



NSW Government

Department of Water & Energy

Critical water planning for the Hunter Valley

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Current water availability

A pattern of intense thunderstorm activity established itself over the Upper Hunter during November, continuing into the first half of December. These events, while they have generally been localised and of only a short duration, have resulted in a series of small to moderate flow events both into the storages and in the Hunter River downstream. During November, Moonan Brook (above Glenbawn Dam) received 276mm of rain, while 219mm was recorded at Carrowbrook (above Glennies Creek Dam). As of 10 December, Moonan Brook has received 84mm, while Carrowbrook has received 88mm.

As a result of inflows generated by this rainfall, storage levels in Glenbawn and Glennies Creek dams have continued to rise since the last update, with only small releases from the storages during this period. Storage levels have increased 12GL through November, and a further 18GL since the start of December 2007.

The following table shows storage levels as at 11 December 2007.

Storage @ 11 December 2007	Volume GL	Percent of capacity	Change in Volume since 1 July 2007
Glenbawn Dam	312	41.6	71GL (+9.5%)
Glennies Creek Dam	107	37.5	12GL (+4.1%)
Total	419	40.5	83GL (+8.0%)

Note: that of this total, approximately 8.3GL 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 directed by the relevant council(s). High Security allocations of 75% are now assured for 2008/2009.

The inflows received during November and the first half of December 2007 allows a further increase of 22% for General Security and 11% for High Security. As a result, allocations now stand at a total of **48% for General Security** and **99% for High Security**.

River management during 2007/2008

Since the floods of June 2007, there have been a series of inflows from tributaries which have helped meet the operational and environmental requirements of the water sharing plan. Between these inflows, dry conditions have occurred, during which releases have been made from storages to supply riparian and irrigation requirements. Stream flows are being maintained at 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.

High flows this year have allowed access to both supplementary and uncontrolled flows. The availability of these flows will continue to be closely monitored and any opportunities to pump will be notified accordingly. Available Water Determinations (AWD) for supplementary water currently stands at 70%.

Water trading in 2007/2008

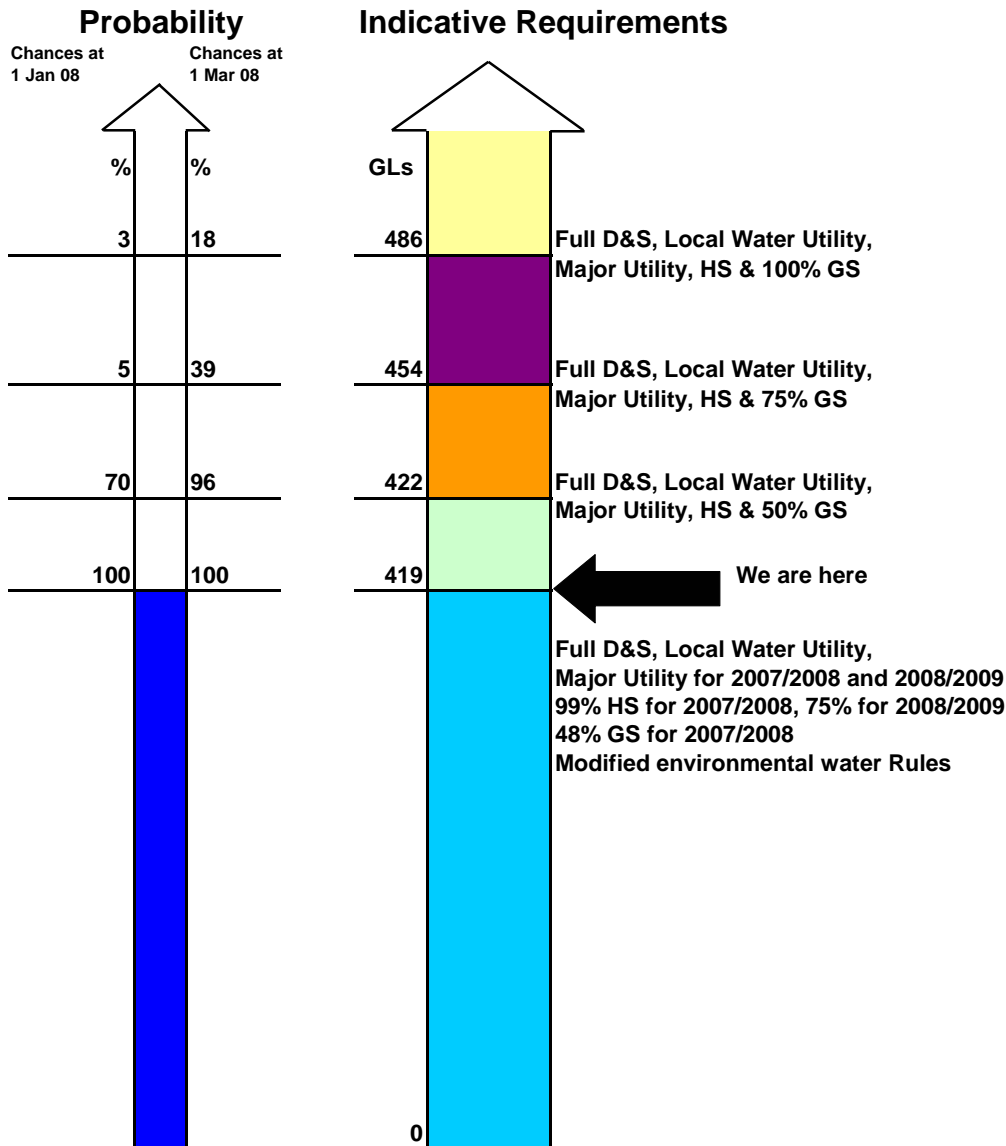
All water held in accounts may be traded, including all water made available in 2007/2008, as well as account water carried over from 2006/2007.

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 January 2008 and 1 March 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 January 2008 and 1 March 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, and are based on all available inflow data. Given the recent wet conditions, it is unlikely that there will be a return to low inflows conditions in the short term. As a result, probabilities are likely to be higher than those stated.

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, and AWDs for General Security and High Security licence holders have been made. The probabilities of a 50%, 75% and 100% allocation are also shown.

For example: there is a 5% chance of a General Security allocation of 75% being available by 1 January 2008, and a 39% chance by 1 March 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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