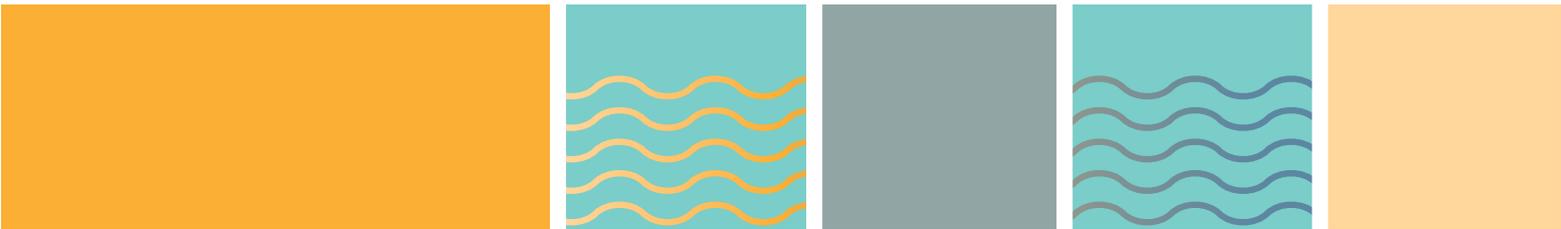


WATER SHARING PLAN

# Hunter unregulated and alluvial water sources

Guide

August 2009



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Guide

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## Introduction

This guide provides a general explanation of the key parts of the Hunter Unregulated and Alluvial Water Sources Water Sharing Plan (the Plan). It is intended to assist you in understanding the gazetted plan. The guide should be read in conjunction with the actual plan and the background document.

Once the water sharing plan (WSP) commences, the licensing provisions of the *Water Management Act 2000* will come into effect in the water sharing plan area. This means that existing *Water Act 1912* licences are converted to *Water Management Act 2000* water access licences and water supply works and use approvals. It is expected that the Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources will commence in the 2009/10 water year (July 2009).

The *Water Management Act 2000* also introduces some new terminology and different management arrangements. These new terms are highlighted in the text and explained in the glossary at the end of this guide.

## Plan area

The Plan includes the Hunter unregulated rivers and creeks, the highly connected alluvial groundwater (which are above the tidal limit), and the tidal pool areas (which have not be previously covered by the *Water Act 1912*), but excludes Wybong Creek (as a water sharing plan already exists for the Wybong Creek). In total there are 39 water sources covered by the Plan and 9 of these are further sub-divided into management zones.

## Basis for water sharing

The water available to meet all competing environmental and extractive needs for water vary year-to-year and day-to-day with climate conditions and river flows. A licence holder's access to water is managed in the water sharing plan through, firstly, the long-term average annual extraction limit which sets how much all water licence holders in total can extract annually and secondly, through daily access rules.

The **long-term average annual extraction limit** will apply across an entire catchment area (referred to in the Plan as the **Extraction Management Unit or EMU**). In this Plan there are four Extraction Management Units (the Goulburn EMU, the Hunter EMU, the Hunter Regulated River Alluvium and the Lake Macquarie EMU). The extraction limit is a longer term management tool against which total extractions will be monitored and managed over the ten year life of the Plan.

More specific are the rules in the Plan that determine when licence holders can and cannot pump on a daily basis. As a minimum, licence holders cannot pump when there is no visible flow at their pump site. Most of the water sources are also divided into one or more **flow classes**. Water sources with flow classes are those where there is competition between users for water and therefore extractions need to be managed across the range of flows that can occur on any given day.

If no flow classes are established for the water source, as is the case for the a large number of the water sources where further studies or data collection is required, flow conditions specified for the pump site on individual licences are considered sufficient to manage the low level of extractions in that water source. However for all other water sources in this Plan, at least two flow classes – a very low flow class and an A flow class – have been established.

The flow classes describe the range of flows that occur in the water source and relate to the flow at a specific point in the river (referred to as the flow **reference point** in the Plan). The delineation of the flow classes varies between water sources, and in some cases they are:

- the Very Low Flow Class – generally represents the lowest flow, that is the average flow is greater than this level on 95 per cent of days
- A class – generally represents the low flow, that is the average flow is greater than this level between 95 and 50 per cent of days
- B Class – generally represents the moderate to high range of flows for the water source, that is the average flow is greater than this level of 50 per cent of days.

