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	W3186/2026/1
Applicant	Main Roads Western Australia
File number	APP-0031087
Internal number	INS-0003186
Premises	Material Borrow Pit Legal description - Part of Lot 33 on Deposited Plan 240249 Certificate of Title Volume LR3143 Folio 733 As defined by the coordinates provided in Schedule 2 of the works approval
Date of report	17/03/2026
Decision	Works approval granted

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 W3186/2026/1 (W3186) has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this decision report, the Department of Water and Environmental Regulation (the department; DWER) 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 8 September 2025, the Main Roads Western Australia (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 crushing and screening of recovered railway ballast from Rio Tinto's Pilbara Rail Network for use in the construction of Stage 4 of the Manuwarra Red Dog Highway upgrade project (the Project) at the premises. The Applicant proposes to use the premises to temporarily store unprocessed rail ballast, crush, screen, and blend recovered ballast with natural gravel to road base specifications before distribution to the sections of roadwork under construction for Stage 4. Stage 4 of the Project is 110 kms long and is expected to take several years to complete. The premises is located approximately 120 km south of Karratha, its location is depicted in Figure 1 and internal layout presented in Figure 2.

Rail ballast forms the foundation of a railway track, comprising crushed natural stone or gravel material which provides support for the track bed and levels the rail. Previously used rail ballast has been recovered from the Rio Tinto Integrated Rail Network, and there are several stockpiles of such material at various locations along the alignment that has been accumulated over many years as part of ongoing rail maintenance. Main Roads are planning on accessing a stockpile (153 Laydown Stockpile) located approximately 6 km from the premises. Storage at this location began in early 2022. However, it is sited within the Millstream Water Reserve which is a Priority 1 Public Drinking Water Source Protection Area, so Rio Tinto ceased deposition of ballast at this location. This material will be transferred to the premises for processing. It is estimated that the 153 Laydown Stockpile contains approximately 55, 325 m^3 or 110, 650 tonnes of material. The maximum production and design capacity (P&DC) for the crusher and screen is 1.97 million tonnes per annum (based on 24 hours per day, seven day a week operations) but the P&DC for this project is 270,000 tonnes per annum.

Construction activities are limited to the placement of the mobile crusher and screen, and the excavation of gravel from the borrow pit. The ballast material will be progressively loaded into a mobile cone crusher, then separated into different sizes by a mobile screen, before further crushing by either another cone or jaw crusher and screened into a stockpile. A wheel loader will then take some processed ballast, and some natural gravel borrow material from the premises and blend it. At the blending stage, water may be added. The blended mix will then be processed through a jaw crusher initially and then either one or two cone crushers depending on size before screening through the mobile screen plant into a stockpile. Blended material will then be loaded into side-tippers and taken offsite.

It is anticipated that crushing and screening ballast and natural gravel will take place for

approximately 50 days, with blended material to be stockpiled for an additional 12 months until needed for Stage 4 roadworks. There will be no solid waste or storage of chemicals or any other hazardous waste at the premises. All accommodation is offsite and there will be no refuelling, maintenance, or repair of machinery undertaken within the premises boundary. Water will be sourced from offsite and stored in a turkey nest at the premises. Stormwater controls will be implemented at the premises to mitigate potentially contaminated stormwater entering the groundwater.

The premises relates to the category / categories and assessed production / design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W3186. 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 2020) are outlined in works approval W3186.

