Government of Western Australia
Department of Water and Environmental Regulation

Decision Report

Application for Works Approval

Part V Division 3 of the *Environmental Protection Act 1986*

Works Approval Number	W2900/2025/1
Applicant	MacPhersons Reward Pty Ltd
ACN	130 249 320
Application Number	APP-0026277
Premises	MacPhersons & Tycho Mobile Crushing Plant Legal description Within mining tenements M15/40, M15/128, M15/133 and M15/1808. As defined by the Premises map attached to the issued works approval.
Date of Report	18 March 2025
Decision	Works approval granted

Kang Tam
Digitally signed by Kang Tam
Date: 2025.03.18 11:43:05 +08'00'

A/MANAGER, RESOURCE INDUSTRIES
INDUSTRY REGULATION (STATEWIDE DELIVERY)

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Table of Contents

1. Decision summary

This Decision Report documents the assessment of potential risks to the environment and public health from emissions and discharges during the construction and operation of the Premises. As a result of this assessment, works approval W2900/2025/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this Decision Report, the department has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at https://dwer.wa.gov.au/regulatory-documents.

2.2 Application summary and overview of Premises

On 5 November 2024, MacPhersons Reward Pty Ltd (the Applicant) submitted an application for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act).

The application is to undertake construction works relating to an ore crushing plant at the Coolgardie Gold Project, within mining tenements M15/40, M15/128, M15/133 and M15/1808 (the Premises). The Premises is approximately 5 km south of the Town of Coolgardie. A regional map including the location of the premises is shown in Figure 1 below. Figure 2 below shows the location of the existing run of mine (ROM) pads, which are also the locations of the proposed crushing and screening sites.

The Premises relates to category 5 and assessed production capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in Works Approval W2900/20205/1. The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guideline*: *Risk assessments* (DWER 2017) are outlined in Works Approval W2900/2025/1.

The Applicant is proposing to establish a temporary mobile crushing and screening operation within the Premises to crush and screen gold ore. A maximum of 800,000 tonnes of ore per annum is required to be crushed and screened over a two-year period. Crushing and screening of ore will be conducted on two existing ROM pads, one at the MacPhersons mine and one at the Tycho mine. Once the ore is crushed and screened, it will be trucked off-site to the Jaurdi Gold Project processing plant. The Jarudi Golf Project processing plant is managed under Licence L9247/2020/1. As the crushing unit is a fully contained unit ready to operate, no installation of any additional infrastructure will be required.

The crushing plant will be equivalent to the Sandvik Extec C12 mobile crushing plant, shown below in Figure 3. The specifications of the crushing plant are:

- CAT C9 engine (261kw Water Cooled)
- Hopper Capacity 8m^3
- Reject Grid 4.25m Remote Tipping Grid
- Belt Feeder 1100mm
- Main Conveyor 1100mm
- Side Conveyors 800mm with moulded chevron belts
- Fines Conveyor 1200mm
- Machine Weight Wheeled – 46 Tonnes

Fibrous Materials

The Applicant has identified that the substrate surrounding the Tycho ore body has the potential to create airborne fibrous materials when disturbed, posing a potential risk to any person nearby. In considering the health and safety of workers who are operating within a designated area, the Applicant has developed a *Fibrous Minerals Principal Hazard Management Plan* (PHMP).

The PHMP has been developed to provide a method for handling ore or waste material bearing fibrous minerals and complies with the following guidelines and regulations:

- Federal Government *CODE OF PRACTICE FOR THE MANAGEMENT AND CONTROL OF ASBESTOS IN WORKPLACES* [NOHSC: 2018 (2005)];
- The Department of Mines and Petroleum, 2010, *Management of fibrous minerals in Western Australian mining operations* – guideline: Resources Safety;
- Department of Mines and Petroleum, Western Australia, *Resources Safety code of practice on mineral exploration drilling*, 2012;
- Western Australia *Work Health and Safety Act 2020*; and
- Western Australia *Work Health and Safety (Mines) Regulations 2022.*

