February 2007
Issue 2

River Murray System Operational Update

Welcome to the second edition of the Murray-Darling Basin Commission's (MDBC) River Murray System Operational update. This update fills the gap between our Drought Updates and Weekly Reports by providing more detailed information on River Murray System operations and outlooks.

Operational Updates will communicate critical aspects of river operations including projected storage levels, releases, and specific operations including potential drawdowns of weirs.

Latest News

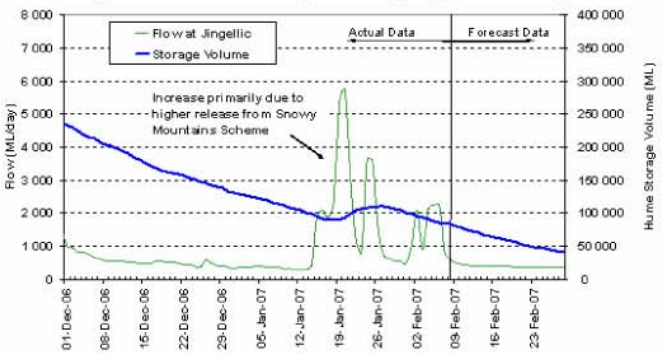
January Rain

There were good falls of rain in January mainly along the mid and lower sections of the River Murray. This temporarily reduced river losses and irrigation diversions, and also provided a small increase to river flows and the level of the Lower Lakes in South Australia. However, there was insufficient rain in the upper catchment to significantly increase unregulated inflows to Hume and Dartmouth storages.

Release from the Snowy Mountain Scheme

During January approximately 56 GL was released from the Snowy Mountains Scheme into Hume Reservoir. This was significantly more than planned for January under the 'dry scenario' and provided a temporary increase in storage in Hume Reservoir (Figure 1). As this water was planned to be released during the autumn it has not added to water resource availability for this season. However it has enabled the release from Dartmouth Dam to be reduced from 10 600 to 10 000 ML/day and has also reduced the risk of temporary water rationing this year.

Fig. 1: Hume Reservoir (Assuming Dry Conditions)



Outlook for February, March and April

Dartmouth Reservoir

Storage is currently 817 GL (21% capacity, as at 8 February). The current release rate of 10 000 ML/day will be gradually lowered over the coming months as downstream requirements reduce. If conditions remain dry, storage in Dartmouth is expected to be between 5 and 10% of capacity by the end of April. If there is significant rain, then release from Dartmouth will be reduced at the earliest opportunity to minimise erosion of river banks and to conserve as much water as possible for next season in Dartmouth.

Hume Reservoir

Storage is currently 80 GL (2.6% capacity). If conditions remain dry, it is expected that Hume Reservoir will be gradually drawn down to between 1 and 2% capacity by the end of February 2007 and is likely to remain at about this level until there is a significant rain event in the Upper Murray catchment.

Lake Mulwala and other weir pools

While Hume Reservoir storage is very low, Lake Mulwala will be maintained at the high end of its operating range. This will provide more flexibility to offset short-term high evaporation losses (should they arise) and minimise the need for temporary water supply rationing. Currently it is expected that Lake Mulwala will remain within its 'normal operating range' (124.60m AHD to 125.15m AHD) until the end of the irrigation season in late April.

During this time the majority of other weir pools, including those in South Australia, are also expected to be maintained within their 'normal' operating levels. The exception is Lock 8, which may need to be partially lowered for a short period to assist the delivery of water to South Australia should the level of Lake Victoria fall to very low levels. This is because at very low levels, the outlet capacity from Lake Victoria is severely restricted.

RMW cannot rule out the possibility of a temporary reduction in water levels of weir pools, including Lake Mulwala, below their 'normal operating range' as a result of a very high temperatures and evaporative losses. However the risk of this occurring has reduced significantly following the rainfall and higher inflows from the Snowy Mountains Scheme during January.

River Flows

Despite the low water allocations, flows along the mid Murray are relatively high at present (see Figure 2) primarily to supply South Australia's flow requirement during February (7 000 ML/day). The level of the Lower Lakes in South Australia is currently 0.37m AHD and if conditions remain dry may fall below 0.2m AHD during March.