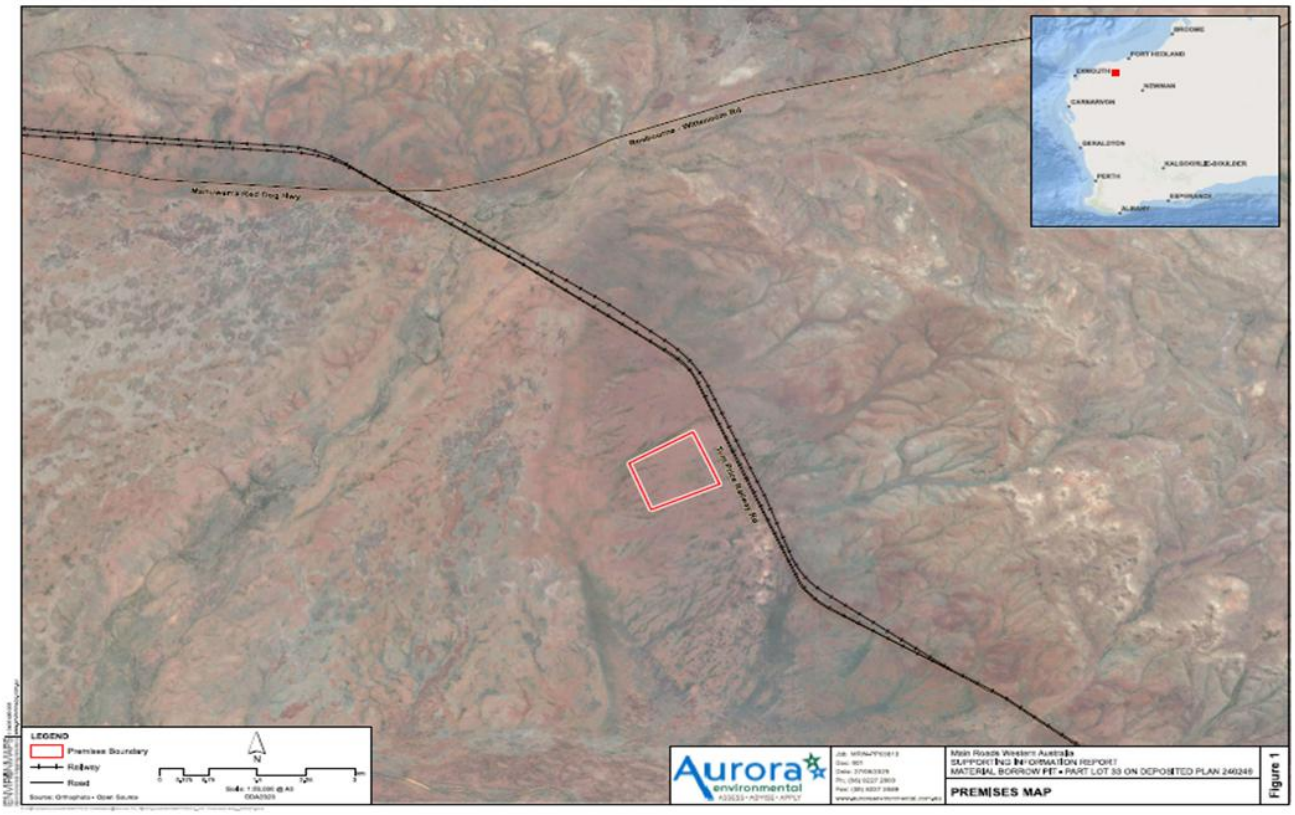

Figure 1: Premises location.

