



# Land Cover Change in the **Southern Gulf** Natural Resource Management Region **2004–2005**

## Summary

The woody vegetation clearing rate for 2004–2005 was the highest rate recorded for the Southern Gulf region since satellite monitoring began. The 2004–2005 woody vegetation clearing rate was 11,470 ha/year.

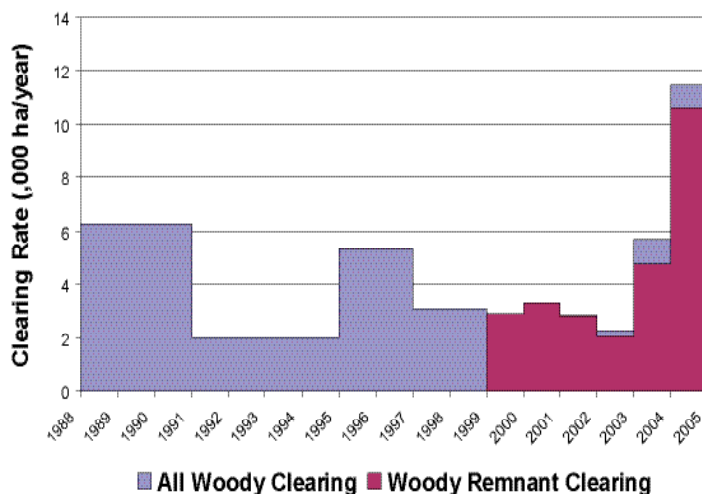


Figure 1. Woody vegetation clearing rates in the Southern Gulf Natural Resource Management Region.

