A guide to the Water Sharing Plan for the Gwydir Regulated River Water Source

September 2004
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(as amended on 1 July 2004)

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This publication is a guide only. It is not intended to set out all the requirements of the water sharing plan. Anyone requiring details of how their legal rights are affected should refer to the gazetted water sharing plan.
**Introduction**

This guide provides an explanation of the main sections of the Water Sharing Plan for the Gwydir Regulated River Water Source gazetted on 21 February 2003 and including the amendments gazetted on 1 July 2004.

The Plan commenced on 1 July 2004 and applies for a period of 10 years to 30 June 2014. It is a legal document made under the *Water Management Act 2000* (the Act). The Plan is implemented by the Department of Infrastructure, Planning and Natural Resources (DIPNR).

In some cases the terminology used in the Plan differs from that used in the past. This has been necessary for consistency with the Act. New terms used in this guide are highlighted in the text (bold text) and are explained in the glossary provided at the back.

The provisions in the Plan provide water to support the ecological processes and environmental needs of the river and direct how the water available for extraction is to be shared. The Plan also sets rules for the management of water access licences, water allocation accounts, the trading of or dealings in licences and water allocations, the extraction of water, the operation of dams and the management of water flows. Most of these rules are similar to those that were in place prior to the Plan.

Many technical aspects of the water sharing rules are quite complex and cannot be explained in full detail in this summary guide. You should refer to the statutory plan for specific details of the rules (see *Additional information*).

**Background**

The Gwydir River, located in north-western NSW, rises near Uralla and travels approximately 700 kilometres before it joins the Barwon River.

Copeton Dam is the major water storage in the Gwydir Regulated River. There are also a number of weirs and other structures that assist in regulating and redirecting flows along the river. These regulate flows along 400 kilometres of the Gwydir River and its major effluents - the Mehi/Moomin and Carole/Gil Gil systems.

The volume and the pattern of flows in the Gwydir River have been significantly altered by the extraction of water and the operation of Copeton Dam and the other water control structures. These changes have impacted on the environmental health of the river and its wetlands and contributed to water quality problems.

**Development of the Plan**

The Gwydir Regulated River Management Committee was established in 1997 to advise on environmental flow rules. The Committee included representatives of the irrigation industry, environmental interests, indigenous communities, the local Catchment Management Board, local councils and government agencies (the then Department of Land and Water Conservation, National Parks and Wildlife Service, Environment Protection Authority, NSW Agriculture and NSW Fisheries). These rules were reviewed each year, providing the first phase of environmental protection for the river.

In 2001, the Minister for Land and Water Conservation asked the Committee to recommend water sharing rules to form a statutory water management plan. A draft water sharing plan, which included revised environmental flow rules, was prepared by the Committee and placed on public exhibition by the Minister in mid 2002.

The statutory plan was made by the Minister for Land and Water Conservation in February 2003. It was based on the recommendations of the Committee, submissions received from the community as a result of the public display of the draft plan, and agreed Government policy. Some amendments were made to the Plan in consultation with the Committee and it commenced on 1 July 2004.
Area of the Plan
The Plan applies to the regulated rivers in the Gwydir Water Management Area, as shown on the map. These include the Gwydir River from Copeton Dam to ‘the Raft’ at the upstream end of the Gwydir wetlands, the Mehi River, Moomin Creek, and Carole Creek. The Plan also applies to the regulated sections of Gil Gil Creek (as shown by the dotted line on the map).
**How is water shared in a regulated river?**

This chart shows how the rules of the Plan are put into effect and relates these 8 key steps to the relevant section in the statutory water sharing plan.

**STEP 1 – ESTABLISH THE FLOW RELATIONSHIPS OF THE RIVER AND ECOLOGICAL PROCESSES**

Based on historical flow records and known physical processes of the river, construct a hydrological model to analyse options for river management.

**STEP 2 – PROVIDE WATER FOR THE ENVIRONMENT**

Establish key environmental features of the river and devise flow related rules to provide water to sustain or improve those features.

