



A Guide to the  
Water Sharing Plan for the  
**Jilliby Jilliby Creek Water Source**

(as amended 1 July 2004)

## Additional information

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.

If you require further information on water sharing in the Jilliby Jilliby Creek Water Source, or a copy of the statutory plan, please contact:

**Department Office:** Gosford (02) 4324 3844 or Newcastle (02) 4929 4346

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Jilliby Jilliby Creek Water Source  
(as amended 1 July 2004)**

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## Introduction

This guide provides an explanation of the main sections of the Water Sharing Plan for the Jilliby Jilliby Creek Water Source as gazetted on 7 February 2003 and including the amendments gazetted on 1 July 2004.

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

The water sharing rules allocate water for the environmental needs of the water source and direct how water is to be shared among different water users. For commercial water users, the water sharing rules are quite different to the pre-plan arrangements. The changes are necessary to provide adequate protection for the environment, particularly during periods of low flow when the demand for water is greatest, and to more clearly define the rights of individual licence holders. However, a number of the Plan's provisions will be phased in over time as the required gauging and metering systems are put into place.

Many technical aspects of the water sharing rules are quite complex, and are not fully addressed in this summary guide. For specific details of the rules you will need to refer to the statutory plan (see *Additional information*). In some cases, new terminology has been introduced to ensure that the Plan is consistent with the Act. These new terms are highlighted in the text (**bold text**) and are explained in the glossary provided at the back cover of this guide.

## Background

The Jilliby Jilliby Creek Water Source is located on the central coast of NSW, covering an area of 101 square kilometres. It is a major tributary of the Wyong River, with the main arm of Jilliby Jilliby Creek running south from the Watagan Mountains for a distance of approximately 22 kilometres to Jilliby Park where it meets the Wyong River. The major tributaries of Jilliby Jilliby Creek include Little Jilliby Jilliby Creek and Lowers Gully.

The flow data for Jilliby Jilliby Creek is assessed from flow records for the gauge (211010) near the end of the creek where it meets the Wyong River. The period of record from 1972 to 1994 was extended using rainfall run-off modelling to cover the period from 1890 to 1996.

Jilliby Jilliby Creek is naturally variable, changing frequently from flood to drought. December tends to be the month of the lowest flows. This is also the time when water demands for irrigation are high.

At the start of the Plan, there were 27 water access licences in the water source. Of these, 23 were for irrigation, 1 for farming purposes, 1 for industrial and 2 for domestic and stock purposes. Domestic and stock access licences are required for those landholders whose property does not front a river or creek.

The Plan recognises Jilliby Jilliby Creek as an area of importance for the Dharug, Darkinjung, Awabakal and Kuringai people. In the past the water source has been not only a source of food, but also of spiritual and cultural significance.

## Development of the Plan

A draft plan was prepared by the Central Coast Unregulated Rivers Management Committee (established by the Minister as an advisory committee) and placed on public display in mid-2002. The Committee included representatives of water users (horticulture, turf, coal and seafood industries), the Regional Development Corporation and Central Coast Tourism, environmental interests, indigenous communities, the Central Coast Catchment Management Board, local councils and the Gosford Wyong Councils Water Authority, and government agencies (the then Department of Land and Water Conservation, Environment Protection Authority, NSW Agriculture and NSW Fisheries). During the development of the draft plan, the Committee held public forums with the local community and information was sought from the local Aboriginal community.