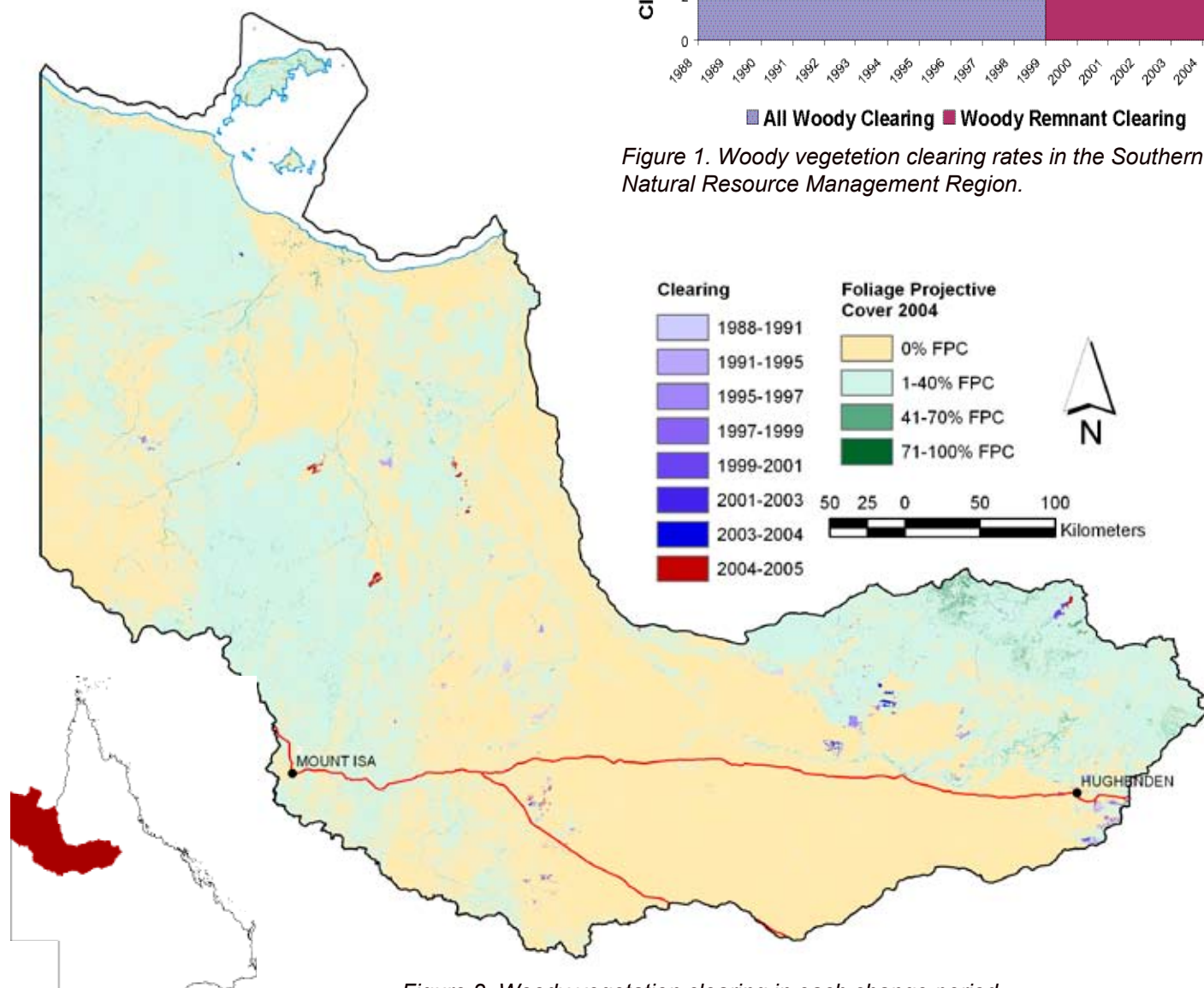


Figure 2. Woody vegetation clearing in each change period.

## Woody Vegetation Clearing by Remnant Status

Table 1. Remnant and Non-remnant woody clearing Rates in the Southern Gulf Natural Resource Management Region.

| Period    | Woody vegetation clearing rate (,000ha/yr) of |               |             |
|-----------|---|---------------|-------------|
|           | Non-remnant woody                             | Remnant woody | Total woody |
| 1999–2000 | 0.027   | 2.901         | 2.929       |
| 2000–2001 | 0.000   | 3.340         | 3.340       |
| 2001–2002 | 0.017   | 2.843         | 2.861       |
| 2002–2003 | 0.227   | 2.075         | 2.302       |
| 2003–2004 | 0.935   | 4.790         | 5.725       |
| 2004–2005 | 0.842   | 10.628        | 11.470      |

\* Regional Ecosystem remnant mapping prior to 1999 not used in this analysis.

## Woody Vegetation Clearing by Tenure

Table 2. Woody vegetation clearing rates in the Southern Gulf Natural Resource Management Region by tenure.

| Period    | Woody vegetation clearing rate (,000ha/yr) on |           |          |               |        |
|-----------|---|-----------|----------|---------------|--------|
|           | Freehold                                      | Leasehold | Reserves | Other Tenures | Total  |
| 1988–1991 | 1.954   | 4.325     | 0.006    | 0.014         | 6.299  |
| 1991–1995 | 0.626   | 1.408     | 0.000    | 0.000         | 2.034  |
| 1995–1997 | 3.257   | 2.025     | 0.000    | 0.000         | 5.282  |
| 1997–1999 | 0.349   | 2.762     | 0.000    | 0.000         | 3.111  |
| 1999–2000 | 1.616   | 1.313     | 0.000    | 0.000         | 2.929  |
| 2000–2001 | 0.032   | 3.308     | 0.000    | 0.000         | 3.340  |
| 2001–2002 | 1.193   | 1.667     | 0.000    | 0.000         | 2.861  |
| 2002–2003 | 0.645   | 1.657     | 0.000    | 0.000         | 2.302  |
| 2003–2004 | 0.669   | 5.006     | 0.000    | 0.000         | 5.675  |
| 2004–2005 | 0.952   | 10.518    | 0.000    | 0.000         | 11.470 |