*Part 3 – environmental water provisions*

**STEP 3 – PROVIDE WATER FOR BASIC LANDHOLDER RIGHTS**

Estimate total requirements for domestic and stock rights and native title rights.

*Part 4 – basic landholder rights*

**STEP 4 – DETERMINE ACCESS LICENCE REQUIREMENTS**

Assess the total share volumes of all access licences and rules for granting of any additional access licences.

*Part 6 – requirements for water under access licences, and Part 7 – rules for granting access licences*

**STEP 5 – SET LIMITS ON WATER FOR EXTRACTION AND SHARE THAT BETWEEN DIFFERENT WATER USERS**

Set a limit on the water for extraction on an average yearly basis and the rules for management within these limits. Specify how the water that is available will be shared between all licences.

*Part 8 (Division 1) - long-term extraction limit, and Part 8 (Division 2) – available water determinations*

**STEP 6 – PROVIDE FLEXIBILITY FOR ACCESS LICENCE HOLDERS**

Set rules on how water accounts are to be managed and define the dealing arrangements.

*Part 9 (Division 2) – water allocation account management, and Part 10 – access licence dealing rules*

**STEP 7 – PROVIDE CLEAR LICENSED RIGHTS**

Translate Steps 5 and 6 into mandatory conditions on individual access licences and approvals, and specify any system operation rules, and if and how a plan rule can be amended.

*Part 11 – mandatory conditions, Part 12 – system operation rules, and Part 14 – amendment of this Plan*

**STEP 8 – MONITOR PLAN**

Review the implementation of the Plan each year and audit performance of the Plan every 5 years.

*Part 13 – monitoring and reporting*
**Vision**

The vision of the Plan is to have a sustainable, healthy river system that provides reliable water through flow management for the community, environment, agriculture and industry.

**Environmental water**

The Act requires that the sharing of water must protect the water source and its dependent ecosystems, and that water sharing plans establish specific environmental water rules.

Environmental flow rules were first applied to the Gwydir River in 1995. These were revised in 1998 by the Gwydir River Management Committee. The environmental water rules in the Plan include some further revisions to improve river health benefits.

The main environmental water rules are listed in the box below. The environmental water rules are designed to:

- ensure that there is no erosion of the long-term average volume of water available to the environment during the life of the Plan,
- ensure that a portion of natural tributary inflows reach the Gwydir wetlands, and
- provide a volume of water in Copeton Dam that can be released when needed for environmental purposes, such as the flooding of wetlands and to support of water bird breeding.

<table>
<thead>
<tr>
<th>The environmental water rules are:</th>
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<tbody>
<tr>
<td>1. Reserve all water above the Plan extraction limit for the environment</td>
</tr>
<tr>
<td>• this means that on a long-term average basis, approximately 56% of yearly flows in the river are protected for the maintenance of environmental health.</td>
</tr>
<tr>
<td>2. Pass tributary inflows through to the Gwydir wetlands</td>
</tr>
<tr>
<td>• ensure that flows into the Gwydir wetlands are at least equal to the sum of inflows from the Horton River, Myall Creek and Halls Creek, up to a maximum of 500 megalitres per day (ML/day), and</td>
</tr>
<tr>
<td>• ensure that 50% of the flows above 500 ML/day are protected for the environment.</td>
</tr>
<tr>
<td>3. Reserve water in Copeton Dam and make releases to achieve downstream environmental benefits</td>
</tr>
<tr>
<td>• set water aside in an ‘environmental contingency allowance’ (ECA) account at the rate of 45,000 ML, multiplied by the available water determination for general security access licences,</td>
</tr>
<tr>
<td>• the ECA account balance, at any time, is limited to 90,000 ML,</td>
</tr>
<tr>
<td>• make releases of water credited to the account according to the guidelines in the ECA release program for that year,</td>
</tr>
<tr>
<td>• releases may be made for a wide range of purposes related to wetland or river health or for the direct benefit of birds, fish or other fauna, and</td>
</tr>
<tr>
<td>• an ECA Operations Advisory Committee is to give advice on releases.</td>
</tr>
</tbody>
</table>

There are also restrictions on extractions under **supplementary water access licences** (see Extraction conditions for supplementary water access licences) that:

- preserve a significant proportion of natural tributary flows for river health and the wetlands
- protect important rises in water levels,
- maintain wetland and floodplain inundation, and
- maintain natural flow variability.
Basic landholder rights

The Plan provides for domestic and stock rights and native title rights – both forms of **basic landholder rights** that allow extraction of water from the river without an access licence.

