



# Redbank Creek

Corrective Management Action Plan

December 2022 | Newsletter #14

## **Project Background**

Tahmoor Coking Coal Operations (**TCCO**) has been operating since 1979, and produces premium quality coking coal, which is combined with iron in the steelmaking process. Redbank Creek is a tributary of the Nepean River. It generally consists of Hawkesbury Sandstone bedrock with a progressive series of rock bars and pools. TCCO's longwall panels have extracted coal below Redbank Creek from Longwall 25 to Longwall 32. Longwall mining has caused subsidence impacts that have resulted in fracturing of pool beds, causing some pools to only retain water after heavy periods of rain.

Subsidence movements within the vicinity of Redbank Creek have ceased, enabling TCCO to plan and implement a remediation project to restore the pools within Redbank Creek.

TCCO have prepared a Redbank Creek Corrective Management Action Plan (Redbank Creek CMAP) that outlines the proposed remediation works including creek characterisation, pool mapping and pool rehabilitation works. The Redbank Creek CMAP has been approved by the NSW Resources Regulator.

Works have been developed in consultation with and approved by relevant government departments including, Department of Planning, Industry and Environment (**DPIE**) – Resources Regulator, DPIE – Planning, Department of Primary Industries (**DPI**) – Fisheries, Natural Resources Access Regulator (**NRAR**), Wollondilly Shire Council and the Tahmoor Coal Community Consultative Committee.

## Redbank Creek Rehabilitation

Mapping of pools, characterisation drilling, and remediation of **twelve pools** and **three rock bars** has been completed to date. Remediation of the rock bars involves the construction of a grout curtain wall at a depth of the fracture network. Boreholes are drilled 2m apart, Polyurethane grout (PUR) is injected into boreholes to create an impermeable layer that redirects the water to the surface.

PUR has been used successfully for creek rehabilitation in Sydney Catchment Authority areas as it has minimal ecotoxicological effects and has proven highly effective.

Monitoring of the remediation sites suggests an increased capacity for the pools to hold water. Monitoring will continue throughout a variety of climatic conditions.

### **Current Remediation Works**

Pool RB5 and Pool 21 remediation works is currently being completed. The works consists of the construction of a grout curtain wall at Pool RB5 and the construction of a shallow grout grid pattern at Pool 21 to rehabilitate the pool holding capacity. Water has return to Pool RB5 and Pool 21 showing an early positive outcome.

Ground characterisation is currently in progress at Pool 37, Pool 28 and Pool RB3 to assess the extent of the fracture network. Investigation works is scheduled to be completed by mid-December 2022.

#### **Future Remediation sites**

Site mobilisation is currently in progress at Pool 36 and Pool 37 at Redbank Creek. The remediation work will commence following completion of Pool RB5 and Pool 21 rehabilitation (schedule mid-December 2022).

Remediation works and characterisation works will be carried out between **8:00** am to **5:00pm**, **Monday to Friday**.

## For More Information

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Figure 1: Location of Remediation Sites



