

Water Balance Report

Macquarie Valley 2014 – 2015

| 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 | 445,294 | | | | 100% |
| Volume in storage at end of year | 359,117 | | | | 100% |
| Change in storage | 86,177 | 33% | | | 100% |
| Storage net evaporation | | | 23,771 | 9% | 100% |
| Inflows | | | | | |
| Storage inflows | 140,611 | 55% | | | 100% |
| Downstream tributaries (2) | 30,473 | 12% | | | 100% |
| Subtotal | 171,084 | 67% | | | 100% |
| Net water diverted under riparian rights (3) | | | | | |
| Domestic and stock rights | | | 1,200 | 0% | 0% |
| Native title rights | | | 0 | 0% | 0% |
| Subtotal | | | 1,200 | 1% | 0% |
| Net Water diverted under access licences | | | | | |
| Domestic and stock | | | 2,027 | 1% | 100% |
| High security (5) | | | 10,437 | 4% | 100% |
| General security | | | 64,824 | 25% | 100% |
| Local water utility | | | 13,537 | 5% | 100% |
| Major utility (4) | | | 0 | 0% | |
| Supplementary water | | | 0 | 0% | 100% |
| Conveyance | | | 0 | 0% | |
| Subtotal (5) | | | 90,825 | 35% | 100% |
| Environmental water | | | | | |
| Net diversions to wetlands (6) | | | 64,160 | 25% | 100% |
| End of system flows (7) | | | 3,044 | 1% | 100% |
| Subtotal | | | 67,204 | 26% | 100% |
| Other outflows (8) | | | 20,917 | 8% | 100% |
| Unaccounted difference (9) | | | 53,344 | 21% | |
| Total | 257,261 | 100% | 257,261 | 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 Baroona.

(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 16,037 ML 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 2014-15. The net diversion to wetlands include delivery of environmental water allowance of 17,745 ML 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 4,648 ML, Belringar Ck below APC channel 933 ML, Bogan River Nyngan to G'bar confluence 615 ML and Gum Cowal 14,721 ML. Lower Bogan was replenished through surplus flows and from own

(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.