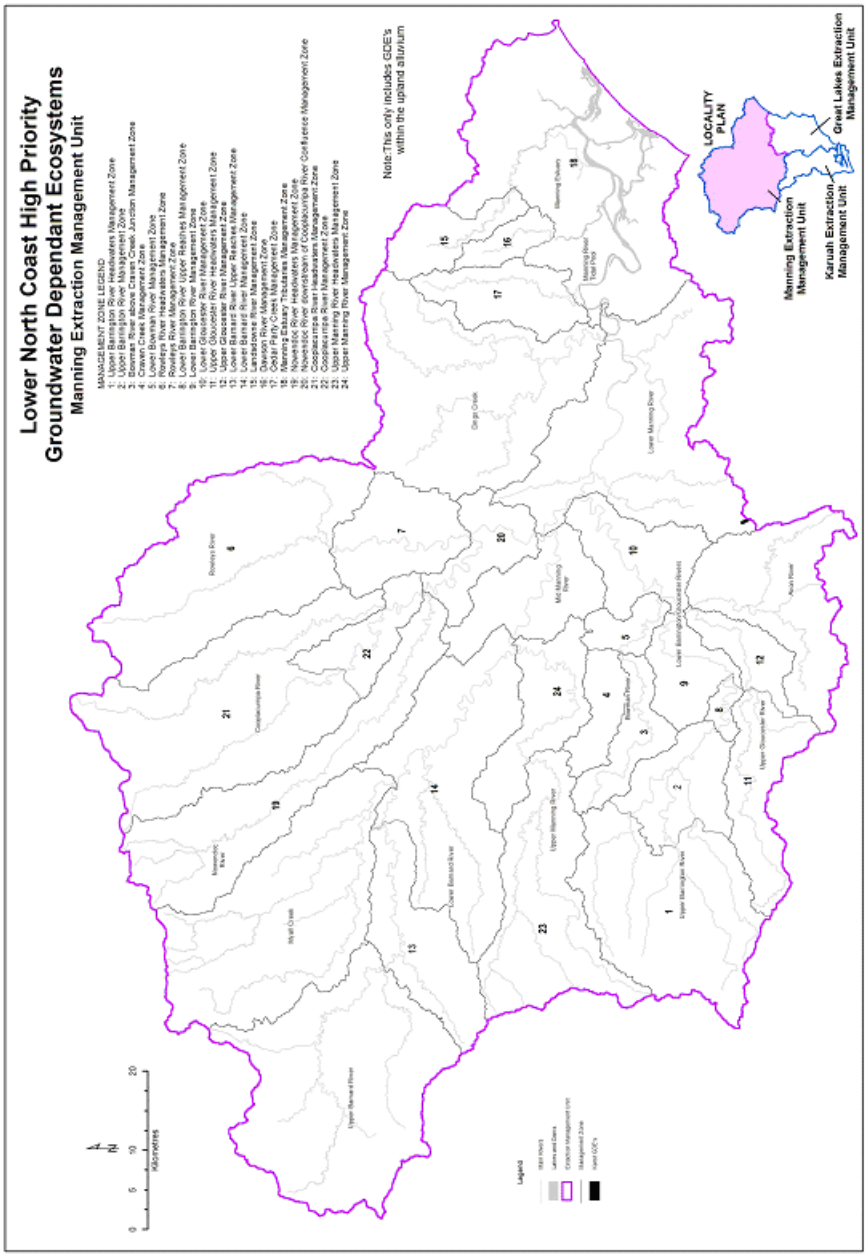
Schedule 4 High priority groundwater dependent ecosystems

