

Water Balance Report

Macquarie-Cudgegong River 2011 – 2012

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			1,242,662		100%
Volume in storage at end of year			1,430,142		100%
Change in storage			187,480	13%	100%
Storage net evaporation			71,601	5%	100%
Inflows					
Storage inflows	1,314,470	89%			100%
Downstream tributaries (1)	168,405	11%			100%
Subtotal	1,482,875	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	0.1%	0%
Net Water diverted under access licences					
Domestic and stock			1,273	0%	100%
High security			4,911	0%	100%
General security			279,654	19%	100%
Local water utility			9,277	1%	100%
Major water utility (3)			0		
Supplementary water			1,504	0%	100%
Conveyance			0		
Subtotal (4)			296,618	20%	100%
Environmental water					
Net diversions to wetlands (5)			535,588	36%	100%
End of system flows (6)			128,754	9%	100%
Subtotal			664,342	45%	100%
Other outflows (7)			0	0%	100%
Unaccounted difference (8)			261,634	18%	
Total	1,482,875	100%	1,482,875	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 Baroona.
- 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 65,251ML of usage by environmental 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 88,234ML 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 65,251ML 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 2011-12 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.