Application for Works Approval

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

Works Approval Number	W6670/2022/1
Applicant	Leeuwin Civil Pty Ltd
ACN	117 828 789
File number	DER2022/000057
Premises	285 Gibb Road, Kaloorup, 6280 Legal description Lot 101 on Deposited Plan 69781 Certificate of Title Volume 2765 Folio 652 As defined by the premises maps attached to the works approval
Date of report	18 November 2022
Decision	Works approval granted

Mariana Almeida de Moraes

Digitally signed by Mariana Almeida de Moraes
Date: 2022.11.18 13:10:04 +08'00'

MARIANA DE MORAES
A/ MANAGER, RESOURCE INDUSTRIES
REGULATORY SERVICES
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

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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 W6670/2022/1 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 Application summary and overview of premises

On 11 February 2022, Leeuwin Civil 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 for the operation of mobile screening and crushing plant at Lot 101 on Gibb Road in Kaloorup (the premises), to process up to 30 000 tonnes of sand and gravel annually. The crushing and screening plant will operate at a sand and gravel quarry located approximately 25 km north-east of Busselton and 8 km north from Cowaramup Townsite in a rural area zoned for agriculture.

The crushing and screening plant will operate intermittently on a campaign and as needs basis. The Applicant has estimated that 200,000 tonnes of sand and gravel will be extracted over a ten-year period, which equates to around 20,000 tonnes of product extracted and processed annually. Due to the variable nature of contracts, the Applicant has nominated to process a maximum of 30,000 tonnes per year. The crushing and screening operations will be staged with 10 excavation cells (refer Figure 2). The premises will require a registration under the EP Act at the conclusion of the works approval to allow ongoing crushing and screening operations.

The crushing and screening plant will remain on the floor of the quarry (1 – 3 m deep from ground level plus 1 m high perimeter bund) at all times but will be mobile to facilitate movement throughout the site for staged quarrying operations. The plant is modular and interchangeable and can be configured differently for the production of different sand and gravel products. Site plant and equipment and will be refueled at the nearby Leeuwin Civil depot.

When operational, the premises will operate 6 days a week from 7am to 6pm Monday to Friday and 7am to 1pm on Saturday, excluding public holidays. The site will be worked by 2 – 3 persons, depending on market demand. Access to the proposed premises will be via an internal access road sheeted with gravel which leads to the sealed Gibb Road. Covered loaded road trucks leaving the premises would travel north to Jindong-Treeton Road and then west along Roy Road to access Bussell Highway.

The premises relates to Category 70: Screening etc. of material and assessed design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W6670/2022/1. 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 2020) are outlined in works approval W6670/2022/1.

2.3 Legislative context and other approvals

Development Approval

According to the State Planning Policy 2.4 Planning for Basic Raw Materials Guidelines (WAPC, ,2021) proposals on private freehold land for extraction of basic raw materials (which includes sand and hard rock) generally require development approval (DA) under a local planning scheme. Local governments can also issue an extractive industry licence (EIL), through a local law, as provided under the *Local Government Act 1995*. Local governments often require DA together with an EIL before extraction can take place (WAPC, 2021).

The proposed premises, Lot 101, is zoned as "Agriculture" according to the City of Busselton's Rural Land Use and Development Policy 2010 and lies within Policy Area 3 – 'Extractive Industry Less Constrained'. Margaret River Natural Resources Pty Ltd, the previous owner of Lot 101, was granted DA18/0674 from the City of Busselton on 9 April 2020 for the purpose of extractive sand and gravel industry under the City's Local Planning Scheme No.21. The property has since been sold to Naszko Investments, a company owned by the Directors of Leeuwin Civil who are in the process of obtaining a change of name for DA18/0674.

According to the site's EIL, excavation of the premises is permitted for five years until 9 April 2025 or until 141,375 tonnes of material has been extracted, whichever is earlier. The EIL stipulates that no more than two hectares shall be worked on at any one time, no excavation should occur closer than 300 mm to the maximum winter perched water table, and at no time shall any blasting works be carried out. The EIL also sets a limit of 20 truck movements (10 trucks entering, 10 trucks exiting) per day. The extraction must be undertaken in accordance with approved plans which include but are not limited to;

- Sand Resource Proposed Staging: Condition 6.2 of the EIL requires that Cells 1 and 2 are limited to extraction of sand only, and no crushing can be undertaken within Cells 1,2,3 or 4 or outside of the approved extraction area.
- 3D Digital Terrain Model prepared by a licensed surveyor for the whole of Lot 101
- Tree Protection Plan
- Dust Management Plan - specifies 16,200 kL annual dust suppression volume with a daily average volume of 135 kL
- Noise Management
- Dieback Management Plan
- Closure Plan
- Traffic Route and Management Plan
- Surface Water Management Plan - detailing stormwater retention measures to prevent the flow of stormwater into the tributaries of the Carbunup River)
- Approved plans for the widening of Gibb Road

Please note, to avoid regulatory overlap, DWER will only set works approval conditions that are not already stipulated within the existing EIL.

The Applicant has requested a 10-year approval from 2022 to 2032, however the DA issued by the City of Busselton is only valid for five years until 9 April 2025. Therefore, in accordance with the Department's *Guidance Statement: Licence Duration* (August 2016), the works approval duration will be issued to 9 April 2025 to align with the term of the DA. A category 70 registration is required following the time-limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of the crushing and screening activities.

EP Act – Native Vegetation Clearing Permit

Naszko Investment Pty Ltd (current property owners of Lot 101 and another company owned by the Directors of Leeuwin Civil) submitted a clearing permit application to the department on 20 December 2021 to clear 39 isolated Peppermint trees (Agonis flexuosa) existing within the proposed excavation area. The application was assessed and determined in accordance with sections 51E and 51O of the EP Act. No public submissions were received during that applications' 21-day advertising period. On 22 May 2022 clearing permit CPS 9531/1 was granted to clear the 39 peppermint trees.

2.4 Description of proposed activities

Site Preparation and Excavation

The Applicant will extract the sand and gravel material from a 20.94 ha excavation area using a staged approach comprising of 10 excavation cells (refer Figure 2). The sand resource is estimated to be greater than 150 000 tonnes, whereas the gravel resource is much smaller at less than 50 000 tonnes and will only be excavated in the west of the pit. Excavation will commence in the north-west of the quarry and then move in a south easterly direction, with the face and walls of the pit acting as noise barriers. The depth of excavation will vary from 1-3 m below ground level and a 1 m high bund made from topsoil and overburden will line the perimeter of the pit. A 300 mm separation distance to maximum groundwater elevation will be maintained and once rehabilitated, the final contours will maintain a 0.5 m separation to the maximum groundwater elevation.

Topsoil will be stripped to a maximum depth of 150 mm using a loader. If it cannot be immediately spread onto areas to be revegetated it will be placed in low bunds/stockpiles around 1 m high around the perimeter of the proposed pit area for use in future rehabilitation. Any overburden if present (there will be little or no overburden, which will consist of subgrade sand), will be removed using a dump truck and also stockpiled around the perimeter of the proposed pit area.

Sand extraction (all excavation cells)

Sand to be used for fill which does not require screening will be excavated by a front-end loader and loaded directly into road trucks. The loader will stay at the face of the pit and the road trucks will be restricted to access roads spreading out from the centre of the operational area.

Some sand may be suitable as concrete sand for concrete batching and will require screening to remove roots and other deleterious organic matter. Sand to be used as concrete sand will be excavated by a front-end loader and transported to stockpiles to be fed into the screening plant via a loader.

Gravel extraction (limited to extraction cells 3 and 4)

The gravel at the premises can be removed with an excavator or loader without the need for blasting. The material will then be picked up by a loader and fed to the mobile crusher where it will be crushed and transferred to an adjoining screener which sorts the gravel into various sizes for stockpiling. On an as needed basis, gravel product will be loaded on to road trucks of various configurations for transport off-site.

Product Stockpiles

Both gravel and sand product stockpiles will be placed near the screening and crushing plant and will be positioned depending on the plant location to enable prompt processing. Product stockpiles will be no greater than 2 m in height and will be stockpiled for less than 24 hours wherever possible.

Dust suppression

Water will sourced from the Busselton Water's standpipe located on Queen Elizabeth Avenue, West Busselton and will be trucked to the site. A 15,000 L water tanker or similar will be used for dust suppression at the access roads and working floors. The Applicant has estimated within their Dust Management Plan an annual dust suppression volume of 16,200 kL with a daily average of 135 kL dust suppression. No sand washing will occur on-site.