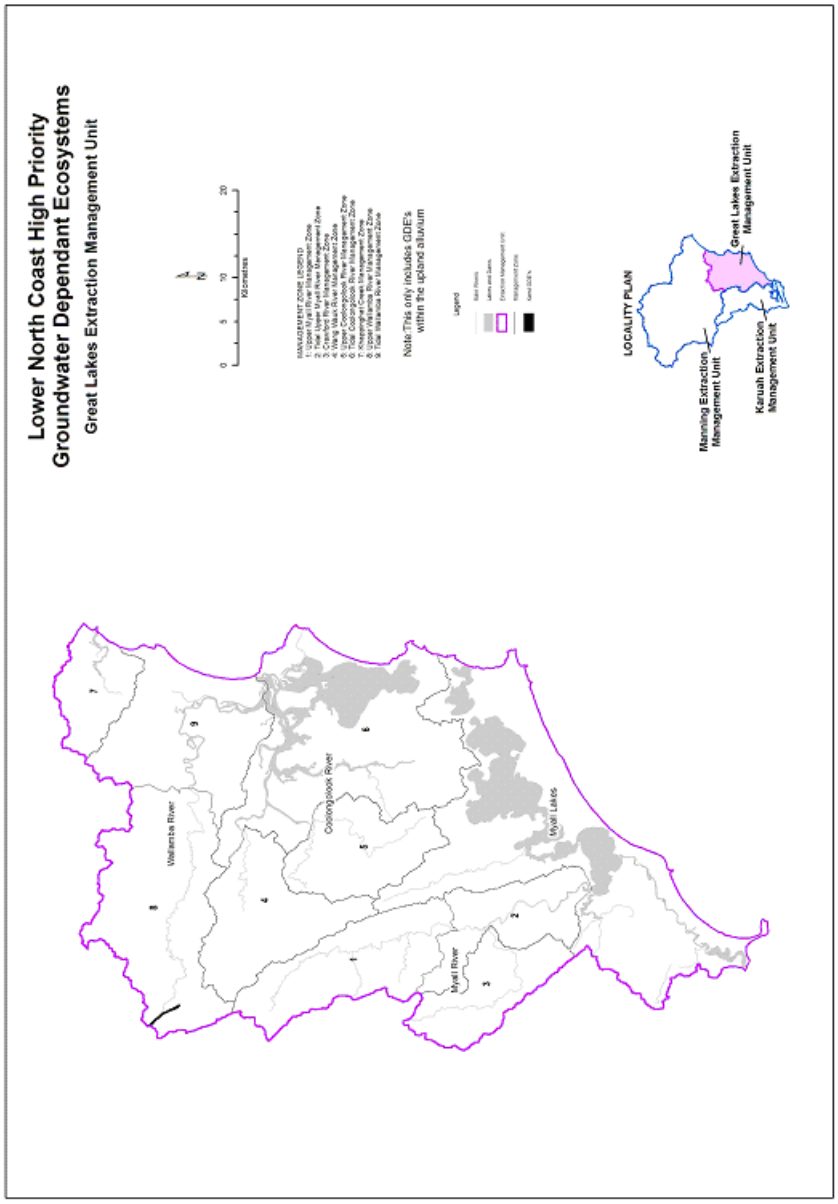
The following high priority groundwater dependent ecosystems are identified at the commencement of this Plan:

Map ID	GDE name	Latitude	Longitude	Location	Area
Karst ▲	Gloucester Caves	6452760	413389	Lower Manning River Water Source	233,067 m^2
Karst ▲	Gloucester Caves	6450661	414989	Wallamba River Water Source	448,413 m^2

