



Application for Works Approval

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

Works Approval Number	W6592/2021/1
Applicant	CPB Contractors Pty Ltd
ACN	000 893 667
File number	DER2021/000410
Premises	Yanchep Rail Extension 146K Toreopango Avenue, YANCHEP WA 6035 Legal description - Lot 9 on Plan 415221, Volume 2959 Folio 378 and Volume 3959 Folio 379.
Date of report	13 January 2022
Decision	Works approval granted

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REGULATORY SERVICES

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

Table of Contents

1. Decision summary	1
2. Scope of assessment	1
2.1 Regulatory framework	1
2.2 Overview of project	1
2.3 Application summary and overview of premises	1
2.4 Description of proposed activity	1
2.4.1 Construction	1
2.4.2 Operations (including time limited operations)	2
2.5 Part IV of the EP Act	2
3. Risk assessment	2
3.1 Source-pathways and receptors	3
3.1.1 Emissions and controls	3
3.1.2 Receptors	6
3.2 P3 - Perth Coastal and Gwelup Underground Water Pollution Control Area – change to premises area	9
3.3 Risk ratings	10
3.4 Detailed risk assessment – Discharges to P3 PDSWA	13
3.4.1 Overview of risk event	13
3.4.2 DWER determination	13
3.5 Detailed risk assessment – Noise Emissions	13
3.5.1 Overview of risk event	13
3.5.2 DWER determination	15
3.6 Detailed risk assessment – Dust Emissions	16
3.6.1 Overview of risk event	16
3.6.2 DWER determination	16
4. Consultation	17
5. Conclusion	17
References	17
Appendix 1: Application validation summary	19
Table 1: Emission sources and proposed controls	3
Table 2: Sensitive human and environmental receptors and distance from prescribed activity	6
Table 3: Risk assessment of potential emissions and discharges from the premises during construction, and operation	11
Table 4: Consultation	17

Figure 1: Distance to sensitive receptors.....	7
Figure 2: Annual wind rose at Gingin Aero (site no. 009178) – 9 am and 3 pm (BOM 2021)....	8
Figure 3: Indicative site layout with crushing and screening boundary outside WHPZ.....	9
Figure 4: Indicative predicted noise levels – equipment at the centre of the premises.....	15

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 operations (including time limited operations) of the premises. As a result of this assessment, works approval W6592/2021/1 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 Overview of project

The Yanchep Rail Extension (YRE Project) is an extension to the northern suburbs' railway (also known as the Joondalup line) in Perth's northern suburbs. The YRE Project includes 14.5 km of railway beyond the existing Butler Station and three new stations at Alkimos, Eglington and Yanchep.

The Yanchep Rail Extension: Part 2 – Eglington to Yanchep (Part 2 Project) consists of the construction and operation of a 7.2 km extension to the existing Joondalup railway line from the future Eglington Station to the suburb of Yanchep in the City of Wanneroo.

The design of the YRE Project requires a considerable volume of material be extracted from existing ground levels, which includes sand. A contract condition requires that the applicant reuse the sand in permanent and temporary construction works associated with the YRE Project.

As part of Part 2 Project delivery, the applicant is proposing to screen the extracted sand. The area selected for sand screening has been cleared under Ministerial Statement 1129 (MS 1129) and is being used as a stockpile storage area under Development Approval 30-50417-1.

2.3 Application summary and overview of premises

On 20 July 2021, the applicant applied for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act).

The application is to undertake construction and operations (including time limited operations) works relating to Category 12: Screening etc. of material at the premises. The applicant is proposing to screen up to 350,000 tonnes of sand over a two-year period.

The premises relates to the category and assessed production capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W6592/2021/1. 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 2020b) are outlined in works approval W6592/2021/1.

2.4 Description of proposed activity

2.4.1 Construction

The proposed construction phase activities include the following works:

- placement and mobilisation of screening plant and associated infrastructure (including

vehicle movements):

- mobile crusher (McCloskey J50 Jaw Crusher)
- mobile screen (Terex Finlay 883MKII Supertrak)
- stacker (Edge RTS 9048)
- articulated dump truck
- articulated water cart: both 15,000 L and 40,000 L trucks to be used.
- Caterpillar 980 front end loader
- dozer, and
- excavator
- construction of stormwater management infrastructure.

2.4.2 Operations (including time limited operations)

The proposed sand screening operations (including time limited operations) activities includes the following:

- crushing and screening of sand
- handling and stockpiling of material including loading of material into trucks
- vehicle movements; and
- refueling (via refueling truck equipped with a spill kit and drip tray).

Operating hours are proposed to occur between 7 am and 7 pm Monday to Saturday. Operations exclude Sundays and public holidays.

2.5 Part IV of the EP Act

The overall YRE Project was assessed under Part IV of the EP Act with two Ministerial Statements issued.

MS 1100 was approved on 26 June 2019 for the Part 1 Project and requires the proponent to minimise impacts from construction on flora and vegetation, landforms, terrestrial fauna and social surroundings.

MS 1129 was issued on 14 April 2020 for Part 2 of the YRE Project. The proposed sand screening activities assessed under this works approval are not located within the envelope for Part 2 of the YRE Project, which requires the proponent to minimise impacts from construction on flora and vegetation, landforms, terrestrial fauna, and social surroundings. These Part IV regulatory requirements do not pertain to the applicant's proposed sand screening activities. Therefore, works approval W6592/2021/1 provides Part V regulatory requirements for these activities.