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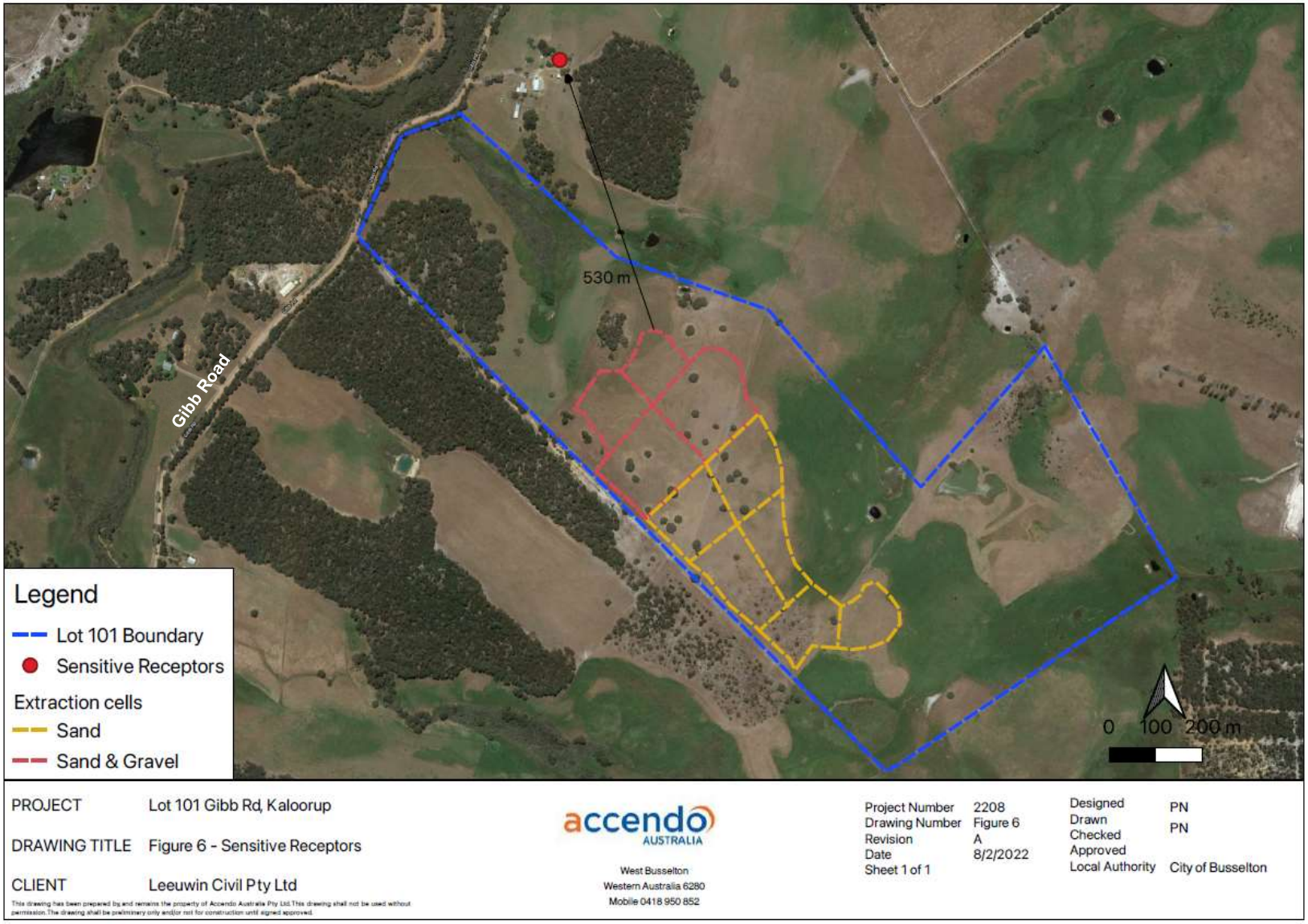


Figure 1: Proposed Premises Boundary (Lot 101) and distance to closest nearby residential receptor

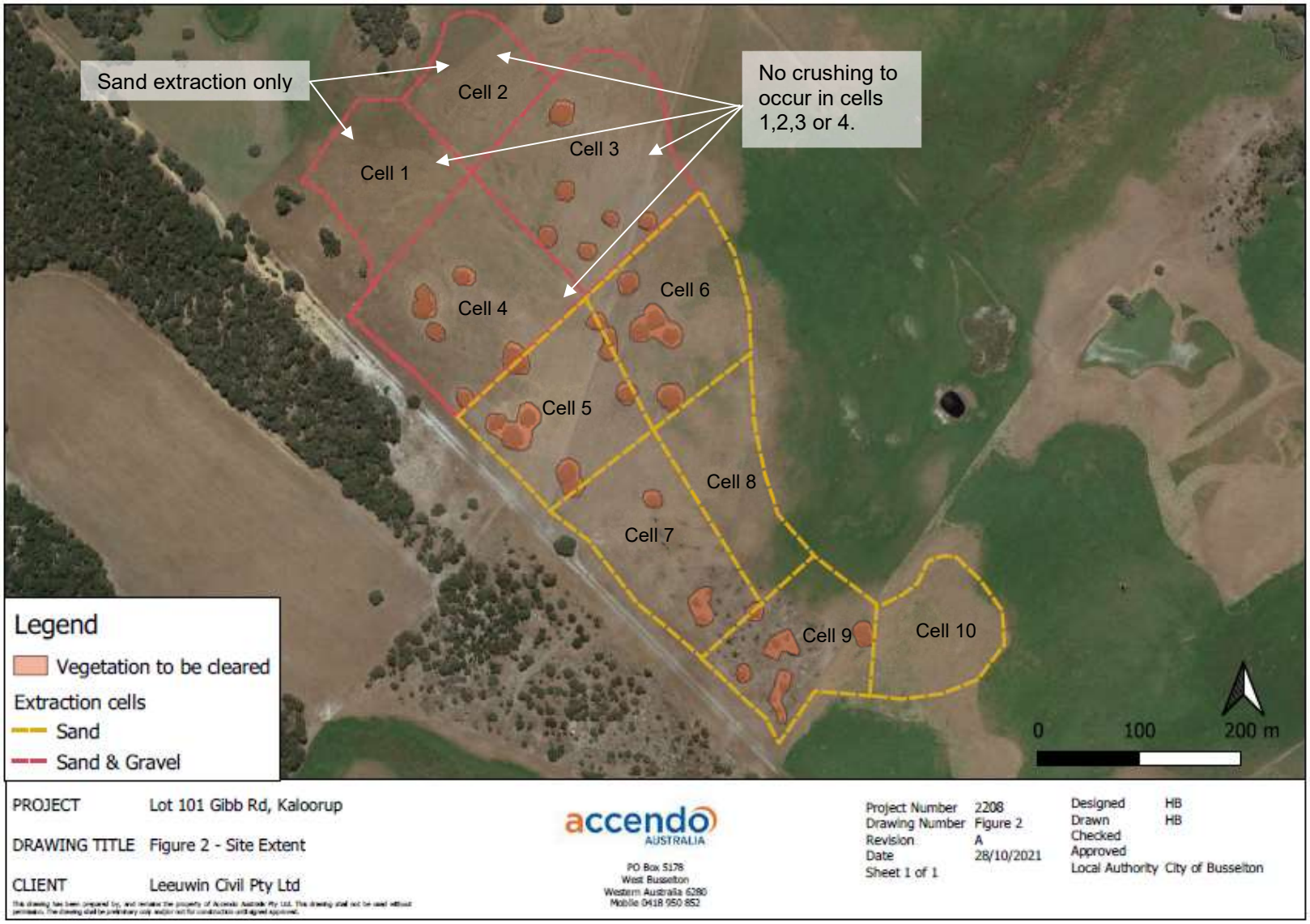


Figure 2: Excavation cells within excavation area and development approval conditions

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

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. Please note that excavation and rehabilitation activities, including the potential introduction and spread of weeds and dieback, is not within the scope of this assessment and is therefore excluded from Table 1 below.

Table 1: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Construction and installation (including mobilization of plant to site, and minor earthworks)			
Dust	Mobilisation/positioning of screening/crushing equipment; Earthworks including bunding of the excavation area, construction of diversion drains and earth bunding to adjoining lot; Wind erosion of exposed surfaces including internal access road and stockpiles; and Vehicle movements on unsealed roads.	Air / windborne pathway	• Timing of earthworks (daily and seasonally) will coincide with periods of low wind velocity as far as practicable; • the 'plug and play' crushing and screening plant does not require earthworks; • The crusher and screening plant will be located on the pit floor (1 - 3m bgl) which will minimise potential dust impacts and aid acoustic screening; • The internal access road to the pit within Lot 101 will be sheeted with gravel as necessary to provide safe access and limit dust emissions; and • The Applicant has estimated within their Dust Management Plan an annual dust suppression volume of 16,200 kL with a daily average of 135 kL dust suppression.
Noise	Mobilisation/positioning of screening/crushing equipment; Vehicle movements on unsealed roads; and	Air / windborne pathway	• Construction of earthen bund adjacent to the lot adjoining the excavation area for visual and noise management, in compliance with Section 6.4 City of Busselton Policy 5A – Rural Areas land Use and Development Policy. • The earthen bunding to the adjoining lots will be constructed with the approximate dimensions of 2 m wide x 1 m high x a total of 600m long. The

Emission	Sources	Potential pathways	Proposed controls
	Earthworks including bunding of the process excavation area, construction of diversion drains and earth bunding to adjoining lot.		bund will only be constructed adjacent to the cell being worked at any time.
Hydrocarbon and/or chemical spill	Hydrocarbon and/or chemical spills during vehicle/machinery operations.	Overland runoff during high rainfall events. Leaching through soil profile to groundwater	• No fuel stored onsite; • All re-fueling and major servicing will be undertaken at the applicant's nearby workshop the Leeuwin Civil depot; • Regular inspections and maintenance of fuel, oil and hydraulic fluids in storages and lines will be carried out for wear or faults; • Accidental spill containment and cleanup protocol will be implemented as necessary, all significant adverse incidents (such as a fuel spill of >5 L) in one dump, are to be recorded, investigated and remediated. A record is to be kept of incidents, and DWER, and City of Busselton notified within 24 hours of an incident; • Spill kits containing appropriate equipment for control, containment and cleanup of hydrocarbon and chemical spills will be available in appropriate locations onsite and maintained; and • Soil contaminated by large spills will be removed from the site to an approved disposal area.
Sediment laden stormwater	Vehicle movements on unsealed roads; Overland runoff from operational areas during high rainfall events; and Earthworks including bunding of the excavation area, construction of diversion drains and earth bunding to adjoining lot.	Sediment laden stormwater from operational areas draining to non-operational areas, especially during high rainfall events	• Construction of diversion drains around the excavation areas to divert clean storm water away from the pit and contain any potentially sediment laden surface water within the pit; • Bunding of the process excavation area to ensure that stormwater is contained within the excavation footprint; and • pit is set back 100 m from the headwaters of a small creekline to the north of the proposed pit and from the Taxandria colonization.
Time Limited Operations			
Dust	Topsoil stripping (~3 weeks per year);	Air / windborne pathway	• The stripped topsoil will be placed in low bunds/stockpiles around 1 m high around the perimeter of the proposed pit area for use in

