

# Water Balance Report

## Gwydir River 2013 – 2014

| Water balance component                         | Sources of water |             | Distribution of water |             | % of volume measured |
|---|------------------|-------------|-----------------------|-------------|----------------------|
|   | Volume (ML)      | % of total  | Volume (ML)           | % of total  |                      |
| <b>Storage Volume</b>                           |                  |             |                       |             |                      |
| Volume in storage at start of year              | 1,010,382        |             |                       |             |                      |
| Volume in storage at end of year                | 463,634          |             |                       |             |                      |
| <b>Change in storage</b>                        | <b>546,748</b>   | <b>85%</b>  |                       |             | 100%                 |
| <b>Storage net evaporation</b>                  |                  |             | <b>29,007</b>         | <b>4%</b>   | 100%                 |
| <b>Inflows</b>                                  |                  |             |                       |             |                      |
| Storage inflows                                 | 59,870           | 9%          |                       |             | 100%                 |
| Downstream tributaries (1)                      | 39,642           | 6%          |                       |             | 85%                  |
| <b>Subtotal</b>                                 | <b>99,512</b>    | <b>15%</b>  |                       |             | 95%                  |
| <b>Net water diverted under riparian rights</b> |                  |             |                       |             |                      |
| Domestic and stock rights (2)                   |                  |             | 6,000                 | 1%          | 0%                   |
| Native title rights (2)                         |                  |             |                       |             | 0%                   |
| <b>Subtotal</b>                                 |                  |             | <b>6,000</b>          | <b>1%</b>   | 0%                   |
| <b>Net Water diverted under access licences</b> |                  |             |                       |             |                      |
| Domestic and stock                              |                  |             | 1,520                 | 0%          | 100%                 |
| High security                                   |                  |             | 10,075                | 2%          | 100%                 |
| General security                                |                  |             | 386,391               | 60%         | 100%                 |
| Local water utility                             |                  |             | 2,886                 | 0%          | 100%                 |
| Major utility                                   |                  |             | -                     | 0%          | 100%                 |
| Supplementary water                             |                  |             | 8,123                 | 1%          | 100%                 |
| <b>Subtotal</b>                                 |                  |             | <b>408,995</b>        | <b>63%</b>  | 100%                 |
| <b>Environmental water</b>                      |                  |             |                       |             |                      |
| Net diversions to wetlands (3)                  |                  |             | 31,516                | 5%          | 100%                 |
| End of system flows (4)                         |                  |             | 41,075                | 6%          | 100%                 |
| <b>Subtotal</b>                                 |                  |             | <b>72,591</b>         | <b>11%</b>  | 100%                 |
| <b>Other outflows (5)</b>                       |                  |             | 7,226                 | 1%          | 100%                 |
| <b>Unaccounted difference (6)</b>               |                  |             | <b>122,440</b>        | <b>19%</b>  | <b>98%</b>           |
| <b>Total</b>                                    | <b>646,260</b>   | <b>100%</b> | <b>646,260</b>        | <b>100%</b> | <b>95%</b>           |

### Notes:

1. 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 CAIRO
2. Water rights are not metered. Values presented are estimated from recommended values provided by NOW or as specified in Water Sharing Plans.
3. 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. Net diversions to wetlands includes ECA ordered water of 1,000ML, flows to wetlands via Gingham channel of 13,998ML and flow to wetlands via Gwydir river of 16,519ML.
4. End of system flows are measured at the Mehi River at Collarenebri and Gil Gil Creek at Galloway
5. Other outflows consist of replenishment flows to Thalaba Creek, Ballinboora Creek and Mallowa Creek

6. 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.
7. Environmental water delivery requirements were met 100% of the time throughout 2013/14.