At the commencement of the Plan, domestic and stock water extractions under basic landholder rights are estimated to be 6,000 ML/year. There are currently no extractions for native title rights from the water source. However, both forms of extraction may increase during the ten-year term of the Plan.

The water supply system is managed to ensure sufficient water is set aside to supply basic landholder rights.

Requirements for water under access licences

All water extraction, other than that occurring under basic landholder rights, must be authorised by an access licence. Each access licence specifies a **share component**. The share components of specific purpose licences such as local water utility and domestic and stock are expressed as a number of megalitres per year. The share components of regulated river high security and general security and supplementary access licences are expressed as a number of unit shares..

The following table lists the categories of access licences in the water source and their estimated total share component at the start of the Plan.

<table>
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<tr>
<th>Access Licence Category</th>
<th>Total Share Component</th>
</tr>
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<tbody>
<tr>
<td>General security</td>
<td>509,500 unit shares</td>
</tr>
<tr>
<td>High security</td>
<td>19,293 unit shares</td>
</tr>
<tr>
<td>Domestic and stock</td>
<td>4,245 ML per year</td>
</tr>
<tr>
<td>Local water utility</td>
<td>3,836 ML per year</td>
</tr>
<tr>
<td>Supplementary water</td>
<td>170,000 unit shares</td>
</tr>
</tbody>
</table>

Supplementary water access licences are now needed to take water that was previously termed “off-allocation”. These are issued to all holders of general security access licences. “Special Additional Licences” are also replaced by supplementary water access licences.

The share component within each access licence category may change during the term of the Plan. This may result from the granting, surrender or cancellation of access licences, conversion of access licences from one category to another, trading of access licences, or increases in the share component of local water utility access licences following population growth.

Granting access licences

An embargo on applications for new water access licences for most commercial purposes has been in place for the Gwydir Regulated River since 1982. Applications for new access licences can only be made for those categories or sub-categories specified in either the regulations or the Plan.

The applications permitted in the Gwydir Regulated River Water Source are for:

- a local water utility access licence,
- a domestic and stock access licence (subcategory “domestic”) for the purpose of domestic consumption,
- a regulated river (high security) access licence (subcategory “town water supply”) for the purpose of supply to communities for domestic consumption and commercial activities,
- a specific purpose access licence (subcategory “Aboriginal cultural”) for Aboriginal cultural purposes,
- a regulated river (high security) access licence (subcategory “Aboriginal cultural”) for Aboriginal cultural purposes,
- an access licence with a zero share component, or
- a replacement access licences, as a result of access licence dealings.

**Long-term extraction limit**

Water extractions can increase through:

- existing access licence holders using more of the water they are allocated as a result of increases in crop area, changes in crop type or watering practices, or the construction of on-farm water storages,
- the sale and subsequent activation of currently unused access licences or unused share components,
- the sale and subsequent use of currently unused water allocations, and
- the granting of new access licences.

An increase in water extractions would threaten the environmental objectives of the Plan, increase year-to-year variations in water supply and worsen the impact of droughts on the catchment’s economy. To prevent this, the Plan establishes a long-term extraction limit and rules to be applied if this limit is exceeded.

The long-term extraction limit is set at the average annual volume of extraction that would occur with the water storages, access licence share components and water use development that existed in 1999/2000, and the water management rules in the Plan.