Emission	Sources	Potential pathways	Proposed controls
	Stockpiling of topsoil/overburden and sand and gravel product; Wind erosion of exposed surfaces including internal access road and stockpiles; Pit excavation; Operation of crushing and screening equipment; Vehicle and machinery movements; and Loading of product into trucks for transport off-site (maximum 10 trucks per day)		future rehabilitation; • Topsoil stockpiles will be watered and stabilised as required. Stabilisation techniques that will be considered depending on environmental conditions will include hydro-mulching; • Dust and Water Management Plan required by condition No. 3.2 of the EIL approved by the City of Busselton (City of Busselton, 2019) – The management plan includes limiting clearing and mining to a maximum 2 hectares at a time, the progressive rehabilitation and dust suppression measures to minimise and mitigate the risks of wind erosion and dust; • Condition 6.2 of the EIL requires that Cells 1 and 2 are limited to extraction of sand only, and no crushing can be undertaken within Cells 1, 2, 3 or 4 or outside of the approved extraction area; • A maximum number of 20 truck movements (i.e. 10 trucks entering and 10 trucks exiting the site) will occur on any day as per the EIL • Crushing and screening operations to occur within excavation pit (2 – 4 m deep from ground level); • Crushing and screening plant equipped with dust covers; • Sprayers and sprinklers on the screening plant to dampen product stockpiles; • 15,000 L water tanker utilised for dust suppression; • Product stockpiles will be no greater than 2 m in height. Product stockpiles will be placed in close proximity to the screening and crushing plant and will therefore move depending on the plant location. Stockpiles will be configured to accommodate easy access for watering/dust minimisation if required; • Product stockpiles will be stockpiled for less than 24 hours wherever possible; • Access roads and immediate extraction areas will be watered as required; • the pit will be orientated so that the face is located between the excavation area and nearby sensitive residential premises; • Truck loads to be covered by tarpaulins or similar; • Visual monitoring of dust will be undertaken daily. When dust emissions are observed, dust suppression measures (such as water sprays) will be implemented immediately. Operations will

Emission	Sources	Potential pathways	Proposed controls
			temporarily cease if conditions occur where dust cannot be managed; • A readily auditable trigger of no visible dust to cross the property boundary with the exception of the western – south western boundary where there are no nearby dwellings; • On site induction training will include observation and mitigation where possible of all dust emissions; • Maintain complaints register. A register will be established for the site to record the date, nature, and resolution action of any complaints; • Erect on-site signage directing public to make complaints to relevant personnel; and • The Applicant has estimated within their Dust Management Plan an annual dust suppression volume of 16,200 kL with a daily average of 135 kL dust suppression.
Noise	Pit excavation Gravel crushing and screening (~6 weeks per year) Sand screening (~6 weeks per year) Stockpiling of product Vehicle and machinery movements Loading of material into trucks for transport off-site (up to 10 loads per day) Rehabilitation works (undertaken in conjunction with excavation works where applicable)	Air / windborne pathway	• Condition 6.2 of the DA requires that Cells 1 and 2 are limited to extraction of sand only, and no crushing can be undertaken within Cells 1, 2, 3 or 4 or outside of the approved extraction area; • A maximum number of 20 truck movements (i.e. 10 trucks entering and 10 trucks exiting the site) will occur on any day as per the EIL; • Excavation will commence in the north-west of the quarry and then move in a south easterly direction. The face and walls of the pit will act as noise barriers. No blasting will take place; • Excavation will take place from the floor of the pit below natural ground level. The crusher and screening plant will be located on the pit floor (2-4 m bgl); • Overburden and topsoil stockpiles no more than 1 m high will be used to form perimeter bunds positioned at the edge of the excavation area to assist with noise screening. The initial impact to the closest resident which will reduce as stockpiles increase; • Ensure vehicles, plant and equipment are serviced and maintained to system requirements to avoid unnecessary noise; • Apply speed restrictions and a ban on exhaust braking if required - speed limit along the access road and within the pit is 25 kmph. • Trucks are to slow to 40 kmph when travelling on the gravel section of Gibb Road; • Trucks are not permitted to reverse except for

Emission	Sources	Potential pathways	Proposed controls
			safety or emergency; • No air or exhaust brakes are to be used within the pit or on nearby roads except for emergency; • Concentrate haulage trucks to operate only during daylight hours (i.e. 7am to 6pm Monday to Friday); • Undertake noise awareness training with all site personnel; • Maintain a noise complaints register - The signage on the gate will include the contact telephone number of the quarry manager to allow for quick reaction to any complaints that might arise; • extraction activities will only be undertaken during standard hours of operation (in accordance with the conditions of the Extractive Industry Licence); and • The signage on the gate will include the contact telephone number of the quarry manager to allow for quick reaction to any complaints that might arise.
Sediment laden stormwater	Uncontrolled and contaminated stormwater runoff Overland and Stockpile runoff during high rainfall events.	Drainage, erosion and sedimentation	• No dewatering is proposed. All water is to be retained in the pit and infiltrates into the sand due to its porosity and permeability; • Construction of diversion drains around the excavation areas to divert clean water away from the pit and contain any potentially sediment laden surface water within the pit; • Bunding of the process excavation area to ensure that stormwater is contained within the excavation footprint; • pit is set back 100 m from the headwaters of a small creekline to the north of the proposed pit and from the Taxandria colonization; and • Only the areas that are well above the water table have been selected for excavation and at least a 0.3 m distance will be maintained from the base of excavation and the highest winter water table, as per EIL requirement.
Hydrocarbon Contamination	Hydrocarbon spills during vehicle/machinery operations	Overland runoff during high rainfall events. Leaching through soil profile to groundwater	• No fuel stored onsite; • All re-fueling and major servicing will be undertaken at the applicant's nearby workshop the Leeuwin Civil depot; • Regular inspections and maintenance of fuel, oil and hydraulic fluids in storages and lines will be carried out for wear or faults; • Accidental spill containment and cleanup

Emission	Sources	Potential pathways	Proposed controls
			protocol will be implemented as necessary, all significant adverse incidents (such as a fuel spill of >5 L) in one dump, are to be recorded, investigated and remediated. A record is to be kept of incidents, and DWER, and City of Busselton notified within 24 hours of an incident; • Spill kits containing appropriate equipment for control, containment and cleanup of hydrocarbon and chemical spills will be available in appropriate locations onsite and maintained; and • Soil contaminated by large spills will be removed from the site to an approved disposal area.

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 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 2020)).

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

Human receptors	**Distance from prescribed activity**
Rural residential dwellings	Refer to Figure 3: Nearby residential receptors, sand and gravel operations and access road to Lot 101 Figure 3 for a map showing location of nearby residential receptors. Seven rural residential dwellings are located within 1km of the proposed excavation and processing area: • 241 Gibb Road, Metricup ~530 m northwest • 274 Gibb Rd ~778 m northwest • 276 Gibb Rd ~ 807 m northwest • 272 Gibb Rd ~ 843 m northwest • 328 Gibb Road ~ 854 m west • 204 Gibb Road ~ 950 m north northwest • 265 Gibb Road ~ 960 m west
Environmental receptors	**Distance from prescribed activity**
Surface waterbodies	The proposed premises is located within the Geographe Bay Rivers Surface Water Area under the *Rights in Water and Irrigation Act 1914*. A minor non-perennial tributary (Carbanup River) is mapped approximately 60 m northwest of the prescribed premises boundary and 700 m northwest of the proposed excavation area. The watercourse flows in a north easterly direction and drains into Geographe Bay located approximately 19 km downstream of the site.
Conservation Wetland **DBCA conservation classification:** 'Wetlands which support a high level of attributes and functions.'	Conservation category wetland unique identifier number (UFI) 10 which exists alongside Carbanup River, is located approximately 60 m northwest from the proposed premises boundary and 700 m northwest from the proposed excavation area. (Refer to Figure 5 and Figure 6 for the mapped wetlands).
Resource Enhancement (RE) wetlands **DBCA RE classification:** 'Wetlands which may have been partially modified but still support substantial	An additional five RE wetlands are located within a 1 km radius of the subject site (UFI 8, 14, 12, 17, 13). Resource Enhancement wetland UFI 8 is within the premises boundary located approximately 150 m northwest of the excavation area.

ecological attributes and functions.'	
Multi-Use (MU) Wetlands **DBCA MU classification:** 'Wetlands with few attributes but still provide important hydrological functions.	The excavation area is also located adjacent to a MU wetland (UFI 282) on the south-eastern boundary of the premises.
Threatened Ecological Community (TEC)	Four mapped occurrences of the 'Banksia Dominated Woodlands of the Swan Coastal Plain (SCP) IBRA Region' TEC are located 25 m south-west of the proposed excavation area and premises boundary as well as three mapped occurrences 330 m to the east of the premises boundary. This TEC is listed as 'endangered' at a federal level under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* and 'Priority 3' at a state level.
Priority Ecological Community (PEC)	A mapped occurrence of the 'Shrublands of near permanent wetlands in creeklines of the Whicher Scarp' (Whicher Scarp community G2) PEC is located 490 m west-northwest of the proposed premises boundary. This PEC is listed as 'Priority 1' at a state level.
Threatened (T) / Priority Flora Species	According to the Department of Biodiversity, Conservation and Attractions (DBCA) database, the following records have been identified within 1 km of the proposed premises boundary: • Daviesia elongata (P4) ~800m south-west
Threatened (T) / Priority Fauna Species	According to the DBCA database, the following records have been identified within 1km of the proposed premises boundary: • Peregrine Falcon (*Falco peregrinus*) ~ 300 m north • Forest red-tailed black cockatoo (*Calyptorhyncus banskii naso*) ~ 500 m north • Quenda (*Isoodon fusciventer*) ~ 500 m north • White tailed black cockatoo (*Calyptorhynchus baudinii*) ~ 500 m north • Western Ringtail Possum (*Pseudocherius occidentalis*) ~ 500 m north
ESA	There are no ESAs located within the proposed premises boundary, however it is noted that an ESA associated with a TEC is located approximately 750 m to the east.
Groundwater	The resource area is elevated with a shallow seasonal superficial perched water table. Excavation will continue down to an elevation of 1 to 3.0 m, well above the highest winter water table which will be predominantly >2.0 m above the superficial water table as the sand resource is located on the plateau ridge. The Premises is located within the Dunsborough – Vasse sub-area of the Proclaimed Busselton-Capel Groundwater Management Area Pursuant to the *Rights in Water and Irrigation Act 1914,* in proclaimed areas it is an offence to take water without an appropriate licence. The subject site does not lie within any existing or potential PDWSAs.
South-West Regional Ecological Linkage	A Regional Ecological Linkage axis (Object ID 61) runs though the south-western extent of the premises.

