



Critical water planning for the Hunter Valley

Issue 4 | 15 October 2007

Current water availability

The Hunter catchment has received very little rainfall throughout the past month. As a result, stream flows across the Hunter River valley have decreased. During September, Moonan Brook (above Glenbawn Dam) received only 11mm of rain, while 29mm was recorded at Carrowbrook (above Glennies Creek Dam).

As a result, storage levels in Glenbawn and Glennies Creek dams have not risen significantly since the last update. Some of the inflows which have been observed are as a result of Macquarie Generation pumping water from the Barnard River to Glenbawn. Storage inflows collectively increased by 8 Gegalitres (GL) in August, but have fallen 2GL to date in October through usage over the last six weeks.

The following table shows storage levels as at 15 October 2007.

Storage @ 15 October 2007	Volume GL	Percent of capacity	Change in Volume since 1 July 2007
Glenbawn Dam	291	38.7	50GL (+6.6%)
Glennies Creek Dam	101	35.3	5GL (+1.9%)
Total	392	37.7	55GL (+5.4%)

Note: that of this total, approximately 7GL is held for Macquarie Generation as 'Barnard Reserve Water' and 'carryover', while approx 10GL is 'carryover' held for General Security irrigators.

What this means

Enough water is available to meet the requirements for town water supply, Major Utility (Power Generation), and Domestic and Stock for the whole of 2007/2008 and 2008/2009. Town water supplies are currently on restrictions, as decided by the relevant council(s). High Security allocations of 75% are now assured for 2008/2009.

As critical water supply needs for 2008/2009 are now assured, allocations for General Security and increases in allocations for High Security have been made via two announcements in August and September 2007. Allocations remain unchanged from the last update, at 18% for General Security (GS), and 84% for High Security (HS).

River management during 2007/2008

Until recently, flows from tributaries have met all the operational and environmental requirements of the water sharing plan. However; as dry conditions have returned, State Water have commenced releases from storage to supply riparian and irrigation requirements. State Water are, are targeting lower than normal levels in many parts of the system. This will maximise the water available for allocations, but will require a greater level of management by water users to ensure their pumps can access lower river levels.

Recent high flows have allowed access to both supplementary and uncontrolled flows. The availability of these flows will continue to be closely monitored by State Water and any opportunities to pump will continue to be notified. High flows have allowed Available Water Determinations (AWD) for supplementary water to be increased to 50%.

