

Water Balance Report

Macquarie River 2013 – 2014

Water balance component	Sources of water		Distribution of water		% of volume measured
	Volume (ML)	% of total	Volume (ML)	% of total	
Storage Volume (1)					
Volume in storage at start of year	738,510				100%
Volume in storage at end of year	445,294				100%
Change in storage	293,216	55%			100%
Storage net evaporation			28,159	5%	100%
Inflows					
Storage inflows	164,608	31%			100%
Downstream tributaries (2)	79,913	14%			100%
Subtotal	244,521	45%			100%
Net water diverted under riparian rights					
Domestic and stock rights (3)			1200	0%	0%
Native title rights			0	0%	0%
Subtotal			1200	0%	0%
Net Water diverted under access licences					
Domestic and stock			2,030	0%	100%
High security			8,715	2%	100%
General security			245,689	46%	100%
Local water utility			12,499	2%	100%
Major utility (4)			0		
Supplementary water			0	0%	100%
Conveyance			0		
Subtotal (5)			268,934	50%	100%
Environmental water					
Net diversions to wetlands (6)			146,750	27%	100%
End of system flows (7)			13,043	2%	100%
Subtotal			159,793	30%	100%
Other outflows (8)			16,502	3%	100%
Unaccounted difference (9)			63,149	12%	
Total	537,737	100%	537,737	100%	

Notes:

1. The storage volume includes Burrendong and Windamere storages within the area covered by the Water Sharing Plan for the Macquarie-Cudgegong Regulated Rivers water source.
2. 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.
3. Water rights are not metered. Values presented are estimated from recommended values as specified in the Water Sharing Plan
4. There are no Major Water Utility or Conveyance licences in this water source
5. About 20,985ML of usage by environmental licences held by State and Commonwealth are included in the total extraction. This water has been delivered to Macquarie Marshes.

6. Planned environmental water delivery requirements were met 100% in 2013-14. The net diversion to wetlands include delivery of environmental water allowance of 43,671ML and the flows into wetlands due to unregulated tributary flows, operational surplus and rain rejections.
7. End of system flows measured at Miltara
8. Other outflows - The domestic and stock replenishment flows were delivered in Marra Creek 11,137ML, Belringar Ck below APC channel 947ML and Ewenmar Ck of 400ML and Crooked Ck below Mumblebone Dam of 4,018ML. Lower Bogan was replenished through surplus flows and from own catchment flows. Belaringar Ck U/S did not get replenished. Gum Cowal was replenished through Macquarie Marsh Release and surplus flows. Lower Macquarie was replenished through marsh release and surplus flows.
9. 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.