	The DBCA recognises several Regional Ecological Linkages that have been identified from studies of regionally significant natural areas (Molloy et al. 1999, as cited in EPA, 2009). While there is no statutory basis for regional ecological linkages, they have been recognised as an environmental policy consideration in EPA and planning policy over the last decade (EPA, 2009).
Regrowth colonisation of *Taxandria linearifolia*	Application documents state that regrowth colonisation of *Taxandria linearifolia* (Swamp Peppermint) has spread on the sands to the north of the excavation area where the soil moisture has increased since the land was converted to pasture some decades ago. The excavation is set back 100 m from the Taxandria colonisation (species not listed as priority or threatened)

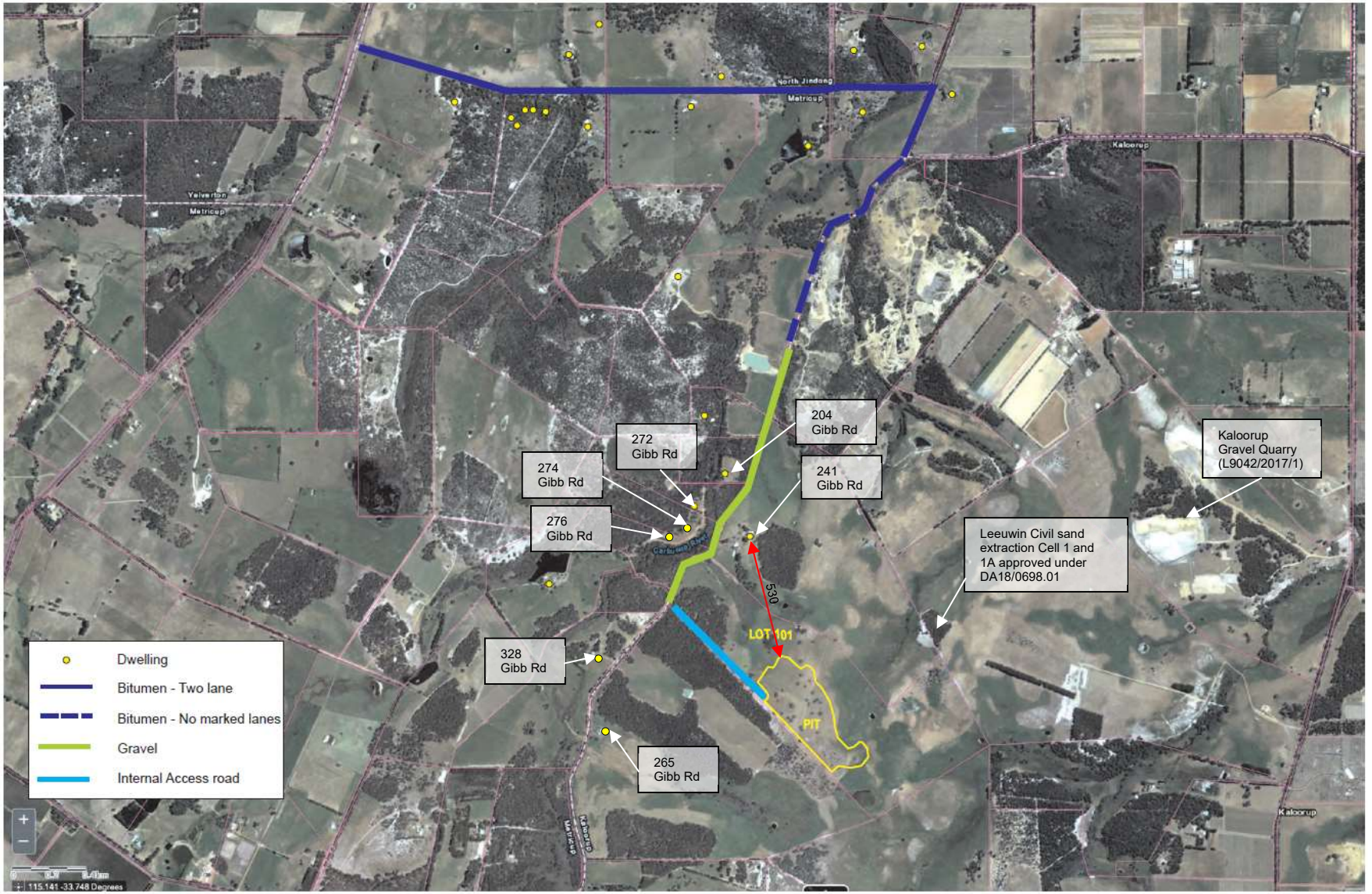


Figure 3: Nearby residential receptors, sand and gravel operations and access road to Lot 101