Water trading in 2007/2008

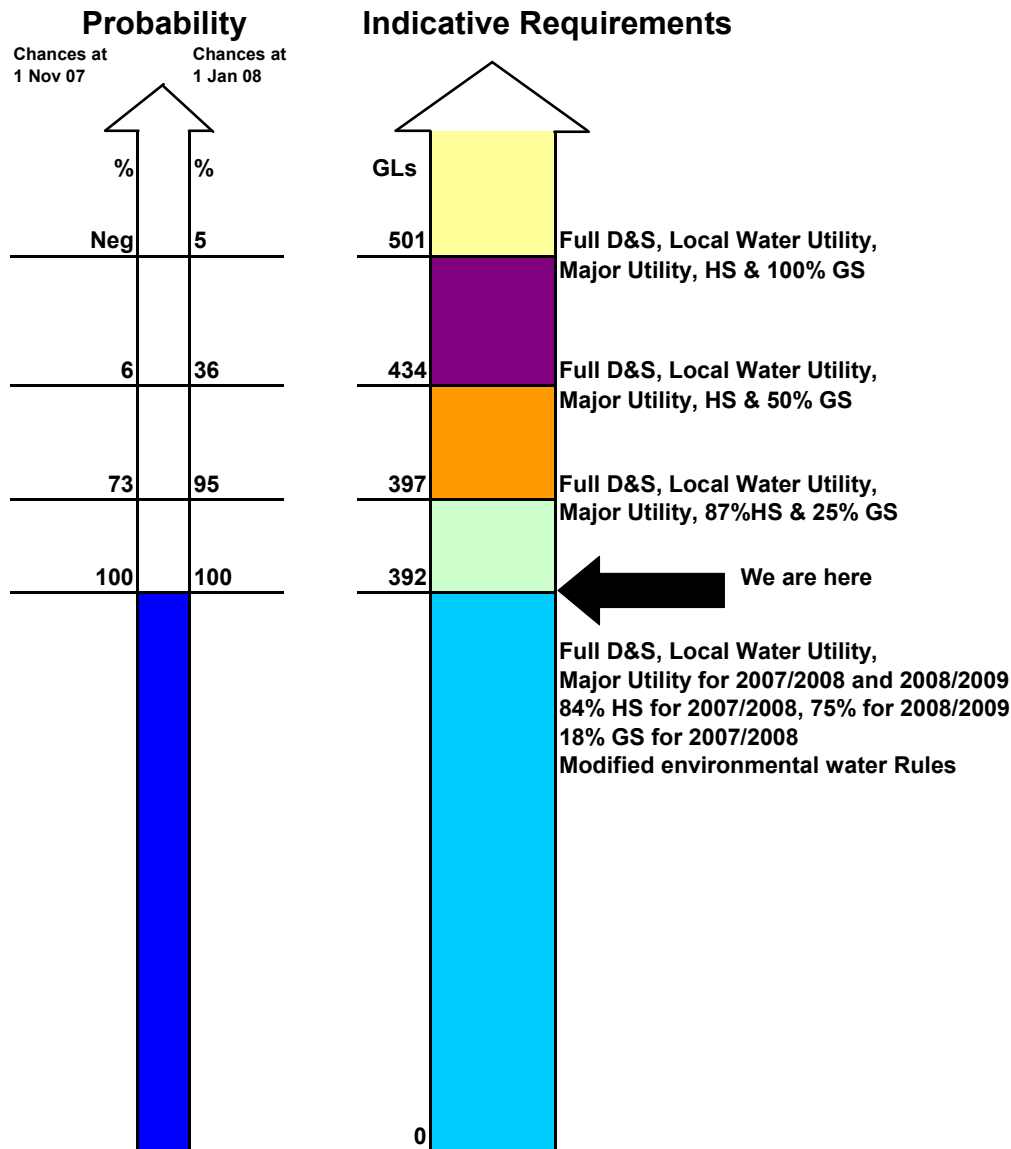
All water held in accounts may be traded, including all water made available in 2007/2008, as well as account water carried over from 2006/2007.

The water sharing plan for the Hunter Regulated River Water Source, including Glennies Creek, allows licence holders to convert from General Security to High Security using a conversion ratio of 3:1 - that is, 3ML of General Security entitlement can be swapped for 1ML of High Security water. In order to convert, the licence to be converted must have 100% of its entitlement in its account. When the conversion takes place, 2/3 of this account water is surrendered, to ensure that the new High Security entitlement may be supplied into the future. To achieve 100% account water under present conditions of reduced allocations, licence holders would need to acquire temporary transfers - if available - to bring their account up to 100%. The conversion from General Security to High Security is a means of providing a risk management strategy for water users in times of drought; however, it is up to the individual licence holder to assess their needs in relation to volumetric requirements and drought management. If you are considering making a licence conversion, it is recommended you contact the licensing section of DWE in Newcastle on 4904 2500 to discuss requirements.

Water availability outlook

The following diagram shows the approximate probabilities of improvements in water availability occurring by 1 November 2007 and 1 January 2008. This diagram will change throughout the season as a result of inflow conditions, patterns of usage, and loss conditions.

Hunter Valley Indicative Outlook



In this diagram, the water currently stored is shown in the blue shading on the left-hand arrow. The chances of the water availability (blue shading) increasing by 1 November 2007 and 1 January 2008 are also shown on either side of the left-hand arrow. These probabilities are calculated assuming a high level of losses and full utilisation of entitlement.

The water required to meet the various needs on the Hunter Regulated River are shown on the right-hand arrow, with the highest priority requirements (reserving critical demands for 2008/2009) now assured. As a result, an AWD for General Security licence holders has been made. The probabilities of a 25%, 50% and 100% allocation are also shown.

For example, there is a 73% chance of a General Security allocation of 25% being available by 1 November 2007, and a 95% chance by 1 January 2008.

As water availability increases (represented by the blue shading) more of the requirements shown on the right-hand arrow can be met.

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