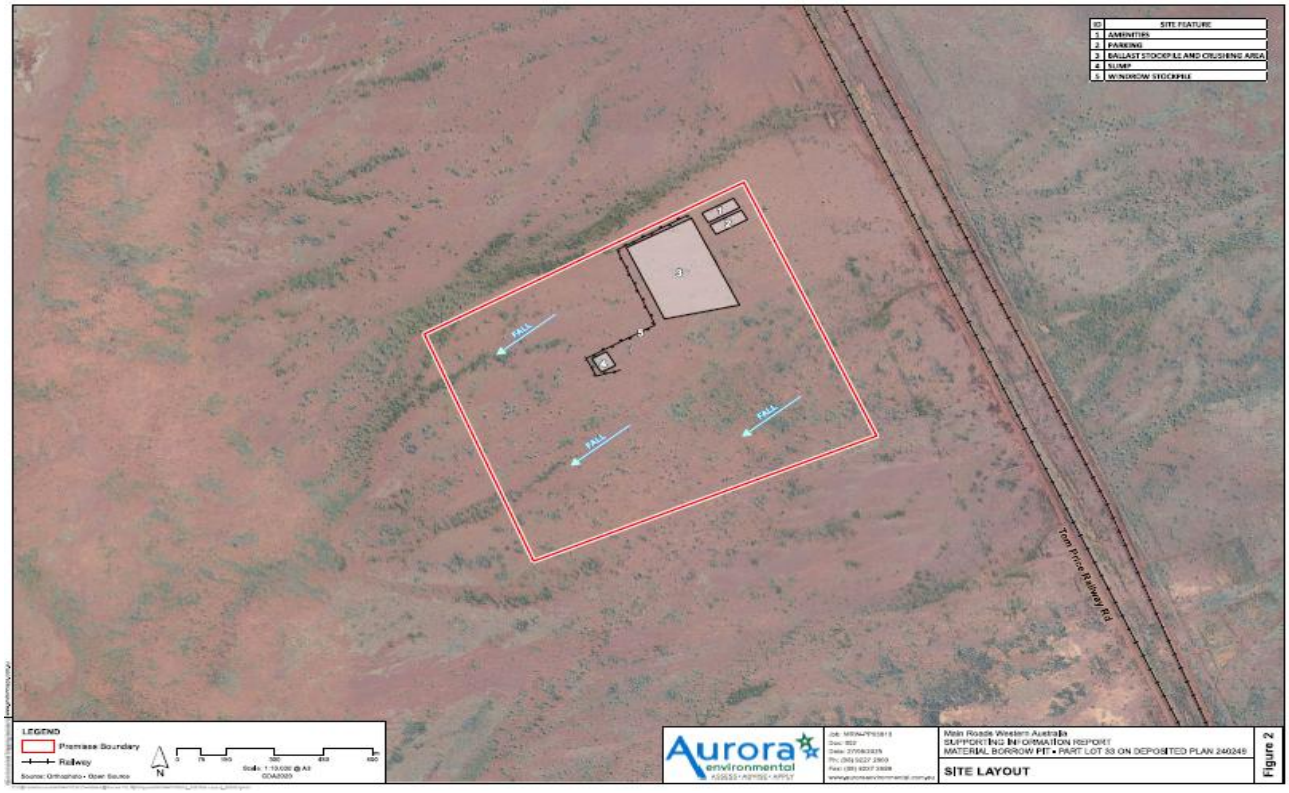

Figure 2: Premises layout.

2.3 Ballast Characterisation

The 153 Laydown Stockpile has undergone a geo-chemical characterisation, and the supporting documentation provided by the applicant provided the following:

- Degraded ballast showed organic contamination of low levels of pesticides (primarily Aldrin and Dieldrin). Metals and metalloids were reported at varying levels, but this is representative of the igneous nature of the degraded ballast and not representative of contamination caused by operation of the rail network.
- The rail ballast is deemed a low risk to human health with no exceedances of the Health Investigation Level D 'Commercial/Industrial' National Environment Protection (Assessment of Site Contamination) Measure (NEPC 1999) Guidelines, while asbestos was not identified above the testing laboratory's limit of reporting (LOR). Leaching analysis did report certain metals exceeding drinking water guideline. The statistical assessment showed the 'Sum of Aldrin and Dieldrin' did not exceed its drinking water guideline.
- In terms of ecological health, the degraded ballast is not anticipated to pose a direct risk to the ecological community. However, testing showed the degraded ballast may generate a leachate that in theory could pose a risk to both terrestrial and aquatic ecological communities.
- A review of leachate analysis indicates that chromium (trivalent and hexavalent), cobalt, copper, lead, nickel, thallium, and zinc were detected in leachate concentrations above the Australian Drinking Water Guidelines. This suggests leachate from the stockpile ballast may pose a risk to groundwater beneath the premises without migration in place.
- Asbestos was analysed in 175 samples. All bulk asbestos results were below the laboratory Practical Quantitation Limit (PQL) of 0.01% w/w. All fibrous asbestos/asbestos fines results were below laboratory PQL of 0.001%. Therefore,

asbestos is not considered a concern in the ballast 153 Laydown Stockpile.

DWERs Contaminated Sites Branch (CSB) reviewed the ballast characterisation information submitted as Attachment 8A and 8B of the application supporting documentation. CSB provided the following advice:

1. *CSB considers that there are some significant limitations with the geochemical testing program that was undertaken by Calibre consultants, and with the conclusions that were drawn from the results of the test-work.*

   Firstly, no information was provided in the report about whether testing was carried out on crushed rock samples that were screened to the particle-size that would be used for road aggregate. This is an important consideration, as fresh rock surfaces could contain exposed sulfide minerals that would be likely to oxidise and potentially release high concentrations of some metals and metalloids into leachate.