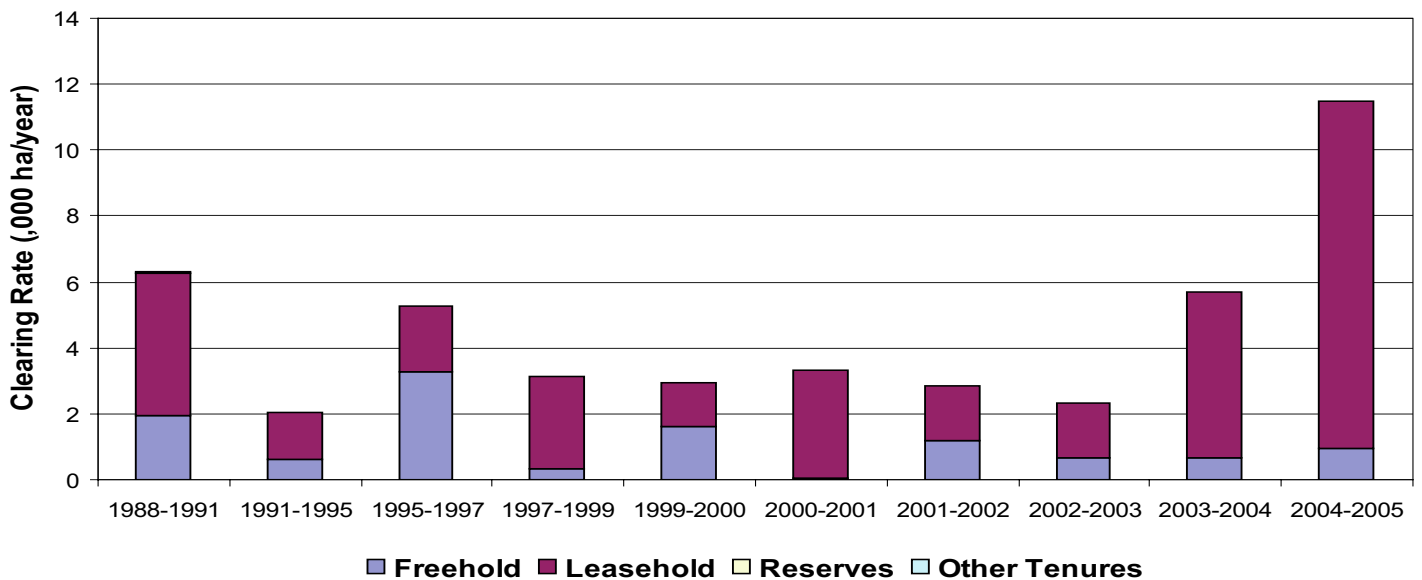


Figure 3. Woody vegetation clearing rates in the Southern Gulf Natural Resource Management Region by tenure.

Southern Gulf NRM Region 10% of the freehold tenure and 86% is leasehold (based on the 2001 DCDB).

## Woody Vegetation Clearing by Subcatchment

Table 3. Woody vegetation clearing rates in the Southern Gulf Natural Resource Management Region by subcatchment #.

| Period    | Woody vegetation clearing rate (,000ha/yr) for |                 |                  |                |         |              |                  |
|-----------|--|-----------------|------------------|----------------|---------|--------------|------------------|
|           | Cliffdale Creek                                | Cloncurry River | Eight Mile Creek | Flinders River | L Creek | Lagoon Creek | Leichhardt River |
| 1988–1991 | 0.034  | 4.071           | 0.000            | 0.530          | 0.000   | 0.003        | 0.026            |
| 1991–1995 | 0.000  | 0.274           | 0.000            | 0.925          | 0.000   | 0.000        | 0.815            |
| 1995–1997 | 0.007  | 1.555           | 0.000            | 3.446          | 0.000   | 0.001        | 0.151            |
| 1997–1999 | 0.075  | 0.157           | 0.000            | 1.990          | 0.031   | 0.001        | 0.093            |
| 1999–2000 | 0.000  | 0.773           | 0.000            | 1.705          | 0.012   | 0.000        | 0.097            |
| 2000–2001 | 0.000  | 0.000           | 0.000            | 3.336          | 0.000   | 0.000        | 0.000            |
| 2001–2002 | 0.025  | 0.261           | 0.000            | 1.955          | 0.000   | 0.000        | 0.215            |
| 2002–2003 | 0.000  | 1.008           | 0.000            | 1.006          | 0.000   | 0.000        | 0.003            |
| 2003–2004 | 0.000  | 0.550           | 0.000            | 4.554          | 0.000   | 0.000        | 0.029            |
| 2004–2005 | 0.000  | 4.006           | 0.000            | 1.610          | 0.000   | 0.000        | 5.382            |