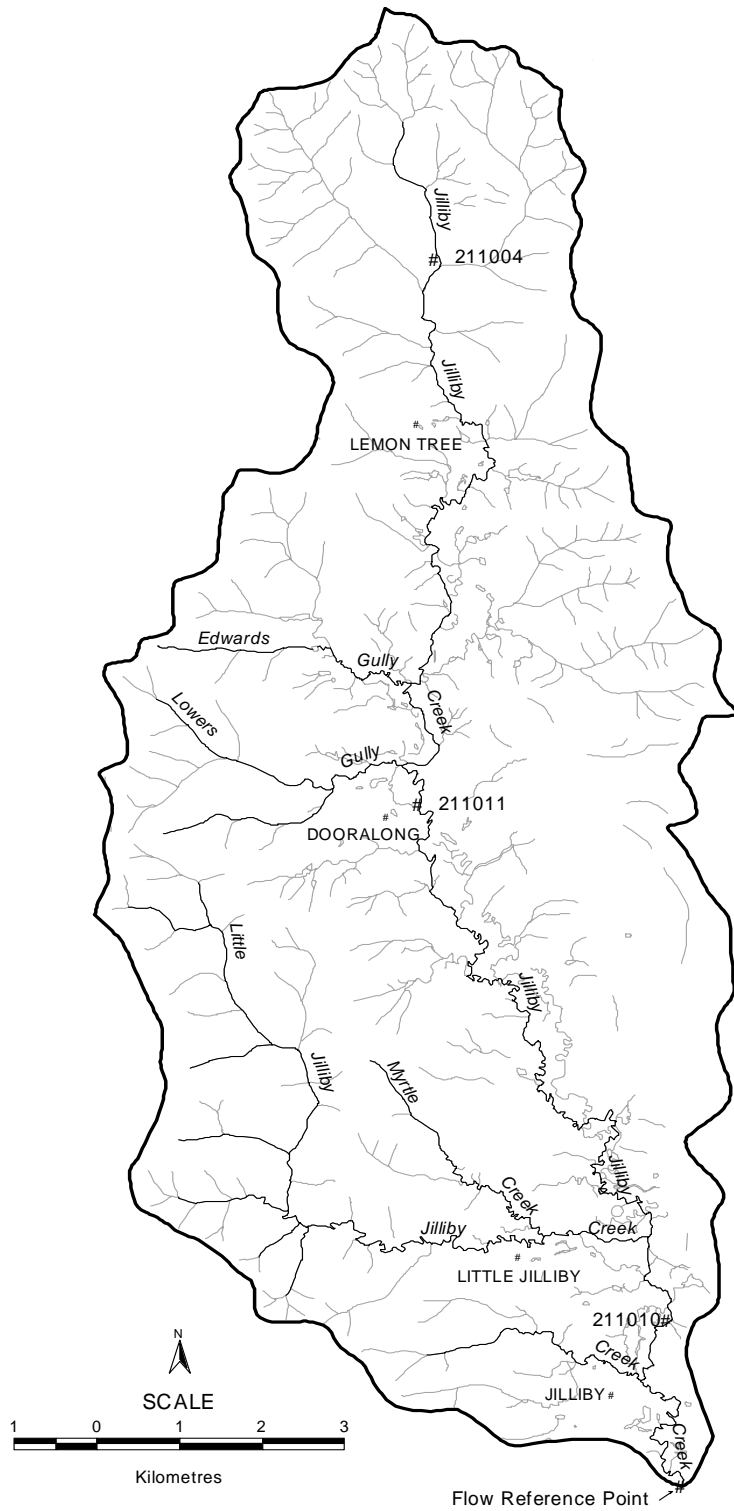
The Plan was made by the Minister for Land and Water Conservation. It is based on the recommendations of the Committee, the submissions arising from the public display of the draft plan

and agreed Government policy. Some subsequent amendments were made to the Plan and it commenced on 1 July 2004.