   This would especially be the case for screened-fines from the crushing plant which would have a high specific surface area and therefore would have the potential to release much higher concentrations of metals in leachate than aggregate-sized materials.

   The lack of information about the mineralogy and lithology of the recovered rock materials is also of concern, as this limits the ability of assessors to make predictions about the long-term leaching behaviour (rather than just the short-term leaching behaviour) of these materials. The chemical composition of the analysed rock samples suggests that they mostly consist of mafic lithologies like basalts and dolerites. This would suggest that silicate minerals in these rocks could contain some metals like nickel and chromium that could be progressively released into leachate as these minerals weather over time.

   In the absence of the information that is outlined above, CSB considers that the testing that was carried out using the Australian Standard Leaching Procedure (ASLP) is by itself inadequate to assess the long-term environmental risks that could be associated with the storage and use of the crushed rock material, and with the management of waste fines that would be produced by the crushing plant.

   Ideally, the assessment of the suitability of the recovered rock for use as road aggregate should be assessed using the full suite of testing procedures that would be used for assessing the leaching behaviour of waste rock at a mine site, as has been recommended for some road construction projects in Sweden (see e.g., Hansen Österlund, 2025).

   However, given the scale of the proposed Manuwarra Red Dog Highway project in the Pilbara region, such a full assessment may not be feasible. This is because of the large expense and time that would be required which may not be commensurate with the level of environmental risk that is likely to be associated with leachate from the recovered rock material.

   It is recommended, however, that representative samples of crushed recovered rock aggregate and waste fines materials from the laydown site are subjected to a peroxide-oxidation leaching test such as the NAG test. This is considered to be necessary to estimate the "worst case" scenario where the produced aggregate and waste fines are subjected to highly oxidising conditions after crushing and screening to force the oxidation of sulfide minerals. Such testing that has been historically carried out on road aggregate in Sweden (Tossavainen and Forrsberg,1999) has found that concentrations of many metals in leachate were much higher than those produced by standard leaching tests.

2. *CSB considers that there are number of significant limitations of the risk assessment that was presented in Attachment 8B of the document that was reviewed. These include:*

- *The limitations in the assessment of the quality of leachate from the crushed rock that were discussed above in the previous section of this memo;*
- *The limitations in the assessment of the receptors for the leachate; and*
- *A lack of consideration of the potential environmental impacts of the waste fines that would be produced by the crushing plant.*

CSB agrees with the assessment by Aurora consultants that runoff from road surfaces where the aggregate is used would be unlikely to affect wetlands or groundwater quality in the road construction area. However, Aurora has ignored the potential impacts of runoff from the road surface on natural vegetation that abuts roads throughout much of the Pilbara region. The relevant water quality criteria to assess these potential impacts are the draft Australian and New Zealand (ANZ) default irrigation guideline values for metals which are tabulated below:

Table 10 Agricultural irrigation water default guideline value (DGV), short-term guideline value (SGV) and soil added contaminant loading limit (ACL) guideline values for heavy metals and metalloids[a]

Element	ACL[b] (kg/ha)	DGV (mg/L)	SGV (mg/L)
Aluminium	ND	5	20
Arsenic	20	0.1	2.0
Beryllium	ND	0.1	0.5
Boron	ND	0.5	0.75 to 15
Cadmium	2	0.01	0.05
Chromium	ND	0.1	1
Cobalt	ND	0.05	0.1
Copper	140	0.2	5
Fluoride	ND	1	2
Iron	ND	0.2	10
Lead	195	0.2	2
Lithium	ND	0.075 (Citrus crops)	0.075 to 2.5
Manganese	ND	0.2	10
Mercury	2	0.002	0.002
Molybdenum	ND	0.01	0.05
Nickel	85	0.2	2
Selenium	10	0.02	0.05
Uranium	ND	0.01	0.1
Vanadium	ND	0.1	0.5
Zinc	300	2	5

a Guideline values should only be used in conjunction with information on each individual element and the potential for off-site transport of contaminants (Chapter 'Background information for water quality for irrigation and general water uses', Section 5)

b ND = Not determined; insufficient background data to calculate ACL

Using these criteria, the ASLP leaching data for the ballast rock meet the above DGV limits for all chemical parameters with the exception of manganese.