The PHMP delegates responsibilities to employees of the Applicant to identify areas that are possible sites where the risk of fibrous materials occurring is elevated. Once an area is designated as potential risk of fibrous materials, entrance is restricted to employees only, with the following conditions imposed on workers:

- Maintain a register containing the following information for each person required to work in a designated area for more than ten shifts in a 12-month period including full name and approximate time spent in the designated area during each shift;
- Decontamination and wash down areas (personal and vehicle) are to be maintained and used when required;
- A fibrous mineral waste disposal area will be established;
- All designated areas to be signposted to warn when fibrous materials are present;
- Personal protective equipment to be used when entering the designated areas include respirators and coverall suits; and
- All workers entering designated areas to undergo appropriate training.

Disposal of waste contaminated with fibrous materials will be off-site and undertaken according to the above guidelines and regulations.

Under the EP Act, impacts to employees from fibrous materials is not regulated and will therefore not be assessed under this works approval. Management of worker health and safety is regulated under the *Work Health and Safety Act 2020.*

Figure 1: Regional Map

Figure 2: ROM pad locations

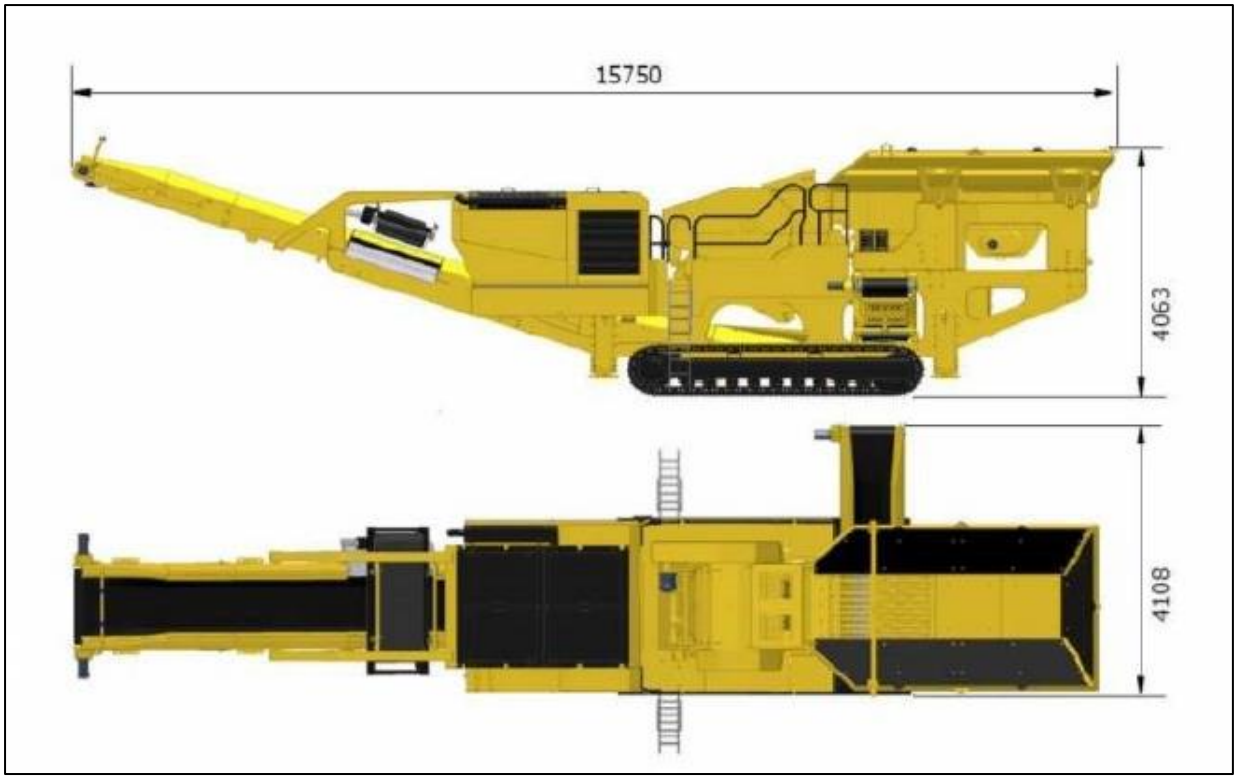

Figure 3: Sandvik Extec C12 mobile crushing plant

3. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guideline: Risk assessments* (DWER 2017).