## Area of the Plan

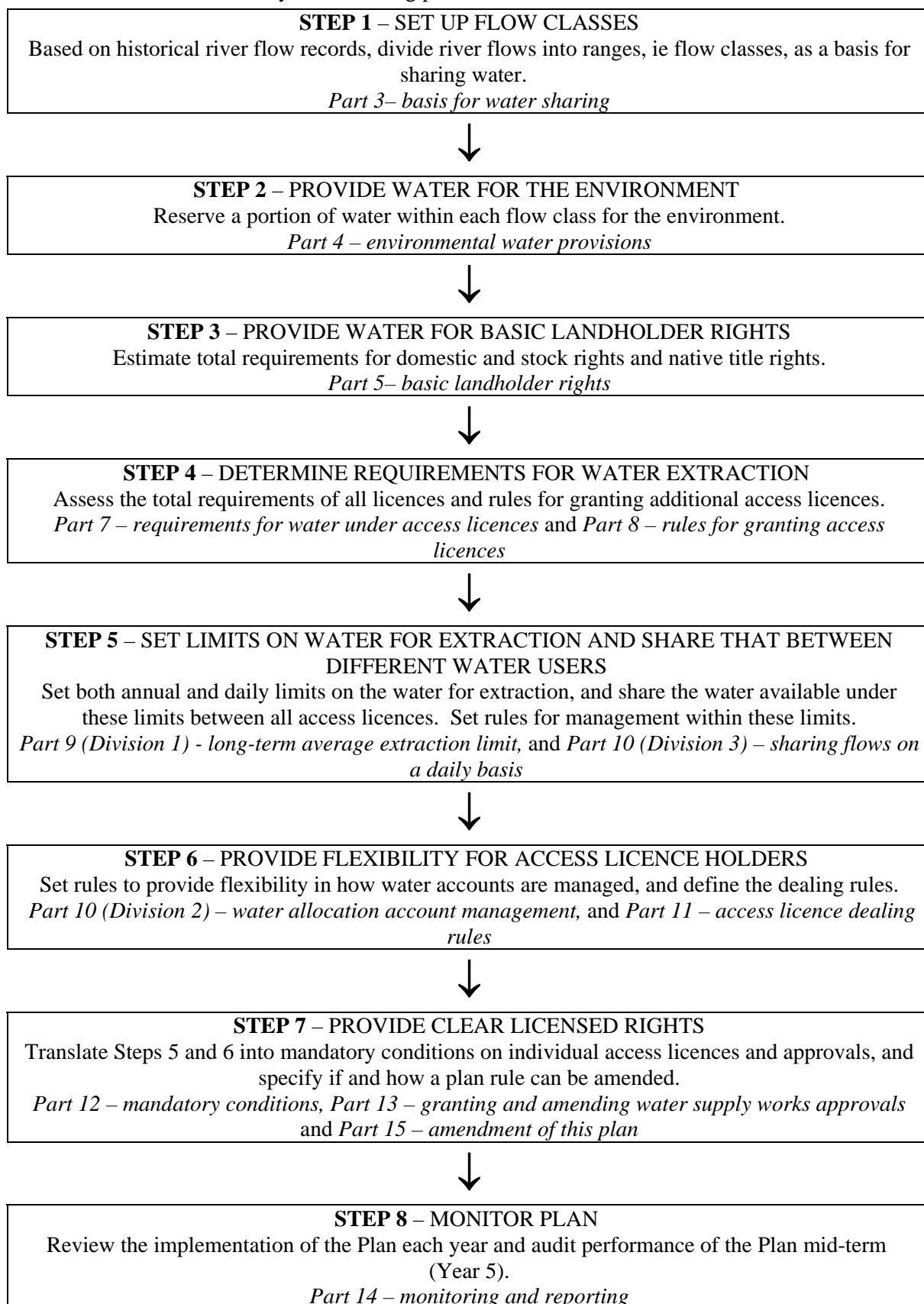
The Plan applies to the Jilliby Jilliby Creek, including its tributaries as shown on the map below.

### MAP: Jilliby Jilliby Creek Water Source



## How is water shared in unregulated rivers?

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.



## Vision

The vision of the Plan is the sustainable, equitable and efficient use, through integrated management, of water in the Jilliby Jilliby Creek Water Source to preserve, enhance or rehabilitate the environmental, social, cultural and economic uses of water for the present and future.

