PART A: PROPONENT AND REFERRER INFORMATION AND PROPOSAL DESCRIPTION			
Referrer information			
Who is referring this proposal?		✓ Proponent ☐ Decision-making authority ☐ Community member/third party	
Name (print) Carly Ebenestelli On behalf of Cougar Sands		**Signature** C Ebenestelli	
Position	Consultant on behalf of Cougar Sands	Organisation	Western Environmental signed on behalf of Cougar Sands
Email	carly.e@westenv.com.au	Phone	0435 476 911
Address	Office 7	16 Victoria Street	
	Bunbury	WA	6230
Date	17 June 2026		
Does the referrer request that the EPA treat any part of the proposal information in the referral as confidential? *Provide confidential information in a separate attachment.*		☐ Yes ✓ No	
Does the referrer confirm that they consent to receive correspondence electronically?		✓ Yes ☐ No	
Referral declaration for proponent and Authorised representative: I, ……Carly Ebenestelli…… declare that I am authorised to refer this proposal on behalf of ……Cougar Sands……and further declare that the information contained in this form is true and not misleading. Date: 17 June 2026			
Proponent information			
Name of the proponent/s *Include Trading Name if relevant*		**Lake Clifton Sands Pty Ltd – trading as Cougar Sands**	
Australian Company Number(s) ✓ **OR** Australian Business Number(s) ☐		**129 566 043**	
Pre-referral discussions			

Have you had pre-referral discussions with the EPA (including the EPA Services of DWER)? The current sand extraction approval footprint of 41.32 hectares on pasture land was referred to the EPA who, on 15 March 1996 determined that the existing operations were "Not Assessed". The proposed extension that is entering Native vegetation is not part of the currently approved footprint. Discussions regarding a pit expansion into Native vegetation were held in June 2021 with the EPA, relating to the potential for a pit extension of 52.1 ha and included native vegetation in excellent condition being added to the Yalgorup National Park, with additional upgraded native vegetation to be added to the National Park after restoration. The meeting was attended by Robert Hughes and Natalie MacAlpine from the office of the EPA (DWER). The proposal included linkages between Yalgorup National Park and Conservation Covenants for the protection of the remaining parts of Lot 1001 Lake Clifton Road, Lake Clifton. Since the meeting with the EPA, the proposed extraction area has been modified to provide better environmental outcomes with the pit being reduced to 21.53 hectares and the addition to the Yalgorup National Park of native vegetation in "excellent" condition being increased, in addition to the further areas of native vegetation to be upgraded and added after restoration. A number of site assessments and stakeholder consultations have been completed including Flora and Vegetation, Fauna and Heritage. These were assessed on the originally proposed 52.1 ha. As the currently proposed reduced area of 21.53 ha extends slightly south of the original proposal by 2.76 ha, a small area of additional Fauna and Heritage needs to be reviewed to cover any potential data gap.	✓ Yes ☐ No
Proposal information	
Proposal name	EXTENSION COUGAR SANDS PIT
What is the proposal? (Include general description in the *Instructions and template: How to identify the content of a proposal)*	Cougar Sand supplies has operated the highly-efficient, specialty sand pit on private "Rural-zoned" land, Lot 1001 Lake Clifton Road Lake Clifton for over 25 years under Development Approval and Extractive Industry Licence. The proposal is to expand the existing pit by 21.53 ha to source high quality, high PRI sand. The proposed time frame is 10 years of excavation plus 5 years for closure and restoration. In addition the proposal is to immediately add a

	parcel of native vegetation in “Excellent” Condition to the Yalgorup National Park and a further area of native vegetation to be added after restoration. Those additions which will be ceded to the State, by Cougar Sands will provide the only available ecological corridor linkage between Lake Clifton and the Ramsar listed wetlands of the Peel Harvey Estuary. Cougar Sands is one of only two large sand pits in the southern Perth – Peel Region. The sand on Lot 1001 has the last available proven high Phosphate Retention Index material (PRI) Karrakatta sand with the highest Phosphate Retaining Index that is available for use preventing phosphate from entering the Peel Harvey Estuary. The proposal can provide immediate and long-term environmental benefits and assist with essential resource requirements of the Peel Region for High Capability phosphate retaining soil amendments and fill for urban and other development, in line with the recommendations and guidelines of the *WSUD (Water Sensitive Urban design 2006), the Water Quality Improvement Plan (WQIP, EPA 2008) and Regional Estuaries Initiative (REI).* The footprint chosen is designed to minimise visual impact and enable the creation of an un-fragmented ecological corridor. The proposal also enables a swap of the “Exclusion” Area in State Planning Policy 2.4 with an unlisted area and therefore can comply with a modified staged use of the listed "Regionally Significant Basic Raw Materials" as identified by the Geological Survey of Western Australia. The proposal is designed to maintain the high ridgeline and develop landscape features conducive to expanding and restoring flora and fauna habitat. The 25 years of past operations demonstrate the ability to operate in an environmentally responsible manner with Water, Dust, Noise and Visual Amenity all being able to be well managed. A series of site assessments and studies have been conducted for the proposal, including Flora and Vegetation, Fauna, Phosphate Retention Quality, Traditional Owner Heritage, Water Quality and Rehabilitation **T**rials. These were assessed on the originally proposed 52.1 ha. As the currently proposed pit is reduced to 21.53 ha and extends slightly south of the original proposal by 2.76 ha, a small area of additional Fauna and Heritage needs to be reviewed to cover any potential data gap. There has been extensive local area consultation

	with all residences within 1 kilometre being contacted, site inspections by representatives of the Traditional Owners, the Shire of Waroona, DBCA, Peel Harvey Catchment Council and industry representatives. Discussions with the Shire of Waroona suggest that the Shire is supportive in principle of a Conservation – Extraction compromise proposal. No issues were raised by the local residents contacted as a result of a letter drop. The proposal offers offsets that contribute and enhanced ecological connectivity; addresses whilst respecting the precautionary principles with proven restoration and rehabilitation performance.
Have you provided electronic spatial data, maps, and figures in the appropriate format?	✓ Yes ☐ No
What type of proposal is being referred? *For significant amendment or derived proposal, provide the associated existing Ministerial statement number/s* *For a proposal under an assessed planning scheme, provide the scheme number and name*	✓ significant proposal. *Choose which type of significant proposal* ✓ new proposal ☐ significant amendment (proposal only) ☐ significant amendment (conditions only) ☐ significant amendment (proposal and conditions) ☐ strategic proposal ☐ derived proposal ☐ proposals of a prescribed class ☐ proposal under an assessed planning scheme
Proposal content*: Complete the corresponding template (Proposal Content Document) from the Instructions and template: How to identify the content of a proposal for the type of proposal identified above. The completed form **must be** submitted with the referral.*	
Alternatives	

PART B: ASSESSMENT OF ENVIRONMENTAL IMPACTS	
Environmental factors	
What are the likely significant environmental factors for this proposal?	☐ Benthic Communities and Habitat ☐ Coastal Processes ☐ Marine Environmental Quality ☐ Marine Fauna ✓ Flora and Vegetation ✓ Landforms ☐ Subterranean Fauna ☐ Terrestrial Environmental Quality ✓ Terrestrial Fauna ☐ Inland Waters ☐ Air Quality ✓ Greenhouse Gas Emissions ✓ Social Surroundings ☐ Human Health
*For **each** of the environmental factors identified above, complete the following table, or provide the information in a supplementary report*	
Potential environmental impacts – for each environmental factor	