Only six water sources in the Plan area set a B class – the Pages River (excluding Segenhoe, Scotts Creek and Murrurundi Management Zones), Isis River, Rouchel Brook, Lower Wollombi Brook, Paterson/Allyn Rivers (excluding the Paterson River Tributaries Management Zone) and the Williams River (excluding the Williams River Management Zone).

## Environmental water

The Act requires that water be allocated for the fundamental health of a water source and its dependent ecosystems, such as wetlands, floodplains and estuaries, as a first priority. The Plan does this by setting aside all water above the long-term average annual extraction limit for environmental needs therefore protecting the majority of flows for environmental purposes. For example, extractions from the unregulated rivers on the Hunter (both the Hunter and Goulburn EMU) represent approximately 15 per cent of the average annual flow. When the expected extraction on the Hunter Regulated River system is included, approximately 30 per cent of the average annual flow may be extracted. The extractions within the Lake Macquarie EMU are estimated to make up less than two per cent of the total annual flow.

In addition to the annual limitations at the river basin scale, a ban on pumping (known commonly as the cease to pump rule) on licensed pumpers is also set when the river flow falls below a specified level at either the pump site or the relevant flow reference point. This is essential to provide protection for fish and other aquatic species during dry times. Depending on the classification of the water source different forms of the cease to pump for the river pumpers may apply:

- as a minimum, the cease to pump rule is triggered when there is no **visible flow** (that is, no continuous downstream movement of water visible to the eye) at the licence holder's pump site, or if extraction is from a pool, when there is no visible flow into or out of the pool
- for those water sources requiring a higher level of environmental protection, a cease to pump rule may also be imposed if there is no visible flow (i.e. the Very Low Flow Class) at the flow reference point for the water source or management zone
- for a number of water sources a cease to pump may be set at a specified flow or groundwater level, for example, for the Gundy Management Zone in the Pages River Water Source when flows fall below 31 megalitres (ML) per day at the Pages River at Gundy Recorder gauge.

For the groundwater pumpers in highly connected systems the cease to pump will apply the same as for the river pumpers. For the groundwater pumpers in less connected systems, within 40 metres of the river, the cease to pump rules will apply from year six of the Plan and will be the same as for the river pumpers.

The classifications for each individual water source are listed in the report cards which are available from the Department of Water and Energy's website: [www.dwe.nsw.gov.au](http://www.dwe.nsw.gov.au) or the Newcastle DWE office.

The cease to pump condition applies to the majority of access licences – those which cover irrigation, farming, industrial and recreational uses. Limited volumes will be available below this cease to pump threshold for some town water supplies and for licence holders that require continued access to water for hygiene and health purposes, that is, those listed in **Schedule 2** of the Plan.

The Plan also provides for licensed water to be committed for adaptive environmental water purposes.

## Basic landholder rights

Under the *Water Management Act 2000*, extraction of water for basic domestic and stock rights from a river fronting a landholder's property or from any aquifer underlying the property and for native title rights (known collectively as basic landholder rights) does not require a water access licence.

Although in the case of groundwater, the bore must still be approved by the Department.

The supply of water for basic landholder rights has priority over licensed extraction. An estimate of the water requirements for domestic and stock rights is provided in the Plan. There are currently no extractions for native title rights in NSW. However, these rights may occur or increase during the Plan's ten year term.

Domestic and stock rights can be restricted by the Minister to protect the environment, for reasons of public health, or to preserve existing basic landholder rights. These restrictions are outside the framework of the Plan. The Department is developing a regulation which will limit extractions under basic landholder rights to a reasonable use volume.

## Requirements for water under access licences

Except for basic landholder rights, all other water extraction must be authorised under a water **access licence**. There is a range of different categories or sub categories of access licences.

