

PROJECT FLAWS

MACH Mt Pleasant Optimisation Project SSD 10418

IPC Presentation

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There are several major problems with this Project

1. A Flawed Development Strategy

Too big – doubling output is not justified

Too close to Muswellbrook and Aberdeen

Too long – any approval should not be for 26 years

The final landform is a terrible lasting legacy for the Upper Hunter

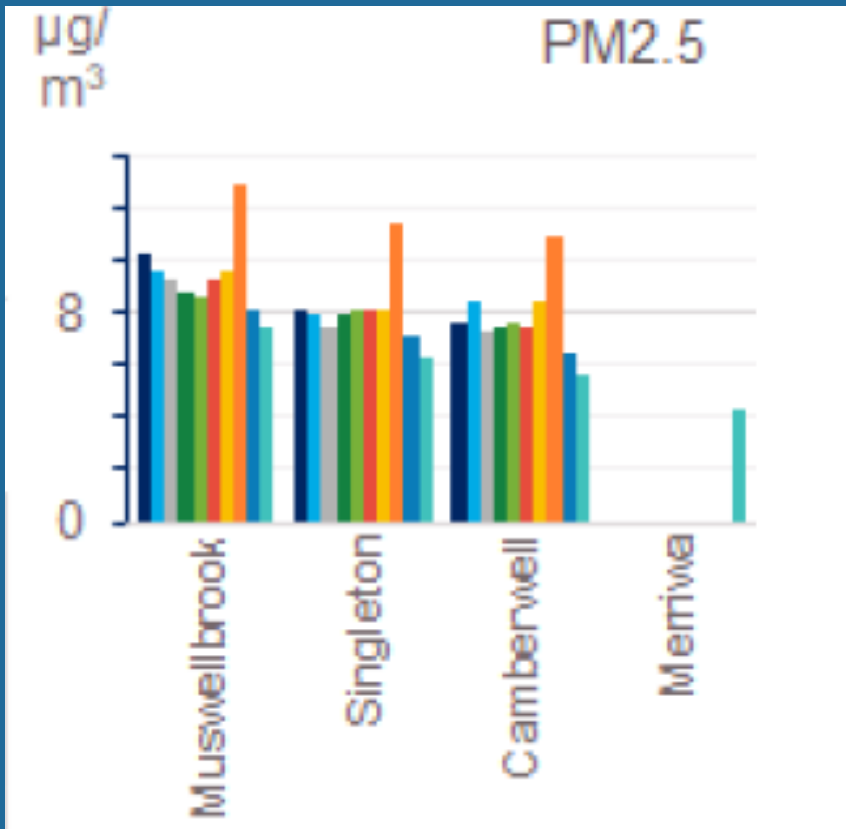
2. Fines Rejects Management

The Upper Hunter Community has been badly let down on this by MACH and the NSW government

