



Activity Notice

Airborne Electromagnetic Survey

Geoscience Australia, in collaboration with the NSW State Government, will be carrying out an airborne electromagnetic (AEM) survey in the upper Darling River region during 2022. The survey is part of the Australian Government’s Exploring for the Future program, which is committed to supporting a strong economy, resilient society and sustainable environment for the benefit of Australians. At its heart, the program is about contributing to a sustainable, long-term future for Australia through an improved understanding of the nation’s mineral, energy and groundwater resource potential.

Why is this survey important?

This scientific study is being carried out to obtain data that will enhance understanding of the groundwater resources of the upper Darling River region. This information will support future water resource management decision-making in the region.

AEM survey method

Light aircraft are fitted with instruments to map variations in the natural electrical conductivity of the ground to a depth of a few hundred metres.

During the survey, a signal will be transmitted from the aircraft into the ground. The signal is similar to that produced by a powerline, but passes quickly as the aircraft moves. Towed antennae can detect the returned signals and the nature of these signals will be analysed to map variations in the conductivity of the ground that are caused by groundwater and certain types of rocks.

How AEM Surveys Work: <https://youtu.be/p3gK786PRfo>

What you may see

A helicopter towing equipment below it will make a single pass approximately 100 metres above the ground, along straight flight paths, (from 250 m to 5 km apart). If you have any concerns with this activity, please contact Geoscience Australia (details below).



Figure 1. Helicopter AEM system with an antenna frame.

Timing of activities

Activity	Approximate schedule
AEM survey	February to April 2022

Important to know

All data produced by Geoscience Australia from this survey will be freely available after quality assurance checks have been performed.

Other activities such as groundwater sampling, bore drilling and on-ground and downhole geophysics may take place subject to obtaining permission from land holders to access the land.

Further information about AEM surveys can be found at: <https://www.ga.gov.au/scientific-topics/disciplines/geophysics/airborne-electromagnetics>

COVID-19 protocols

Geoscience Australia field staff and contractors comply with all Commonwealth and state government COVID-19 legislation, including public health orders and directions, to protect the health and wellbeing of the community.

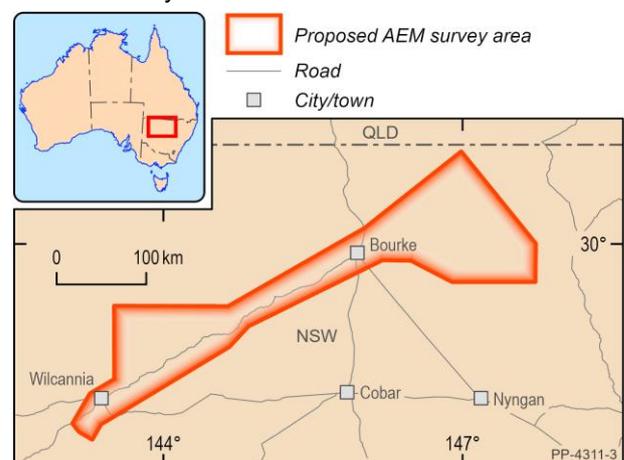


Figure 2. Map showing proposed survey area.

The AEM Survey Hotline - 0427 192 745 is open during business hours for your text or call.