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 and 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: Emission sources and proposed controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
Noise	Activities: <ul style="list-style-type: none"> placement and mobilisation of screening plant and associated infrastructure (including vehicle movements); and construction of stormwater management infrastructure. For noting: the applicant has advised that site establishment works have largely been completed as part of other activities associated with the construction of the YRE Project.	Air/windborne pathway	All works will be undertaken during normal operating hours. See section 2.4.2.
Dust			Wind breaking fencing, erected around entire stockpile site. <ul style="list-style-type: none"> Water access: <ul style="list-style-type: none"> water for dust suppression is being sourced from a construction water bore (licence approval by DWER GWL204822 expiry 21/09/2025) Water carts (15,000 L and 40,000 L capacity): <ul style="list-style-type: none"> water for dust suppression will be applied as necessary by water carts. Dust monitoring <ul style="list-style-type: none"> Daily visual monitoring for off-site dust. Should dust drift be identified off-site, additional dust controls will be implemented (such as increased water cart operations) or operations temporarily discontinued.
Operation			
Hydrocarbons (hydraulic oil or diesel) and chemicals	Source: <ul style="list-style-type: none"> operation of vehicles, trucks and mobile equipment Activities: <ul style="list-style-type: none"> refueling of plant and equipment damage to equipment 	Infiltration to protected groundwater area via soil Overland flow	<ul style="list-style-type: none"> Spill kits available on site, with absorbent booms or banks of sand used to prevent a spill from further impacting the environment. refueling truck equipped with a spill kit and drip tray

Emission	Sources	Potential pathways	Proposed controls
	causing leaks		
Stormwater - sediment laden	Activities: <ul style="list-style-type: none"> screening of sand handling and stockpiling of material including loading of material into trucks vehicle movements 	Overland runoff	<ul style="list-style-type: none"> Stormwater diversion or bund will be constructed where required to divert surface water away from stockpiles and to minimise soil erosion caused by concentrated flows. Erosion control measures will be implemented to minimise soil erosion caused by stormwater. Sediment control measures will be implemented to trap and retain sediment within the site.
Noise		Air/windborne pathway	<ul style="list-style-type: none"> All works will be undertaken during normal operating hours. See section 2.4.2. Using the lowest-noise equipment which meet the requirements of the job. Premises designed to minimise the need for reversing of vehicles and mobile equipment. Broadband reversing alarms installed on construction vehicles and mobile equipment. A monitoring exercise to be undertaken at the commencement of operations to establish the noise levels from the premises at the nearest noise sensitive premises. Further noise mitigation measures considered if measured noise levels exceed the Assigned Noise Levels, as specified in the <i>Environmental Protection (Noise) Regulations 1997</i> (Noise Regulations) at noise sensitive premises.
Dust			<ul style="list-style-type: none"> Water access: <ul style="list-style-type: none"> water for dust suppression is being sourced from a construction water bore (licence approval by DWER GWL204822 expiry 21/09/2025) Water carts (15,000 L and 40,000 L capacity):

Emission	Sources	Potential pathways	Proposed controls
			<ul style="list-style-type: none"> ○ water for dust suppression will be applied as necessary by water carts. ● Bulk material stockpile: <ul style="list-style-type: none"> ○ constructed in a series of lifts and compacted with machinery to mechanically stabilise the material; and ○ access maintained to allow water cart operation on top of the stockpile. ● Chemical stabilisation: <ul style="list-style-type: none"> ○ a store of chemical stabiliser will be maintained on the project. This will be applied to the stockpile: <ul style="list-style-type: none"> ▪ following each stockpile lift; ▪ where stockpile operations are not planned for an extended period (i.e. greater than two weeks); and ▪ where it has been identified that water is being ineffective as a dust suppressant. ● Wind observations: <ul style="list-style-type: none"> ○ daily observation of wind direction and strength for the Yanchep area (via www.willyweather.com.au). Should southerly or south-westerly winds be predicted in excess of 30 km/hr, then stockpiling operations will be stopped. ● Dust monitoring: <ul style="list-style-type: none"> ○ daily visual monitoring for off-site dust. Should dust drift be identified off-site, additional dust controls will be implemented (such as increased water cart operations) or operations temporarily discontinued. ● Proposed further contingency measures, to be implemented as deemed necessary:

Emission	Sources	Potential pathways	Proposed controls
			<ul style="list-style-type: none"> ○ application of chemical stabiliser to dust generating areas; ○ dust suppression on access tracks and key areas of vehicle and mobile equipment movement; ○ installation of wind fencing along the western and southern boundaries of the premises; ○ installation of continuous onsite dust monitoring units at problematic site boundaries to quantify dust levels (most likely the western and southern boundaries).

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 and Figure 1 below 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 premises	150 m west of the northern boundary of the premises
	315 m west of the southern boundary of the premises
	600 m east of the premises, new subdivisions 400 m east of premises.
Recreational park	120 m south of the premises
Environmental receptors	Distance from prescribed activity
Public Drinking Water Source Area (PDWSA)	The premises is within the P3 - Perth Coastal and Gwelup Underground Water Pollution Control Area. A portion of the premises at the northern boundary is also situated within a Well Head Protection Zone (WHPZ).
Threatened Ecological Communities (TEC)	Banksia woodlands of the swan coastal plain (<i>Environment Protection and Biodiversity Conservation Act 1999</i> TEC) about 225 m to the northeast and 415 m east of the premises.