3. Air Quality Impacts PM 2.5 and PM 10

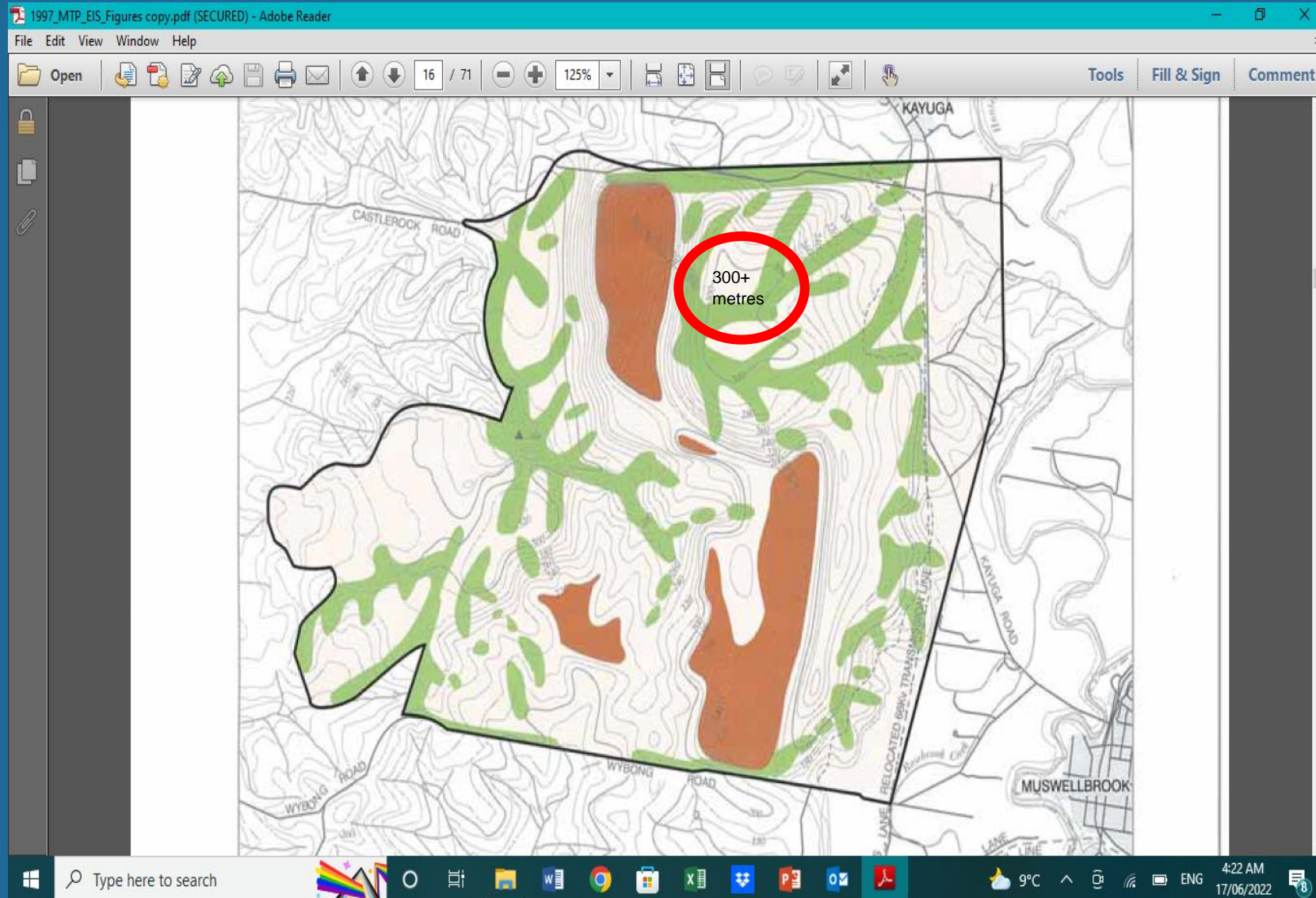
Upper Hunter air quality is already among the worst in the State. We should be planning to make it better not worse.