Table 3.continued

| Period    | Woody vegetation clearing rate (,000ha/yr) for |         |                   |                 |                  |                   |        |
|-----------|--|---------|-------------------|-----------------|------------------|-------------------|--------|
|           | Lower Saxby River                              | M Creek | Mornington Island | Nicholson River | Settlement River | Upper Saxby River | Total  |
| 1988–1991 | 0.000  | 0.003   | 0.009             | 0.529           | 0.000            | 1.102             | 6.308  |
| 1991–1995 | 0.000  | 0.000   | 0.000             | 0.018           | 0.000            | 0.000             | 2.032  |
| 1995–1997 | 0.000  | 0.000   | 0.074             | 0.047           | 0.024            | 0.050             | 5.356  |
| 1997–1999 | 0.000  | 0.004   | 0.013             | 0.745           | 0.000            | 0.016             | 3.125  |
| 1999–2000 | 0.000  | 0.006   | 0.003             | 0.296           | 0.000            | 0.035             | 2.927  |
| 2000–2001 | 0.000  | 0.000   | 0.000             | 0.000           | 0.000            | 0.000             | 3.336  |
| 2001–2002 | 0.000  | 0.000   | 0.010             | 0.130           | 0.037            | 0.226             | 2.860  |
| 2002–2003 | 0.000  | 0.000   | 0.000             | 0.096           | 0.033            | 0.156             | 2.302  |
| 2003–2004 | 0.000  | 0.011   | 0.039             | 0.382           | 0.000            | 0.159             | 5.725  |
| 2004–2005 | 0.000  | 0.000   | 0.046             | 0.034           | 0.000            | 0.322             | 11.470 |

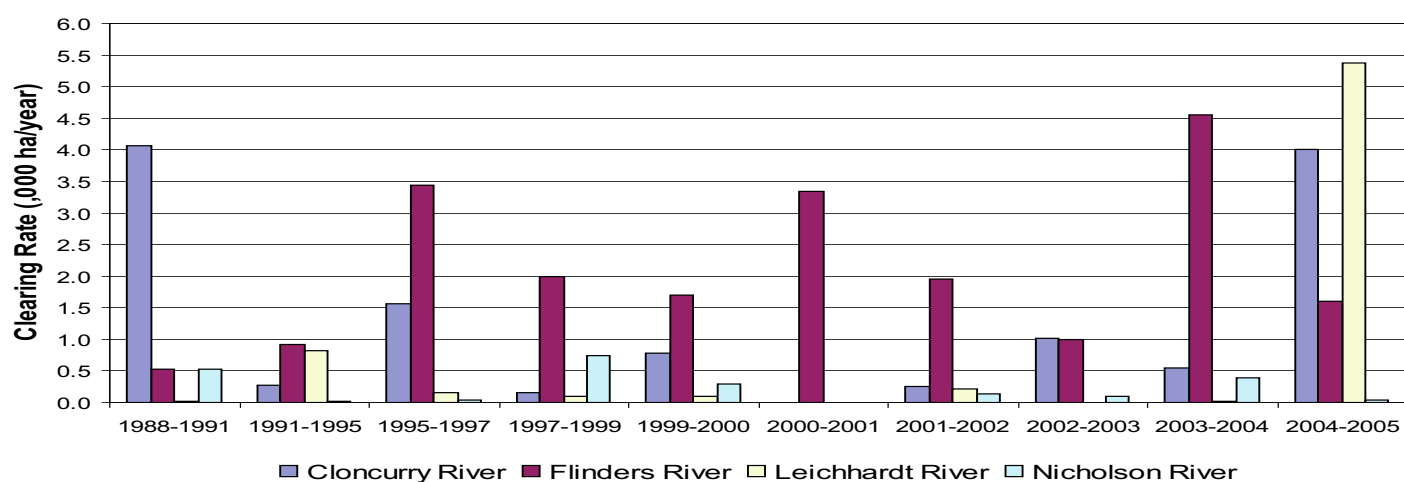


Figure 4. Woody vegetation clearing rates in the Southern Gulf Natural Resource Management Region by subcatchment #.