To establish a Risk Event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

3.1 Source-pathways and receptors

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises construction and operation which have been considered in this Decision Report are detailed in Table 1 below. Table 1 also details the proposed control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Table 1: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust	Movement of machinery and vehicles. Installation of plant.	Air/windborne pathway	No specific controls proposed.

Emission	Sources	Potential pathways	Proposed controls
Noise	Movement of machinery and vehicles. Installation of plant.	Air/windborne pathway	No specific controls proposed.
Operation (including Time Limited operations)			
Dust	Crushing of material, vehicle movements, lift-off from stockpiles and/or stored product, earthworks etc.	Air/windborne pathway	• Dust covers will be fitted at the crusher chute. • Fogging suppression sprays will be fitted to the feed hopper, discharge chute and product stockpiles; and • Vehicle speed will be restricted and water carts used to supress dust on road surfaces.
Noise	Crushing and screening of material	Air/windborne pathway	No specific controls proposed.
Hydrocarbon or chemical discharges	Machinery, storage facilities, vehicle servicing	Seepage to soil and groundwater	• Hydrocarbon spill kits will be available at all times; • All hydrocarbons, including waste oils, are stored in self-bunded, lockable sea containers; • Hydrocarbon spills will be removed by absorbent material and/or excavation. • Hydrocarbon contaminated soils will be excavated and transported offsite to a licenced facility for treatment; and • Contaminated waste materials from spill clean ups (filters, rags, hydrocarbon absorbent materials) will be collected in appropriately labelled waste containers and will be removed from site by a licensed contractor for disposal at an appropriate facility.
Sediment laden stormwater	Stormwater runoff from within operations area, runoff from product stockpiles	Overland flow	No specific controls proposed.
Fibrous materials	Ore from the Tycho mine only	Air/windborne pathway	Applicant has developed a Fibrous Mineral Principle Hazard Management Plan (PHMP). for handling ore or waste material bearing fibrous minerals to protect employees of the applicant. Under the EP Act, impacts to employees from fibrous materials is not regulated and will therefore not be assessed under this works approval. Management of worker health and safety is regulated under the *Work Health and Safety Act 2020.*

3.1.2 Receptors

In accordance with the *Guideline: Risk assessment* (DWER 2017), the Delegated Officer has excluded employees, visitors and contractors of the applicant's from its assessment. Protection of these parties often involves different exposure risks and prevention strategies, and is provided for under other state legislation.

Table 2 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises *(Guideline: Environmental siting* (DWER 2016)).

Table 2: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	**Distance from prescribed activity**
Residential Premises – Coolgardie Town	5 km north of the proposed premises boundary Screened out due to distance.
Environmental receptors	**Distance from prescribed activity**
Native vegetation (no threatened or priority flora identified within the premises)	Localised within and surrounding the premises.
<u>Fauna</u> malleefowl (*Leipoa ocellata*) mound (Threatened) Inland hairstreak, desert blue butterfly (*Jalmenus aridus*) (Priority 1)	170m north of premises 3 km north-west of premises

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk assessments* (DWER 2017) for each identified emission source and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the applicant has proposed mitigation measures/controls (as detailed in Section 3.1), these have been considered when determining the final risk rating. Where the Delegated Officer considers the applicant's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the works approval as regulatory controls.

Additional regulatory controls may be imposed where the applicant's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 3.

Works Approval W2900/2025/1 that accompanies this Decision Report authorises construction and time-limited operations. The conditions in the issued Works Approval, as outlined in Table 3 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence is required following the time-limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of the Premises i.e. crushing and screening of ore materials. A risk assessment for the operational phase has been included in this Decision Report, however licence conditions will not be finalised until the department assesses the licence application.

