

## 4 Geological/hydrogeological boundaries

### 4a Revised Great Artesian Basin Jurassic-Cretaceous sequence boundary

<b>Abstract</b>	<p>The revised Great Artesian Basin Jurassic-Cretaceous sequence boundary was produced by the Great Artesian Basin Water Resource Assessment (GABWRA). This boundary is modified from that of Habermehl and Lau 1997 and incorporates the revised boundary from the South Australia Great Artesian Basin (Eromanga Basin) Hydrogeological map 2012. Modifications made to sections of this boundary as part of the GABWRA include major revisions to the Surat and Clarence-Moreton Basins boundary; southern part of the Coonamble Embayment; NW Queensland boundary within the Lawn Hill and Westmoreland 1:250K map sheet areas.</p> <p>The dataset includes boundaries of basement inliers within the GAB</p> <p>Note: Habermehl and Lau 1997 boundary included Triassic GAB formations in Queensland which were not considered by the GABWRA.</p> <p>Data is available in polygon format.</p> <p>REFERENCE: Ransley TR and Smerdon BD (Eds) (2012) Hydrostratigraphy, hydrogeology and system conceptualisation of the Great Artesian Basin. A technical report to the Australian Government from the CSIRO Great Artesian Basin Water Resource Assessment. CSIRO Water for a Healthy Country Flagship, Australia.</p> <p>This dataset and associated metadata can be obtained from <a href="http://www.ga.gov.au">www.ga.gov.au</a>, using catalogue number 75904.</p>
<b>Lineage</b>	<p>SOURCE DATA:</p> <ol style="list-style-type: none"> <li>1. Scanned 1:250 000 scale Geological Map series. Geoscience Australia, Canberra 2010.</li> <li>2. Habermehl, M. A. and J. E. Lau (1997). Hydrogeology of the Great Artesian Basin Australia (Map at scale 1:2,500,000). Canberra, Australian Geological Survey Organisation.</li> <li>3. Geological Survey of New South Wales (1996). Narromine, Nygan and Walgett second edition 1:250 000 Geological sheets. Geological Survey of New South Wales, Sydney.</li> <li>4. Macaulay and Kellett (2009), Lower Macquarie River Valley airborne electromagnetic (AEM) survey. (Report -Mapping groundwater and Salinity using airborne electromagnetics in the Lower Macquarie River Valley, New South Wales. Bureau of Rural Sciences, Canberra</li> <li>5. Sampson, L., D. Wohling, et al. (2012). South Australia and Northern Territory Great Artesian Basin (Eromanga Basin) hydrogeological map - part 2. Adelaide, Department of Environment, Water and Natural Resources, South Australian Government</li> <li>6. Water table elevation of the Great Artesian Basin 2012 [dataset]. Geoscience Australia, Canberra</li> <li>7. O'Brien, P. E. (2011). The eastern edge of the Great Artesian Basin: relationships between the Surat and Clarence-Moreton basins. Internal report. Canberra, Geoscience Australia.</li> </ol> <p>METHODS:</p>

	<p>Habermehl and Lau (1997) was modified based on interpretation by Jim Kellett (Geoscience Australia) using references listed above.</p> <p>Lines representing the Great Artesian Basin boundary and basement inliers were produced in conjunction with the GABWRA Great Artesian Basin watertable elevation dataset.</p> <p>The Polygon layer was generated from the linework.</p> <p>Basement inlier areas (defined in the GABWRA location of basement inliers data set) were deleted to form holes within the polygon.</p> <p>For more information on methods, consult Ransley TR and Smerdon BD (eds.) (2012) Hydrostratigraphy, hydrogeology and system conceptualisation of the Great Artesian Basin. A technical report to the Australian Government from the CSIRO Great Artesian Basin Water Resource Assessment. CSIRO Water for a Healthy Country Flagship, Australia.</p>
<b>Extent</b>	N -9.985917 S -33.69427 E 153.1853 W 132.0738
<b>Scale</b>	1:6 000 000