Aboriginal and other heritage site	Registered site 3394, about 42 m to the southwest of the premises.
Groundwater	Groundwater is considered marginal at 500 -1000 mg/L salinity (Geocortex). Groundwater is located at a depth of 30 metres below ground level (mbgl) (<i>Perth Groundwater Map</i>).

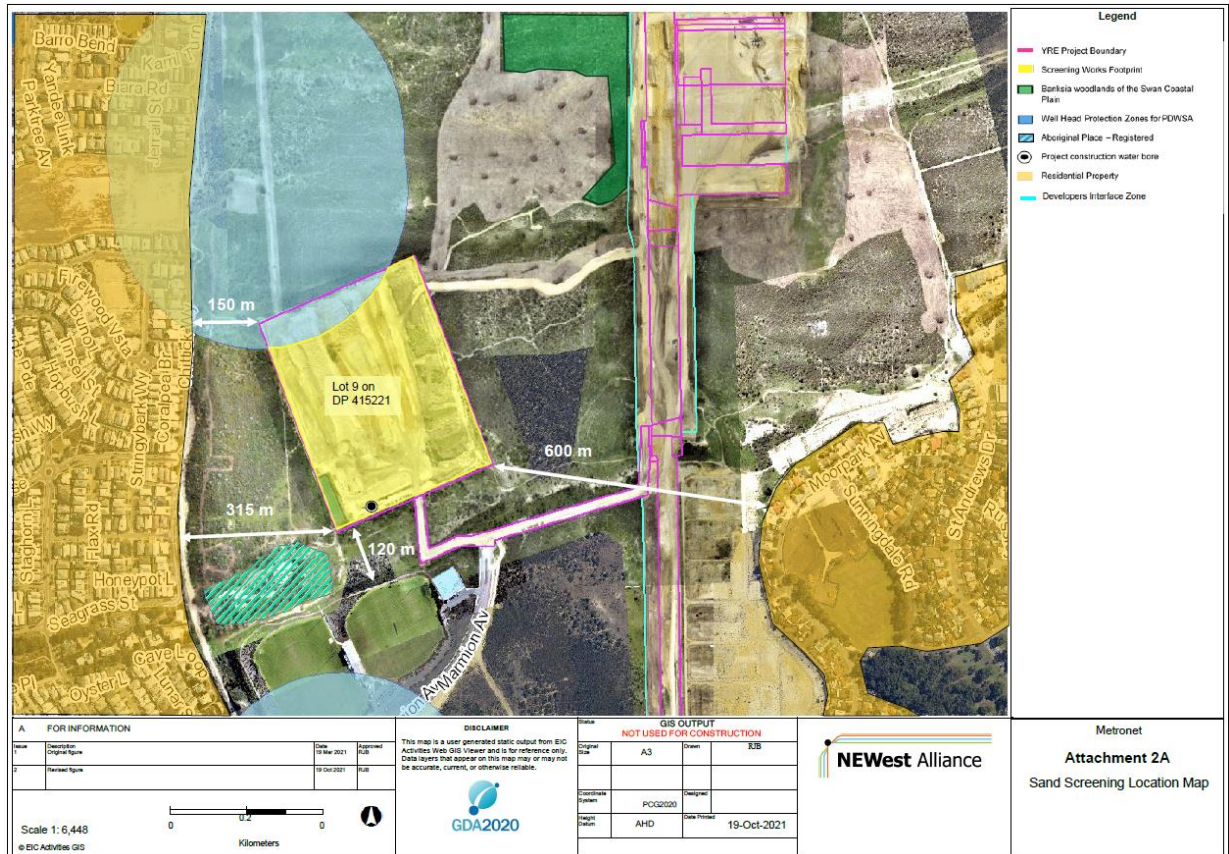
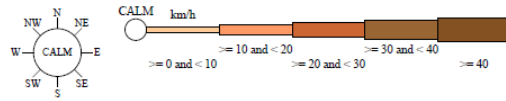
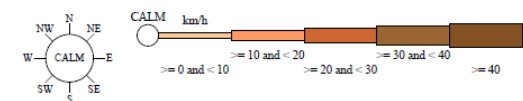
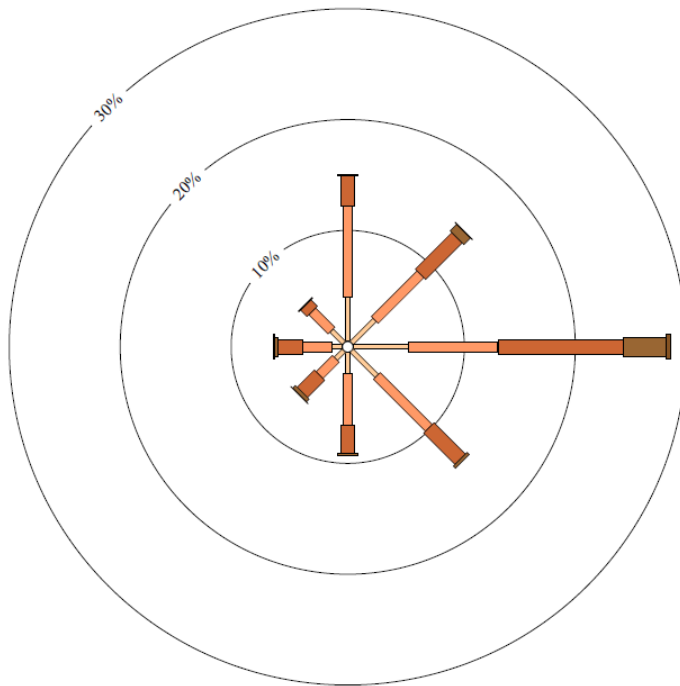