These include:

- local water utility – a specific sub-category of unregulated river or aquifer access licence for town water purposes
- major water utility – Hunter Water Corporation has a licence to extract water from the Williams River and Newcastle Water Sources for town water supply purposes, Macquarie Generation has a licence for power generation purposes
- domestic and stock – a specific sub-category of unregulated river or aquifer access licence for those who cannot access water under basic landholder rights (i.e. their property does not directly front an adjoining river, lake or estuary or underlying aquifer)
- unregulated river or aquifer – a general category that covers purposes such as irrigation, industry, mining, recreation and general farming. In most water sources, irrigation accounts for the majority of extractions (these apply to water sources covered by the Plan)
- unregulated river high flow – a general category of licence that allows for extraction for a variety of purposes, but only from the B class, i.e. high flow. There are six water sources with a B class. B class licences can be obtained through conversion of an unregulated river access licence, with the share component two times the cancelled share component of the unregulated river access licence. It is usually necessary to have an off river storage or tank to store the water pumped during the high flow periods
- Aboriginal cultural – a specific sub-category of unregulated river or aquifer access licence that allows water to be taken by Aboriginal persons or communities for personal, domestic and communal purposes (generally up to 10 ML/year per licence)

- Aboriginal Community Development – a general category of unregulated river access licence that allows water to be taken from B Class flows (high flows) by Aboriginal persons or communities for commercial purposes up to specified limits.

The Plan estimates the total entitlement or **share component** for each category of access licence that applies at the start of the Plan. The share components of specific purpose licences such as local water utility, domestic and stock, Aboriginal cultural, Aboriginal Community Development and research are expressed as a number of megalitres per year. In contrast, the share components of general unregulated river access licences, unregulated river high flow and aquifer access licences which are issued in perpetuity, are expressed as a number of unit shares in the available water.

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

## Granting access licences

Other than through the purchase of a water access licence or share component on the water market, applications for the granting of additional water access licences will generally only be considered for local water utility or town water supply, domestic or Aboriginal cultural purposes.

The Plan also provides for Aboriginal Community Development licences to be granted in specific water sources from B class flows.

Water users previously exempt from requiring a water licence under the *Water Act 1912* in certain water sources may also be granted access licences.

## Granting water supply works

Rules controlling the granting or the nomination of water supply works, and in particular bores, are included in the Plan to minimise interference between authorised extraction and to minimise impacts on sensitive areas.

## Long-term average annual extraction limit

A **long-term average annual extraction limit** (LTAAEL) will be set for each of the three Extraction Management Units. In the coastal systems, this will be generally be based on the level of existing entitlements, plus forecast limited new growth as a result of the granting of specific new access licences. To protect the water for the environment and the supply to existing users, it is important that there is not uncontrolled growth over time in total extractions. In general, water extractions can increase through the granting of additional share components to permitted categories of licences or through the use or sale of currently unused share component.

The Department will monitor annual extractions. If extractions are exceeding the limit, then they will be reduced until they are bought back into line with this figure. This will be done by reducing the available water determination for unregulated river, unregulated river high flow and aquifer access licences, that is, how much water can be taken in a particular water year.

Note that a separate LTAAEL is set for access licences held by Hunter Water Corporation in the Hunter Extraction Management Unit to allow operational flexibility for the utility.

## Available water determinations

Each year, **available water determinations** will be made defining how much of the share component will be available under each category of licence. Specific purpose access licences such as; domestic and stock, local water utility, and major water utility access licences, will generally always receive 100 per cent of their share component, although in years of exceptional drought daily access rules may limit extraction so that the full annual entitlement cannot be realised.

Generally the available water determination for general unregulated river, unregulated river high flow and aquifer access licences will be 1 megalitre (ML) per unit share. However for the first year of the Plan, a one-off announcement of 2 ML per share will be made. This, combined with the carryover rules (see next section on water allocation accounts), will enable licence holders to use up to twice their water allocation in a year provided that over a consecutive three year period they do not exceed the sum of their water allocations for those three years.

An available water determination of less than 1 ML per unit share may be made if the long-term average annual extraction limit is exceeded. This means that general purpose access licences may in the future, if there is significant growth in water use receive fewer megalitres in their water account than they have shares.