## Basis for water sharing

Jilliby Jilliby Creek is regarded as a stressed river. This means that, relative to the natural flows in the water source, the potential demand for extraction by water users is high. If everyone pumped water at the same time there would not be enough water for all existing water users and the environmental needs of the water source.

Climate and creek flows, and therefore the water available to meet all competing needs, vary from year-to-year and day-to-day. The Plan sets a limit, or a cap, on overall extractions on an annual basis (the long-term average **extraction limit**) and also limits on daily extractions the **total daily extraction limit** (TDEL).

The long-term average extraction limit is determined as one figure for a number of related unregulated rivers, not just for an individual water source such as Jilliby Jilliby Creek. Extractions across this whole area – the Tuggerah **Lakes Extraction Management Unit** – will be monitored and any controls on annual extractions will be implemented across the Unit (this is discussed further in *Long-term average extraction limit*).

Over time, daily extractions will be managed and controlled within the water source. This will be done through a series of **flow classes** covering the full range of flows that can occur in the water source on a daily basis. These flow classes will be introduced as the appropriate gauges and meters are installed. DIPNR will notify licence holders when the flow classes will commence.

The flow classes, as measured at the **flow reference point** located at the downstream end of the water source, are:

### Very low flow class:

- flows at or less than 0.5 megalitres per day (ML/day) (Year 1 of the Plan),
- 0.75 ML/day (Year 2), and
- 1.0 ML/day (Year 3 onwards).

### Moderate flows or B class:

- flows greater than 0.5 ML/day and at or less than 3.3 ML/day (Year 1),
- flows greater than 0.75 ML/day and or at or less than 3.3 ML/day (Year 2), and
- flows greater than 1 ML/day and at or less than 3.3 ML/day (Year 3 onwards)

### High flows or C class:

- flows greater than 3.3 ML/day and at or less than 8 ML/day.

### Very high flows or D class:

- flows greater than 8 ML/day.

Within each of these flow classes, the Plan defines how much water can be extracted under each category of water access licence. This is the **total daily extraction limit** (TDEL).

## Environmental health

The Act requires that water be allocated for the fundamental health of a river and its dependent ecosystems, such as wetlands and floodplains, as a first priority. The Plan does this by setting aside a proportion of each flow class for environmental needs.

In particular, the maintenance of water in the water source during the very low flow periods is essential to provide refuge areas for fish and other aquatic species. A cease to pump condition applies for the majority of water access licences (those known as unregulated river access licences which

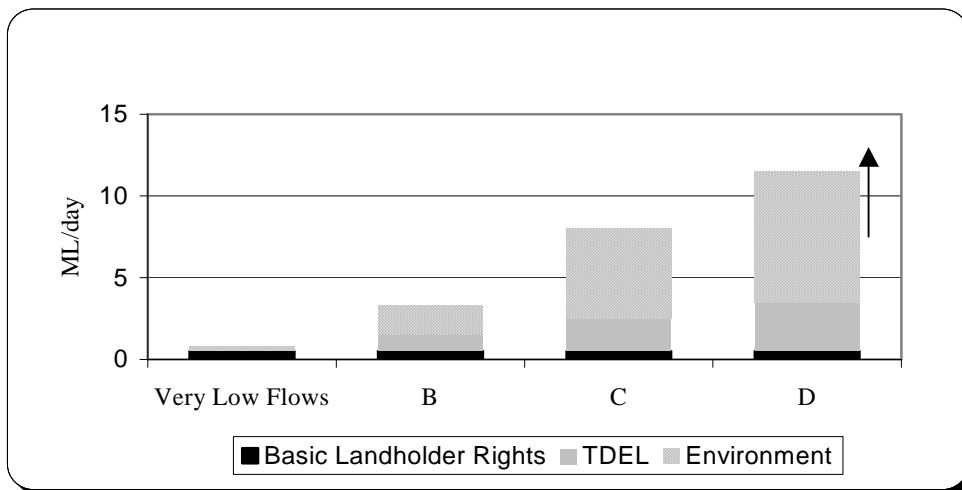
cover irrigation, farming, industrial and recreational uses) when the flow is at, or below, 0.5 ML/day (Year 1), 0.75 ML/day (Year 2) or 1.0 ML/day (Year 3 onwards) (measured at the flow reference point). The cease to pump conditions are the first stage of the implementation of the daily flow classes.