Figure 1: Distance to sensitive receptors



9 am
8656 Total Observations

Calm 2%



3 pm
8658 Total Observations

Calm *

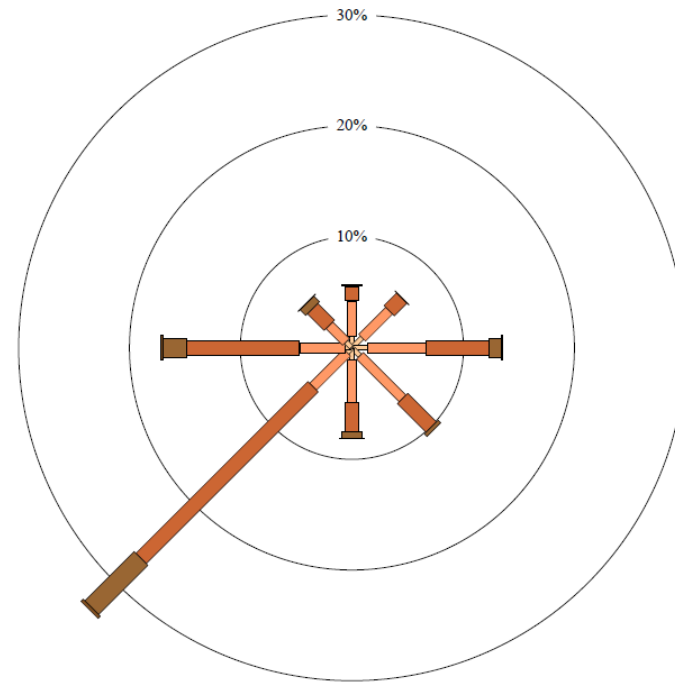


Figure 2: Annual wind rose at Gingin Aero (site no. 009178) – 9 am and 3 pm (BOM 2021)

3.2 P3 - Perth Coastal and Gwelup Underground Water Pollution Control Area – change to premises area

During the initial assessment of the works approval application, the Delegated Officer noted that screening activities fall within Public Drinking Water Source Protected Area (PDWSA) (P3) – Perth Coastal and Gwelup Underground Water Pollution Control Area and the *Rights in Water and Irrigation Act 1914* Perth Groundwater Area. Figure 1 shows the location of the operation in relation to well head protection zones (WHPZ), in blue.

Industry Regulation notes that the proposed operation is a compatible land use in accordance with *Water Quality Protection Note No. 25* (WQPN 25). However, the northern extent of the screening area falls within a wellhead protection zone. WQPN 25, condition 13 notes that screening activities should fall outside of wellhead protection zones.

The Delegated Officer sought technical advice from the department’s Water Source Protection Planning (WSPP) branch, which advised that crushing and screening are designated as an ‘incompatible’ land use in protection zones such as a WHPZ, and WSPP objected to these land use activities occurring within the WHPZ.

The Applicant was notified of this on 15 October 2021, and the Delegated Officer recommended that the northern extent of the operational area within Lot 9 be resized to exclude crushing and screening activities from falling within the well head protection zone. The Applicant responded on 21 October, agreeing to this change, and supplying revised location maps and indicative layout of Lot 9, see missing transect in yellow “Screening Works Footprint” (Figure 1) and Figure 3.

