

Macquarie Valley Water Balance 2005-06

State
water

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			308,492		
Volume in storage at end of year			459,873		
Change in storage			151,381	22%	100%
Storage net evaporation			27,173	4%	100%
Inflows					
Storage inflows	588,059	86%			100%
Downstream tributaries (1)	92,671	14%			100%
Subtotal	680,730	100%			100%
Net Water diverted under water rights					
Domestic and stock rights (2)			1,200	0%	0%
Native title rights (2)			-	0%	0%
Subtotal			1,200	0%	0%
Net Water diverted under access licences					
Domestic and stock			1,703	0%	100%
High security			11,606	2%	100%
General security			143,377	21%	100%
Local water utility			15,041	2%	100%
Major water utility			-		100%
Supplementary water			8,995	1%	100%
Conveyance			-		100%
Subtotal			180,723	27%	100%
Environmental water					
Net diversions to wetlands (3)			147,469	22%	100%
End of system flows (4)			6,997	1%	100%
Subtotal			154,466	23%	100%
Other outflows (5)			28,142	4%	100%
Unaccounted difference (6)			137,646	20%	99%
TOTAL	680,730	100%	680,730	100%	99%

Notes

(1) Downstream tributaries include gauged flows from the Bell R, Little R and Talbragar R. Ungauged tributaries were estimated from the increase in mass balance between Burrendong Dam and Baroona.

(2) Water rights are not metered. Values presented are estimated from recommended values provided in the Water Sharing Plan.

(3) The net diversion to wetlands include the volume ordered under environmental water allowance (83,748ML). The balance of this term is inflows to the Macquarie Marshes from unregulated tributary flows, operational surplus and rain rejection. The environmental flow of 2105 ML released in Cudgegong River is not included in this term as it became an inflow to Burrendong Dam.

(4) Maquarie R at Miltara, ie downstream of the Maquarie Marshes.

(5) Other outflows - End of system flow at Monkey Bridge on the Bogan R (12,292ML is only that part of the flows from the Macquarie river and includes the annual stock and domestic replenishment component). Other outflows include S&D replenishment flows for Lower Beleringar Ck (590ML), break out flows into Upper Beleringar Ck (6000ML), and S&D replenishment flows Marra Ck (9260ML).

(6) Unaccounted difference is estimated as the difference between inflows, outflows and change in storage. This includes river evaporation, seepage, overbank flows, theft and any measurement errors recording other components.