Compliance with the limit is to be determined using a computer model of the Gwydir Regulated River. If this indicates that long-term average annual extractions are in excess of the Plan’s limit, then the maximum volume of water made available to supplementary water access licences and, if necessary, general security access licences will be reduced. An advisory committee is to review annual extractions and make recommendations on compliance strategies.

**Available water determinations**

Available water determinations are the means by which water is shared out between access licences.

Available water determinations are made at the start of each water year for each licence category. In all but the most exceptional drought years, these provide allocations of water equal to 100% of the share component for local water utility and domestic and stock access licences and 1 megalitre per unit share for high security access licences.

The water made available to general security access licences, however, varies from year to year depending upon the amount of water held in Copeton Dam and whether more water becomes available during the year. The AWD for general security access licences is reviewed monthly or whenever significant inflows occur.

**Water allocation accounts**

A water allocation account has been established for each access licence. Water is credited to the account when an available water determination is made, or when water allocation is moved into the account from another access licence. Water is debited from the account when ordered water is released from Copeton Dam or moved to another access licence.

The accounts of all high priority category access licences continue to be managed on an annual basis. This means that any water that remains in these accounts at the end of a water year is forfeited. The account receives a new water allocation in the next water year.

More complex rules apply to the accounts of general security access licences. These rules provide opportunity for general security licence holders to reduce year-to-year water availability variations by allowing “carry over” of any water remaining in the account from one water year to the next.

However, the maximum volume that may be held in the water account of a general security access licence, at any time, is equivalent to 1.5 megalitres per unit share.
The maximum volume that may be extracted under a general security licence or assigned from it in any water year is 1.25 megalitres per unit share, or 3 megalitres per unit share over any consecutive 3 years. These limits are increased by water allocations assigned from another access licence.

**Extraction conditions for supplementary water**

Extraction of water under supplementary water access licences is only permitted in accordance with announcements made by DIPNR. These announcements specify when water can be taken and the maximum volume that may be taken over the period.

Extractions are permitted when flows are in excess of those required:

- under the Plan’s environmental water provisions,
- to supply domestic and stock and native title right requirements,
- to provide for higher priority access licence requirements, and
- to provide specified replenishment flows.

No more than 50% of the volume of each flow event can be extracted. Extraction under supplementary water access licences in Mehi River and Carole Creek may be restricted to preserve critical Barwon-Darling inflows.

**Access licence dealing rules**

Access licence dealings or water dealings can include the following:

- sale or transfer of the ownership of an access licence (called a ‘transfer’),
- change in the location where a water access licence can be used
- sale of the share component of an access licence (called assigning share component)
- subdivision of an access licence or consolidation of access licences
- sale of allocation water (called an ‘assignment of water allocation’),
- change in the category of an access licence (called a ‘conversion’)
- rental of a water access licence (called a ‘term transfer’).

For more information on the types of water dealings and their applications forms refer to the information on Water dealings on DIPNR’s website.

In a water source such as the Gwydir Regulated River, where applications for new access licences are restricted to specific categories (see Granting access licences), water dealings are essential for business flexibility and development. Rules that regulate dealings are, however, required for practical management reasons and to protect the environment and the interests of other licence holders.

The Plan prohibits:

- any dealing which would result in an increase in the total share component of access licences in the Gwydir River below Tyreel Regulator, the Mehi River below the Moomin Creek junction, Moomin Creek or Carole Creek, until extraction components are determined,
- trading of access licences outside of the Gwydir River Water Management Area,
- assignment of water allocations between the Gwydir Regulated River Water Source and any other water source, and
- assignments of supplementary water allocations.

Conversion of licence category is allowed from domestic and stock to domestic and stock (domestic only) and domestic and stock (stock only), domestic and stock (stock only) to high security, high security to general security, and general security to high security.
Access licence category conversions and trades between water sources are subject to conversion factors and other rules designed to ensure that environmental water and other water extractors are not affected as a result of the dealing.

**Mandatory conditions**
The Plan sets out a number of conditions that must be applied to access licences and water supply work approvals.