Table 3: Risk assessment of potential emissions and discharges from the Premises during construction and operation

Risk Event					Risk rating[1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions[2] of works approval	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
Construction								
Placement of crushing unit and associated equipment including vehicle movements (reversing beepers).	Dust	Air/windborne pathway causing impacts to health and amenity	Residences 5km north of premises	Refer to Section 3.1	C = Slight L = Rare **Low Risk**	Y	N/A	N/A
	Noise			Refer to Section 3.1	C = Slight L = Rare **Low Risk**	Y	N/A	N/A
Operation (including time-limited-operations operations)								
Screening, crushing, unloading, loading and storage of material Vehicle movements	Dust	Air/windborne pathway causing impacts to health and amenity	Residences 5km north of premises	Refer to Section 3.1	C = Minor L = Rare **Low Risk**	Y	Conditions 1 and 6	During operations dust emissions are unlikely to impact the nearest sensitive receptor (Coolgardie Town) due to distance (5 km away) resulting in a lack of pathway
		Air/windborne pathway causing impacts to vegetation health (smothering)	Native vegetation		C = Minor L = Unlikely **Medium Risk**			Applicant's dust controls have been conditioned as per DWER guideline: Risk Assessment.
	Noise	Air/windborne pathway causing impacts to health and amenity	Residences 5km north of premises	Refer to Section 3.1	C = Slight L = Rare **Low Risk**	Y	N/A	During operations noise emissions are unlikely to impact the nearest sensitive receptor (Coolgardie Town) due to distance (5 km away) resulting in a lack of pathway The *Environmental Protection (Noise)*

Risk Event					Risk rating[1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions[2] of works approval	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
								Regulations 1997 apply
	Sediment laden stormwater	Overland runoff potentially causing ecosystem disturbance or impacting vegetation	Native vegetation	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	N	Condition 6	Standard conditions relating to capture of contaminated/potentially contaminated stormwater has been added to the works approval.
	Hydrocarbon or chemical discharges	Direct discharge to land causing contamination	Native vegetation / soil	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	N/A	The *Environmental Protection (unauthorised discharge) Regulations 2004* and General provisions of the EP Act apply
	Fibrous materials	Air/windborne pathway causing impacts to health and amenity	Residences 5km north of premises	Refer to Section 3.1	C = Moderate L = Rare **Medium Risk**	Y	N/A	Due to the distance between the crushing activities and the nearest human receptor it is unlikely that impacts to off-site human health will occur. The applicant's proposed controls for managing dust have been conditioned within the works approval. Impacts to workers is managed under other legislation.

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk assessments* (DWER 2017).

Note 2: Proposed applicant controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

4. Consultation

Table 4 provides a summary of the consultation undertaken by the department.

Table 4: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website (23/01/2025)	N/A	N/A
Local Government Authority (Shire of Coolgardie) advised of proposal (23/01/2025)	N/A	N/A
Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) advised of proposal (23/01/2025)	Email received 24/01/2025. Mining proposal #68945 does not include provisions to undertake on-site processing of ore. Therefore, if the proponent is planning on conducting any ore processing, including crushing, they will need a mining proposal that includes the processing of ore.	It is the applicant's responsibility to ensure they obtain all relevant approvals required under the *Mining Act 1972* prior to ore processing activities beginning.
Applicant was provided with draft documents on 4/03/2025	The applicant responded on 12/03/2025, with no comments on the draft works approval. However, the applicant clarified that the ore body containing potential fibrous mentioned in the draft Decision Report was the Tycho ore body, not the MacPhersons ore body.	The department has corrected the Decision Report text.

5. Conclusion

Based on the assessment in this Decision Report, the Delegated Officer has determined that a works approval will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

References

1. Beacon Minerals Limited (2023), FIBROUS MINERALS (PHMP) PRINCIPAL HAZARD MANAGEMENT PLAN, Boulder, Western Australia.
2. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
3. Department of Water and Environmental Regulation (DWER) 2016, *Guideline: Environmental siting*, Joondalup, Western Australia.
4. DWER 2017, Guideline: Risk assessments, Joondalup, Western Australia.