CSB recommends that the peroxide-oxidised leachate values discussed in the previous section are also compared with the tabulated DGV values. If concentrations of one or more of the peroxide-oxidised concentrations exceed their respective DGVs, an additional assessment should be undertaken to estimate the contaminant loading to soil adjacent to the road (the ACL column in the above Table) to ensure that discharges from the road surface will not be harmful to soil fauna and vegetation near the edge of the road.

This can be done by determining the annual load of a contaminant that would be produced by the annual rainfall falling on a unit length of road in the region, and then by depositing this runoff (assuming no loss by evaporation during a rainfall event) on a 10-metre-wide strip of land over the same road length.

The most problematic information gap in the Aurora risk assessment is a lack of consideration of the potential harmful effects of the waste fines that will be produced by the crushing and screening of the ballast rock. It is likely that much of the dieldrin from the rock ballast will remain adsorbed to the waste fines, and so it will be important that

this material is not washed from the crushing plant into the environment during rainfall events. Additionally, metal concentrations in leachate from this material are likely to be much higher than those leached from the aggregate.

Consequently, it is recommended that the applicant is required to prepare a plan that indicates how the waste fines will be managed during the life of the road construction program. Some measures that could be considered in such a plan would be:

- *Constructing a suitably-sized bund around the crushing plant site to limit the uncontrolled runoff of fine suspended particles from the area during rainfall events;*
- *Ensuring that all runoff from the site flows through a suitably-sized retention basin to capture suspended particles; and*
- *Ensuring that sediment in the retention basin is regularly removed and disposed of at a suitable site.*

Noting the CSB response DWER sent a request for further information letter dated 26 February 2026 to the Applicant with the following requests:

1. Characterisation Assessment - Additional testing of the 153 Laydown Stockpile. Please address the limitations within the geochemical testing data identified by DWER's Contaminated Site's Branch (CSB). Please confirm whether representative samples of crushed recovered rock aggregate and waste fines materials from the laydown site can be subjected to a peroxide-oxidation leaching test such as the Net Acid Generation (NAG) test.
2. Additional Risk Assessment – soil fauna and vegetation. Please address the limitations within the Risk Assessment presented in Attachment 8B identified by DWER's Contaminated Site's Branch (CSB). Please confirm whether additional data obtained from NAG testing (or similar) will be compared to the draft ANZ default irrigation guideline values.
3. Waste fines management - Please confirm whether a Waste Fines Management Plan will be provided. The plan should include measures such as:
    - Bunds around the crushing plant to prevent uncontrolled runoff.
    - A retention basin sized to capture fine suspended particles.
    - Regular removal and proper disposal of accumulated sediment.

The Applicant responded on 17 March 2026 with a response to the three requests (provided as a summary below):

1. *We understand the CSB concern is regarding a "worst case" scenario where the produced aggregate and waste fines are subjected to highly oxidising conditions after crushing and screening to force the oxidation of sulfide minerals and subsequent leaching of metals, which may in turn impact the environment during reuse of the blended material. DWER are seeking more data to inform their risk assessment of the reuse of the blended material (as opposed to the licensed activity of crushing the ballast).*

    It is acknowledged that the methodology around the testing data is missing from the Calibre (2023) report. Rio Tinto has provided the Applicant with additional data on the ballast which may assist with DWER's risk assessment.

    Testing of the 153 Laydown stockpile was undertaken by ERM (2023) as part of Phase 2 of the study (see Figure 1 of ERM report, referred to as 'ch153laydown'). Four sample locations (A to D) were investigated, with analysis of three samples;

    - *BS (bulk sample),*
    - *FS (fines sample) and*

- *RA (rock aggregate sample)*

from each sample location. An analysis of sulphur content was used to calculate the maximum potential acidity (MPA) of the samples and The range of MPA per sample class is:

- *Bulk sample – 5.202 to 8.567 H2SO4/t;*
- *Fines sample – 2.448 to 4.896 H2SO4/t; and*
- *Rock aggregate sample – 3.672 to 5.202 H2SO4/t.*

If conservatively we assume the acid neutralising capacity (ANC) of the ballast is 1mg/L CaCO3, then the sample results indicate the ballast ch153 stockpile is potentially acid forming (PAF). Assuming the ballast is PAF the management controls outlined in the Works Approval application still remain the same as proposed (ballast will be mixed with natural gravel before being placed under a sealed road). Furthermore, both water and oxygen are necessary to generate acid drainage and once capped with impermeable asphalt, the blended material will remain in a dry condition.