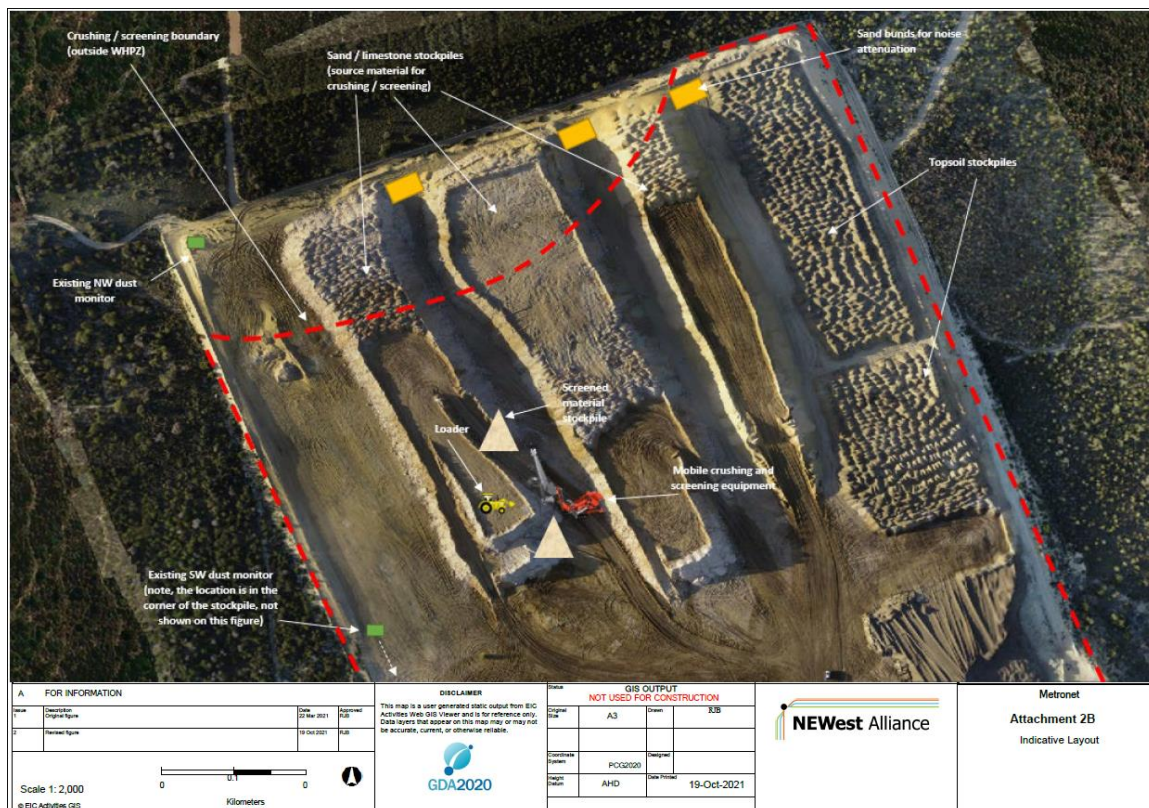


Figure 3: Indicative site layout with crushing and screening boundary outside WHPZ

3.3 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020b) 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 W6592/2021/1 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. screening of sand. 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	Applicant controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood			
Construction								
Placement and mobilisation of screening plant and associated infrastructure (including vehicle movements)	Noise	Air / wind dispersion Impacts to health and amenity	Residential properties (between 150 - 600 m)	Refer to section 3.1.1	C = Slight L = Possible Low Risk	Yes	Conditions 1 to 3 (general infrastructure and compliance reporting)	N/A
	Dust			Refer to section 3.1.1	C = Slight L = Possible Low Risk	Yes		N/A
Operation (including time-limited-operations operations)								
<p>Source:</p> <ul style="list-style-type: none"> operation of vehicles, trucks, and mobile equipment <p>Activities:</p> <ul style="list-style-type: none"> refuelling of plant and equipment; and damage to equipment causing leaks. screening of sand. handling and stockpiling of material including loading of material into trucks; and vehicle movements. 	Hydrocarbons (e.g., hydraulic oil or diesel) and chemicals	Infiltration to groundwater via soil Impacts to groundwater quality (P3 PDWSA)	Groundwater, P3 Drinking Water Source Area (about 30 mbgl) Banksia woodlands of the swan coastal plain (EPBC TEC) about 225 m to the northeast and 415 m east of the premises	Refer to section 3.1.1	C = Moderate L = Unlikely Medium Risk	Yes	Conditions 4 and 5 Condition 7 (Item 2)	Refer to section 3.2 and section 3.4 for the detailed risk assessment of hydrocarbon spill and change to premises area.
	Stormwater - sediment laden	Overland runoff Impacts to TEC/native vegetation health	Banksia woodlands of the swan coastal plain (EPBC TEC) about 225 m to the northeast and 415 m east of the premises.	Refer to section 3.1.1	C = Moderate L = Unlikely Medium Risk	Yes	Condition 1 Conditions 4 and 5 Condition 7 (Item 1)	
	Noise	Air / wind dispersion Impacts to health and amenity	Residential properties (between 150 - 600 m)	Refer to section 3.1.1	C = Moderate L = Likely High Risk	No	Condition 1 Conditions 4 and 5 Condition 8 Conditions 9-15	Refer to section 3.5 for the detailed risk assessment for noise emissions.

Risk events					Risk rating ¹	Applicant controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood			
	Dust	Air / wind dispersion Impacts to health and amenity	Residential properties (between 150 - 600 m)	Refer to section 3.1.1	C = Moderate L = Unlikely Medium Risk	Yes	Condition 1 Conditions 4 and 5 <u>Condition 6 and 7 (Item 3)</u>	Refer to section 3.6 for the detailed risk assessment for dust emissions.

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 underline text** depicts additional regulatory controls imposed by department.

3.4 Detailed risk assessment – Discharges to P3 PDSWA

3.4.1 Overview of risk event

The entire premises falls within the P3 PDWSA 'Perth Coastal and Gwelup Underground Water Pollution Control Area' and lies partially within, and 263 m north-northeast of two wellhead protection zones¹ (Figure 1).

Groundwater is considered marginal at 500 - 1000 mg/L (TDS) (DWER's Geocortex mapping software) and located at a depth of approximately 30 mbgl (Perth Groundwater Map, 2021).

Spill Management

Applicant controls include availability of spill kits onsite, with absorbent booms or banks of sand used to prevent a spill from further impacting the environment.

3.4.2 DWER determination

Refueling of screening plant and damage to equipment causing leaks

The applicant controls proposed above are deemed to be suitable by the Delegated Officer and they have been captured as regulatory requirements within works approval W6592/2021/1.

The Delegated Officer has determined that due to the premises being located within a P3 PDSWA and the porous calcareous and/or limestone soils at the premises, additional regulatory requirements have been applied to ensure appropriate management of hydrocarbons.

The Delegated Officer has determined that the following additional regulatory requirements are to be applied to manage hydrocarbon emissions during time limited operations:

- Maintain all mobile plant as per manufacturer's specifications, keep suitably stocked spill response equipment, ensure all staff are trained to use spill response equipment and contain and clean-up spills as soon as they occur (Condition 7, Item 2).

The Delegated Officer notes that discharges to the environment are also regulated under the *Environmental Protection (Unauthorised Discharges) Regulations 2004*.