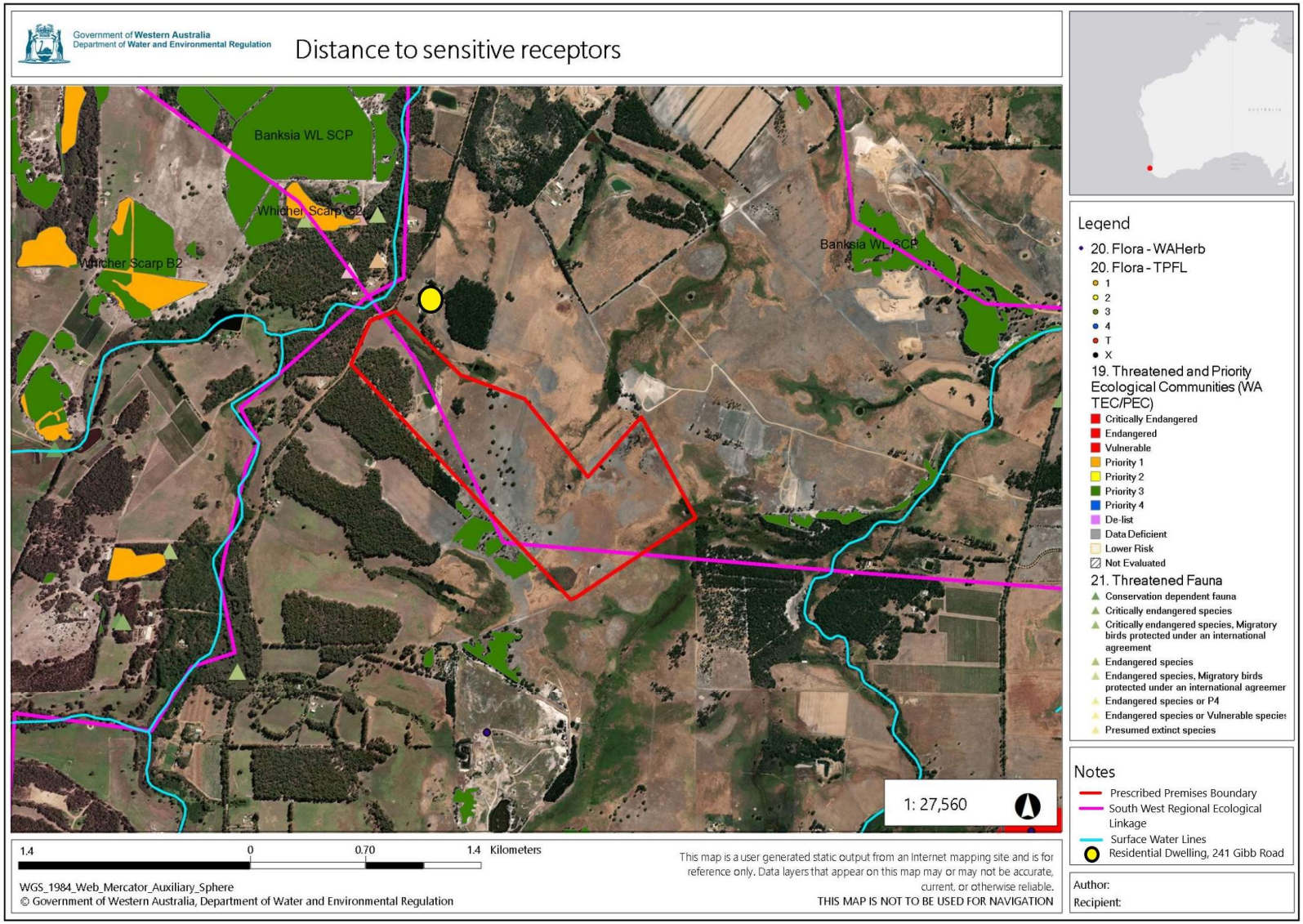


Figure 4: Nearby sensitive environmental receptors

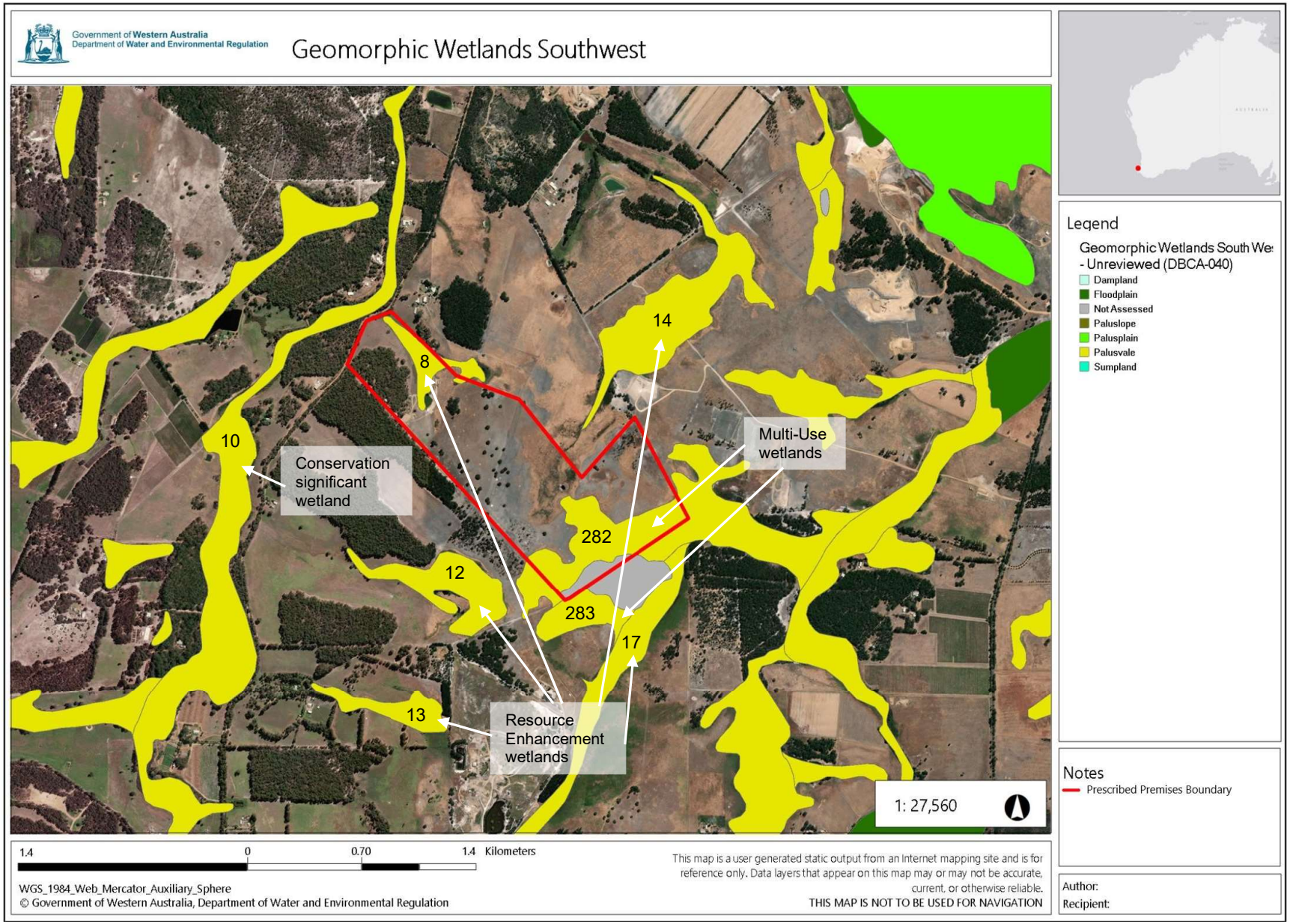


Figure 5: South West Geomorphic Wetlands distance from proposed premises boundary

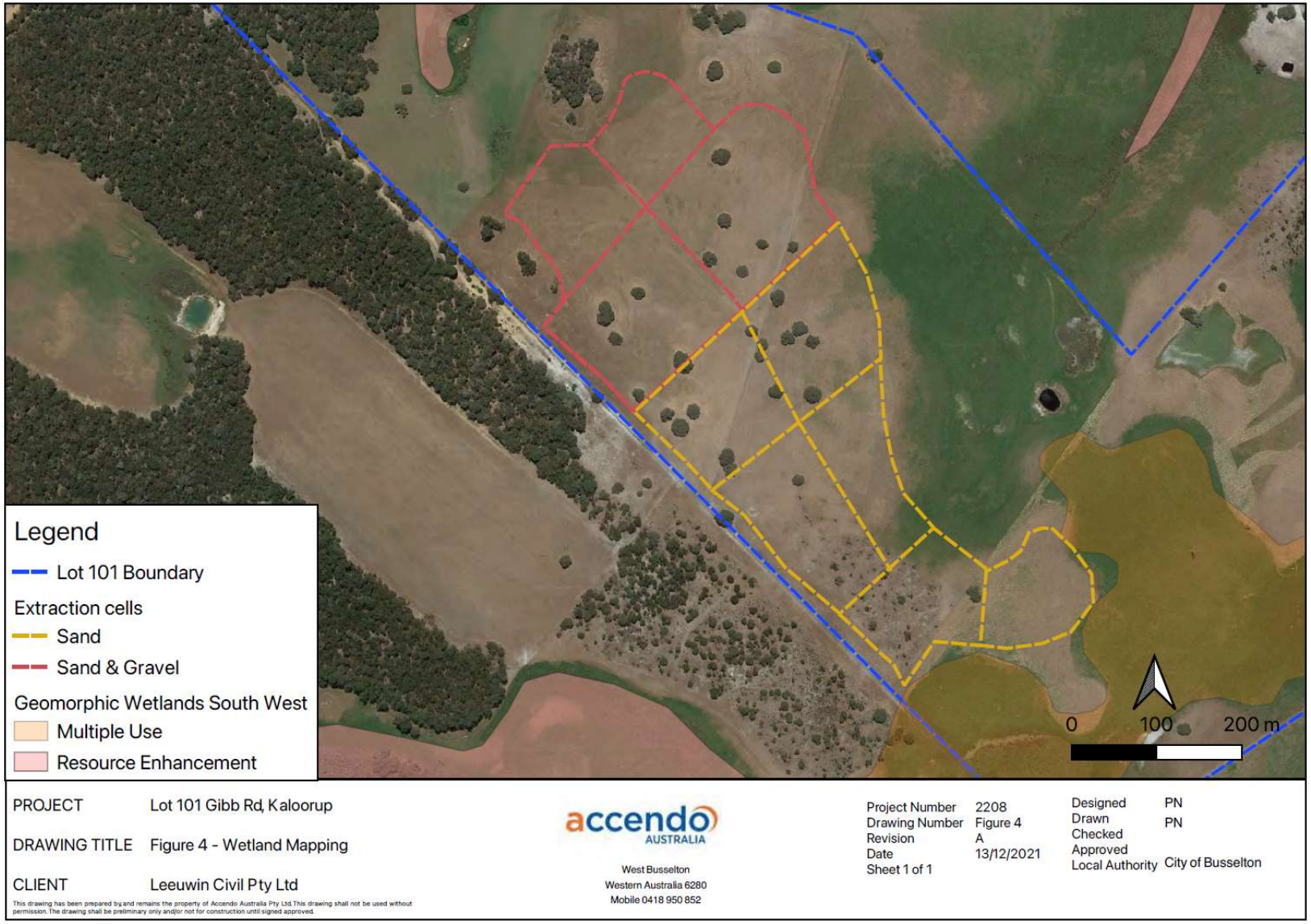


Figure 6: Geomorphic Wetlands South-West distance from proposed extraction areas

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) 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 Works approval W6670/2022/1 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 registration 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 activities.

Table 3: Risk assessment of potential emissions and discharges

Risk events					**Risk rating [1]** **C = consequence** **L = likelihood**	**Applicant controls sufficient?**	**Conditions [2] of works approval**	**Justification**
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
Construction (including mobilization of plant to site, and minor earthworks)								
Mobilisation/positioning of screening/crushing equipment; Vehicle movements; and Earthworks including construction of bunding and diversion drains and earth bunding to adjoining lot.	Dust	Air / windborne pathway causing impacts to health and amenity	**Residential dwellings distance from excavation area:** 241 Gibb Road, Metricup ~530 m northwest 274 Gibb Rd ~778 m northwest 276 Gibb Rd ~807 m northwest 272 Gibb Rd ~843 m	Refer to Section 3.1	C = Slight L = Possible **Low Risk**	*Y*	Condition 1: Design and Construction/Installation Requirements Condition 5: Infrastructure and equipment operational requirements during time limited operations Condition 6 Condition 7(a),(b),(c),(d)	Minimal dust emissions will be generated from the proposed earthworks and the mobilization and positioning of the crushing and screening plant, given the plant's 'plug and play' mobile nature. Vehicle movements generating dust along the internal access road to the proposed pit has the potential to impact residential receptors along Gibb Road. The Applicant has proposed to sheet this internal access road with gravel to reduce dust emissions.