Limited volumes are available below the cease to pump threshold for **basic landholder rights** (0.51 ML/day) and for licence holders that require continued access to water for hygiene and health purposes, that is, those listed on **Schedule 6** of the Plan. At the start of the Plan there were no such licence holders identified in the water source.

In the other flow classes (B, C and D), the TDEL will determine how much water can be taken by water extractors - the rest (other than that extracted for basic rights) will remain in the water source for the environment.

The following diagram illustrates the broad relationship between the shares to the environment (at maximum flow) and to water extractors in each flow class. Note that the upper limit for D class is dependent on river height. The volume given in the diagram is an estimate only. The environmental share of very low flows varies in Years 1 to 3 of the Plan in response to changes in the cease to pump conditions.

**GRAPH: Jilliby Jilliby Creek daily flow shares**



Managing the water source within the overall long-term average extraction limit ensures that the environmental provisions are protected from increases in water extraction. The environmental health water provisions will also contribute to the protection of the water source for traditional Aboriginal use and improve water quality.

### **Basic landholder rights**

The Plan provides for domestic and stock rights and native title rights – both forms of basic landholder rights that extract water from the water source and do not need to be licensed.

At the start of the Plan, the water requirements for domestic and stock access rights were estimated at 0.51 ML/day. There are currently no extractions under native title rights from the water source. However, both forms of right may increase during the Plan’s ten-year term. Any such increase will be accommodated by reduced access by unregulated river access licences.

Domestic and stock rights can be restricted during dry times to protect the environment, for reasons of public health or to protect water availability for other basic landholder rights.

## Requirements for water under access licences

Other than basic landholder rights, water extraction must be authorised under a water access licence.

There is a range of different categories of water access licences. These include:

- local water utility – for town water purposes,
- domestic and stock – for those who cannot access water under basic landholder rights (ie their property does not directly front a river),
- unregulated river – this is a general category that covers purposes such as irrigation, industry, mining, recreation and general farming. Irrigation is the major use of water in Jiliby Jiliby Creek, and
- Aboriginal cultural – a specific sub-category of unregulated river access licences which allows water to be taken by Aboriginal persons or communities for personal, domestic and communal purposes.

Each water access licence specifies a **share component**. The share component of specific purpose licences such as local water utility, domestic and stock, and Aboriginal cultural are expressed as a number of megalitres. The share components of general unregulated river access licences are expressed as a number of shares.

At the start of the Plan, the requirements identified for all categories of licences from the water source totalled approximately 1,016 ML/year (1 share at the start of the plan is considered equivalent to 1 megalitre per year). Whether these annual volumes will be available in a **water year** will be dependent on climate and creek flows.

The total share component within the water source may change during the term of the Plan as a result of the granting or cancellation of licences, or because of variations to local water utility access licences. Towns may be granted an increased share component as a result of population growth and may receive, in certain circumstances, credits for water returned to the water source from treated effluent.

## Granting access licences

Applications can only be made for licences for additional local water utility, domestic and stock or Aboriginal cultural (up to 10 ML/yr per application) purposes.

## Long-term average extraction limit

It is important that the total of annual extractions is managed to within the limit specified in the Plan. Exceedence of the limit would threaten the environmental provisions of the Plan and the water available to established water extractors. In general, water extractions increase through:

- existing licence holders using more of their share component,
- the sale of currently unused share components of licences, and
- the granting of additional share components to unembargoed access licences eg local water utility.