1	**EPA policy and guidance**	*Flora and Vegetation* *To protect flora and vegetation so that biological diversity and ecological integrity are maintained.* ***See Attachment 2.***
2	**Receiving environment**	PGV Environmental recorded a total of 161 plant species during the 2019 and 2021 flora surveys. The total consisted of 139 native species and 22 (16%) introduced species. The study found similar numbers of native species in the pit expansion area compared to the proposed conservation area to be ceded to the State for addition to Yalgorup National Park. PGV Environmental found that two vegetation communities were present on the proposed extraction area, ***Eucalyptus marginata/ Allocasuarina fraseriana/ Banksia attenuata/ Xylomelum occidentale* Low Woodland over *Hibbertia hypericoides* Low Shrubland to Open Low Heath.** This is the dominant vegetation type occurring on most of the site. Jarrah (*Eucalyptus marginata*) and Sheoak (*Allocasuarina fraseriana*) are up to 8m high but mostly around 4m, and at fairly low density. *Banksia attenuata* and Woody Pear (*Xylomelum occidentale*) are common at 3- 4m high and also at low density. *Jacksonia sternbergiana* and *Melaleuca thymoides* are common tall shrubs while the understorey is mostly less than 1m and under 30% cover. The vegetation most closely matches FCT 21a, Central *Banksia attenuata – Eucalyptus marginata* woodlands ***Eucalyptus marginata/Eucalyptus gomphocephala* Low Woodland over *Banksia attenuata/Xylomelum occidentale/Agonis flexuosa* Low Woodland over *Hibbertia hypericoides* Low Shrubland.** This vegetation type occurred at the lower southeastern end of the site. Tuart (*Eucalyptus gomphocephala*) and Peppermint (*Agonis flexuosa*) are present in these areas but were absent elsewhere on the site. The vegetation most closely matches FCT 25, Southern *Eucalyptus gomphocephala-Agonis flexuosa* woodlands. Those two vegetation communities represent communities listed as Threatened by the Commonwealth under the *EPBC Act 1999* and Priority species on State databases.
3	**Likely environmental impacts**	There will be a progressive staged loss of native vegetation during the life of the pit extension to a total of 21.53 ha, with the proposed pit being progressively rehabilitated as new ground is opened. To enable the sand to be cut to the floor at the western end of the pit, there is anticipated to be 10 ha of ground open at any one time, but this may vary and will depend on market demand and the shape and depth of the pit which will determine the area of pit floor and batter slope required to provide a safe operation.
4	**Application of the mitigation hierarchy, including other statutory decision-making processes**	**Avoid** The size of the proposed pit has been restricted to deep sand on a sand over limestone ridge to enable the greatest amount of sand to become available for the smallest practical disturbance footprint, whilst ensuring that the visual impact will be avoided.

		Edge effects are minimised by having one relatively circular disturbance pattern with clearing occurring from the east and south. **Minimise** The disturbance is 21.53 ha with the remainder of the site being retained or enhanced back to local native vegetation. This will minimise the potential impacts on local vegetation in the longer term. Weed management and Dieback management procedures are proposed. Terrestrial Ecosystems noted that with appropriate dieback management practises, dieback is unlikely to be introduced into the local area. Excavation will occur on the floor of the pit well below the natural local vegetation and therefore with less potential for impacts from weeds or dieback, apart from land clearing and reinstatement operations. **Rehabilitate** Cougar Sands has been undertaking revegetation trials on site and has for the last three years planted additional tube plants in the proposed vegetation corridor linkage. Current rehabilitation trials demonstrate that the local native species can be returned to excavated and disturbed areas. The 21.53 hectares excavated area will be returned to native vegetation at the end of excavation. The completed floor of the pit and the faces/batter slopes will have a separation of 3 metres to the highest known water table and be revegetated within 12 months of excavation being completed within each stage, and managed for up to five years or until compliance with completion criteria. **Offsets** The provision of the wildlife corridor and additions to the Yalgorup National Park is proposed and will provide flora and fauna linkages from Yalgorup National Park to the Peel Harvey Estuary and Koeljerrenup Nature Reserve. The enhancement of the "Wildlife" Corridor along the northern edge of Lot 1001 will increase the potential for fauna to move from the Yalgorup National Park and the wetlands of the Peel Harvey Estuary, Harvey River and Koeljerrenup Nature Reserve.
5	**Assessment and significance of residual impacts**	There will be a net gain to the overall protection of the remnant vegetation, with the establishment and protection of the fauna habitats and linkages for the areas added to the Yalgorup National Park whose ecological benefits are likely to compensate for the temporary loss of the 21.53 ha native vegetation.
6	**Likely environmental outcomes**	**Outcomes** There will be a temporary loss of local native vegetation during the life of the pit, but this will be offset by the retention of vegetation adjoining the Yalgorup National Park and the formation and preservation of a linkage between the Yalgorup National Park and the wetlands of the eastern side of the Peel Harvey Estuary and the Harvey River.

		The resultant conservation area and the creation of a wildlife corridor between the sand excavation and Lake Clifton Road will form the only possible link between the National Park and the wetlands of the Peel Harvey Estuary and Koeljerrenup Nature Reserve. Overall, even with clearing, it is considered that there will be a net gain to the overall quality and protection of the remnant vegetation, by adding to the Yalgorup National Park and providing linkages between the coast and the wetlands of the Peel Harvey Estuary.

1	**EPA policy and guidance**	*Landforms* *To maintain the variety and integrity of distinctive physical landforms so that environmental values are protected.*
2	**Receiving environment**	The ridge on Lot 1001 is the highest in the Peel Region, rising to 70 metres AHD. The proposed excavation will retain that ridge and is located on a lower ridge to the south rising to 58 metres AHD in a shape that leaves the western portion of the ridge intact. Therefore the ridgeline will be maintained, visual impacts will not be noticed from outside Lot 1001 and the hills and skyline will remain in line with Government landscape policies.
3	**Likely environmental impacts**	There is unlikely to be any additional visual impacts as the pit extension is not visible from Lake Clifton Road and is unlikely to be visible from Yalgorup National Park.
4	**Application of the mitigation hierarchy, including other statutory decision-making processes**	**Avoid** The area of sand extraction has been selected to be well south from Lake Clifton Road to ensure that there is no visual impact from the road network. The pit is also designed to leave the high ridge in place so that the skyline does not change from Lake Clifton Road or other locations. The area selected is located within the nominated Regionally Significant Basic Raw Materials in State Planning Policy 2.4 for Lot 1001 but extends further to the west as a compromise to the extraction of sand and the needs of conservation. **Minimise** Vegetation buffers along Lake Clifton Road are to be retained and are currently being enhanced. The southern face of the pit will be excavated first and revegetated as soon as possible to minimise risk of visual impacts from Lake Clifton Road. Mining from the east will ensure that the active face of the quarry will not be visible from Lake Clifton Road, any dwelling or the Yalgorup National Park. The crossover from Lake Clifton Road and the access road are in place and are sealed. Screening vegetation and tree belts are already in place along Lake Clifton Road, at the entrance and along the access road. **Rehabilitate** An extensive program of rehabilitation trials have been, and are being conducted on the existing approved sand extraction footprint. The completed pit will be returned to Native vegetation within 12 months of the excavation in each stage being completed.
5	**Assessment and significance of residual impacts**	No residual external impacts.
6	**Likely environmental**	The extended sand extraction will not be visible from Lake Clifton Road, local dwellings and will have minimal to no visual impact from

	outcomes	the Yalgorup National Park.