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
			northwest 328 Gibb Road ~854 m west 204 Gibb Road ~950 m north northwest 265 Gibb Road ~ 960 m west					The access road is also bounded on both sides with significant tree belts which will help to screen dust from residential receptors. A water cart will also be made available for dust suppression as required. Given the proposed controls, and the short-term nature of the construction works, the low risk to nearby residential receptors is acceptable and additional regulatory controls are not required. Occupational dust associated with the proposed quarrying operations is managed by the Department of Mines Industry Regulation and Safety (DMIRS) under the *Mines Safety and Inspection Act 1994* and *Regulations 1995*. The site is registered on the DMIRS SRS System and has a Project Management Plan in place.
		Air / windborne pathway causing deposition on vegetation and potentially impacting ecological function Air / windborne pathway causing	MU category wetlands (UFI 282 and 283 located within premises on south-eastern boundary; RE category wetland (UFI 8) ~ 150 m northwest from excavation area within premises boundary; RE category wetland (UFI 12) ~200m south of extraction	Refer to Section 3.1	C = Slight L = Possible **Low Risk**	*Y*	Condition 1: Design and Construction/Installation Requirements Condition 5: Infrastructure and equipment operational requirements during time limited operations Condition 6 Condition 7(a),(b),(c),(d)	Given the proposed controls, and the short-term nature of the construction works, the low risk of dust emissions impacting upon nearby sensitive environmental receptors is acceptable and additional regulatory controls are not required.

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
		deposition on wetlands potentially impacting surface water quality	area; Conservation category wetland (UFI 10) ~ 700 m northwest of excavation area; TEC -Banksia Dominated Woodlands of the SCP ~ 25m west and 330m east of the premises boundary; and IBRA Region, South West Regional Ecological Linkage - south-western extent of the premises.					
	Noise	Air / windborne pathway causing impacts to health and amenity	**Residential dwellings distance from excavation area:** 241 Gibb Road, Metricup ~530 m northwest 274 Gibb Rd ~ 778 m northwest 276 Gibb Rd ~ 807 m northwest 272 Gibb Rd ~ 843 m northwest 328 Gibb Road ~ 854 m west 204 Gibb Road ~ 950	Refer to Section 3.1	C = Slight L = Possible **Low Risk**	*Y*	Condition 1: Design and Construction/Installation Requirements Condition 5: Infrastructure and equipment operational requirements during time limited operations	It is not expected that nearby residential receptors will be significantly impacted by noise emissions due to the short-term duration of the site preparation works and the minor nature of installation works being carried out. The low risk of dust emissions impacting upon nearby sensitive residential receptors is acceptable and additional regulatory controls are not required. The *Environmental Protection (Noise) Regulations 1997* still apply. Noise exemptions during construction activities are included with the Regulations to enable site construction activities to be carried out.

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
			m north northwest 265 Gibb Road ~ 960 m west					
Time-limited-operations (TLO)								
Topsoil stripping; Topsoil/overburden stockpiling; Excavation of sand and gravel; Stockpiling of sand and gravel product; crushing/screening of sand and gravel; loading/transportation of product; and vehicle movements.	Dust	Air/windborne pathway causing impacts to health and amenity	**Residential dwellings distance from excavation area:** 241 Gibb Road, Metricup ~530 m northwest 274 Gibb Rd ~778 m northwest 276 Gibb Rd ~ 807 m northwest 272 Gibb Rd ~ 843 m northwest 328 Gibb Road ~ 854 m west 204 Gibb Road ~ 950 m north northwest 265 Gibb Road ~ 960 m west	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 1: Design and Construction/Installation Requirements Condition 5: Infrastructure and equipment operational requirements during time limited operations Condition 6 Condition 7(a),(b),(c),(d)	Refer to Section 3.3 'Risk Assessment – dust and noise emissions during TLO'
	Dust	Air / windborne pathway causing deposition on vegetation and potential impacts to ecological	Carbanup River ~700 m north west of excavation area; TEC -Banksia Dominated Woodlands of the SCP ~ four occurrences 25m west and three		C = Minor L = Possible **Medium Risk**	N	Condition 1: Design and Construction/Installation Requirements Condition 5: Infrastructure and equipment operational requirements during time limited operations	Dust emissions generated during operation of the crushing and screening plant has the potential to impact upon onsite and offsite vegetation including a Banksia woodland TEC located 25 m south-west of the proposed premises boundary and excavation area. This may result in degradation of

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
		function and ecosystem disturbance	occurrences 330m east of the premises boundary; and IBRA Region, South West Regional Ecological Linkage - south-western extent of the proposed premises. MU category wetlands (UFI 282 and 283 located within premises on south-eastern boundary; RE category wetland (UFI 8) ~ 150 m northwest from excavation area within premises boundary; RE category wetland (UFI 12) ~200m south of extraction area; and Conservation category wetland (UFI 10) ~ 700 m northwest of excavation area.				**<u>Condition 6</u>** Condition 7(a),(b),(c),(d)	vegetation and subsequent ecosystem disturbance to the fauna that relies on the vegetation for shelter and food, such as threatened native fauna that has been recorded in the local area. Notably, the Applicant proposed to set a readily auditable trigger of no visible dust to cross the property boundary with the exception of the western – south western boundary, where there are no nearby dwellings. The department notes that four occurrences of banksia dominated woodlands of the Swan Coastal Plain are located on the southwestern boundary of the proposed premises and lot 101, which classify as threatened ecological communities (TEC) and are listed as 'endangered' at a federal level under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* and as 'Priority 3' at a state level. To protect these TEC's from the potential impact of excessive dust deposition, Condition 6 has been included within the works approval which requires that the works approval holder must ensure that no visible dust generated from crushing, screening or material stockpiling activities are to cross the boundary of the premises' This additionally regulatory control, in addition to the dust controls proposed by the applicant as listed in Section 3.1, are deemed

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
								sufficient to lower risk to acceptable levels, and have been conditioned within the works approval. Compliance reporting during time limited operations will ensure that relevant dust and noise controls have been correctly installed and are operational.
	Noise	Air/windborne pathway causing impacts to health and amenity	**Residential dwellings distance from excavation area:** 241 Gibb Road, Metricup ~530 m northwest 274 Gibb Rd ~778 m northwest 276 Gibb Rd ~807 m northwest 272 Gibb Rd ~843 m northwest 328 Gibb Road ~854 m west 204 Gibb Road ~950 m north northwest 265 Gibb Road ~ 960 m west	Refer to Section 3.1	C = Minor L = Rare **Low Risk**	Y	Condition 1: Design and Construction/Installation Requirements Condition 5: Infrastructure and equipment operational requirements during time limited operations	Refer to Section 3.3 'Risk Assessment – dust and noise emissions during TLO' Risk Assessment – dust and noise emissions.
	Hydrocarbons and/or chemical spills	Hydrocarbons and/or chemicals spill within the pit infiltrating to and contaminating	Shallow seasonal superficial perched water table within the Dunsborough – Vasse sub-area of the proclaimed Busselton-Capel	Refer to Section 3.1	C = Minor L = Rare **Low Risk**	Y	Condition 5: Infrastructure and equipment operational requirements during time limited operations	The extraction and processing of sand and gravel is a chemically free operation with the liquids used being lubricants for machinery and refueling. The proposed controls outlined in Section 3.1 which include no fuel

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
		groundwater, potentially harming the ecosystems that rely on it in the region e.g. wetlands	Groundwater Management Area; Carbanup River ~700 m north west of excavation area; 'Banksia Dominated Woodlands of the SCP IBRA Region' TEC ~25m west of the prescribed premise boundary and ~330m to the east; MU category wetlands (UFI 282 and 283 located within premises on south-eastern boundary; RE category wetland (UFI 8) ~ 150 m northwest from excavation area within premises boundary; RE category wetland (UFI 12) ~200m south of extraction area; Conservation category wetland (UFI 10) ~ 700 m northwest of excavation area; Shrublands of near permanent wetlands in creeklines of the					or chemicals being stored on site and re-fueling and servicing occurring offsite, are deemed sufficient to lower risk to acceptable levels. These controls have been conditioned within the works approval and no additional regulatory controls are required. The general provisions of the *Environmental Protection Act 1986* and the *Environmental Protection (Unauthorised Discharges) Regulations 2004* still apply.
Crushing and screening of sand and gravel; Pit excavation; and Stockpiling of topsoil, over burden and sand and gravel product.	Sediment laden stormwater	Overland and Stockpile runoff during high rainfall events. Causing increase of suspended solids into the environment causing ecosystem disturbance and impacts to surface water quality of nearby waterbodies.		Refer to section 3.1	C = Minor L = Possible **Medium Risk**	N	Condition 1: Design and Construction/Installation Requirements **<u>Condition 5: Infrastructure and equipment operational requirements during time limited operations</u>**	The Applicant anticipates that during excavation activities, the surface will be internally drained, as the porosity and permeability of the sand will generally result in no surface water runoff from the sand, with precipitation draining to the water table. As per EIL requirement, the excavation floor is to be undulating between 0.3 m - 2 m separation to the locally perched seasonal water table with batter slopes less than 1:4 vertical to horizontal. This will ensure surface water drainage will be similar to the pre-excavation drainage in quantity and direction of flows (Landform Research 2019). As Outlined in Section 3.1, the Applicant has proposed controls such as a low bund installed down slope of any excavation area, established from the wall of the pit to the edges of the excavation. The processing area will also be

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
			Whicher Scarp (Whicher Scarp community G2)' P1 PEC ~490m north-west of the proposed premises boundary; Daviesia elongata (P4) – ~800m south-west of the proposed premises boundary; and IBRA Region, South West Regional Ecological Linkage - south-western extent of the proposed premises.					bunded by a low bund to ensure no surface water runoff occurs. These bunds will prevent runoff from the extraction area flowing into the tributaries of the Carbunup River and surrounding multi-use wetlands located adjacent to the extraction area within the premises boundary. To prevent clean stormwater from entering the excavation area, the Applicant proposes to construct diversion drains around excavation areas The additional regulatory requirement to inspect the excavation and processing area after heavy rainfall events for an incidences of erosion damage and completion of repairs as soon as practicable has been conditioned within the works approval to prevent the risk of stormwater infrastructure collapse leading to stormwater contamination. Given these controls and the nature of the highly permeable sand at the site, the risk to nearby sensitive receptors is reduced to acceptable levels. These controls have been conditioned within the works approval. The general provisions of the *Environmental Protection Act 1986* and the *Environmental Protection (Unauthorised Discharges) Regulations 2004* still apply during operations. .