3.5 Detailed risk assessment – Noise Emissions

3.5.1 Overview of risk event

The acoustic assessment was prepared by NEWest Alliance and considered operational noise produced by the sand screening equipment and infrastructure. The assessment is titled *YRE Yanchep Sand Screening and Limestone Crushing Plant Noise Assessment* (NEWest Alliance 2021) and is referenced in this document as 'acoustic assessment'.

The acoustic assessment indicates that noise from sand screening operations can be managed to comply with the assigned noise levels, as specified in the *Environmental Protection (Noise) Regulations 1997* (Noise Regulations), at all neighbouring residences without additional mitigation (Figure 4).

Table 2 above lists the relevant sensitive land uses in the vicinity of the premises, which may be receptors relevant to the activities. The residential receptors are considered as noise sensitive premises: highly sensitive area in the Noise Regulations, which are afforded the lowest allowable decibel levels to reduce impacts on health and amenity. The location of the

¹ A wellhead protection zone is intended to protect the immediate area around a bore from where drinking water is abstracted.

neighbouring residential receptors to the premises are shown in Figure 1 above.

The nearest residential premises are located to the west (northern and southern boundaries of premises) and south with the residential premises to the west and south being the closest and located within 150 m, 315 m and 600 m respectively from the proposed sand screening operations.

The assigned LA₁₀ noise level applicable under the Noise Regulations for operations between 7:00 am to 7:00 pm, Monday to Saturday is 45 decibels (dB) at noise sensitive premises.

The acoustic assessment compares data from manufacturer's specification of equipment, with and environmental noise survey undertaken at the Eglinton Sand Screening and Limestone Crushing Facility on 11 June 2021, in compliance with the Development Application conditions for that site. The crushing equipment in operation was the same as that proposed for this Yanchep site; namely, the McCloskey J50 Jaw Crusher. The results of the noise survey indicated that the actual noise emissions of the crusher were significantly lower than the manufacturer's data; of the order of 9 dB quieter. This assessment of the Yanchep site includes predictions of noise emission from the site utilising both the manufacturer's and the as-measured data for the crushing equipment.

The acoustic assessment indicates that the use of mobile plant with sound power levels as specified in the acoustic assessment, modelled from the June 2021 noise survey, are predicted to exceed the Assigned Noise Levels for the relevant period of operation at receivers to the west for all except the eastern equipment location. The modelled noise levels are predicted to achieve the Assigned Noise Levels at all other receiver locations for all other equipment locations.

The applicant notes that the assessment considers a single scenario of operation which includes mobile and static equipment which would be representative of a worst-case scenario of activity, i.e. all equipment operating 100% of the time. In practice, it is not expected that all equipment would operate at maximum noise output simultaneously and therefore this worst-case scenario is unlikely to occur for any truly representative period within the day.

The Delegated Officer notes the following potential limitations of the provided acoustic assessment:

- The applicant has considered and discarded various noise management strategies; including modifications to stockpiles to increase the effectiveness of acoustic shielding, increasing the height of the northern berm from 4.0 m to 8.0 m, and installations of a solid barrier / hoarding along the western, southern, and eastern boundaries of the site. This reduces the number of noise management strategies available to the applicant to manage noise propagation to sensitive receptors.
- the assessment scenario where limestone crushing equipment is placed at the northern end of the stockpile will not be possible based on the change to premises boundary to protect the well head protection zone (WHPZ), refer to 3.2.

The applicant's key proposed noise emission controls include:

- Using the lowest-noise work practices and equipment which meet the requirements of the job.
- Utilising the stockpiles as noise mitigation berms as far as is practicable.
- Minimise the operation of the equipment (particularly the crusher) at southern ends of the site as far as is practicable.
- Installing broadband reversing alarms on construction vehicles and machinery in preference to 'beeper' reversing alarms. The facility should also be planned to minimise the need for reversing of vehicles.
- Turning off plant and vehicles when not being used.

- Taking care not to drop spoil and construction materials that cause unnecessary peak noise events.
- Limiting the unnecessary use of loud equipment, generation of unnecessary noise.
- The movement of vehicles on the facility footprint should be minimised where possible.
- Undertaking all reasonable and feasible actions to achieve the Assigned Noise Levels where applicable.

The applicant will also notify residents before the plant begins operation, with details about the proposed works, operating hours and NWest Alliance staff members who can be contacted if there are concerns about emissions from the facility.