1	**EPA policy and guidance**	*Terrestrial Fauna* *To protect terrestrial fauna so that biological diversity and ecological integrity are maintained.* ***See Attachment 3***
2	**Receiving environment**	Terrestrial Ecosystems spent a significant number of hours on site using remote cameras, observations and trapping as well as recording all significant trees > 500 mm trunk diameter to assess the fauna. The same vegetation units that were identified by PGV Environmental were reviewed by Terrestrial Ecosystems. Because many hours can be exerted in surveys and particular fauna not found even though they are present, Terrestrial Ecosystems, concentrated on the significant species and completed extensive camera trapping surveys to determine what Conservation Significant Fauna are present as well as collation of all regional and local studies that are available. They then undertook a risk based assessment to determine the presence and potential impacts on conservation significant species. Extensive Black Cockatoo habitat assessment were conducted. The Fauna study covered a much larger footprint than that proposed but did not cover approximately 2.76 ha of the 21.53 ha proposed quarry extension and that will be checked for fauna habitat trees as part of this project. The gap relates only to the potential presence of Cockatoo habitat trees. However the extensive tree assessment showed that there were on average 4 cockatoo habitat trees per hectare and so it can be expected that there will be an additional ten trees to be counted or a total of around 85 – 90 total cockatoo habitat trees to be impacted. **The significant fauna species identified and targeted were as below.** **Western Ringtail Possum (*Pseudocheirus occidentalis)*** Western Ringtail Possum (*Pseudocheirus occidentalis*) – Critically endangered under the *BC Act 2016* and *EPBC Act 1999.* The Western Ringtail Possum is an arboreal mammal with a body weight between 820–1020g. The species is regularly encountered in urban development and disturbed areas throughout its distribution which has contracted from what appears to have been a patchy distribution covering the south west of Western Australia. Its distribution encompasses a variety of vegetation types including coastal Peppermint (*Agonis flexuosa*), and Peppermint/Tuart (*Eucalyptus gomphocephala*) associations, Eucalypt and Casuarina (*Allocasuarina huegeliana*) woodlands. DBCA has translocated individuals to Yalgorup National Park and there are isolated populations south of Mandurah.

		Three Western Ringtail Possums were recorded in the proposed excavation area during the nocturnal searches indicating a very low abundance of this species in an area. **Baudin's Black-Cockatoo (*Calyptorhynchus baudinii*)** Baudin's Black-Cockatoo (*Calyptorhynchus baudinii*) - Endangered under the *BC Act 2016* and *EPBC Act 1999*. Baudin's Black-Cockatoo lives in the humid and sub-humid forests of Western Australia from Gidgegannup and Clackline in the north to the south coast and to about 50km east of Albany and all the forests to the south-west coast. (Terrestrial Ecosystems 2022). Baudin's Black-Cockatoo is typically found in vagrant flocks and utilises the taller, more open *E. marginata, C. calophylla* and *E. diversicolor* forests, where it feeds mainly on *C. calophylla* seeds and various Proteaceous species. **Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*)** Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) is listed as Endangered under the *BC Act 2016* and *EPBC Act 1999.* Carnaby's Black Cockatoo lives throughout the southwest. Breeding only occurs in the wheatbelt and Great Southern in Wandoo and Salmon Gum mature woodlands and are partly migratory. They feed on a wide range of foods including flowers, seed and insects. They have adapted to eating exotic foods such as pine nuts. Generally their preferred feeding habitat is Kwongan shrub where they feed on *Dryandra, Hakea, Grevillia, Banksia* and Marri seed. The major threat to Carnaby's Black Cockatoo is habitat fragmentation which this proposal seeks to secure as part of the offsetting of the environmental impacts. On the Swan Coastal Plain, Carnaby's Black-Cockatoos have been recorded foraging in most suburbs and in pine plantations within the greater Perth metropolitan area. Adults return to the same breeding area each year and some use the same tree hollow for many years in succession to raise their chicks, others shift their nests among a number of trees in the same area (Saunders and Ingram 1998). (Terrestrial Ecosystems 2022). **Red Tailed Black Cockatoo (*Calyptorhynchus banksii naso)*** The Red Tailed Black Cockatoo *Calyptorhynchus banksii naso* is not as endangered as Carnaby's Black Cockatoo, but is still listed as Vulnerable under Federal and State acts. It breeds in hollows of mature, mostly Marri, but also Jarrah Wandoo and Karri trees, usually in quite dense closed forests, it feeds over a wide range on Marri, Jarrah, Blackbutt, Karri and Sheoak seed.

		The Forest Red-tailed Black-Cockatoo is one of three large black-cockatoos found in Western Australia. *Calyptorhynchus banksii naso* frequents the humid to sub-humid south-west of Western Australia from Gingin in the north, to Albany in the south and west to Cape Leeuwin and Bunbury. It is mostly seen in the hills, but small numbers of birds were seen at Mundijong, Baldivis, Karnup, Stakehill, Pinjarra, Coolup and in the Lake Clifton area. In 2011, there was an increase in the number of Forest Red-tailed Black-Cockatoo on the coastal strip north from Rockingham to the northern metropolitan suburbs. The reason for the recent increase in abundance is unknown. (Terrestrial Ecosystems 2022). **Brush-tailed Phascogale *(Phascogale tapoatafa*)** Brush-tailed Phascogale (*Phascogale tapoatafa*) – species of special conservation interest. The Brush-tailed Phascogale is an arboreal dasyurid, that seldom feeds on the ground, preferring large trees. It is an agile hunter that is able to leap 2m between trees and run along underneath branches. It retreats to small hollows in the tree and primarily eats cockroaches, beetles, centipedes and spiders, but it will eat small vertebrates, and nectar forms an important part of its diet. Terrestrial Ecosystems 2022. It was formally distributed throughout the sclerophyll forests and woodlands of Australia's temperate and tropical areas. The subspecies *P. t. wambenger* is confined to the south-west of Australia and occasionally is found in large patches of remanent bushland. The Brush-tailed Phascogale was recorded on multiple occasions in the project area, and it is almost certainly being predated on by the abundance of foxes in the project area. See Plate 3 in Terrestrial Ecosystems 2022. **Quenda (*Isoodon fusciventer*)** Quenda (*Isoodon fusciventer*) – Priority 4 species with the DBCA. Quenda prefer dense scrub (up to one metre high), with swampy vegetation but are found in a variety of other habitats. They will often feed in adjacent forest and woodland that is open grassland, pasture and crop land lying close to dense cover. Although common in the region, Quenda were not predicted for the project area due to the openness of the understorey vegetation, lack of suitable habitat for this species and high density of foxes. However, it was a surprise Quenda were recorded on multiple camera traps in the project area. (Terrestrial Ecosystems 2022). **Western Brush Wallaby (*Notamacropus irma*)** Western Brush Wallaby (*Notamacropus irma)* - – Priority 4 species with the DBCA.