Annual PM 2.5 2012-2021

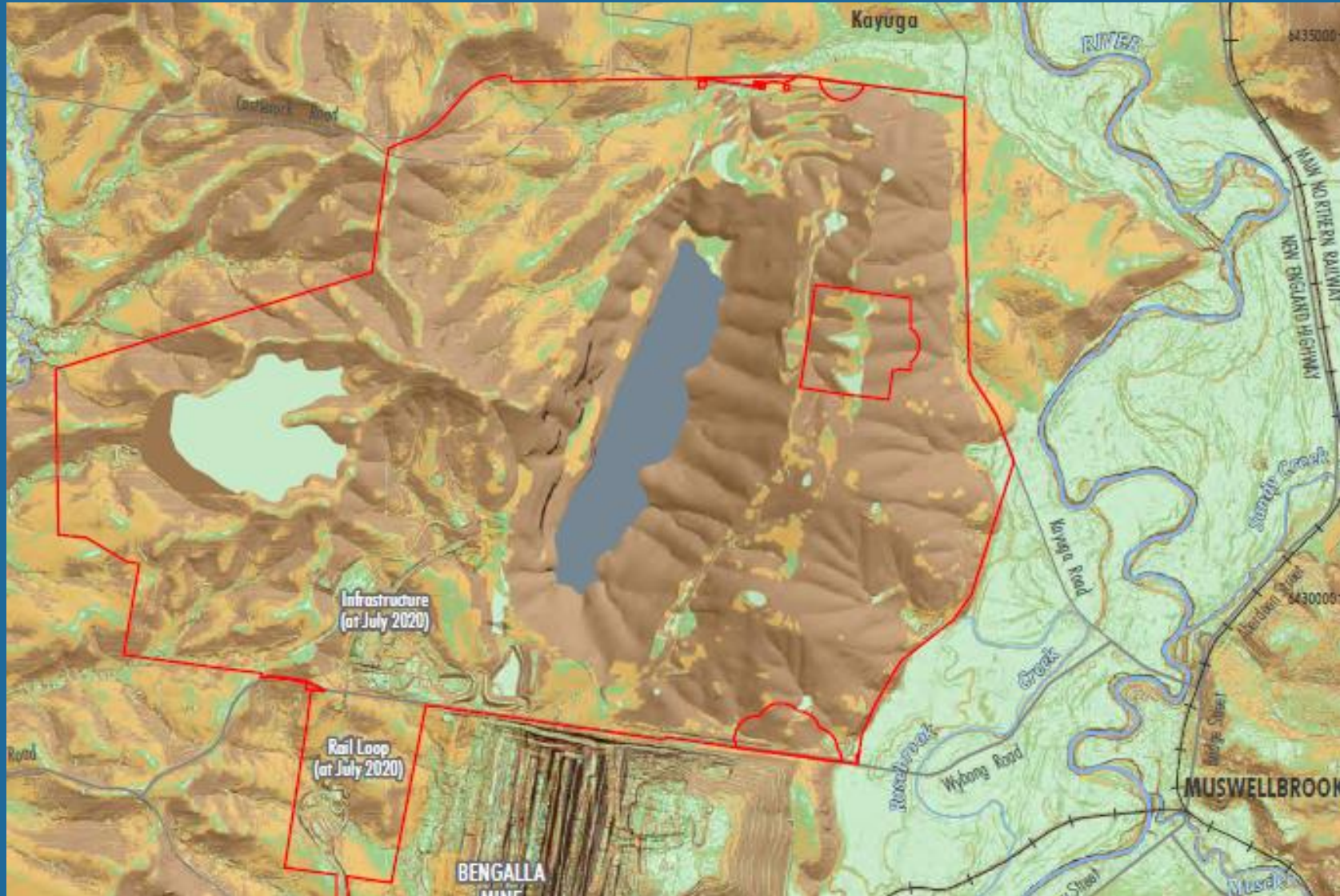


Muswellbrook has exceeded the PM2.5 annual NEPM criteria of 8 $\mu\text{g}/\text{m}^3$ in eight of the last ten years.

The 1997 EIS Final Landform and Final Voids



The 2021 EA Proposed Final Landform and Final Void



Fines Rejects Management – Our Community Has Been badly misled and let down by MACH and the NSW Government

- A Commission of Inquiry was conducted into the environmental aspects of the 1997 Mt Pleasant Development Application and the hearings were conducted in 1998 and 1999.
- The Commission of Inquiry's Report was finalised in May 1999.
- The Inquiry required Coal and Allied to consider alternative methods and technologies for the fine coal rejects emplacement and as an outcome the Inquiry accepted the proponent's conclusion that:
Alternative 3: Use and ongoing rehabilitation of small tailings dams was the preferred option. As stated by Coal and Allied "this option has low technical risk and allows on-going early rehabilitation of the dams areas. It is the preferred option on technical and economic grounds."

Changes to the Fine Rejects Emplacement Operational Management Strategy

Operating strategy as approved in the 1999 DA 92/97

Fines rejects are pumped to a series of stepped emplacements. (There are 9 in total)

As each emplacement fills another will be placed immediately downstream

The filled emplacement will be allowed to dry out before being covered by a layer of rock, topsoiled and then revegetated

Water from rehabilitated areas in the top of the catchment will then be diverted around the central dam in order to maximise downstream flows of natural run-off

Progressive development of storages will minimise the extent of catchment disturbed at any one time.

