

# Water Balance Report

## Gwyder Valley (Copeton Dam) 2015-16

Water balance component	Sources of water		Distribution of water		% of volume measured
	Volume (ML)	% of total	Volume (ML)	% of total	
<b>Storage volume (1)</b>					
Volume in storage at start of year	266,929				
Volume in storage at end of year	236,938				
<b>Change in storage</b>	<b>29,991</b>	<b>15%</b>			<b>100%</b>
<b>Storage net evaporation</b>			<b>8,658</b>	<b>4%</b>	<b>100%</b>
<b>Inflows</b>					
Storage Inflows	85,511	42%			100%
Downstream tributaries (2)	85,975	43%			85%
<b>Subtotal</b>	<b>171,486</b>	<b>85%</b>			<b>95%</b>
<b>Net Water diverted under water rights</b>					
Domestic and stock rights (3)			6,000	3%	0%
Native title rights (3)			-	0%	0%
<b>Subtotal</b>			<b>6,000</b>	<b>3%</b>	<b>0%</b>
<b>Net Water diverted under access licences</b>					
Domestic and stock			1,297	1%	100%
High security			11,245	6%	100%
General security			40,426	20%	100%
Local water utility			2,826	1%	100%
Major water utility			-		
Supplementary water			29,227	15%	100%
<b>Subtotal</b>			<b>85,021</b>	<b>42%</b>	<b>100%</b>
<b>Environmental water</b>					
ECA ordered water (4)			4,750	2%	100%
Flows to wetlands via Gingham Channel			32,544	16%	
Flow to wetlands via Gwydir River			17,424	9%	
Net diversions to wetlands (5)			49,968	25%	100%
End of system flows (6)			13,831	7%	100%
<b>Subtotal</b>			<b>63,799</b>	<b>32%</b>	<b>100%</b>
<b>Other outflows (7)</b>			<b>4,977</b>	<b>2%</b>	<b>100%</b>
<b>Unaccounted difference (8)</b>			<b>33,023</b>	<b>16%</b>	<b>n/a</b>
<b>TOTAL</b>	<b>201,477</b>	<b>100%</b>	<b>201,477</b>	<b>100%</b>	<b>95%</b>

### 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 2015/16. 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