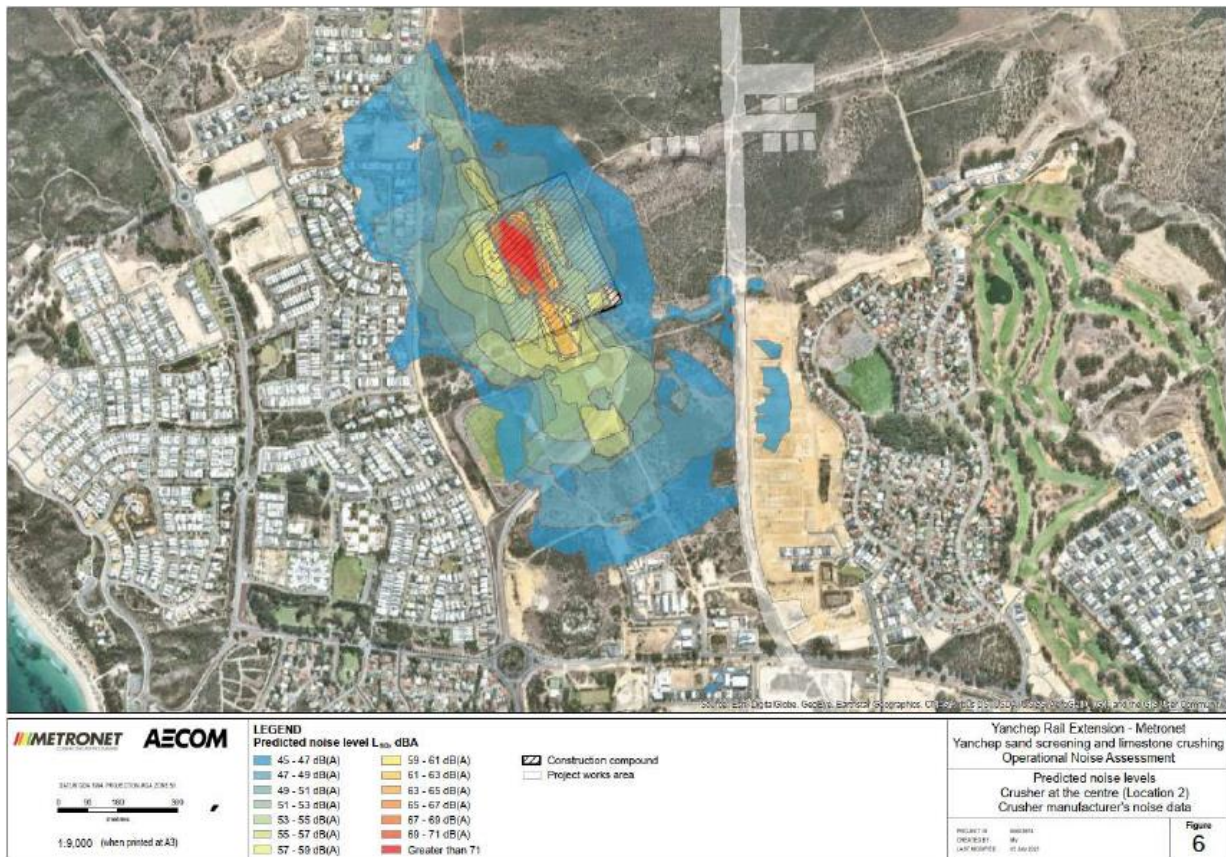


Figure 4: Indicative predicted noise levels – equipment at the centre of the premises.

3.5.2 DWER determination

The proposed applicant controls are deemed necessary to manage noise emissions during operations; therefore, these aspects have been conditioned as regulatory requirements within works approval W6592/2021/1.

The Delegated Officer's review of the proposed noise control measures and modelled results indicates that noise compliance is not achievable. As outlined in Table 3 above, the assessed risk for noise emissions during operations is 'high with a consequence rating of 'moderate and likelihood of 'likely'.

Considering the above, the Delegated Officer has determined that the following additional regulatory requirements are to be applied to manage and monitor noise emissions during time limited operations:

- maximum sound power levels permitted for each mobile equipment type have been specified to ensure these align with the sound power levels utilised in the noise modelling

(Condition 1);

- noise monitoring equipment is to be operated and calibrated in accordance with the manufacturer's specifications (Condition 8); and
- the requirement to complete noise monitoring, reporting of noise monitoring results and taking corrective action where noise emissions do not comply with the relevant assigned levels in the Noise Regulations (Conditions 9-15).

3.6 Detailed risk assessment – Dust Emissions

3.6.1 Overview of risk event

The dust risk assessment considers dust emissions from sand screening activities. Table 2 above lists the relevant sensitive land uses in the vicinity of the premises, which may be receptors relevant to the activities.

The closest weather station capable of providing wind data is the Gingin Aero site (no. 009178). Representative wind conditions are provided as annual wind roses (including wind speed, direction, and frequency of counts) in Figure 2.

During the mornings, winds predominately originate from the east, north-east and north (Figure 2) and travel towards residential properties, with most wind speeds between 10 - 30 km/hr. The Delegated Officer notes that easterly winds occur less than 30% of the time, while north-east and north winds occur less than 16% of the time.

During the afternoons, wind predominately originates from the south-west (Figure 2) away from nearby receptors. The strong wind speeds, ranging between 20 - >40 km/hr; in the afternoon will move dust emissions away from residents, but the Delegated Officer notes that south-westerly winds occur less than 35% of the time.

The applicant has proposed to use water as the primary mechanism for dust suppression, with water applied by water carts as necessary. A store of chemical stabiliser will be maintained on site and will be used where it has been identified that water is being ineffective as a dust suppressant.

The applicant will undertake daily observations of wind direction and strength and stockpiling operations will cease should southerly or south-westerly winds exceed 30 km/hr.

3.6.2 DWER determination

The Delegated Officer notes that these proposed dust control measures (refer to Table 1) are consistent with those described in *A guideline for managing the impacts of dust and associated contaminants from land development sites, contaminated sites remediation and other related activities* (DEC 2011) available on the DWER website. These controls are deemed suitable and necessary to manage dust emissions during operations and have therefore been conditioned as regulatory requirements within works approval W65927/2021/1.

Considering that the strongest wind speeds directed towards sensitive land uses occur less than 35% of the time and that the applicant's critical dust control measures have been conditioned within the works approval; the Delegated Officer has determined that dust emissions from sand screening operations can be managed to address the risk to sensitive land uses and that additional regulatory requirements are not considered necessary.