**System operation rules**
The Plan provides rules on a number of miscellaneous operational matters that affect the quantity and supply of water in the Gwydir Regulated River Water Source. These include:

- replenishment flows up to nominated maximum volumes to a number of river effluents,
- operation of the dam during times of flood and spilling of water, and
- ‘grouping’ of releases to meet supply needs during extended drought periods.

**Monitoring and reporting**
The Plan includes indicators against which the performance of the Plan is to be monitored to determine if it is meeting its objectives. The Plan must be audited at least every five years. The Natural Resources Commission is to undertake a review of the Plan prior to any decision to extend its term or to make a new plan.

In addition, an Implementation Program is to set out how the provisions of the Plan are to be achieved. The effectiveness of the Implementation Program is to be reviewed each year and the results reported in the Department’s Annual Report.

**Plan amendments**
Water sharing plans recognise the need for some certainty regarding the water preserved for environmental purposes and the water available to extractors. However, during the term of the Plan some amendments may be needed. The Plan allow for:

- the addition or deletion of sections of rivers to or from the water source, and
- modification of the rules restricting extraction under supplementary water access licences in the Mehi River and Carole Creek systems.

**Additional information**
Should you require further information on water sharing in the Gwydir Regulated River Water Source or a copy of the statutory plan please contact:

**DIPNR Office:** Tamworth (02) 6764 5900 and Moree (02) 6752 9708.

**Internet site:** [www.dipnr.nsw.gov.au](http://www.dipnr.nsw.gov.au)

**Email:** [wma.info.nsw.gov.au](mailto:wma.info.nsw.gov.au)

**Freecall** 1800 353 104.

Note: This information does not constitute formal legal advice.

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Glossary of terms

access licences allow the licence holder a share of the available water in the water source. An access licence is separate from the approvals to use the water or to construct and operate the works to extract the water eg pump, dam. Access licences do not have to be renewed.

access licence dealing or a water dealing refers to a change that can be made to a licence, in particular, those arising from trading including the sale of all or part of an access licence or account water. Other possible dealings include a change in the location from which water is extracted, the licence category or the consolidation or subdivision of licences.

available water determinations (AWDs) are the means by which water is shared between access licences each year. An available water determination adds volumes of water (ie water allocations) to the accounts of all access licences in the licence category. The volume of water allocated to an account is calculated by multiplying the number of unit shares on the licence by the volume per share stated in the AWD. The available water determination also ensures that long-term extraction does not exceed sustainable limits.

basic landholder rights cover three types of right that do not require a licence. The first allows rural landholders along the river frontage to extract water for domestic household and stock watering purposes (domestic and stock rights) without an access licence. Domestic and stock rights replace riparian rights under the Water Act 1912. The second allows Aboriginal native title holders to take water in the exercise of native title rights for a range of personal, domestic and non-commercial communal purposes. Native title holders are as determined under the Commonwealth’s Native Titles Act 1993. The third component is the harvestable right which allows landholders to capture a portion of the runoff from their land in farm dams. The term basic landholder rights covers all these rights, although harvestable rights do not involve extraction from the river and so have not been provided for in the plan.

extraction component is part of the access licence, and will specify the sections of the water source from which water may be taken and may, at some time in the future, also specify the rate at which water can be taken when water delivery rates are limited.

extraction limit is the average yearly volume of water that can be extracted from the water source by all access licences.

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

share component is specified on the access licence, this is similar to the entitlement volume on previous water licences and is expressed as a unit share or in the case of specific purpose licences (such as local water utility, major water utility and domestic and stock) a volume in megalitres. The amount of water a licence holder is allocated as a result of an available water determination and the amount they can take in any year is based on their share component.

supplementary water is a new licensed right which replaces access to “off-allocation” water and Special Additional Licences and High Flow Authorities. Holders of supplementary water access licences are able to extract water during announced periods when flows exceed those required to meet other licensed obligations and environmental needs. This is typically during periods when the dam is spilling or as a result of high tributary inflows downstream of a dam.

water supply works approval authorises the construction and operation of water supply works at specified locations.

water year is the 12 months running from 1 July to 30 June.