The lines of evidence that suggest the blended material once reused is unlikely to significantly impact the environment are:

- *Metals are a product of the natural geochemistry of the ballast material, as opposed to being associated with an anthropogenic contaminant source and as such rock would breakdown over time regardless of mechanically being crushed and pose the same risk to the environment as naturally occurs.*
- *A cross section of the typical road construction showing the location of the base course within the road is provided in Attachment 2. The base course is typically 12400mm wide and 200mm thick and overlies a 200mm thick sub-base, and is capped by a double seal, typically an impermeable asphalt layer. In the case of reuse of ballast, the shoulders of the base course will also be sealed. In effect this will cap the ballast to the receiving environment and not allow water ingress. Therefore, acid drainage is unlikely to occur.*
- *For exposure to occur, a complete pathway must exist between a source of contamination and the receptor (i.e., the person or ecosystem components potentially affected by the contamination). Where the exposure pathway is incomplete, exposure cannot occur, leaving no unacceptable risk present via that pathway. There is not considered to be an unacceptable risk based on absence of source (i.e., no evidence to suggest analytes identified by DWER are associated with historical use of ballast material), but also no viable pathway (i.e., rainwater unable to penetrate the sealed road surface). Further, there are unlikely to be any relevant environmental receptors, noting creation of the road (and associated easements) effectively removes all potential receptors*

2. *Aurora's (2024) risk assessment was targeted to the investigation of dieldrin and based on the draft version of the ERM (2023) report, as such metals concentrations in leachate were not part of the scope of the risk assessment.*

   <u>Reuse of Ballast</u>

   As discussed in the above response, the Source-Pathway-Receptor conceptual site model under a reuse scenario suggests impacts to ecological receptors is not considered a normal credible risk event. Whilst a source is present (ballast), no credible pathway or receptor is present once the ballast is capped. Therefore, acid drainage is unlikely.

   <u>Crushing of Ballast on the Premises</u>

   Controls for potentially contaminated stormwater runoff, as stated in the Works Approval

Application (Supporting Information Report page 53), will be in place to manage surface water run off during crushing and stockpiling activities. The sump to collect leachate runoff from stockpiles will be appropriately sized to capture a 1 in 100 annual recurrence default irrigation guideline values interval (ARI) rainfall event (1% AEP) and overflow from the sump is very unlikely and furthermore unlikely to reach soils off the Premises which may support native vegetation.

With these controls in place, and given the Premises is already cleared, it is very unlikely that natural vegetation will be adversely affected by metals in leachate.

Summary

For the reasoning listed above, further peroxide-oxidation leaching tests are considered unwarranted given the absence of credible receptors and the acknowledgment that based on ERM (2023) data the ballast is likely to be PAF, as NAG testing is unlikely to yield more data that changes the management outcome of controlling stormwater runoff on the Premises and for reuse, capping the ballast within the base course of the road.

3. *Controls for potentially contaminated stormwater runoff were stated in the Works Approval Application (Supporting Information Report page 53).*

   The Applicant has already committed to bunding around the crushing plant and to place impermeable hardstands under stockpiles and provide a sump to collect leachate runoff.

   It is expected these controls will be listed in the Works Approval and managed under that instrument rather than a separate Waste Fines Management Plan.

   MRWA commits to removing accumulated sediment within the sump periodically and disposing of the material at a licensed solid waste management facility.

Key finding: The delegated officer has reviewed CSB advice and the ensuing Applicant response, and considers the following:

1. *DWER considers the Applicant response is sufficient in the context of the Departments risk-based approach for assessing prescribed premises utlising the assessment of emissions identifying the potential source, pathway and impacts to receptors.*

2.4 Clearing Activities

Clearing of approximately 8 ha of native vegetation may occur to facilitate the Project. The Applicant has a purpose permit CPS 10273/1 for Lot 33 which allows 70 ha of native vegetation to be cleared for the purpose of material extraction for road construction and maintenance.