As outlined in Table 3 above, the assessed risk for dust emissions during operations is 'medium' with a consequence rating of 'moderate' and likelihood of 'possible'.

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 27 September 2021	N/A	N/A
Direct interest stakeholders (residents within 1 km of the premises) were advised of the proposal on 1 October 2021	One submission made related to crushing limestone causing silica dust. Concern is with health impact of silica dust, along with amenity impact to homes and cars.	DWER's consideration of the matters raised in this submission are included in section 3.1.1 of this report.
Local Government Authority – City of Wanneroo, advised of proposal on 1 October 2021	N/A	N/A
Department of Planning, Lands and Heritage (DPLH) advised of proposal on 1 October 2021	N/A	N/A
Applicant was provided with draft documents on 12 January 2022 and provided comment on the same day.	The Delegated Officer asked the applicant to supply water truck capacity and ground water bore licence number, and both were supplied. The applicant asked to waive the remainder of their review period and have the Works Approval issues as soon as possible.	N/A

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. NEWest Alliance 2021, *Application form: Works Approval and supporting information Metronet Yanchep Rail Extension August 2020*, Bibra Lake WA
2. NEWest Alliance 2021, *YRE Yanchep Sand Screening and Limestone Crushing Plant Noise Assessment*, Bibra Lake WA
3. Bureau of Meteorology (BOM) 2021, *Gingin (Site number 009178)*, website: http://www.bom.gov.au/climate/averages/tables/cw_009178.shtml
4. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
5. Department of Water and Environmental Regulation (DWER) 2020, *Guideline:*

Environmental Siting, Perth, Western Australia.

6. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.

Appendix 1: Application validation summary

SECTION 1: APPLICATION SUMMARY	
Application type	
Works approval	<input checked="" type="checkbox"/>
Date application received	20 July 2021
Applicant and Premises details	
Applicant name/s (full legal name/s)	CPB Contractors Pty Ltd
Premises name	Yanchep Rail Extension (YRE)
Premises location	146K Toreopango Avenue, Yanchep Lot 9 on Plan 415221, Volume 2959 Folio 378 and Volume 3959 Folio 379.
Local Government Authority	City of Wanneroo
Application documents	
HPCM file reference number:	DER2021/000410
Key application documents (additional to application form):	Attachment 1A (1) – Extract of Project Alliance Agreement Attachment 1A (2) – Land handover Attachment 1C – CPB Power of Attorney Attachment 2A (1) – Location Map Attachment 2B – Indicative Layout Attachment 5 – Development Approval Attachment 6A (1) – Yanchep Stockpile and Dust Management Plan Attachment 6A (2) – Noise Assessment Report Attachment 8A & 8B – Equipment specs. Attachment 8C – Development Application Attachment 9A -Capital costs.
Scope of application/assessment	
Summary of proposed activities or changes to existing operations.	<p>The Yanchep Rail Extension (YRE) – Temporary stockpile site to store excavated material from the YRE.</p> <p><u>Works approval</u></p> <p>Construction:</p> <ul style="list-style-type: none"> • placement of Category 12 mobile equipment: <ul style="list-style-type: none"> ○ mobile screen; ○ dump truck; ○ water cart; ○ front end loader ○ caterpillar dozer; and ○ excavator. • construction of stormwater drainage and storage infrastructure; <p>Operations (including time limited operations):</p> <ul style="list-style-type: none"> • screening of sand; • handling and stockpiling of material; • loading of material into trucks; and • vehicle and truck movements.

Category number/s (activities that cause the premises to become prescribed premises)

Table 1: Prescribed premises categories

Prescribed premises category and description	Proposed production or design capacity
Category 12: Screening etc. of material	550,000 tonnes of material per year, estimated throughput of 350,000 tonnes per year.

Legislative context and other approvals

Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input checked="" type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Ministerial statement No: 1129 EPA Report No:
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Reference No:
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Certificate of title <input checked="" type="checkbox"/> Extract of the Project Alliance Agreement between the Public Transport Authority of Western Australia, CPB Contractors for the METRONET Stage 1 Initiatives: Yanchep Rail Extension and Thornlie-Cockburn Link [Attachment 1A (1)]. Land handover letter from PTA to CPB Contractors [Attachment 1A (2)] Development Approval for Yanchep Stockpiles (Attachment 5).
Has the applicant obtained all relevant planning approvals?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Approval: Expiry date: If N/A explain why?
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	CPS No: N/A No clearing is proposed.
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: N/A Licence/permit No: N/A No clearing is proposed.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: Licence/permit No: GWL204822
Does the proposal involve a discharge of waste into a designated area (as defined in	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A

section 57 of the EP Act)?		
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Name: Perth Coastal and Gwelup Underground Water Pollution Control Area Priority: P3 Are the proposed activities/ landuse compatible with the PDWSA (refer to WQPN 25)? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Compatible, with conditions (9, 12, 13, 14, 19, 22, 24, 26, 28, 41)
Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i>)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	As part of the larger YRE project: <ul style="list-style-type: none"> • Aboriginal Heritage Act 1972 • Planning and Development Act 2005 • Dangerous Goods Safety Act 2005 • Rights in Water and Irrigation Act 1914 • Environmental Protection (Noise) Regulations 1997
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	2,150 m west of the Gnangara Mound
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Classification: N/A / Incomplete Report Date of classification: N/A