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

3.3 Risk Assessment – dust and noise emissions during TLO

Crushing and Screening

The Applicant has proposed controls for dust and noise emissions at Section 3.1, such as locating the crushing and screening plant on the pit floor (2 – 4 m bgl), dust covers on the crushing and screening plant, and screening plant fitted with sprayers and sprinklers.

The Applicant has not completed noise or dust modelling for the proposed quarry site but has noted that the noise levels will comply with *Environmental Protection (Noise) Regulations 1997* and that dust emissions will be managed via water cart dust suppression during operations.

In addition to these controls, it is important to note that the Applicant has estimated that crushing of gravel and screening of gravel and sand will only occur for six weeks per year, which reduces risk of dust and noise emissions impacting upon the amenity of nearby residential receptors. The Applicant anticipates that the majority of sand will not require screening as sand to be used for fill material will be loaded directly into trucks. Sand to be used for concrete batching will only require screening and no crushing.

In terms of potential to generate dust and noise emissions, gravel crushing will likely present a higher risk than sand screening. Notably however, the gravel resource (estimated at <50,000 tonnes) is much smaller than the estimated sand resource (< 150,000 tonnes) which means the higher risk gravel resource may be exhausted quicker than the sand resource. When exhausted, the emissions risk profile of the premises would slightly decrease, due to no need for crushing operations.

In addition to Applicant controls, the EIL issued by the City of Busselton also sets pre-existing controls for the site. Notably, Condition 6.2 of the EIL requires that Cells 1 and 2 are limited to the extraction of sand only, and no crushing can be undertaken within Cells 1, 2, 3 or 4, or outside the approved extraction area. In addition, the Dust and Water Management Plan required by condition No. 3.2 of the EIL requires progressive rehabilitation of the quarry, which limits clearing and excavation operations to a maximum of two hectares at a time to limit dust and noise emissions.

Compliance with EPA recommended separation distances

The separation distance of the closest residential receptor 241 Gibb Rd, Metricup (530 m north-northwest from excavation area) complies with the EPA recommended separation distance of 500 m between sand screening operations and sensitive land uses (*EPA Guidance Statement No. 3, 2005*). However, the separation distance between 241 Gibb Rd and the proposed hard rock (gravel) quarrying operations (crushing and screening) does not comply with the EPA recommended separation distance of 1,000 m (EPA, 2005). Seven residential dwellings are located within this recommended 1,000 m buffer, as highlighted and labelled in Figure 3.

It is important to note however, that the EPA Guidance statement's definition of hard rock quarrying includes blasting operations, whereas the Applicant's proposed quarrying operations do not, which significantly reduces the potential risk of noise and dust emissions impacting upon nearby residential receptors. The sand and gravel extraction cells 1, 2, 3 and 4 are located on the western side of the proposed pit and are the closest cells to the nearby residential receptor at 241 Gibb Rd. Existing DA Condition No. 6.2 does not permit gravel extraction in cells 1 and 2 and crushing operations in cells 1, 2, 3 and 4, which significantly decreases potential risk of dust and noise emissions impacting 241 Gibb Rd, as the separation distance between the proposed gravel crushing operations and the sensitive receptor increases from 530 m to 900 m.

The Applicant carried out a dust risk assessment in accordance with DWER's "A *guideline for managing the impacts of dust and associated contaminants from land development sites, contaminated sites remediation and other related activities"*. Based on the risk assessment, a site classification score (Part A: Nature of site x Part B: Proximity of site to other land uses) of

312 was achieved. This results in a Classification 2 which is considered low risk (scores between 200 and 399, considered low risk) (DWER, 2011). The provisions, contingency arrangements and monitoring requirements as specified by DWER (2011) associated with a Classification 2 proposal include an allowance for water-cart operation, surface stabilisation for the purposes of dust suppression, a complaints management system and a notice to be erected on-site providing contact details of the site representative to be contacted. These controls have consequently been conditioned into the works approval.

Prevailing winds

Annual wind roses (including wind speed, direction and frequency) for the nearest weather station recording climate data (~22 km north east from premises, Busselton Aero weather station no. 009603, Latitude: 33.68 °S Longitude: 115.40 °E) are provided in Figure 7 and Figure 8. Prevailing winds in the region are easterlies in the mornings and north westerlies and southerlies in the afternoons.

The 9 am easterly is directed towards Gibb Road and sensitive residential receptors 328 (854 m west) and 265 (960 m west) Gibb Road. Winds from this direction occur less than 30% of the time, with the majority of wind speeds being 10-20 km per hour. These receptors are positioned behind significant tree belts (>100 m wide) which would assist reducing the risk of noise and dust emissions from the crushing and screening operations impacting upon them.

The 3 pm prevailing wind direction originates predominantly from a northwest and southern direction. The north-westerly is directed towards multi-use wetlands and pasture just over 20% of the time with the majority of wind speeds being between 10 and 20 km per hour.

Afternoon winds from the southern direction occur just under 20% of the time with the majority of wind speeds being between 20 and 30 km per hour. The closest residential receptor 241 Gibb Rd has the potential to be impacted by the southerly moving across sand and gravel extraction cells as well as the internal access road. Some minor scattered tree cover as well as resource enhancement wetland (UFI 8) exists between the pit and 241 Gibb Road which may assist with slowing wind speeds. The residential receptors located at 272, 274 and 276 Gibb Road are also northwest of the proposed pit, but at distances greater than 750m away, and these receptors are located behind a tree belt (minimum 100m wide) along Carbanup River that would provide significant dust protection and noise screening.

Risk of surrounding land use cumulative dust and noise impacts

Notably the Applicant operates another two gravel and sand extraction operations in the region, which could potentially lead to cumulative dust and noise emissions impacting upon nearby residential receptors. The Applicant operates Kaloorup Gravel Quarry under L9042/2017/1 (L9042) which is located at Lot 4201 on Plan 208196, approximately 1.1 km northeast of the proposed premises. The Kaloorup site is authorised for extraction under DA18/0698 which was approved by the City of Busselton on 11 October 2019. The quarry is licenced to process up to 50,000 tonnes of gravel per annual period. Agricultural pasture separates the Kaloorup Quarry from the proposed premises and given the distance (>1 km) from the existing Kaloorup Quarry site and the proposed premises, it is unlikely emissions will combine to impact residential receptors located near the proposed premises.

The Applicant also operates an existing sand extraction pit from Lot 102 (241) Gibb Road and Lot 4202 (314) Jindong-Treeton Road, which adjoins the proposed premises boundary to the west, approximately 520 m northeast of the proposed pit. Development Approval DA18/0698.01 was issued to the Applicant on 18 March 2022 in addition to DA18/0698, and requires that at no time shall any processing, crushing or blasting works be carried out, therefore the site does not trigger a category under Schedule 1 of the *Environmental Protection Regulations 1987*. Cell 1, located on the western boundary of Lot 4202 has been exhausted and the remaining available volume of sand located within Cell 1A (0.7 ha area) is approximately 50,000 cubic meters. Transport to the site is via an internal sealed access road through adjoining properties leading

to Jindong Treeton Road to the east.

The closest residential receptor (241 Gibb Road, Metricup) to both the proposed pit and existing sand pit on adjacent Lot 102, is largely protected from noise and dust emissions from the existing sand extraction pit due to a tree buffer (>250 m wide) located between the two lots.

DWER Outcome

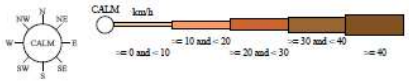
Based on the effective implementation of controls listed in section 3.1 of this report, the low frequency campaign basis of the proposed gravel crushing operations and nominated maximum throughput (up to 30,000 tpa), existing protective tree belts and the small scale of the gravel resource, it is unlikely that dust and noise emissions from the proposed crushing operations will impact upon nearby residential receptors, even during the higher risk southernly prevailing wind conditions.

In terms of the potential for cumulative dust emissions in the region, given the distance (>1 km) between the proposed crushing and screening operations and the Kaloorup Quarry, as well as the lack of processing, crushing or blasting works being carried out at the existing sand quarry at adjacent Lot 102, it is unlikely that noise and dust emissions from these sites would combine with the potential noise and dust emissions from the proposed site to result in cumulative impacts to nearby residential receptors.

The applicant's proposed controls have been conditioned within the works approval as regulatory controls. Compliance reporting during time limited operations will ensure that relevant dust and noise controls have been correctly installed and are operational.

Occupational dust and noise associated with the proposed quarrying operations falls under the *Mines Safety and Inspection Act 1994 and Regulations 1995* which is overseen by DMIRS. The site is registered on the DMIRS SRS System and has a Project Management Plan in place.

Rose of Wind direction versus Wind speed in km/h (16 Oct 1997 to 10 Aug 2022)
Custom times selected, refer to attached note for details
BUSSELTON AERO
Site No: 009603 • Opened Oct 1997 • Still Open • Latitude: -33.6818° • Longitude: 115.4026° • Elevation 16.m
An asterisk (*) indicates that calm is less than 0.5%.
Other important info about this analysis is available in the accompanying notes.