		The Western Brush Wallaby geographic range has contracted due to vegetation clearing and predation by foxes. This species is found in a wide variety of habitats, favouring open grassy areas, but is now often restricted to areas of more dense vegetation to avoid predators. Western Brush Wallaby is present in the project area in low abundance. (Terrestrial Ecosystems 2022). **Perth Slider (*Lerista lineata*)** Perth Slider (*Lerista lineata*) – Priority 4 with DBCA This small fossorial skink is found in pale sandy soils south from the Swan River to Binningup and inland about 25km from the coast (Maryan et al. 2015, Doughty and Bamford 2016). The primary reason for the decline in this species is land clearing. It is typically found in the leaf-litter and upper layers of loose sand around the base of shrubs and mostly in the pale soils. It could be present in the project area. (Terrestrial Ecosystems 2022). **Amphibians** A total of 9 species of amphibian were identified by Terrestrial Ecosystems as potentially being present on site. Few of these will be present on the elevated sand ridge that comprises the extraction site, with amphibians present being mainly restricted to the lower lying eastern portion of Lot 1001 and even onto Lot 501 adjoining to the east and around the small and winter damp areas. **Reptiles** A total of 37 species of amphibian were identified by Terrestrial Ecosystems as potentially being present on site although one being the Oblong Turtle which is unlikely to occur. The most significant species is the Perth Slider (*Lerista lineata*) which is noted above. Any of the other species could occur on site. **Birds** The list of birds observed in local surveys that is summarised by Terrestrial Ecosystems 2002 comprises 100 species. In most cases birds have the potential to move if disturbed, but are still considered in the Fauna Management Program. **Mammals** The mammals observed in local surveys that are summarised by Terrestrial Ecosystems 2002 comprise 18 species, of which 7 are introduced. **Short range endemic (SRE)** Short range endemic (SRE) species are defined as terrestrial and freshwater invertebrates that have naturally small distributions of less than 10,000 km^2.

		Within this distribution, the actual areas occupied may be small, discontinuous or fragmented. That does not occur on Lot 1001 where the vegetation forms part of a much larger habitat that apart from the proposed pit will be retained and enhanced by better protection and the creation of a wildlife corridor along the northern side of Lot 1001 where no linkage currently exists.
3	**Likely environmental impacts**	**Direct Impacts** Animals may be killed or injured during clearing. There could be a reduction or loss of activity areas and closure of burrows. **Indirect Impacts** The proposed clearing and mining will cause minimal increases tothe edges of land by a small extent which can impact some smaller less mobile mammals and expose them to greater threats. Some local habitat may become fragmented. Strict weed management will mitigate increased weed risk. Excavation will not increase non native fauna such as foxes. Fire frequency will not increase as the pit will act as a firebreak. Noises from operations may impact fauna, although Terrestrial Ecosystems noted that noise impacts were only likely during land clearing and not from normal quarrying operations. The scale of operations is not anticipated to increase from that which has occurred for the past 25 years as sand excavation will move from the current pit to the proposed extension and all the identified fauna have been recorded during the operations of the existing sand excavation. Dust may impact adjoining vegetation, although currently there is no evidence of dust impacts on adjoining vegetation from the current excavations. The risk is minimal as sand excavation is relatively free from dust, apart from the risk of generation of dust from vehicle movements on roads within the pit, which are wetted down as required. **Risks to Fauna** The risks to fauna are listed by Terrestrial Ecosystems as being low, apart from three areas of Moderate risk; • Loss of terrestrial fauna within the actual disturbance area. • Potential loss of a Western Ringtail Possum or small population of Western Ringtail Possums. • Changed vegetation and a resulting loss of fauna habitat. **Potential Impacts on Black Cockatoos** Terrestrial Ecosystems did not record any nesting trees within the project area and noted that the area proposed for the pit lies outside known breeding or roosting habitats. There are ten recorded trees with hollows within the proposal area, but no nesting hollows. There is no known roost site within 5 km of the proposed disturbance. Note that there are likely to be 10 trees still to be

		assessed. Clearing will not create habitat gaps in excess of 4 km. Large "Stag" trees have been and will be relocated during clearing and placed within the rehabilitation areas as has been undertaken during the rehabilitation trials. Black Cockatoos have been shown to be using those trees.
4	**Application of the mitigation hierarchy, including other statutory decision-making processes**	**Avoid** Edge effects are minimised by having one relatively large disturbance pattern with clearing occurring from the east. The area of clearing has been selected to maximise the resource volumes in the smallest disturbance footprint. **Minimise** In total the temporary habitat lost is 21.53 ha, approximately 190 hectares of the remainder of Lot 1001 is remnant native vegetation and restored local native vegetation fauna habitat. Fauna spotters will be used during clearing to relocate fauna or assist injured animals. Vegetation ahead of land clearing will be examined by fauna experts who will recover animals and relocate them to areas that are not to be cleared. This will particularly apply to Ringtail Possum habitat and hollows located in trees. Tree hollows recovered during clearing will be relocated to areas of natural vegetation and revegetation that are to be retained as is currently used. Weed Management and Dieback management procedures will be practised. The shape of the proposed disturbances minimises habitat fragmentation. The provision of the wildlife corridor and its revegetation will increase the potential for fauna to move and reduce habitat fragmentation. The vegetation corridor along the north of Lot 101 will be enhanced with additional planting and revegetation to lift its vegetation and habitat condition. Cougar Sands do not have any current activities that would encourage introduced predators. Rubbish is placed in covered and sealed bins until regularly removed from site to minimise potential food sources. Sand quarries have large areas of bare open ground that provide natural fire breaks which have the potential to actually stop wild fires. In the current operations of the sand excavation on site no fire has been started from sand excavation activities. Noise from operations are not proposed to increase because the scale of operations is anticipated to be similar to that which has occurred for the past 10 years. Sand excavation will move from the current pit to the proposed extension. Excavation will take place on the floor of the pit, well below the elevation of the natural land surface and associated vegetation and habitats. Sand excavation is relatively free from dust, apart from the risk of generation of dust from vehicle movements on limestone roads within the pit. Water carts are used to minimise the generation of

		dust from assess roads, with water drawn from a licensed bore that is operational on site. Weed management and Dieback management procedures will be practised. Terrestrial Ecosystems noted that with appropriate dieback management practises dieback is unlikely to be introduced into the local area. Excavation will occur on the floor of the pit well below the natural local vegetation and therefore with less potential for impacts from weeds or dieback, apart from land clearing and reinstatement operations. DBCA discussed the provision of fencing to Yalgorup National Park with Cougar Sands, and through discussions have delayed in erecting the fence so that the fence can be provided on Lot 1001 along Lake Clifton Road and around the edge of the proposed sand excavation to ensure linkages between the "Excellent" vegetation on Lot 1001 and Yalgorup National Park. Cougar Sands has been undertaking revegetation trials on site and has for the last three years planted additional tube plants in the proposed vegetation corridor linkage. Current rehabilitation trials demonstrate that the local native species can be returned to excavated and disturbed areas. **Rehabilitate** The 21.53 hectares excavated area will be revegetated to local native vegetation. The completed floor of the pit with a separation of 3 metres to the water table, and the faces/batter slopes will be revegetated within 12 months of excavation being completed within each stage. A wildlife corridor is to be established along the northern boundary of the property provided by lifting the quality of that vegetation to Good or better and joining the vegetation from the Yalgorup National Park in the west to the wetlands associated with the Peel Harvey River in the east. **Offsets** The provision of the wildlife corridor and additions to the Yalgorup National Park will provide flora and fauna linkages from Yalgorup National Park to the Peel Harvey Estuary and Koeljerrenup Nature Reserve. The enhancement of the "Wildlife" Corridor along the northern edge of Lot 1001 will increase the potential for fauna to move from the Yalgorup National Park and the wetlands of the Peel Harvey Estuary, Harvey River and Koeljerrenup Nature Reserve.
5	**Assessment and significance of residual impacts**	The residual impacts will mainly relate to a temporary loss of habitat during quarrying. These will be offset by protection and enhancement of the natural habitats on Lot 1001 and the securing of a wildlife corridor. With better protection of the existing vegetation, the mobility of the significant fauna and fauna assessment and recovery prior to and during land clearing, there are not anticipated to be any significant residual impacts.
6	**Likely environmental outcomes**	Whilst there will be some temporary loss of mainly smaller fauna the management provided will minimise the impacts and the fauna present on site will be protected and will continue to have large habitat available, with that habitat better protected into the

		future with the change from private land to Yalgorup National Park. Fauna management and relocation are designed to minimise such impacts.

