

Water Balance Report

Macquarie River 2010 – 2011

Water balance component	Sources of water		Distribution of water		% of volume measured
	Volume (ML)	% of total	Volume (ML)	% of total	
Storage Volume					
Volume in storage at start of year			264,012		100%
Volume in storage at end of year			1,242,662		100%
Change in storage			978,650	23%	100%
Storage net evaporation			71,088	2%	100%
Inflows					
Storage inflows	2,901,852	69%			100%
Downstream tributaries (1)	1,324,859	31%			100%
Subtotal	4,226,711	100%			100%
Net water diverted under water rights (2)					
Domestic and stock rights			1,200	0%	0%
Native title rights			0	0%	0%
Subtotal			1,200	0.0%	0%
Net water diverted under access licences					
Domestic and stock			940	0%	100%
High security			5,950	0%	100%
General security			149,262	4%	100%
Local water utility			8,961	0%	100%
Major water utility (3)			0		
Supplementary water			38,033	1%	100%
Conveyance			0		
Subtotal (4)			203,146	5%	100%
Environmental water					
Net diversions to wetlands (5)			871,166	21%	100%
End of system flows (6)			340,887	8%	100%
Subtotal			1,212,053	29%	100%
Other outflows (7)			0	0%	100%
Unaccounted difference (8)			1,760,574	42%	
Total	4,226,711	100%	4,226,711	100%	

Notes:

- Downstream tributaries include the Bell R, Little R and Talbragar R. Ungauged tributaries were estimated from the increase in mass balance between Burrendong Dam and Barooka.
- Water rights are not metered. Values presented are estimated from recommended values as specified in the Water Sharing Plan
- There are no Major Water Utility or Conveyance licences in this water source
- About 56,870ML of usage by licences held by State and Commonwealth are included in the total extraction. This water has been delivered to Macquarie Marshes
- The net diversion to wetlands include delivery of environmental water allowance of 139,101ML and the flows into wetlands due to unregulated tributary flows, operational surplus, floods and rain rejections. Delivery of water from licences purchased by

State and Commonwealth of 56,870ML is excluded from this as it is already included in the licenced diversion. This year there has not been any specific delivery of stock and domestic replenishment flows either to lower Macquarie River or Gum Cowal.

6. End of system flows measured at Miltara
7. Other outflows - There has not been any specific deliveries made to meet the stock and domestic flow requirements in Marra Ck , Crooked Ck , Belringar Ck below APC channel, Belaringar Ck from off-take to APC, Reddenville Bk, Lower Bogan River and lower Macquarie River. These requirements have met by unregulated and flood flows during the year.
8. Unaccounted difference is estimated as the difference between inflows, outflows and change in storage. This includes river evaporation, evapotranspiration, seepage, overbank flows and any measurement errors recording other components. In 2010-11 major proportion of this volume is due to overbank and channel breakout flows during floods and airspace operation.

All the above figures are based on operational data used by State Water and are not quality coded. Archived data may differ from the operational data due to changes in the rating tables.

The above water balance for Macquarie Valley includes Burrendong and Windamere storages within the area covered by the Water Sharing Plan for the Macquarie-Cudgegong Regulated Rivers water source.