



## IRRIGATION INDUSTRY BASICS

### Who controls where the water goes?

There are two State Government entities involved with the management and delivery of water in NSW. Department of Industry - Lands and Water (DI Water) manages NSW's water resources through planning, policy and regulation. They are responsible for surface and groundwater management including ensuring water security for NSW.

The other government body is WaterNSW. This is the state's bulk water supplier and operational manager of surface water and groundwater resources.

Operating bodies with a licence to draw water from the river - such as Murrumbidgee Irrigation (MI), as well as those with an individual licence, place orders for water with WaterNSW. After considering user requirements, river health and stock and domestic supplies, water is released from the catchment dams into the rivers. Availability of water is dependent on dam storage levels and expected inflows.

Entitlements held by MI (see table below) make it the largest single water user on the Murrumbidgee River. The adjacent Coleambally Irrigation scheme is the second largest.

Water Entitlements (GL)	MIA	Valley
General security	738	1,888
High security	310	356
Stock / domestic / towns	27	56
Conveyance (max)	223	373
Supplementary	37	198
<b>TOTAL</b>	<b>1,335</b>	<b>2,871</b>

Approximate figures April 2017

### What is an entitlement?

A water access entitlement, such as a water licence, refers to an ongoing entitlement to exclusively access a share of water. Under the *2004 National Water Initiative* (NWI), a water access entitlement is required for any productive use of water and is defined as a permanent share of the consumptive pool of a water resource system as defined under a water sharing plan. Entitlements are:

- exclusive;
- able to be traded;
- enforceable; and
- recorded in a water register.

In NSW, Water Sharing Plans (WSP) commenced in 2004 under the *Water Management Act 2000*, to sustainably manage groundwater and surface water supplies. These are ten year plans and the Murrumbidgee Regulated River plan was replaced in 2016.

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 that affect 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.

### What is an allocation?

A water allocation refers to the specific volume of water that is allocated to licenced water users in a given season. The allocation of water to an entitlement is made consistent with the requirements and rules set out in the relevant WSP. Our website provides a link to the allocation history for each water year (including current allocations).

### Who determines water allocations?

Available Water Determinations (AWD) are the means by which water is shared between access licences. A water allocation account has been established for each access licence. AWD's add volumes of water (i.e. water allocations) to the water accounts of all access licences. The volume of water allocated to a water account is calculated by multiplying the number of unit shares on the licence by the volume per share stated in the AWD (as a percentage). For example, if an entitlement holder has 100 megalitres (ML) of water entitlement and DI Water announced a 50% allocation, the entitlement holder would receive 50ML in their account. Water is credited to the account when an AWD is made, or when water allocation is moved into the account from another access licence. Water is debited from the account when water is used or moved to another access licence.

In the Murrumbidgee, AWD's are made for each access licence category at the start of the water year (July) and periodically throughout the year. This process is managed by DI Water.

In general, the process for allocating water in the Murrumbidgee Valley is based on the July – April water year and takes into account the following conditions:

1. Water in our storage dams, Burrinjuck and Blowering (not already committed – see 4 overleaf)
2. Water expected from natural inflows to Burrinjuck, Blowering and downstream based on worst year on record (2006/07 inflows)
3. Water expected from Snowy Hydro (using licensed formulas based on resource conditions)

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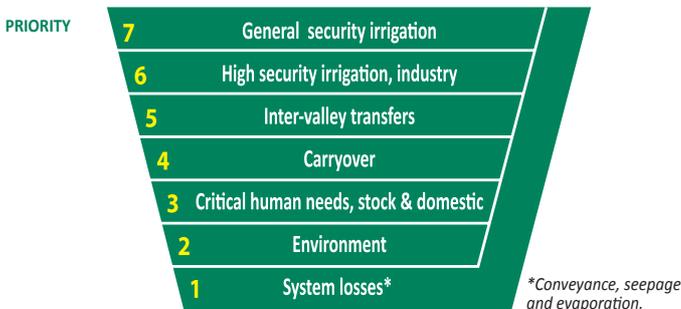
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### 4. Less commitments including:

- Losses and run of river (conveyance)
- Fixed commitments (e.g. water already committed to intervalley transfers, carryover, critical human needs)

### 5. Water Access Licences in order of priority

Water in the dams is allocated to certain uses in order of priority. These priorities have been set as part of the *Murrumbidgee Water Sharing Plan* and are legislated by the *Water Management Act 2000*. The priority of allocations is in the order as follows:



### What is the difference between high security and general security water?

Apart from supplementary licences, the other regulated entitlements held by irrigators in NSW are high security and general security access licences. These are held by the majority of landholders in the MIA. High security water access entitlements are allocated water before general security entitlement holders. High security water entitlements are traditionally held by irrigators with permanent horticultural plantings, which require access to a more reliable water supply whereas general security entitlements are usually held by broad acre irrigators who farm vegetables, cereal crops, rice and livestock.

With the shift to an open water market, irrigators are able to permanently purchase both general and high security water access licences meaning horticultural and broad acre irrigators may now hold a mix of both licence types. However, the cost of high security entitlement is more expensive than general security entitlement - reflecting the higher level of water security it offers to irrigators. This variation in licence types held in the MIA is one of the reasons the region is one of the most productive and versatile areas in Australia.

### What is carry over water?

Carry over water is water that has been allocated to irrigators during an irrigation season that has not been used or traded and is available to be carried over into the next water year.

Under the Water Sharing Plan, the accounts of all high priority category access licences (high security irrigation, industry) are managed on an annual basis. This means that any water remaining in an account at the end of a water year is lost. The account receives a new allocation of water in the next water year.

General security access licence holders have a set of more complex rules applied to their licence in order provide an opportunity for these licence holders to reduce year to year variations in water availability. One way this is done is by allowing “carry over” of unused water in the account from one year to the next, up to a maximum of 0.30 ML per unit share (or 30%). However, general security announced allocation plus any carry over in the following year cannot exceed 100% of their water entitlement and any extra water is forfeited.

### Who allocates water to the environment?

The Commonwealth Environmental Water Holder (CEWH) is a statutory position established under the *Water Act 2007*. Its role is to protect and restore the environmental assets of the Murray-Darling Basin, and other areas outside of the Murray-Darling Basin where the Commonwealth holds water; so as to give effect to relevant international agreements.

Water rights acquired by the Australian Government through water buybacks or other funded water saving initiatives become part of the Commonwealth environmental water holdings. The amount of water available for use depends on the volumes acquired, type of licence and seasonal water allocations.

The entitlements being purchased by the Commonwealth are subject to the same rules, restrictions and fees as other holders of the same kind of title. In this way, the Commonwealth is treated no better or worse than any other holder of the same kind of entitlement.

In NSW, the Office of Environment and Heritage is responsible for managing environmental water allocations established under Water Sharing Plans and water licences held by the NSW government for environmental use. Environmental Water Advisory Groups across a number of valleys provide an important conduit through which the views of stakeholders are expressed. These advisory groups provide advice to the Minister and the Department on the management of environmental water. The Office of Environment and Heritage works with water advisory groups and with other government agencies in the management of environmental water.