



Australian Government



PROVIDING SCIENTIFIC WATER RESOURCE
INFORMATION ASSOCIATED WITH COAL
SEAM GAS AND LARGE COAL MINES

Issue 3 – November 2015

Bioregional Assessment Programme Update

To date, the Bioregional Assessment Programme has published over 30 information products, all of which are available on our [website](#).

These first products provide important background information about each of the regions that are being assessed. They bring together data and information that allow us to understand the character of a bioregion and the way the whole water system works in each of these areas. These contextual information products consist of datasets, background studies and information that summarises what is currently known about the ecology, hydrology, geology and hydrogeology of a bioregion.

Contextual information products will continue to be published as they are finalised, with results from the assessments expected to start becoming available from the second half of 2016.

New products

The Bioregional Assessment Programme has published the following new products since our last update in June 2015:

- The [Context statements](#) for the **Cooper** subregion and the **Gippsland Basin** bioregion, which bring together information on the geography, geology, hydrogeology, hydrology and ecology in these areas
- The [Coal and coal seam gas resource assessment](#) for the **Cooper** subregion, which summarises what is known about coal and coal seam gas resources and developments in the subregion both now and potentially in the future
- The [Water-dependent asset registers](#) for the **Namoi** and **Maranoa-Balonne-Condamine** subregions and for the **Clarence-Moreton** bioregion, which list all of the assets identified in these areas that could potentially be affected by water-related impacts, such as changes in groundwater or surface water due to coal or coal seam gas development
- The [Data registers](#) for the **Cooper**, **Maranoa-Balonne-Condamine**, **Namoi**, **Hunter** and **Gloucester** subregions and for the **Gippsland Basin** bioregion, which list datasets used in the bioregional assessments at a given date. These 'living' products will be updated throughout the assessments as new datasets are created and used.



Upcoming products

Products that are scheduled for release over the coming months include:

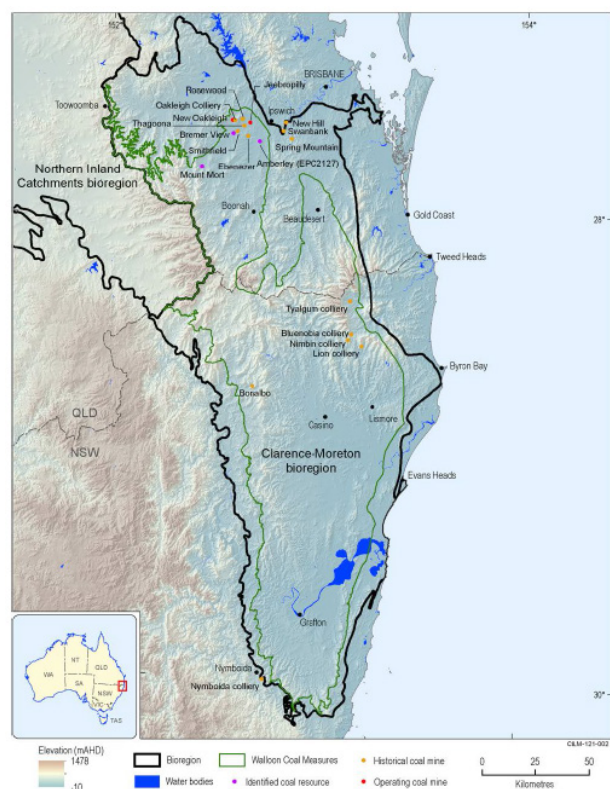
- Context statements and data registers for the **Arckaringa** and **Pedirka** subregions
- The Coal and coal seam gas resource assessment for the **Hunter** subregion
- The Water-dependent asset register and asset list for the **Gippsland Basin** bioregion
- Current water accounts and water quality for the **Galilee**, **Cooper**, **Maranoa-Balonne-Condamine** and **Gloucester** subregions and for the **Clarence-Moreton** bioregion.

Bioregional assessments in the Clarence-Moreton bioregion and the Arckaringa and Pedirka subregions

The Bioregional Assessment Programme has evaluated the likely level of coal seam gas (CSG) and coal mining development in each bioregion to inform the level of assessment required to meet the needs of stakeholders, including government regulators, natural resource management organisations, industry and the community. In our June 2015 issue we outlined the different levels of assessment being undertaken in the Gwydir, Central West and Cooper subregions. In this issue, we explain the assessments that are being undertaken in the Clarence-Moreton bioregion and in the Arckaringa and Pedirka subregions.

Clarence-Moreton bioregion

The Clarence-Moreton bioregion spans north-east NSW and south-east Queensland. Coal deposits in this bioregion are found in a number of different geological units, but economic coal deposits are mainly found in the Walloon, Ipswich and Nymboida Coal Measures.