A series of emplacement terraces will be constructed and shaped to blend into the surrounding topography

Changes to the Fine Rejects Emplacement Operational Management Strategy

Operating strategy as approved by DPE MACH MOD3 Consent

Construction of one large dam (emplacement area) for all fines rejects during the life of the project

One embankment (dam wall) is constructed at the downstream end of the Fines Emplacement Area catchment

The embankment is progressively raised throughout the life of the Mt Pleasant Operation as additional storage is required

This Project Proposal

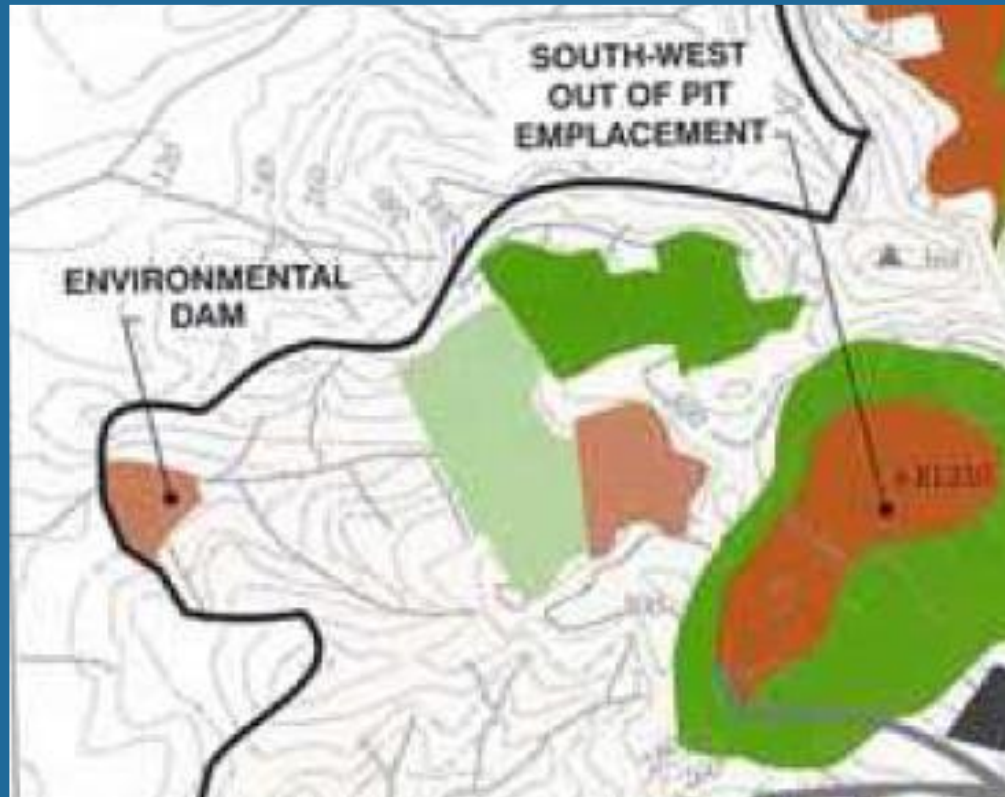
- The Project would require an ultimate doubling in the capacity of the Tailings dam from the currently approved **17.7 million cubic metres to 36 million cubic metres**
- **The Tailings dam wall would be increased in height by 38.9 metres to a height of 69.4 metres** through six additional dam wall raises
- The dam area is significantly increased to **166ha**.

The so-called “contemporary” strategy proposed by MACH and approved by DPE in the MOD3 Consent is a retrograde step and is at odds with the original 1999 approval.

- It does not maximise natural runoff downstream flows.
- It does not minimise the disturbed area footprint of the Fines Emplacement Area
- It does not have a multiple cell arrangement
- It does not seek to blend in with the surrounding topography. There will be one large embankment much higher than the proposed terrace embankments
- It does not allow for early and progressive rehabilitation
- It does not allow for any rehabilitation to occur in the Fines Emplacement Area until several years after mine closure assuming the rejects have dried out sufficiently to allow for capping
- MACHs statement that the Project proposal fines emplacement area has a smaller disturbance footprint than the original 1997 proposal is misleading because the original proposal included a staged rehabilitation and the progressive return of cells to clean water run-off over the life of the mine.
- Has “Tailings to Topsoil” disappeared?