# Please refer to Figure 24 of the main report (NRW, 2007 ) for the location of each subcatchment.

## Remaining Woody Vegetation

Table 4. Remaining woody vegetation in the Southern Gulf Natural Resource Management Region by subcatchment.

| ,000 ha                      | Cliffdale Creek | Cloncurry River | Eight Mile Creek | Flinders River | L Creek | Lagoon Creek | Leichhardt River |
|------------------------------|-----------------|-----------------|------------------|----------------|---------|--------------|------------------|
| Catchment area               | 621             | 4734            | 164              | 5189           | 195     | 286          | 3288             |
| Area woody 2004              | 535             | 1218            | 147              | 2065           | 71      | 263          | 2279             |
| % of catchment woody in 2004 | 86              | 26              | 89               | 40             | 37      | 92           | 69               |

Table 4. continued

| ,000 ha                      | Lower Saxby River | M Creek | Mornington Island | Nicholson River | Settlement River | Upper Saxby River | Total |
|------------------------------|-------------------|---------|-------------------|-----------------|------------------|-------------------|-------|
| Catchment area               | 305               | 173     | 100               | 3573            | 118              | 710               | 19455 |
| Area woody 2004              | 45                | 90      | 84                | 1964            | 102              | 490               | 9354  |
| % of catchment woody in 2004 | 15                | 52      | 84                | 55              | 87               | 69                | 48    |

Note: Catchments with a low proportion of woody vegetation cover may contain significant areas of natural grasslands.

## Woody Vegetation Clearing by Replacement Landcover

Table 5. Woody vegetation clearing rates in the Southern Gulf Natural Resource Management Region by replacement landcover

| Period    | Wood vegetation clearing rate (,000ha/yr) for |       |          |        |                |            | Total* |
|-----------|---|-------|----------|--------|----------------|------------|--------|
|           | Pasture                                       | Crop  | Forestry | Mining | Infrastructure | Settlement |        |
| 1988-1991 | 5.445   | 0.000 | 0.000    | 0.001  | 0.862          | 0.000      | 6.308  |
| 1991-1995 | 2.034   | 0.000 | 0.000    | 0.000  | 0.000          | 0.000      | 2.034  |
| 1995-1997 | 5.082   | 0.000 | 0.000    | 0.041  | 0.232          | 0.000      | 5.356  |
| 1997-1999 | 2.124   | 0.000 | 0.000    | 0.256  | 0.744          | 0.000      | 3.125  |
| 1999-2000 | 2.346   | 0.001 | 0.000    | 0.208  | 0.373          | 0.000      | 2.929  |
| 2000-2001 | 3.221   | 0.000 | 0.000    | 0.000  | 0.120          | 0.000      | 3.340  |
| 2001-2002 | 2.063   | 0.000 | 0.000    | 0.000  | 0.797          | 0.000      | 2.861  |
| 2002-2003 | 1.736   | 0.000 | 0.000    | 0.000  | 0.566          | 0.000      | 2.302  |
| 2003-2004 | 5.378   | 0.000 | 0.000    | 0.050  | 0.292          | 0.005      | 5.725  |
| 2004-2005 | 11.347  | 0.000 | 0.000    | 0.004  | 0.119          | 0.000      | 11.470 |