1	**EPA policy and guidance**	*Greenhouse Gas Emissions* *To minimise the risk of environmental harm associated with climate change by reducing greenhouse gas emissions as far as practicable.*
2	**Receiving environment**	The local environment is native vegetation located on an elevated ridge of the Peel Region. The Peel Region has many low lying areas that are earmarked for development to urban, commercial, industrial and transport land uses, all of which require large amounts of sand fill. The Peel Harvey Catchment has a significant phosphate export risk which the excavated sand has the ability to assist with control. The site adjoins the Yalgorup National Park with the extraction area over 1 km from the closest residence.
3	**Likely environmental impacts**	The main impacts are clearing of vegetation, the use of energy to extract sand and transport of the sand. Efficient excavation and short transport distance are critical issues related to reducing greenhouse emissions. Being located within the Peel Region and requiring minimal operating equipment, mainly the use of a single loader loading from the face, minimises the use of fuels. Based on the current production, plant and fuel use, for the anticipated 6 million tonnes of sand excavation with potentially a small amount of limestone, the annual generation of greenhouse gas is calculated at 476.4 tonnes per year or 3,573.3 tonnes total. The anticipated screening of sand and crushing and screening of limestone will release 110.00 tonnes of CO_2. In addition, there is calculated to be the generation of 838.39 tonnes of CO_2 for the clearing of native vegetation allowing for the breakdown of the vegetation and fuel used.
4	**Application of the mitigation hierarchy, including other statutory decision-making processes**	**Avoid** There will be a progressive loss of native vegetation habitat during the life of the pit extension. The pit footprint has been selected on the deepest resource, to maximise the volume of sand for the smallest footprint and clearing. Similar greenhouse gas emissions from excavation will be generated no matter which pit produces the sand the key difference being the proximity to developments being constructed. The provision of offsets by ceding native vegetation in excellent condition to the State to add to the Yalgorup National Park will remove the potential for future clearing and development of that land and the consequent greenhouse gas emissions. **Minimise** The location of the pit within the Peel Region, minimises the transport distances and therefore minmises the amount of greenhouse gas generated to supply and to the thedevelopments. Mobile plant used in excavation is new and selected for being energy efficient.

		Rehabilitate The 21.53 ha pit will be progressively closed and rehabilitated which will gradually capture an equivalent amount of CO_2 generated by the clearing of the original vegetation. Improvements to the vegetation of the wildlife corridor will also capture additional CO_2 as the vegetation thickens and matures.
5	**Assessment and significance of residual impacts**	There will be some residual greenhouse gas generation for the clearing that is not offset during the life of the pit. However, that will be partially offset by the improvements to the vegetation quality across Lot 1001 during the operations. The location of the pit compared to alternative sand resources, even those not yet approved to the south, is calculated to save significant greenhouse gas emissions. For example, a saving of 50 km in transport distance over a round trip will save 25 litres/100 km over a load of 40 tonnes or 0.31 litres per tonne. The fuel savings over the 6 million tonnes life of the pit will be 1,875 tonnes of CO_2. If greater transport distance is saved the reductions in greenhouse emissions will be even greater.
6	**Likely environmental outcomes**	There are potential significant greenhouse gas reductions by sourcing sand from a local pit in the Peel Region when compared to the alternative sand resources. The revegetation proposed, will over time compensate for the additional greenhouse gas emissions caused by land clearing.

1	**EPA policy and guidance**	*Social Surroundings* *To protect social surroundings from significant harm*.
2	**Receiving environment**	The local environment is native vegetation with a small amount of Tuart and other communities located on an elevated ridge of the Peel Region.
3	**Likely environmental impacts**	*Aboriginal Cultural Heritage* Unlikely to be any impacts. No aboriginal heritage was observed during the site inspections by the Traditional owners who reviewed the whole site during the heritage survey. Cougar Sands is committed to working with the Traditional Owners on the use of the land prior to it being ceded to the State and is committed to recognising and having assessed any heritage material found during land clearing or excavation. *Amenity, Dust and Noise* Amenity, Dust and Noise are all managed through existing management plans and a complaints procedure for the existing pit which has operated for over 25 years. The management plans have been updated and will be applied to the extended quarry.
4	**Application of the mitigation hierarchy, including other statutory decision-making processes**	*Aboriginal Cultural Heritage* **Avoid** There will be a progressive loss of native vegetation habitat for fauna during the life of the pit, with the pit being progressively rehabilitated as new ground is opened. 21.53 ha of clearing is proposed leaving 194.2 ha of native vegetation in mostly “Excellent” condition. Cougar Sands is committed to working with the Traditional Owners on the use of the land prior to it being ceded to the State and is committed to recognising and having assessed any heritage material found during land clearing or excavation **Minimise** Discussions and surveys have been completed with Gnaala Karla Booja ILUA group representatives who were part of the ethnographic and archaeological surveys. Cougar Sands and the local Aboriginal Community will continue to liaise with respect to use of the vegetated parts of Lot 1001 for traditional purposes. The existing *“Moodjar”* or Nuytsia Christmas Trees outside the proposed excavation area will be retained and protected. The proposed 21.53 ha of vegetation to be removed has been selected to be adjacent to the existing pit in an area where there are few *“Moodjar”* Trees.

		Traditional owners will be offered the ability to collect seeds for revegetation and germination/growth of tube plants. **Rehabilitate** The 21.53 ha ha excavated area will be revegetated to local native vegetation. The completed floor of the pit and the faces/batter slopes will be revegetated within 12 months of excavation being completed within each stage. A wildlife corridor of native vegetation between to the Yalgorup National Park in the west to the wetlands associated with the Peel Harvey River is to be enhanced prior to ceding to the State, in addition to a parcel of Native vegetation in "Excellent" condition ceded at the commencement of the project. *Amenity* Social surrounding include aesthetics and visual management. The proposed extension will not be visible from Lake Clifton Road, Yalgorup National Park or nearby sensitive premises. The sand operations comply with the EPA Generic Buffers for sand excavation. Distances of 1000 metres to the closest dwellings are available which complies with all guidelines. *Dust* **Avoid** The pit has been chosen to provide buffer distances in excess of DWER, EPA and Department of Health Guidelines. The methods of excavation and staging are the same as those used for the past 25 years. The location and pit plan will provide better potential protection to Lake Clifton Road and sensitive premises than the current pit which has operated without incident or dust impacts. Land clearing and re-instatement will be conducted when the soils are moist. **Minimise** The existing Dust Management Plan has been updated and will be actioned for the proposed operations. The access road from Lake Clifton Road is 1 km long and sealed bitumen. A licensed water bore is available on site for use with managing dust emissions from the access roads. A water truck is maintained on site during drier times when dust management might be required. The truck is used to wet down the access roads as required to minimise on site dust risk.