The flow to South Australia is planned to reduce significantly during March and April as will flow rates along the entire River Murray System. The flow downstream of Euston Weir is currently 5 000 ML/day and if conditions remain dry is expected to be about

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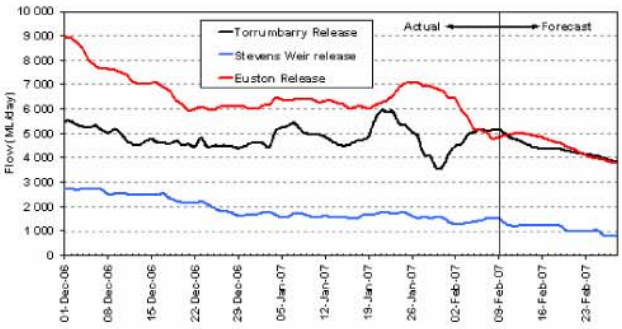
3 000 ML/day by mid March. However, the timing and rate of reduction to river flow rates will be very sensitive to weather events and the storage level in Lake Victoria. A rain front or cooler conditions, which reduce diversions and losses, may permit flows to be reduced earlier and more quickly. The RMW Weekly Report (see web page below) will provide advice on changes to flow rates as they are implemented.

For more up to date river flow information, RMW flow forecasts (see web page below) will be extended to cover the next seven days and will be updated twice weekly or when there is a significant change.

Fig. 2: Euston, Torrumbarry and Stevens Weir Releases (Assuming Dry Conditions



Closing dates for main irrigation systems

Both NSW and Victoria are currently planning an early end to the irrigation season for irrigation districts to ensure internal losses within the distribution systems remain within target levels.

Mulwala Canal and Wakool Canal
The current plan is to cease diverting water for irrigation on 28 February 2006. After this time only water for stock and domestic purposes will be diverted. RMW may also continue to transfer small volumes of water to the Edward River via the Mulwala Canal.

Yarrawonga Main Channel
The current plan is to cease diversions on 30 April, with possible extension to 15 May if conditions allow.

National Channel
The current plan is to cease diversions on 23 April, with possible extension to 15 May if conditions allow .

Outlook for May-June

The outlook for storages for May-June has not changed. In the event of continuing extreme dry conditions it is expected that all major reservoirs and the Lower Lakes could be at very low levels. There is an increased potential for significant drawdowns of weir pools in order to "store" as much water as possible for 2007/08 in Hume and Dartmouth. Such an operation would aim to minimise the draw on reservoirs by meeting downstream flow requirements using water held in weir pools. It is expected that winter tributary inflows could then be used to refill weir pools.

As part of dry inflow contingency planning an assessment is being undertaken of new minimum flow rates which could be implemented at the end of the irrigation season. The new minimum flow rates would be implemented to save water if extreme dry conditions persist.

RMW and State agencies understand that the extent and timing of any weir pool drawdowns and reductions to minimum flow targets will be particularly important to local communities. Weir pools located in the more intensely developed areas of the river will be lowered as last and as much notice as possible will be provided before proceeding.

Steven's Weir Pool on the Edward River is normally lowered at the end of the irrigation season. This year it is planned to maintain it near full for a longer period of time if conditions remain dry. The weir pool will then be gradually lowered over the winter months to assist in meeting downstream water requirements along the downstream reaches of the Edward and Murray Rivers.

Due to the effects of record low inflow and storage level conditions, current river operations are finely balanced and will be kept under constant review. It is possible that measures not previously experienced will be required to cope with this severe drought.

For further information

Please see the MDBC website at: **www.mdbc.gov.au**

The following information reports and updates can be found on the MDBC website:

MDBC Drought updates:
www.mdbc.gov.au/rmw/drought_updates

RMW Weekly Reports and Flow Forecasts:
www.mdbc.gov.au/rmw/river_information_centre

or contact Sam Leone, Communications Unit for further information on 0407 006 332

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