\* total excludes natural tree death

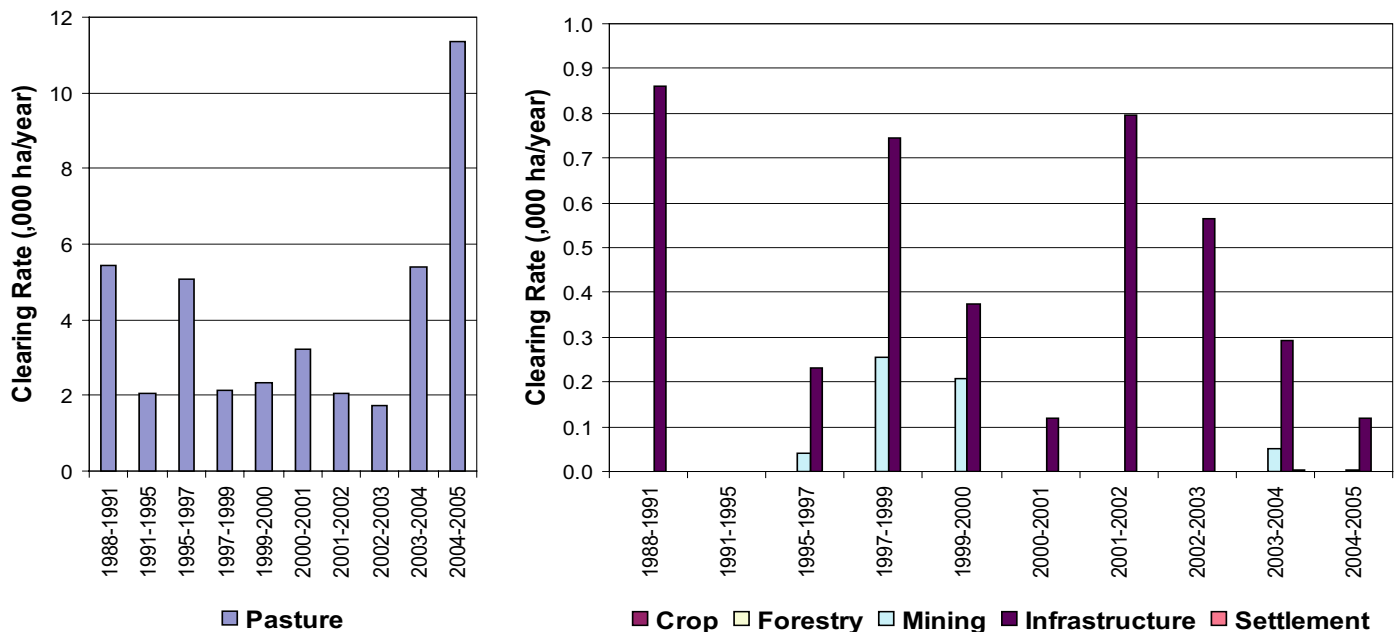
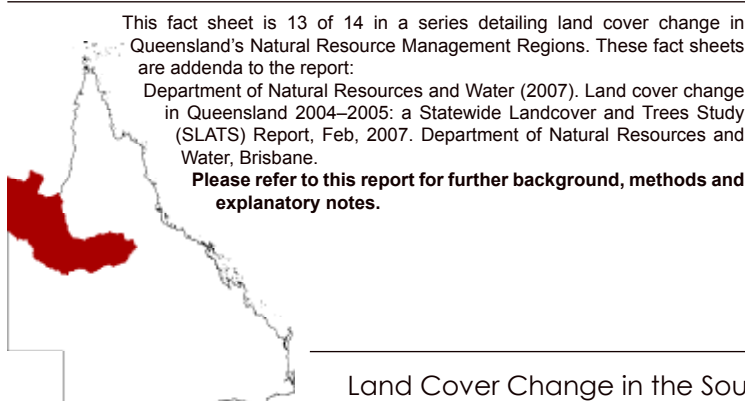


Figure 5. Woody vegetation clearing rates in the Southern Gulf Natural Resource Management Region by replacement



This fact sheet is 13 of 14 in a series detailing land cover change in Queensland's Natural Resource Management Regions. These fact sheets are addenda to the report:

Department of Natural Resources and Water (2007). Land cover change in Queensland 2004-2005: a Statewide Landcover and Trees Study (SLATS) Report, Feb, 2007. Department of Natural Resources and Water, Brisbane.

Please refer to this report for further background, methods and explanatory notes.

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