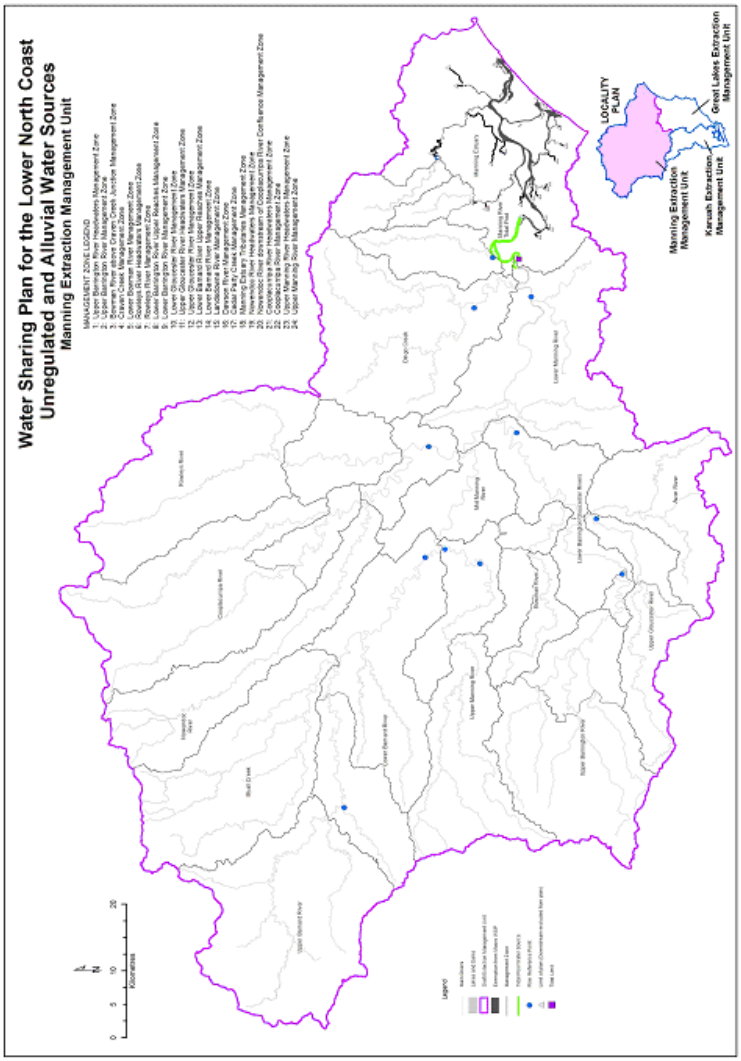
Note. High priority groundwater dependent ecosystems are currently under investigation and some of these may be identified during the term of this Plan. The full list of potential GDEs will be identified on the DWE GDE Register and as a precautionary approach, will be considered by staff in the assessment of any works approval within the plan area. If verified as high priority groundwater dependent ecosystems, the Schedule will be amended to include further GDEs.

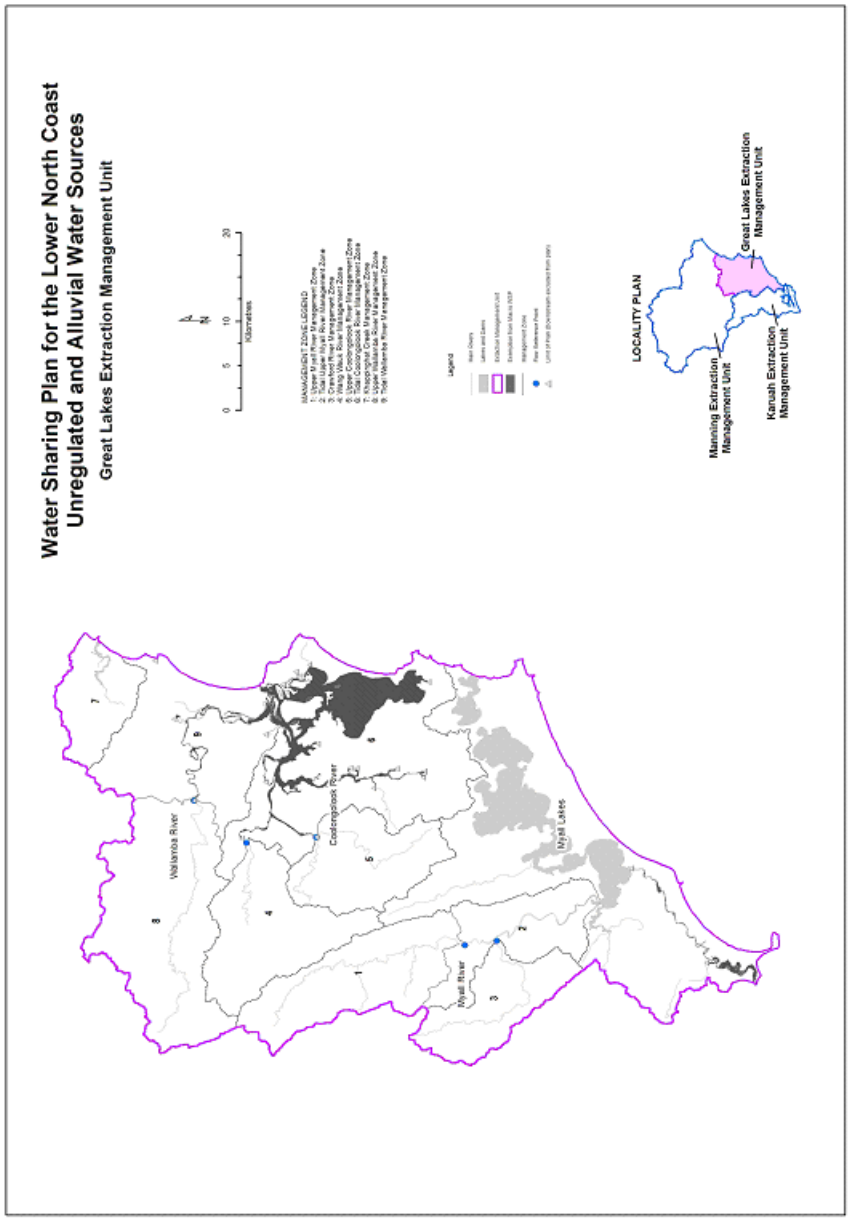
The actual area of these high priority groundwater dependent ecosystems is shown to scale in the following maps.