2.5 Planning Approval

The Shire of Ashburton advised the Applicant on 16 June 2025 that no planning approval is required as the Project falls under 'public works' and is therefore exempt from Development Approval under section 6 of the *Planning and Development Act 2005*; provided environmental and traffic management controls are in place.

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 2020).

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 / operation which have been considered in this decision report are detailed in Table 1 below. Table 1 also details the 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	Crushing / screening of material, vehicle movements, lift-off from stockpiles and/or stored products, earthworks etc.	Air / windborne pathway	Physical separation from receptors. Mobile crusher and screen will have sprays/sprinklers. Water cart on premises. Turkey nest to store water for mobile plant. Dump trucks will be covered to prevent discharge of dust. Health and Safety Assessment has been drafted – assessment of wind directions and monitoring.

Emission	Sources	Potential pathways	Proposed controls
Noise	Crushing and screening of material	Air / windborne pathway	Physical separation from receptors. All onsite machinery fitted with mufflers. Health and Safety Assessment has been drafted.
Operation *(Commissioning and Time-limited Operations)*			
Dust	Crushing / screening material, vehicle movements, lift-off from stockpiles and/or stored products, earthworks etc.	Air / windborne pathway	Physical separation from receptors. Mobile crusher and screen will have sprays/sprinklers. Water cart on premises. Turkey nest to store water for mobile plant. Dump trucks will be covered to prevent discharge of dust. Health and Safety Assessment has been drafted – assessment of wind directions and monitoring.
Nosie	Crushing and screening of material	Air / windborne pathway	Physical separation from receptors. All onsite machinery fitted with mufflers. Health and Safety Assessment has been drafted.
Asbestos Fibres	Crushing and screening of material	Air / windborne pathway	Sample characterisation. Physical separation from receptors.
Leachate	Storage of blended material	Seepage to soil and groundwater	Stockpile hardstands to be constructed to achieve a coefficient of permeability of 1 x 10^{-9} m/s, with connecting sump to collect leachate runoff from stockpiles. Sump to be approximately sized to capture a 1 in 100 annual recurrence interval (ARI) rainfall event (1% AEP) from the crushing and screening hardstand. Ballast characterisation analysis. Short 50-day duration of works.
Spills / Leaks	Mobile Crushing / screening Plant and vehicles	Seepage to soil and groundwater	Mobile plant to be served/maintained and no leaking fluids. All maintenance is off premises. If required on Premises, it will include full bunding. No storage of chemicals flammable liquids or hazardous substances on premises. No refueling or repairs on premises.

Emission	Sources	Potential pathways	Proposed controls
Contaminated Stormwater	Crushing and screening of material Storage of blended material	Overland run-off to surface water and seepage to groundwater	Stockpile hardstands to be constructed to achieve a coefficient of permeability of 1 x 10^{-9} m/s, with connecting sump to collect leachate runoff from stockpiles. Compliance with Department of Water, Water Quality Protection Notice 52 (WQPN) – Stormwater management at industrial sites. Sump to be approximately sized to capture a 1 in 100 annual recurrence interval (ARI) rainfall event (1% AEP) from the hardstand. Bunding around the crusher and screen to capture runoff during rainfall events. Ballast characterisation analysis. Short 50-day duration of works.

3.1.2 Receptors

In accordance with the *Guideline: Risk Assessment* (DWER 2020), the delegated officer has excluded the applicant's employees, visitors, and contractors 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 provides a summary of potential human and environmental receptors that may be impacted because of activities upon or emission and discharges from the prescribed premises *(Guideline: Environmental Siting* (DWER 2020)).

