

Water Balance Report

Gwydir Valley (Copeton Dam) 2016-17

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			236,938		
Volume in storage at end of year			668,431		
Change in storage			431,493	38.2%	100%
Storage net evaporation			12,439	1.1%	100%
Inflows					
Storage Inflows	663,155	59%			100%
Downstream tributaries (2)	466,912	41%			85%
Subtotal	1,130,067	100%			95%
Net Water diverted under water rights					
Domestic and stock rights (3)			6,000	0.5%	0%
Native title rights (3)			-	0.0%	0%
Subtotal			6,000	0.5%	0%
Net Water diverted under access licences					
Domestic and stock			1,217	0.1%	100%
High security			8,849	0.8%	100%
General security			141,456	12.5%	100%
Local water utility			2,363	0.2%	100%
Major water utility					
Supplementary water			177,411	15.7%	100%
Subtotal			331,296	29.3%	100%
Environmental water					
ECA ordered water (4)			21,000	1.9%	100%
Flows to wetlands via Gingham Channel			155,437	13.8%	
Flow to wetlands via Gwydir River			38,418	3.4%	
Net diversions to wetlands (5)			193,855	17.2%	100%
End of system flows (6)			60,962	5.4%	100%
Subtotal			254,817	22.5%	100%
Other outflows (7)			2,755	0.2%	100%
Unaccounted difference (8)			91,267	8.1%	n/a
TOTAL	1,130,067	100%	1,130,067	100%	95%

Notes

(1) Storage Volume includes Copeton Dam and Tareelaroi Weir

(2) Tributary inflow consists of 3t inflow (Myall, Molroy and Horton), Gil Gil inflow measured at Boolataroo and positive AUD's from major inflow sections in decision support system (CAIRO)

(3) Water rights are not metered. Values presented are estimated from recommended values provided by DPI or as specified in Water Sharing Plans.

(4) ECA and entitlement ordered water is not included in the flows to wetlands totals

(5) Environmental water delivery requirements were met 100% of the time throughout 2016/17. Net diversions to wetlands do not include any ordered environmental water from ECA, general security or supplementary access licences. Commonwealth and state environmental orders are included under Net Water diverted under access licences.

(6) End of system flows are measured at the Mehi River at Collarenebri and Gil Gil Creek at Galloway

(7) Other outflows consist of replenishment flows to Thalaba Creek, Ballinboora Creek and Mallowa Creek

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