Changes to the Fines Rejects Disturbance Area Footprint

1997 EIS Year 10 Fines Emplacement Area

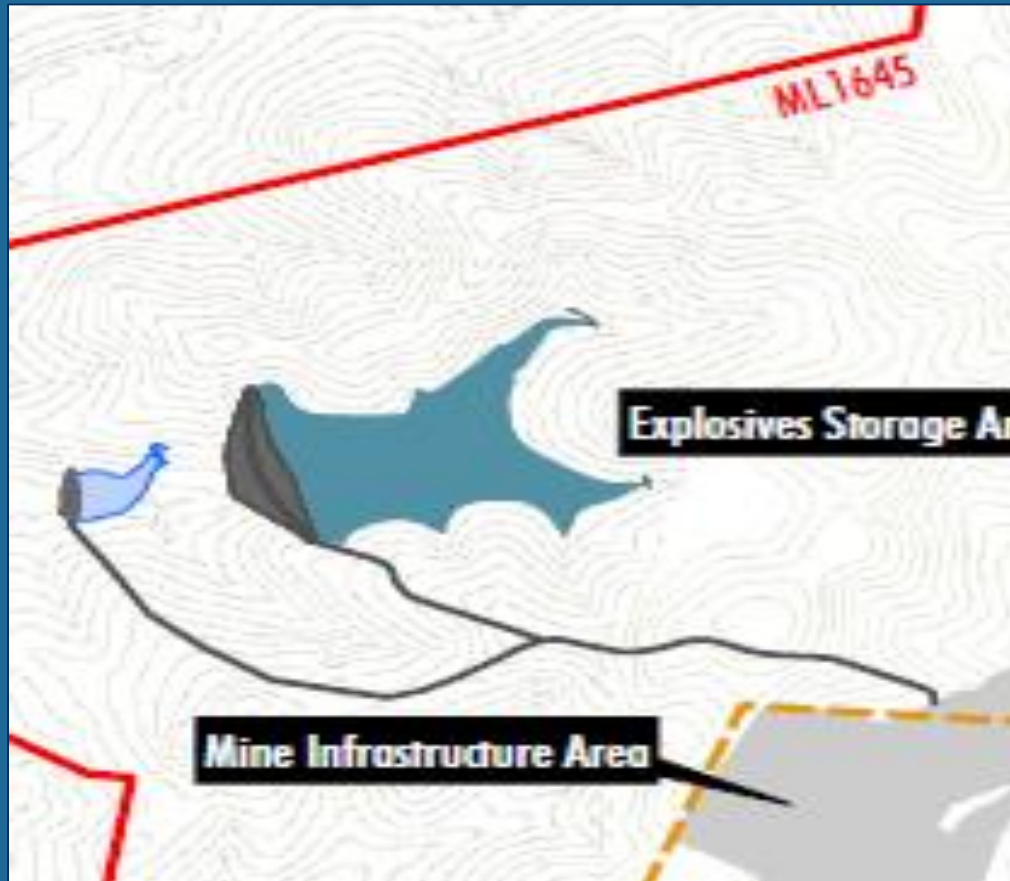


The Current MOD 3 Approved Footprint 2025

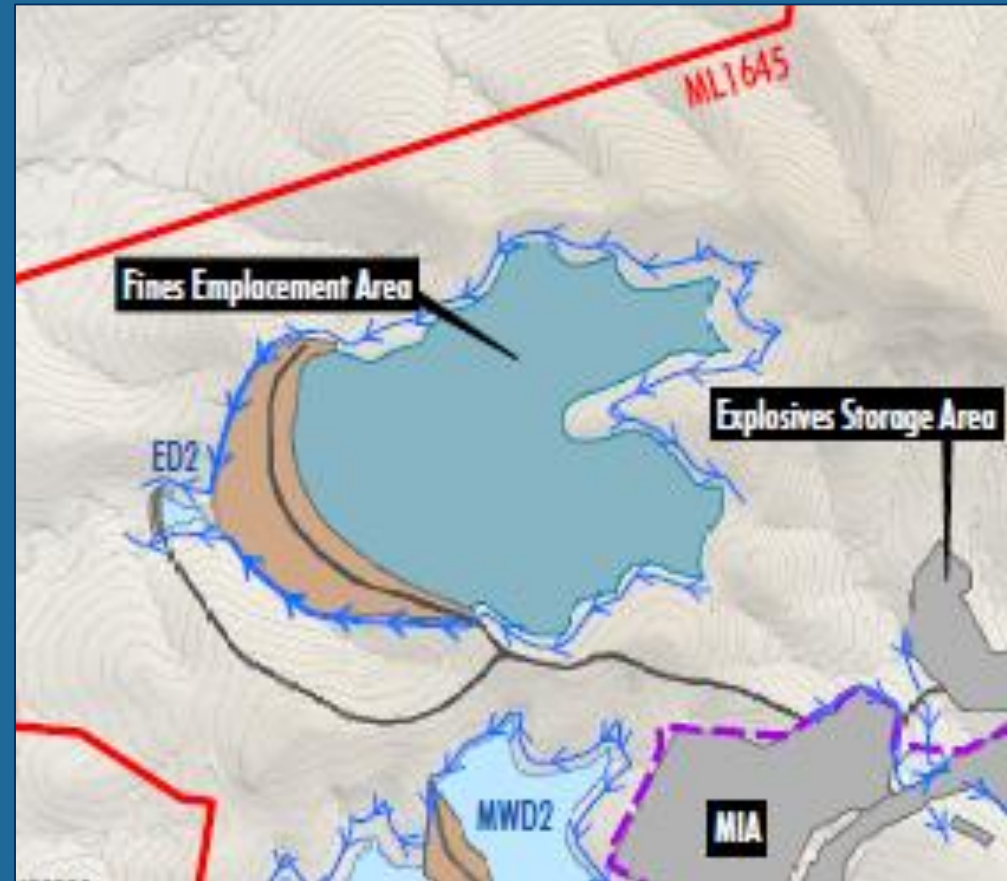


Fines Rejects Emplacement Area

The Current MOD 3 Approved Footprint 2025



This Project Proposal Footprint



3. Air Quality Impacts PM 2.5

Fine Particle Characterisation – what are the sources of PM2.5?

DPE and industry identify woodsmoke and road vehicle exhausts as the major contributors to PM2.5 and continue to rely on an Upper Hunter Fine Particle Characterisation study done with data collected in 2012 (now ten years ago.)

There have been major mine expansions and new mines started since that time (new mines Mt Pleasant 2018 and United-Wambo 2019, Mangoola an increase from 10 to 13.5 m tonnes ROM in 2014). This has resulted in the introduction of hundreds more off-road diesel engines over this decade.

Muswellbrook and Singleton Councils have conducted wood smoke reduction programs in this period.

Air Quality Impacts PM 2.5

Off Road Diesel Emissions – More action is required more quickly

- In 2015 an EPA study identified **off-road diesel emissions as the third biggest primary contributor of PM2.5 in the Hunter and attributed 95% of this to off-road diesel emissions from coal mining.** This report was published seven years ago.

<https://www.epa.nsw.gov.au/your-environment/air/non-road-diesel-marine-emissions/reducing-diesel-emissions-coal-mines>

- At 21 Mtpa ROM Mount Pleasant would be burning 120 million litres of diesel every year according to MACHs EIS GHG assessment