Lower North Coast High Priority
Groundwater Dependant Ecosystems
Manning Extraction Management Unit
MANAGEMENT ZONE LEGEND
1. Upper Barrington River Headwaters Management Zone
2. Upper Barrington River Management Zone
3. Barrington River Gloucester Junction Management Zone
4. Craven Creek Management Zone
5. Lower Bowman River Management Zone
6. Bowman River Headwaters Management Zone
7. Rowleys River Management Zone
8. Lower Barrington River Upper Reaches Management Zone
9. Lower Barrington River Management Zone
10. Lower Gloucester River Management Zone
11. Upper Gloucester River Headwaters Management Zone
12. Upper Gloucester River Management Zone
13. Lower Barnard River Upper Reaches Management Zone
14. Lower Barnard River Management Zone
15. Lansdowne River Management Zone
16. Dawson River Management Zone
17. Upper Manning River Management Zone
18. Manning Estuary Tributaries Management Zone
19. Nowendoc River Headwaters Management Zone
20. Nowendoc River downstream of Coopdacumba River Confluence Management Zone
21. Coopdacumba River Headwaters Management Zone
22. Coopdacumba River Management Zone
23. Upper Manning River Headwaters Management Zone
24. Upper Manning River Management Zone
Note: This only includes GDE's within the upland alluvium
LOCALITY PLAN
Great Lakes Extraction Management Unit
Karuah Extraction Management Unit
Manning Extraction Management Unit
Legend
Kilometres


Lower North Coast High Priority Groundwater Dependant Ecosystems
Great Lakes Extraction Management Unit
Note: This only includes GDE's within the upland alluvium
LOCALITY PLAN
Great Lakes Extraction Management Unit
Manning Extraction Management Unit
Karuah Extraction Management Unit
Wallamba River
Coolongolook River
Myall Lakes
Myall River

Appendix 1 Lower North Coast Unregulated and Alluvial Water Sources and Manning and Great Lakes Extraction Management Units




Water Sharing Plan for the Lower North Coast
Unregulated and Alluvial Water Sources
Great Lakes Extraction Management Unit
Kilometres
LOCALITY PLAN
Great Lakes Extraction Management Unit
Manning Extraction Management Unit
Karuah Extraction Management Unit
Wallamba River
Coolongolook River
Myall Lakes
Myall River

Appendix 2 Location of registered plans

Copies of the registered plans for these water sources may be inspected at:

Department of Water and Energy
10 Valentine Ave
PARRAMATTA NSW 2150

Department of Water and Energy
Level 3, 26 Honeysuckle Drive
NEWCASTLE NSW 2302

Department of Lands
98 Victoria Street
TAREE NSW 2430