

Key findings from reading application documents – Bathurst Coal Mine

The Canterbury Coal Mine (CCM) has been operating in the Malvern Hills since 1872, open cast since 2003. Bathurst Resources Ltd purchased the mine in Sept 2012.

The applicant for resource consents is Bathurst Coal Ltd which is a wholly owned subsidiary of Bathurst Resources Ltd.

CCM is located on land owned by E.M. and M.D. Frew and Matariki Forests Ltd. Mining activity currently covers 48 ha. The total area of disturbance over the lifetime of the consent (15yrs) is 103.67ha.

Currently 100,000 -170,000 tonnes of coal extracted each year, increasing to 185,000t in 2023.

Coal is low sulphur industrial, suitable for boilers.

90% of the coal is used by Fonterra factories at Darfield and Clandeboyes, and Synlait at Dunsandel.

850,000 BCM waste rock removed annually, used to construct engineered landforms (ELFs).

Currently employs 51 people, adds \$11m to the local economy.

Four major hydrological sub catchments; Bush Gully stream (north of the mine), Tara and Oyster Gully streams (south) and Surveyors Gully (west).

The applications describe the following activities:

- Acid Mine Drainage (AMD) seepage from the work area
- Stormwater runoff during rainfall events that includes AMD
- Sediment laden discharges from earthworks activities
- Discharge of contaminants to water for treating AMD
- Disposal of coal ash
- Earthworks for coal mining

The applicant has applied for 2 discharge permits to discharge products to land and water, and water associated with treating acid mine drainage (AMD) into Tara stream.

Mine has ECan consent (CRC151391), to discharge contaminants onto land, up to 2,500

tonnes of Coal Boiler Ash (CBA), also referred to as Coal Combustion residuals. New application seeks to increase to 30,000 tonnes dry ash equivalent. CBA is received at the mine site from BCLs customer's boiler operations 6 days a week, Mon – Sat.

Contaminants of concern in coal ash are Aluminium, Boron, Arsenic, Copper, Nickel, Zinc.

Mine influenced water at the site contains high sediment due to erosion, acidity, metals and low pH.

Malvern Hills area receives approx. 1000 + mm rainfall annually.

Baseline aquatic ecology data from Tara Stream, Bush Stream, Surveyors and Oyster Gullies show overall quality of the habitat and aquatic communities is poor. Canterbury mudfish present at lower end of the Tara Stream catchment. Upper Tara stream likely impacted by AMD.

Mine discharge point is into a wetland area. The ecological values of the wetland have not been determined.

The Tara Pond 2 will result in the permanent removal of approx. 540 m² of wetland vegetation from tara stream complex. Mitigation offered is restoration of 2,900 m² of wetland vegetation in two areas.

Approximately half of the site is located within the identified flow sensitive catchments and the high soil erosion risk area.

Contaminants can adversely impact downstream wetland, surface water quality and ecosystem through the discharge of AMD, the products used to treat AMD and disposal of coal ash on the site.

Water is held in storage ponds for treatment, also used for dust suppressant.

The Bathurst Environmental Risk Summary lists following key risks to the environment:

- Acid Mine Drainage (AMD) entering waterways
- Excessive sediment entering waterways
- Pollutants from Coal Boiler Ash (CBA) entering waterways or air
- Dust
- Oil spills

Duration of proposed consents is 15yrs.