		When dust visual trigger conditions are detected and/or alerted, relevant action is taken. This can include additional water suppression, modification of procedure, delay until more favourable conditions are present, use of alternative equipment etc. Human monitoring can detect potential dust risks prior to, and take action prior to, significant dust being generated. All operators on site are instructed to be vigilant to dust generation and management and report any excessive dust or potential dust management issues. The auditable condition is visible dust crossing the boundary of the premises; the lot boundary. This is the condition used on DWER Licences and all other quarries such as sand, limestone, gravel and hard rock quarries in Western Australia and has worked well in the past. The quarry manager and leading hand are ultimately responsible for site supervision of dust. They will travel around the operations and pit frequently and are in two way radio contact with all mobile plant. This method has operated successfully during the past 25 years. A complaints system is in place to record and manage dust complaints. As far as is known there have been no complaints relating to dust impacts during the past 25 years of sand excavation. Areas of disturbance that are no longer required are closed and revegetated as soon as possible. The vegetated buffers to the closest dwellings and Lake Clifton Road are maintained and are being enhanced with additional plantings. *NOISE* **Avoid** The site and design of the pit has been selected based on the resource location, and the excavations designed to maximise the setbacks and minimise noise impacts to the closest sensitive premises. The setback to the closest sensitive premises remain at 1000 metres with no changes to the transport route, access or the scale of the operations. The setbacks are in excess of Department of Health, EPA and DWER Guidelines. **Minimise** The existing access road and crossover is sealed bitumen to minimise transport noise and is already in place. As there are several types of mobile plant there is some flexibility in which plant to use (loader or excavator) to extract the sand and therefore there is flexibility in managing or reducing noise levels if required. All mobile plant will continue to be maintained in good condition with efficient mufflers and noise shielding. Lights or low frequency frog beepers are to be used rather than high pitched beepers to restrict noise intrusion. A complaints recording and investigation and resolution procedure is implemented and maintained.

5	**Assessment and significance of residual impacts**	*Aboriginal Cultural Heritage* There appear to be no heritage residual risks. *Amenity* The residual impacts are the temporary loss of 21.53 ha of vegetation that will be compensated for by providing offsets through the Clearing Permit Processes, and the creation of an excavation swale. *Dust* There are not anticipated to be any residual impacts *Noise* There are not anticipated to be any residual impacts.
6	**Likely environmental outcomes**	*Aboriginal Cultural Heritage* Whilst there will be some temporary loss of 21.53 ha of vegetation the impacted area has been minimised, and degraded parts of Lot 1001 are to be revegetated to "Good "or better condition. Discussions with the Gnaala Karla Booja ILUA group representatives and local traditional owners will enable their access to Lot 1001 for cultural purposes, which is currently not available. Local traditional owners will be asked if they wish to be involved with the collection of seeds, growth of native plant stock for revegetation and with the revegetation itself. There has already been some use of the land and resource by local traditional owners and this will continue through ongoing liaison. In addition, there will be continued and better protection of the local native vegetation and the development of a wildlife corridor along the northern boundary of the property. *Amenity* There are not anticipated to be any environmental changes. *Dust* There are not anticipated to be any environmental changes. *Noise* There are not anticipated to be any environmental changes.

Holistic impact assessment
Clearing As noted below, the only clearing will be the proposed 21.53 ha for this extension. The previously cleared eastern half of Lot 1001 has been allowed to progressively regenerate and has actively been assisted in part.

Phosphate impacts on the Peel Harvey Catchment

The Peel - Harvey Estuary, is recognised as being of international environmental and biodiversity importance but is subject to phosphate nutrient inputs.

The main source of the phosphate is agriculture and development within the catchment, with 60 tonnes/year being added. (*DWER Modelling of the Peel Harvey Catchment*)

The Peel Region is a rapidly growing, low lying region that requires extensive sand fill to enable those developments.

High phosphate retention sand is now specified by all levels of Government for developments within the Peel Harvey Catchment. *Perth Development Commission 2006, Peel – Harvey Coastal Catchment water sensitive Urban Design Technical Guidelines).*

Cougar Sand Pit is the main source of the high nutrient sand, but the supply of approved sand will run out within the next 1 – 2 years.

The sand resource on Lot 1001 has a proven high Phosphate Retention Capability that is ideally located to provide fill sand to mitigate nutrient impacts from development and agriculture on the Peel Harvey Estuary.

The Cougar Sand Pit needs to be expanded to enable the continued supply of high phosphate retention sand to protect the Peel – Harvey Catchment.

There are large reserves of high phosphate retention sand on Lot 1001 which can be used to minimise phosphorus export, extend the life of Cougar Sands pit, and link the Yalgorup National Park.

The Cougar sand pit has the greatest amount and highest PRI sand in the Peel Region and is needed to prevent phosphate losses from low lying development and agricultural areas. Even so all sand recovered by the extension to the sand pit will only partially satisfy the development demands in the Peel Harvey Catchment.

The Cougar sand resources have some ferricrete gravels of very high phosphate retention which is used for limiting high risk phosphorus losses such as in detention basins and for urban and agricultural land management.

Shortage of Fill Sand

The sand fill requirements in the Peel Region for the proposed subdivisions, land rezonings, roads, highways and industrial areas are large at tens of million tonnes by 2050.

Cougar Sands is the main source of fill sand locally and has only 1 – 2 years life left without expansion. Even so, the proposed expansion cannot meet the community needs for fill sand.

Opening that land will enable around 6 million tonnes of much needed fill and specialty sand to be used in subdivisions across the Peel Region and agricultural land to capture and prevent the export of phosphate to the estuary.

Wildlife Corridor

Cougar Sands is able to assist the Shire of Waroona to enable a proposed Wildlife Corridor between the Ocean and the Peel Harvey Estuary wetlands.

The proposal is to provide a compromise of enabling an additional 21.53 ha of excavation, and the ceding a large parcel of land and wildlife corridor to the State through the Yalgorup National Park.

Vegetation along the northern side of Lot 1001 will provide the only Wildlife Corridor between the Yalgorup National Park and wetlands associated with Kooljerrenup Nature Reserve and Lake McLarty Nature Reserve.

At the end of excavation, the restored 21.53 hectares of pit expansion will also be added to the Yalgorup National Park.

The proposal minimises visual impacts and retains the highest hills in the Estuary region.

State Planning Policy 2.4

The extractive industry "Exclusion Areas" as identified in State Planning Policy 2.4, blocks the potential corridor linkage and does not provide for, or recognise either the "Regionally Significant Basic Raw Materials" as identified by the Geological Survey of Western Australia, or any ecological linkage between the Yalgorup National Park and the Peel Harvey Estuary.

This proposal swaps the “Extraction Area” with a block of “Exclusion Area”, enabling the creation of the wildlife corridor and does not lead to any additional clearing.

Cumulative environmental impact assessment

Lot 1001 was previously cleared and has now regrown to be in Excellent Condition.

The existing pit was opened in pasture and has not resulted in clearing of significant native vegetation. Apart from the excavation for the existing pit, the only clearing will be the proposed 21.53 ha in this extension.

At the same time the remainder of Lot 1001 has been allowed to regenerate.

Therefore there is no cumulative impact, but rather a gradual improvement in vegetation condition from the time of the historic clearing.

Consultation

There has been extensive stakeholder consultation related to this project over the years during the operations of the pit.

The Stakeholder Register and “Other Approvals Register” are attached below.

Supporting documents

Excavation and Rehabilitation Management Plan.

Attachments to the Excavation and Rehabilitation management Plan consisting of:

1 Phosphate Retention Assessment and Soils
2 Flora and Vegetation Assessment
3 Fauna Assessment
4 Heritage Assessments
5 Overview of Rehabilitation Trials
6 Dust Management
7 Noise Management
8 Water Management
9 Drilling and Resource Data
10 Weeds and Dieback Management

Has the referrer provided survey information according to the *Instructions and Form: IBSA Data Packages* and/or the *Instructions and form: IMSA Data Packages* Flora and Vegetation – IBSA-2024-0318	✓ Yes ☐ No

Conclusion

Do you consider the proposal may have a significant effect on the environment?

There will be impacts on the environment when the 21.53 ha of native vegetation is cleared and until it can be rehabilitated. That clearing and rehabilitation will be progressive. The clearing will temporarily impact on fauna.