The long-term average extraction limit will be determined and managed across the entire Extraction Management Unit. If extractions are exceeding the limit, then they must be reduced until they are brought back into line with this figure. This will be done through reductions in the volume of water that can be taken in the subsequent year by unregulated river access licences. This will occur if, over a three-year period, extractions exceed the limit by 5% or more. If extractions return to the long-term average extraction limit, this percentage can be increased to 100%.

## Available water determinations

Each year, an **available water determination** will be made defining how much of the share component will be available under each category of licence.

Except in years of exceptional drought:

- domestic and stock access licences will receive 100% of their share component, and

- local water utility access licences will receive 100% of their share component.

The available water determination for unregulated river access licences may be less than 100% if the long-term average extraction limit is being exceeded.

## Water allocation accounts

A water allocation account has been established for each water access licence. Water is credited to the account when an available water determination is made and debited when water is extracted. The maximum unused water allocation that can be carried over from one water year to the next is 100% of the share component.

For example, if a licence holder has a share component of 50 shares and the available water determination is 1 megalitre per share, then 50 ML is credited to the account at the start of the water year. If only 30 ML is extracted, 20 ML can be carried over to the following water year. If the available water determination remains at 1 megalitre per share, then up to 70 ML is available for extraction in the following water year. On an annual basis, licence holders cannot extract more water than is held in their account. As explained in the next section, once daily flow shares are introduced in the water source, a daily limit in addition to the annual limit will apply.

## Sharing flows on a daily basis

For water to be shared fairly amongst all water users, plus a provision made for the environmental needs of the water source, limits need to be set on the volume of water that can be taken from a particular flow class on a daily basis. The total daily extraction limit (TDEL) for all licences in each flow class is as follows:

- 0 ML/day for the very low flow class,
- 1 ML/day for B class,
- 2 ML/day for C class, and
- 3 ML/day for D class.

**TABLE: Total Daily Extraction Limits for each category of licence (ML/day)**

Flow Class	Domestic and Stock licences	Unregulated river access licences	All licences *
<b>Very low flows</b> ≤ 0.5 ML/day (Year 1) ≤ 0.75 ML/day (Year 2) ≤ 1 ML/day (Year 3 onwards)	0	0	0
<b>B Class</b> >0.5 and ≤ 3.3 ML/day (Year 1) >0.75 ML/day and ≤ 3.3 ML/day (Year 2) > 1 ML/day and ≤ 3.3 ML/day (Year 3 onwards)	0.04	0.96	1
<b>C Class</b> >3.3 and ≤ 8 ML/day	0.04	1.96	2
<b>D Class</b> >8 ML/day	0.04	2.96	3

\* Water for basic landholder rights has been estimated at 0.51 ML/day for each flow class. This is in addition to the licensed TDELs.

When the B to D flow classes are to commence, the Department will formally notify each licence holder of their **individual daily extraction limits** (IDELs) in each flow class. This will form part of the **extraction component** on the licence.

## Group management

As daily flow sharing is introduced, the plan provides for a system of group management to provide licence holders with more flexibility in managing their individual daily extraction limits. This will

operate in a similar way to a rostering system. It permits an individual access licence holder to exceed their individual daily extraction limit provided the group, as a whole, does not.

Group management will enable more flexible pumping regimes. In turn, licence holders will be required to maintain accurate records of their pumping times and rates to enable total water extraction within the water source to be monitored.

## Access licence dealing rules

**Access licence dealings** or water dealings can include the following:

- sale or transfer of the ownership of an licence (called a ‘transfer’),
- change in the location where a water access licence can be used
- sale (called an ‘assignment’) of the share component or extraction component of an access licence
- subdivision or consolidation of access licences
- sale of account 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 access licence dealings and their applications forms refer to the information on *Water dealings* on DIPNR’s website. Note: metering of water extractions is required before assignments of water allocations can take place.

The main provisions are:

- share components and water allocations may be traded within the water source
- share components and water allocations may be traded from and to other water sources within the extraction management unit provided the water sharing plan for the other water source allows this,
- unregulated river access licence share components in this water source may be exchanged for those of runoff harvesting access licences in this water source, and vice versa.