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

Human receptors	Distance from prescribed activity
Residential	Greater than 10km
Environmental receptors	**Distance from prescribed activity**
Fortescue River	5 km south
Pilbara Groundwater Area - Groundwater	4-37 mbgl
Public Drinking Water Source Area – Priority 1	Within premises
Millstream-Chichester National Park	18 km north
Aboriginal heritage site	2.5 km north

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for each identified emission source and considers 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 W3186 that accompanies this decision report authorises construction, commissioning 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. 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 events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
Construction								
Placement of crusher and screen and associated equipment including vehicle movements (reversing beepers). Construction of stormwater channels and stormwater sump.	Dust	Air / windborne pathway causing impacts to health and amenity	Residences > 10 km	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	N/A	The delegated officer has considered the scale of the works and the separation distance between the source and receptors and considers that dust emission impacts are not foreseeable. Dust can be adequately regulated by section 49 of the EP Act.
	Noise			Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	N/A	The delegated officer has considered the separation distance between the source and receptors and considers that impacts from noise emissions are not foreseeable. Noise emissions are adequately regulated under the *Environmental Protection (Noise) Regulations 1997* (Noise Regulations).
Operation ***(including Commissioning and Time-limited operations)***								

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
Screening, crushing, unloading, loading and storage of material Vehicle movements	Dust	Air / windborne pathway causing impacts to health and amenity	Residences > 10 km	Refer to Section 3.1	C = Slight L = Rare **Low Risk**	Y	Conditions 6 and 11	The delegated officer has considered the scale of the works and the separation distance between the source and receptors and considers that dust emission impacts are not foreseeable. Dust can be adequately regulated by section 49 of the EP Act.
	Noise	Air / windborne pathway causing impacts to health and amenity	Residences > 10 km	Refer to Section 3.1	C = Slight L = Rare **Low Risk**	Y	N/A	The delegated officer has considered the separation distance between the source and receptors and considers that impacts from noise emissions are not foreseeable. Noise emissions are adequately regulated under the Noise Regulations.
	Asbestos Fibres	Air / windborne pathway causing impacts to health and amenity	Residences > 10 km	Refer to Section 3.1	C = Severe L = Rare **High Risk**	Y	Conditions 7 and 8 **Conditions 10 and 12.**	N/A
	Leachate	Seepage to Groundwater	Groundwater 4 - 37 mbgl	Refer to Section 3.1	C = Slight L = Rare **Low Risk**	Y	Conditions 1, 2, 6, 7, 8, and 9	N/A
	Spills / Leaks	Seepage to Groundwater	Groundwater 4 – 37 mbgl	Refer to Section 3.1	C = Slight L = Rare **Low Risk**	Y	Condition 6	N/A

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
	Contaminated Stormwater	Overland runoff potentially causing ecosystem disturbance or impacting surface water quality	Fortescue River 5 km south	Refer to Section 3.1	C = Slight L = Rare **Low Risk**	Y	Conditions 1, 2, 3, 6, 7, 8, and 9	N/A

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk Assessments* (DWER 2020).

Note 2: Proposed applicant controls are depicted by standard text. **Bold and underlined 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 on 26 January 2026.	Comment due 16 February 2026. None received.	N/A
Local Government Authority advised of proposal on 27 January 2026.	Comment due 4 February 2026. The Shire of Ashburton did not respond.	N/A
Applicant was provided with draft documents on 19 March 2026	Applicant responded on 26 March 2026: A review of the instrument (as attached) has identified two minor administrative errors: • Table 1, Item 2 (re-cycled rail ballast stockpile) - Stockpile hardstand constructed to achieve a maximum coefficient of permeability of 1 x 10^{-8} m/s permeability (this should be 1 x **10^{-9}** m/s) • Table 1, Item 3 (stormwater retention sump) - Sump to be approximately sized to capture a 1 in 100 annual recurrence ~~internal~~ **interval** (ARI) rainfall event (1% AEP) from the premises Given the amendments are administrative and Main Roads has no further comments to provide, we kindly request that the comment period be waived and the works approval be issued as soon as possible.	The typographical errors have been corrected in the Works Approval for Table 1 and Table 2.

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. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
4. Hansen Österlund, S.E., 2015. Leachability of sulphidic rock aggregates used as construction material: A laboratory study assessing leaching behaviour of unbound base and subbase layers used in road construction. *Thesis from the Luleå University of Technology, Sweden*.
5. Tossavainen, M. and Forrsberg, E., 1999. The potential leachability from natural road construction materials. *Science of the Total Environment*, **239**, 31-47.