9 am
8922 Total Observations

Calm 3%

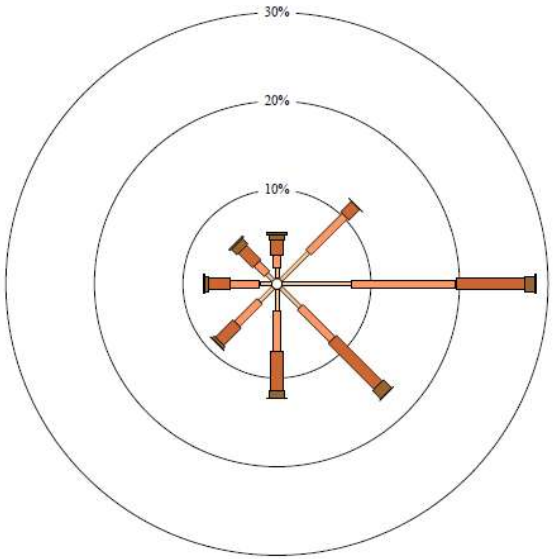


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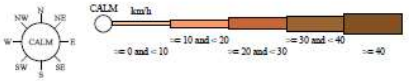
Figure 7: Annual 9am wind rose at Busselton Aero weather station site 009603

Rose of Wind direction versus Wind speed in km/h (16 Oct 1997 to 10 Aug 2022)
Custom times selected, refer to attached note for details
BUSSELTON AERO
Site No: 009603 • Opened Oct 1997 • Still Open • Latitude: -33.6818° • Longitude: 115.4026° • Elevation 16.m
An asterisk (*) indicates that calm is less than 0.5%.
Other important info about this analysis is available in the accompanying notes.



3 pm
8930 Total Observations

Calm *

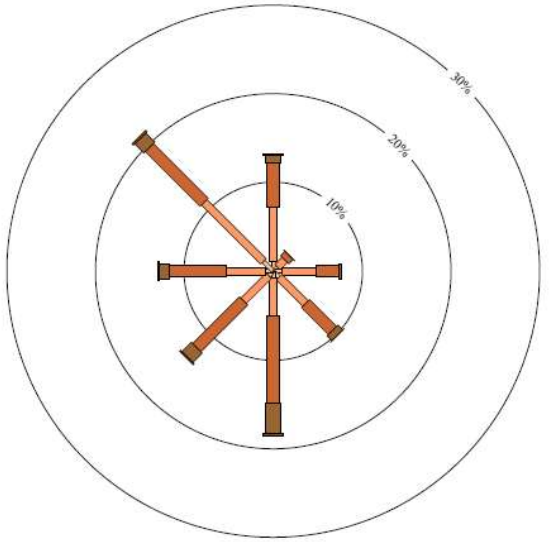


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Figure 8: Annual 3pm wind rose at Busselton Aero weather station site 009603

4. Consultation

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

Table 4: Consultation

Consultation method	Comments received	Department response
Nearby sensitive receptor (241 Gibb Road) advised of proposal on 4 May 2022	None received.	The Department notes that, According to the Applicant, discussions have been held between the Applicant and the landowners of nearby adjoining Lots and no concerns have been expressed relating to the proposed operation of the screening and crushing plant on-site.
Local Government Authority advised of proposal on 4 May 2022	None received.	N/A.
Department of Mines, Industry Regulation and Safety (DMIRS) advised of proposal 4 May 2022	None received	N/A.
Application advertised on the department's website on 9 May 2022	None received	N/A.
Applicant was provided with draft documents on 12 October 2022	Comments received 7 November 2022. Refer Appendix 1.	Recommendations accepted. Works approval and decision report updated as required.

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. Accendo Australia 2022. *Clearing Permit Application CPS 9531/1: revised application area and EIL/Development Approval*. Email received 14 January 2022 (DWER Ref. DWERDT551528)
2. City of Busselton 2020. *Notice of determination on application for development approval*. DA18/0674.
3. Department of Environment and Conservation (now DWER) 2011, *A guideline for managing the impacts of dust and associated contaminants from land development sites, contaminated sites remediation and other related activities*. Accessed at https://www.der.wa.gov.au/images/documents/your-environment/air/publications/Guideline_for_managing_impacts_of_dust.pdf
4. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting, Perth*, Western Australia
5. DWER 2020, Guideline: Risk Assessments, Perth, Western Australia.
6. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
7. Environmental Protection Authority (EPA) 2005, *Guidance for the Assessment of Environmental Factors: Separation Distances between Industrial and Sensitive Land Uses*, Western Australia.
8. EPA 2009. *South West Regional Ecological Linkages. Bulletin No 8*. Accessed at: http://epa.wa.gov.au/EPADocLib/3040_SWREL_EPB821009.pdf
9. City of Busselton 2020, *Local Planning Policy No.2.3 Extractive Industries*. Accessed at https://www.busselton.wa.gov.au/documents/342/lpp-23-extractive-industries#:~:text=POLICY%20AREA%203%20%2D%20EXTRACTIVE%20INDUSTRY,identified%20as%20Prime%20Agricultural%20Land.
10. Landform Research 2019, *Excavation and Rehabilitation Management Plan*, Proposed Sand Pit, Lot 101, Gibb Road. Kaloorup, Unpublished, Western Australia.
11. West Australian Planning Commission (WAPC) July 2021, *State Planning Policy 2.4 Planning for Basic Raw Materials Guidelines*. Accessed at https://www.dplh.wa.gov.au/getmedia/e63d947a-bb29-427d-be17-ec2fcd52493b/GD_SPP_2-4_Basic_Raw_Material_Guidelines

Appendix 1: Summary of applicant's comments on risk assessment and draft conditions

Condition	Summary of applicant's comment	Department's response
Draft works approval and draft decision report	'Attached is the updated premise map showing the diversion drains/bunding, topsoil/overburden stockpiles and earthen bunding to the adjoining lots. The earthen bunding to the adjoining lots will be constructed with the approximate dimensions of 2 m wide x 1 m high x a total of 600m long. The bund will only be constructed adjacent to the cell being worked at any time. Infiltration and retention basins have not been shown on the premises plan as the entire base of the pit will act as the infiltration and retention basins. No hardstand areas will be constructed within the premises. Given the low-risk nature of the works and the large separation distance to the closest receptor (greater than 500m), the site classification assessment provided within DWER's "A guideline for managing the impacts of dust and associated contaminants from land development sites, contaminated sites remediation and other activities" classified the works as having a 'low' risk. This document outlines the contingency actions appropriate to this risk level which include the allowance for water-cart operation, wind fencing and surface stabilisation where required. Given the separation to the receptor to the north west and the low risk it is requested that Condition No. 6 specifying the construction of wind fencing prior to commencing time limited operations be removed. Visual monitoring of dust will be ongoing throughout the day during operations. When dust emissions are observed, dust suppression measures will be implemented immediately. '	Recommendations accepted. Works approval and decision report updated as required.

Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)		
Application type		
Works approval	☒	
Date application received		11/02/2022
Applicant and premises details		
Applicant name/s (full legal name/s)		Leeuwin Civil Pty Ltd
Premises name		
Premises location		Lot 101, 285 Gibb Road, Kaloorup, WA
Local Government Authority		City of Busselton
Application documents		
HPCM file reference number:		DER2022/000057
Key application documents (additional to application form):		*Leeuwin Civil ASIC Company Extract* *Certificate of Title Lot 101, 285 Gibb Road* *Lot 101 Gibb Rd Project Shapefiles* *Works Approval Supporting Document* *Excavation and Rehabilitation Management Plan* *Approved Development Plan DA18/0674*
Scope of application/assessment		
Summary of proposed activities or changes to existing operations.		Construction and operation of a screening and crushing unit for sand and gravel extraction.

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

Table 1: Prescribed premises categories

Prescribed premises category and description	Production or design capacity	Proposed changes to the production or design capacity (amendments only)
Category 70: Screening etc. of material	30,000 or 50,000 tpa	N/A

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	Yes ☐ No ☒	Referral decision No: Managed under Part V ☐

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)		
significant proposal?		Assessed under Part IV ☐
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes ☐ No ☒	Ministerial statement No: EPA Report No:
Has the proposal been referred and/or assessed under the EPBC Act?	Yes ☐ No ☒	Reference No:
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes ☒ No ☐	Certificate of title ☒ General lease ☐ Expiry: Mining lease / tenement ☐ Expiry: Other evidence ☐ Expiry:
Has the applicant obtained all relevant planning approvals?	Yes ☒ No ☐ N/A ☐	Approval: DA18/0674 Expiry date: 09/04/2025
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes ☒ No ☐	CPS No: CPS9531
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes ☐ No ☒	Application reference No: N/A Licence/permit No: N/A Licence not required.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes ☐ No ☒	Application reference No: Licence/permit No: Licence / permit not required.
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes ☐ No ☒	Name: N/A Type: N/A Has Regulatory Services (Water) been consulted? Yes ☐ No ☐ N/A ☒ Regional office: N/A
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes ☐ No ☒	Name: N/A Priority: P1 / P2 / P3 / N/A Are the proposed activities/ landuse compatible with the PDWSA (refer to WQPN 25)? Yes ☐ No ☐ N/A ☒

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)		
Is the Premises subject to any other Acts or subsidiary regulations (e.g. *Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx*)	Yes ☐ No ☒	
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes ☐ No ☒	
Is the Premises subject to any EPP requirements?	Yes ☐ No ☒	
Is the Premises a known or suspected contaminated site under the *Contaminated Sites Act 2003*?	Yes ☐ No ☒	Classification: N/A Date of classification: N/A Nearby CS approx. 200m west from prescribed premise boundary. CSS site ID 10950. Classification: Remediated for restricted use Trim ID: DER2018/481 Former concrete batching plant, Lot 2543, 328 Gibb Road, Metricup