- The mining industry in the Hunter in 2015 burned more than 700 million litres per year of diesel. Today that number is probably close to a billion litres per year.
- There are still no emission standards mandated by the government or regulators for off-road diesel engines. (The US has had off road diesel emission standards since the 1990s.)
- There are no Pollution Reduction Program requirements for off-road diesel emissions in any NSW mine Environmental Protection License at present.

Air Quality Impacts PM 2.5

Off Road Diesel Emissions – More action is required more quickly

DPE Recommended Conditions B31 (b)

ensure that all new ‘non-road’ mobile diesel equipment used in undertaking the development includes reasonable and feasible diesel emissions reduction technology;

This condition should require the mine operator to have all diesel equipment at the mine fitted with the latest diesel emissions reduction technology by a deadline date. This gets rid of old equipment and also captures “non-mobile” diesel engines

DPE Recommended Conditions B32 (f) (1)

Air Quality and Greenhouse Gas Management Plan

(f) include an air quality monitoring program, undertaken in accordance with the Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales (DEC, 2007), that:

(i) includes an estimate of the emissions of PM2.5 per kilometre travelled from all ‘non-road’ mobile diesel equipment used for the development;

This condition should capture all large diesel mine equipment like excavators, dozers, drills and loaders, pumps, lighting plants and generators. It would be much more meaningful to produce an annual aggregate of emissions compiled by equipment fleet type based on engine hours.