However, the impact on vegetation and fauna will be offset by the ceding of a parcel of Native vegetation in Excellent Condition to the State for addition to the Yalgorup National Park and the further ceding of native vegetation after it has been upgraded.

The protection and enhancement of the vegetation will enable the creation of a wildlife ecological corridor linking Lake Clifton and the coast to the wetlands associated with the Peel Harvey Estuary potentially in State ownership and management rather than under private land ownership.

The provision of a substantial volume of high phosphate retaining sand to assist in the export of phosphorus etc from the Peel Harvey Estuary is a highly worthwhile mitigation of the impacts of clearing the 21.53 ha of native vegetation.

PART C: OTHER APPROVALS AND REGULATION	
Decision-making authorities and their approvals	
Provide a table list of the decision-making authorities, associated legislation or agreement regulating the activity and the specific approval required. (Example table at the end of form)	See Attached Table "Other Approval Register" below.
Provide a summary of the statutory decision-making processes you consider can mitigate the potential impacts of the proposal on the environment. (Note: this should be a summary of the information provided in Part B section 2.4). (Example table at the end of form)	See Attached Table "Other Approval Register" below.
Tenure and Local Government approvals	
Location of proposal: a) street address, lot number, suburb, and nearest road intersection; or b) if remote, the nearest town and distance and direction from that town to the proposal site.	Lot 1001 Lake Clifton Road, Lake Clifton. The nearest intersection is Forrest Highway.
Name of the Local Government Authority in which the proposal is located.	Shire of Waroona
Is rezoning of any land required before the proposal can be implemented? If yes, please provide details.	☐ Yes ✓ No
What is the current land use on the property, and the extent (area in hectares) of the property?	Sand Extraction that has taken place for over 25 years on an approved footprint of 41.32 hectares. An inert materials recycling facility and landfill is approved on 4.87 hectares of the existing pit footprint.
Does the proponent have the legal access required for the implementation of all aspects of the proposal? ***If yes**, provide details of legal access authorisations / agreements / tenure.* ***If no**, what authorisations / agreements / tenure is required and from whom?*	✓ Yes ☐ No Cougar Sands is held by a number of parties who have all signed approval to apply for development and other approvals.
Commonwealth Government approvals	
Does the proposal involve an action that may be or is a controlled action under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)?	✓ Yes ☐ No
Has the proposed action been referred? If yes, when was it referred and what is the reference number (EPBC No.)?	☐ Yes ✓ No Date: *_In progress*_____ EPBC No.: *To be provided*_____

If referred, has a decision been made on whether the proposed action is a controlled action? If 'yes', check the appropriate box and provide the decision in an attachment.	☐ Yes ✓ No ☐ Decision – controlled action ☐ Decision – not a controlled action
If the proposal is determined to be a controlled action, do you request that this proposal be assessed under a Bilateral Agreement or as an accredited assessment?	✓ Yes - Bilateral ☐ No ☐ Yes - Accredited
Is approval required from other Commonwealth Government/s for any part of the proposal? *If yes, describe.*	✓ Yes ☐ No Approval under Commonwealth listed matters such as disturbance of Native vegetation, feeding habitat for Black Cockatoos and potential lesser impacts on other EPBC listed Fauna species.
Decision-making authority referrals <u>ONLY</u>	
What approval/s, under your authority, are required for this proposal? *Please provide details.*	See the Other Approvals Register below.

Other Approvals Register

Decision-making authority	Legislation or Agreement regulating the activity	Approval required (and specify which proposal element the approval is related to)	Likely environmental outcome of decision-making process(es), and consistency with EPA objective	Conditions, enforcement, and review process required by decision-making process(es)
Shire of Waroona	The Shire of Waroona Town Planning Scheme No 7 under the umbrella of the *Planning and Development Act 2005.* Extractive Industry Licence under the *Local Government Act 1995*	Development Approval – covers all factors under the *Shire of Waroona Town Planning Scheme No 7* under the umbrella of the Planning and Development Act 2005. Extractive Industry Licence under the *Local Government Act 1995* The Shire of Waroona will be required to advertise the application for Development Approval and advertise to the local community and nearby residents. Development Approval is valid for the current operations until 2028. The Extractive Industry Licence for the current operations is in the process of being renewed. The approval for the proposed expansion will cover all aspects of the application from environment to operations to closure and revegetation. Shire approvals control the measures used to prevent bush fires. Shire approvals regulate truck use on local roads. Shire issues approvals for transport vehicle owners to apply to MRWA (Main Roads) for permits to	Compliance with EPA and other Government decision making.	The EPA Approval sits above planning approvals, but is concurrent with them. Both approvals are legally binding and enforceable, and add a local management and compliance capability by the Shire of Waroona. It is normal for the Shire of Waroona to require a large cash bond to the value of the cost of rehabilitating the disturbed open ground, which acts as an incentive for a quarry operator to close and restore the land. Further, the cash amount is required with an accompanying Deed which provides the Shire with both the ability and financial resources to close and revegetate the land in the event of a proponent failing to do so. The Extractive Industry Licence is subject to an annual Licence fee and at any time the Licence can be revoked or a stop work order made for non compliance. Annual payment for maintenance of the section of Lake Clifton Road is already in place and will be required to continue by

Decision-making authority	Legislation or Agreement regulating the activity	Approval required (and specify which proposal element the approval is related to)	Likely environmental outcome of decision-making process(es), and consistency with EPA objective	Conditions, enforcement, and review process required by decision-making process(es)
		utilise oversize vehicles on specific roads. The Shire also has input into the and zonings and planning in conjunction with the Western Australian Planning Commission. The Shire of Waroona officers regularly inspect the existing sand extraction and have already inspected the proposed expansion area.		Shire of Waroona Policies. Annual compliance reporting is required.
Western Australia Planning Commission	Peel Region Scheme	Development Approval under the Peel Region Scheme is required by the WAPC. The approvals cover all factors under the *Planning and Development Act 2005.* Development Approval under the Peel Region Scheme is often delegated to the Shire of Waroona by the WAPC.	Compliance with EPA and other Government decision making.	The WAPC Approval is also a binding approval with conditions. It is legally binding and enforceable.
Department of Planning Land and Heritage	*Aboriginal Heritage Act 1972*	Oversees the registration and management of any aboriginal heritage materials. Over the years there has been contact between Cougar Sands and traditional owners including site inspections, use of stakes for agriculture cut from the site and an archaeological heritage search. Brad Goode and Associates were commissioned by Cougar Sands to provide a Heritage Survey of the area proposed to be excavated covering both ethnographic and archaeological surveys. Representatives of the traditional owners will form an integral part of survey effort. The field archaeological survey was completed in	Heritage materials will be protected. Cougar Sands will work with the traditional owners to assist in land management and revegetation.	Relates to disturbance of heritage material if found. A Heritage agreement can be provided between the traditional owners and Cougar Sands for the protection of Heritage. A Heritage survey has been conducted, and representatives of the traditional owners have visited the property and reviewed the proposal.