The bioregion only has one operating coal mine, the Jeebropilly Mine in south-east Queensland, which is due to close in 2017, and no coal is produced from the NSW part of the bioregion. There are no proposals to develop new coal mines in the bioregion, though some exploration is occurring west of Ipswich in Queensland and south-west of Grafton in NSW.

At present, there is no commercial CSG production occurring in the bioregion, though some exploration activity is being undertaken in both Queensland and NSW.

Within the Clarence-Moreton bioregion, the Richmond River catchment near Casino in NSW appears to be the most likely for any CSG to proceed. At present, there is a single proposed CSG development for this part of the bioregion, though it is yet to undergo an environmental impact statement process and does not have regulatory approval.

The Programme considers it unlikely that any new coal or CSG development would occur in the Queensland part of the Clarence-Moreton bioregion in the near future. This has been surmised following an assessment of the coal and CSG resources in the bioregion, which involved compiling and reviewing information on existing and potential future developments. The Programme consulted closely with stakeholders as part of this process, including state and local government agencies, natural resource management organisations and industry groups.

Consequently, the Clarence-Moreton bioregional assessment will focus on the Richmond River catchment near Casino NSW, which is a much smaller geographic area than initially expected.

The Programme has developed a 3-D computerised model that shows the geology of the entire Clarence-Moreton basin, both above and below the surface. This geological model underpins a numerical groundwater model that could be used to assess any potential impacts on water-dependent assets should CSG development commence in the area.

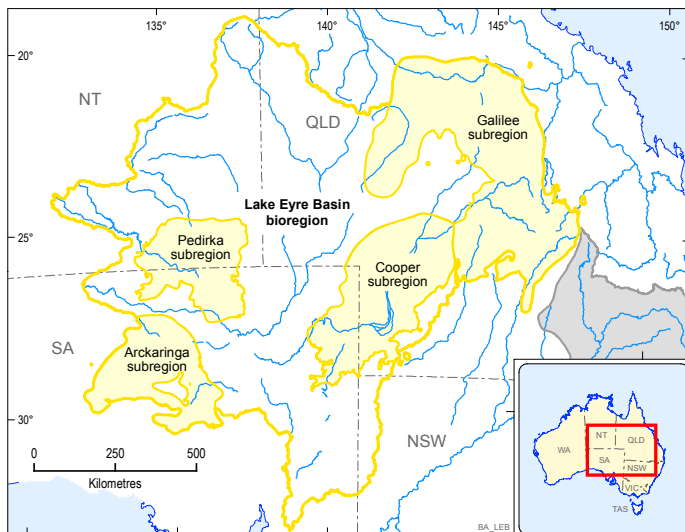
More information on the coal resource assessment in the Clarence-Moreton bioregion is available in the [Coal and coal seam gas resource assessment for the Clarence-Moreton](#). More detail on the process used to assess the coal and CSG resources can be found in the submethodology: [Developing a coal resource pathway](#).

Arckaringa subregion

The Arckaringa subregion is located within South Australia in the Lake Eyre Basin bioregion. There are no existing commercial coal mining or coal seam gas (CSG) developments in this subregion.

The Arckaringa subregion contains thick, extensive coal measures that contain a number of coal deposits of potential economic significance. These coal seams lie deep beneath the Great Artesian Basin. Given the depth of the resource, there are no current proposals for coal mining in this subregion and future proposals are considered unlikely.

Exploration work has been undertaken in this area for both conventional and unconventional gas. Evaluation has suggested that the coal seams in this subregion are not mature enough to generate significant CSG volumes, making commercial production unlikely in the near future.



Pedirka subregion

The Pedirka subregion is in the Lake Eyre Basin bioregion and is located within South Australia and the Northern Territory. While there are coal resources in the Pedirka subregion, there are no existing coal mining or CSG developments and no proposed development projects beyond early stages of exploration.

Preliminary evaluation indicates that coal resources are located deep below the surface which makes coal mining uneconomic.

Most of the coal in the Pedirka subregion appears to be either too deep for CSG extraction using existing technologies, or too immature for commercial gas generation.

Overall it is currently considered that the scarcity of knowledge, remoteness and depths of coal resources within the Pedirka Basin would make economically viable extraction unlikely in the near future.

It is due to the low potential for coal or CSG development in both the Arckaringa and Pedirka subregions that these bioregional assessments will focus on collating background information, identifying water-dependent assets and developing data registers that will be available to inform future management and development decisions in these areas.

Context statements for the Arckaringa and Pedirka Subregions will be published on our [website](#) in early December 2015.

For further information visit www.bioregionalassessments.gov.au to find out more about the bioregional assessments in your area and to obtain copies of available products.

This newsletter has been published by the [Australian Government Department of the Environment](#), GPO Box 787 CANBERRA ACT 2600, telephone 1800 803 772.

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