## Water allocation accounts

A water allocation account will be 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 amount of unused water allocation that can be carried over from one water year to the next will be 100 per cent of the share component.

For example, if a licence holder has a share component of 50 unit shares and the available water determination is 1 ML 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 ML per unit share then 70 ML is available for extraction the following water year.

A licence holder's account cannot go into debit, and the volume extracted is not to exceed 300 per cent in three years.

## Sharing flows on a daily basis

In those water sources with a B class, daily limits may be set on the maximum amount of water that can be taken from the B Class flow. This is called the **total daily extraction limit** or TDEL.

Individual daily extraction limits (IDEL) may then be specified for each licence holder in B Class. This will form part of the **extraction component** on the water access licence. For example a licence holder's IDEL may be 1 ML per day when the flow is in B Class.

The licence holders listed in Schedule 3 of the Plan, who are permitted to access some water during very low flow periods will also have an IDEL determined for the Very Low Flow Class. This will be listed on their water access licence and will not be greater than 20 kilolitres per day.

To provide flexibility there are the provisions to allow groups of licence holders to work together, so that some individuals can extract daily volumes in excess of their IDEL but as long as the group does not exceed their cumulative IDEL.

## Local impact rules

There may be instances where in localised areas the clustering of bores is causing significant local drawdown of the water table. Also, pumping may be restricted around contamination sources such as septic tanks with the aim of protecting groundwater quality.

In order to protect existing water users and identified groundwater dependent ecosystems, restrictions on pumping may be applied in specified areas.

## 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 extracted and used.
- Sale (called an 'assignment') of the share component or extraction component of an access licence.
- Subdivision or consolidation of an access licence.
- 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 refer to the section on water dealings on the Department's website [www.naturalresources.nsw.gov.au](http://www.naturalresources.nsw.gov.au).

To protect the environmental health of the water source and to prevent over-extraction, the Plan specifies various dealing rules. Generally, these rules:

- allow trading to be undertaken in a downstream direction
- allow conversion of an unregulated licence to a groundwater licence in some cases. There are limits on the maximum volume of water that can be traded into some management zones or water sources
- allow conversion of unregulated river licences to high flow licences in some water sources
- set limits on the maximum volume of water that can be traded into some management zones or water sources
- require metering of water extractions before assignments of water allocations (i.e. trading of annual account water) can take place.

## Mandatory conditions

The Plan sets out a number of standard conditions that will be applied to water access licences and water supply work approvals. These mandatory 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 of Plan performance

The Plan includes performance indicators against which the performance of the Plan will be monitored to determine if it is meeting its objectives. The implementation of the Plan will be audited every five years. The Natural Resources Commission, an independent authority established by the Government, 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 may be established setting out the means by which the provisions of the Plan will be achieved. This implementation program is to be reviewed each year and the results reported in the Department's Annual Report.

## Plan amendments

An important aspect of a water sharing plan is that it provides certainty to licence holders in terms of their access to water over the next ten years. However, during the term of the Plan, amendments in particular may be made to the Very Low Flow Class as a result of field verification studies. These possible amendments are listed in the Plan.

## 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 e.g.. pump, dam, bore.

**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, sale of annual account water, 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 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 a 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). As harvestable rights do not involve extraction directly from the river, they 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 domestic and non-commercial communal purposes (native title rights).

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

**Extraction limit** – is the 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 a river 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 a 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 the water can be used for any purpose including commercial irrigation.

**Individual daily extraction limit (IDEL)** – is the daily volume limit that may apply 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.

**Long-term average annual extraction limit** – the volume of water that is managed for through the available water determination process and is anticipated to be calculated from the last 3 years of metered extractions.

**Schedule 2** – identifies those licence holders that may continue to access water during periods of very low flows for fruit washing, cleaning of dairy plant and equipment for the purposes of hygiene, poultry watering and misting or cleaning of enclosures used for intensive animal production for the purpose of hygiene.

**Share component** – of the access licence is similar to the entitlement volume on the former Water Act licence. 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 particular category can take from a flow class.

**Visible flow** – is the continuous downstream movement of water that is perceptible to the eye.

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

**Water use approval** – specifies the types of activities that may or may not be undertaken.

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