



Centennial's Myuna Colliery is conducting a survey programme comprising sub-bottom profiling and drilling to confirm and map what the bottom of the lake looks like, and to determine the distance between mine workings and the lake floor.

This activity is integral to maintaining the ongoing safety of mineworkers and to better understand the strata above the mine workings.

Sub-bottom profiling

Sub-bottom profiling is a type of sonar technology used to image sub-surface features in an aquatic environment. It is a low impact survey method that uses a small boat, towing survey equipment called a Sparker, which creates a low impact pulse generated by an electric spark, commonly used in sensitive environments.

It is a similar survey method used to inform decisions about safe navigation, including:

- where to install navigation or channel markers; or
- whilst dredging Swansea channel, Newcastle and Sydney harbours; or
- during any construction activities in and around waterways.

Similar technologies are also used by marine scientists in sensitive marine environments, such as the Great Barrier Reef, to develop maps used to model ocean currents, storm surge inundation and to better understand ecosystem and biodiversity patterns on the seabed. These types of maps are widely used across all marine environments.

The sub-bottom profiling survey method is being used because it will have no material impacts below the surface on the marine environment.

This part of the survey work is scheduled 5.5 days per week for between 2-3 weeks and the hours of 7:00 am to 6:00 pm. It will map the lake floor and will inform where boreholes will be located for the rockhead drilling programme.



ABOUT MYUNA COLLIERY



Coal has been mined at Myuna for 40 years, with up to 20 years left to mine



Employs nearly 300 people



Use local suppliers for 42% of goods and services



Coal from Myuna goes directly to Earing Power Station

Contact us

Myuna community liaison team



02 4970 0263



myunacolliery@centennialcoal.com.au



centennialcoal.com.au



Drilling Programme

The rockhead drilling programme will be completed via a staged approach. The first stage will involve 17 boreholes (approximately 1 per day) over 20 days, operating 5.5 days per week between the hours of 7:00 am to 6:00 pm. It will be undertaken using a small truck mounted exploration drill rig operating off the back of an 18 x 9.3-metre barge.

The barge type being used is a jack-up barge, which has been carefully chosen for safety, stability, time efficiency and to minimise any potential environmental impacts. See image below.

This type of drilling is used to determine rockhead thickness and to calibrate the Sparker survey sub-bottom profiling survey results. For each of the 17 boreholes, the small 100mm diameter cutting head will drill into the lake floor through the sediment until 1-metre of solid rock is found, after which the cutting head is extracted and the barge moves onto the next borehole location.

After analysis, testing and updating of the geological model, a further drilling programme will be scheduled.

Safety and environmental procedures

A visual observation for marine mammals is undertaken prior to any work commencing in the area, and if drilling or profiling is underway and any marine mammals or sea turtles are detected, activities are suspended.

A collar is placed around the cutting head to capture and contain any localised stirred up sediment. Additionally, silt curtains will be placed to surround the barge at water surface level.

All fluids used on the barge and by the drill rig are securely captured in tanks and returned to shore daily for disposal through a licensed waste management facility.

There are identified exclusion zones within the survey area. There will be no drilling conducted in seagrass beds and no drilling will occur within 100 metres of artificial reefs.

Navigation lights are placed on the barge for the safety of lake users during darkness.



Image: Drill rig on a barge outlined in purple



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