Conversion factors for some dealings may apply. These are intended to protect environmental health and water availability to all access licences in the water source.

## Mandatory conditions

The Plan sets out a number of conditions that are applied to water access licences and **water supply work approvals**. These conditions are designed to protect the rights of all users in the water source and the environmental water rules of the Plan. They cannot be removed or altered unless the Plan itself is amended.

## 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 is to be audited every five years. The Natural Resources Commission must 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 be established setting out the means by which 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

An important aspect of the water sharing plan is that it provides certainty to water extractors in terms of their access to water. This is because the rules for the next decade are defined and documented in the Plan. However, during the term of the Plan, some amendments may be needed. The Plan allows an amendment to:

- very low flow provisions may be changed based on field verification, and
- local water utility extraction limits may be amended based on further studies.
- TDEL for unregulated river access licences, if necessary, as a result of growth in basic landholder rights and the granting of any new domestic and stock and local water utility access licences.

## Glossary of terms

**access licences** provide the holder with a share of the available water in a water source. The access licence is separate from the approvals required for water use or for the supply works eg. pump, dam.

**access licence dealings** refer to a range of changes to an access licence or the water held in the account for that licence. These include a change in the ownership of all or part of the licence, a change in the location from which water is extracted, movement (assignment) of water allocations between licences, or a change in the category of the licence.

**available water determinations** (AWDs) determine how much water a licence holder can extract in a year. An AWD adds water to the accounts of all access licences in that category. The AWD will also ensure that long-term extraction does not exceed the extraction limit.

**basic landholder rights** cover three types of rights to extract water from a river that do not require an access licence. The first allows rural landholders along the riverfront to extract water for domestic household and stock watering purposes (*domestic and stock rights*). Domestic and stock rights replace riparian rights under the *Water Act 1912*. The second right allows landholders to capture a portion of the runoff from their land in farm dams (*harvestable rights*). Harvestable rights do not involve extraction directly from the river and so have not been provided for in the plan. The third right allows Aboriginal native title holders (as determined under the *Commonwealth Native Titles Act 1993*) to extract water for a range of domestic and non-commercial communal purposes (*native title rights*).

**extraction component** of the access licence specifies the sections of the water source from which water may be taken. It may also set the times and rates at which water can be taken, such as IDELs.

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

**extraction management unit** is the grouping of water sources for the purpose of managing annual average extraction.

**flow classes** describe the range of daily flow levels in the rivers and provide the framework for sharing water on a daily basis.

**flow reference point** is the site from which the flows are calculated to determine the flow class.

**harvestable rights** allow landholders to capture and use 10 per cent of the average regional rainfall runoff on their land in farm dams. Harvestable rights are intended to satisfy essential farm needs such as stock watering, and house and garden requirements, but can be used for any purpose including commercial irrigation.

**individual daily extraction limit (IDEL)** is the daily volume limit for a particular licence holder for each flow class. The IDEL will be specified as part of the extraction component on the access licence. It is a share of the total daily extraction limit.

**schedule 6** identifies those licence holders that may continue to access water during periods of very low flows in order to comply with the requirements of the *Food Production (Safety) Act* or the *Prevention of Cruelty to Animals Act*. This covers fruit washing, cleaning of dairy plant and equipment for the purpose of hygiene, poultry watering and misting, and cleaning of enclosures used for intensive animal production for the purposes of hygiene.

**share component** of the access licence is similar to the entitlement volume on previous water licences. The amount of water an access licence holder is allocated in any year as a result of an available water determination is based on their share component. Other rules, such as carryover, are also based on the share component.

**total daily extraction limit (TDEL)** is the limit on the daily volume of water that access licence holders in a category can take from a particular flow class.

**water supply works approval** permits water supply works (pumps, dams) to be built and operated at specified locations.

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