Decision-making authority	Legislation or Agreement regulating the activity	Approval required (and specify which proposal element the approval is related to)	Likely environmental outcome of decision-making process(es), and consistency with EPA objective	Conditions, enforcement, and review process required by decision-making process(es)
		early 2023 in association with the traditional owners. An Activity Notice was lodged with the South West Aboriginal Land and Sea Council who have recommended persons to assist with an ethnographic survey. The ethnographic survey field work was completed on 22 August 2023.		
Environmental Protection Authority	*Environmental Protection Act 1986 Part IV* - Assessment	Regulates all aspects of the Environmental approval. The proposal for the existing pit was referred to the EPA and was determined as "Not Assessed" on 15 March 1996.	Compliance with Ministerial Conditions if the project is assessed under *Environmental Protection Act 1986 Part IV* - Assessment	An EPA Approval is a binding approval with conditions. Annual compliance auditing of conditions and reporting is required.
Department of water Environment Regulation (DWER)	*Environmental Protection Act 1986 Part V* – DWER Licence	Provides a Licence for screening of sand if required in excess of 5,000 tonnes per year. Any screening of sand or crushing of the underlying limestone would be completed on the floor of the pit. Currently there is no Licences associated with the sand extraction as it is not necessary.	Safe operating conditions that provide compliance of any screening plant with dust, noise amenity and other operational conditions.	An DWER Licence is a binding approval with conditions if an *Environmental Protection Act 1986 Part V* – DWER Licence for a screening plant is required. Mobile crushing plant for crushing limestone and screening sand or limestone will be used if required. DWER Licence (L9341/2022/1) is in place and may require amendment of a new approval to be issued. Annual compliance reporting is required.
	Environmental Protection (Clearing of Native Vegetation)	The Proposal for clearing will either be regulated under the *Clearing Regulations* or under the *Environment Protection Act Part (IV) Assessment,*	Only the areas of vegetation are to be cleared.	A Clearing Permit is a binding approval with conditions for the specified clearing of

Decision-making authority	Legislation or Agreement regulating the activity	Approval required (and specify which proposal element the approval is related to)	Likely environmental outcome of decision-making process(es), and consistency with EPA objective	Conditions, enforcement, and review process required by decision-making process(es)
	Regulations 2004	depending on whether the proposal is deemed to be a significant Environmental Impact by the EPA.		vegetation. Annual compliance reporting is required.
	Rights in Water and Irrigation Act 1914	Licences water bores and manages water quality. Licensed bore GWL 66656(3) is in place for the existing operations and will be used for the proposed extension.	Compliance with sustainable draw rates from the bore.	Provides control over the use and volume of bore water used. Compliance reporting and renewals are required.
Department of Energy Mines Industry Regulation and Safety (DEMIRS)	*Work, Health and Safety Act 2020 and Work Health and safety (Mines) Regulations 2022*	Provides control of all aspects of mining and excavation relating to safety. The existing operation already operates under that Act and those practices will be transferred to the pit extension.	A safe operational environment.	DEMIRS provides inspections and controls for all mining operations.
DWER and DEMIRS	*Dangerous Goods Safety Act 2004*	Applies to fuel use and storage. Normally informs or makes recommendations to the decision maker which are then incorporated into Conditions of Approval.	Compliance of any hydrocarbon storage and other operational conditions.	This is normally incorporated into an Environmental *Protection Act 1986 Part V* – DWER Licence if a screening plant is required.
Department of Biodiversity, Conservation and Attractions	*Conservation and Land Management Act 1984* *Soil and Land Conservation Act 1945*	Manages Yalgorup National Park. DBCA will assist with the management of the Yalgorup National Park as well as the proposal to add the remaining Native vegetation and ecological linkages to the National Park. Assists with the management of Flora and Fauna. Categorises flora and fauna species with a Conservation rating if they are deemed to be at		A Conservation Covenant will be used to protect the vegetation to be retained and added to the National Park until the land is ceded. The Conservation Covenant will be added to the title of Lot 1001 under the *Soil and Land Conservation Act 1945* or similar legislation.

Decision-making authority	Legislation or Agreement regulating the activity	Approval required (and specify which proposal element the approval is related to)	Likely environmental outcome of decision-making process(es), and consistency with EPA objective	Conditions, enforcement, and review process required by decision-making process(es)
		risk. Normally informs or makes recommendations to the decision maker which are then incorporated into Conditions of Approval.		
Department of Climate Change, Energy, the Environment and Water (Commonwealth)	*Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth)	Regulates Commonwealth listed matters, such as Native vegetation, Tuart Woodland, Black Cockatoos, EPBC listed flora and fauna and other factors such as Ramsar Wetlands.	Compliance with *EPBC Act 1999* if the proposal is assessed as a "Controlled Action".	An EPBC Approval is also a binding approval with conditions. And adds another layer of control. Offsets are normally required combined with annual compliance reporting.

STAKEHOLDER CONSULTATION REGISTER

Stakeholder	Date - Timing	Potential Considerations	Proponent Comment - Outcome
Internal Stakeholders			
Internal Management	Ongoing	Ongoing Day to day management of the operations, Future directions and ownership.	The operations have extracted sand since 1996. The methods of operation are not proposed to change significantly and the volume of material removed will be similar to past higher extraction years.
External Stakeholders			
EPA	15 March 1996	The pit has operated for over 25 years and no changes are proposed. The proposal was referred to the EPA (Sand Excavation) which was determined as "Not Assessed" on 15 March 1996. A meeting was held with the EPA in June 2021 (Natalie McAlpine and Robert Hughes).	Discussions have been held with the EPA on the proposal in June 2021.
	11 June 2021	Contacts with Karley Roche DBCA 11 June 2021 who inspected the site.	The meeting was an initial overview aimed at raising the awareness of the proposal and the need for sand and especially the need for high phosphate retaining sand for developments within the Peel Region. DBCA discussed the provision of fencing to Yalgorup National Park with Cougar Sands, and through discussions have delayed in erecting the fence so that the fence can be provided on Lot 1001 along Lake Clifton Road and around the edge of the proposed sand excavation to ensure linkages between the "Excellent" vegetation on Lot 1001 and Yalgorup National Park.
	21 May 2021	Site visit from Michael Roberts on 21 May 2021 to discuss the proposed sand extraction and the existing operation and potential future expansion. Lyndon Mutter was copied onto the communications.	
	26 November 2021	Will Fowler of DBCA met on site on 26 November 2021 with Cougar Sands and Peel Harvey Catchment Council to discuss the proposed sand extraction and the existing operation.	
Peel Harvey Catchment Council (PHCC)	26 November 2021	Karinna Duncan of PHCC met on site on 26 November 2021 with Cougar Sands and DBCA to discuss the proposed sand extraction and the existing operation.	The on site meeting was an initial overview aimed at raising the awareness of the proposal and the need for sand and especially need for high phosphate retaining sand for developments within the Peel Region.
	May 2021	Peter Hick, representing Cougar Sands and with an interest in phosphorous retaining soils has had several contacts with Steve Fisher- Science Advisor to	Raising the awareness of the need for high PRI sands to be used in developments within the Peel Region.

Stakeholder	Date - Timing	Potential Considerations	Proponent Comment - Outcome
		the Peel Harvey Catchment Council, for example May 2021	
Department of Primary Industries and Regional Development	April to June 2021	April to June 2021 and ongoing Peter Hick, representing Cougar Sands and an interest in phosphorous retaining soils has had several contacts with Rob Summers of DPIRD.	Discussions were held relating to the need for high PRI soils to be used in the Peel Region and testing of sand from Cougar Sand Pit.
Peel Development Commission	2021	Peter Hick, representing Cougar Sands and an interest in phosphorous retaining soils has had several contacts with Andrew Ward of Peel Development Commission.	Discussions were held relating to the need for high PRI soils to be used in the Peel Region and testing of sand from Cougar Sand Pit.
City of Mandurah	Email 31 May 2021	Peter Hick, representing Cougar Sands and an interest in phosphorous retaining soils had email contact with several Councillors and the Mayor of the City of Mandurah.	Raising the awareness of the need for high PRI sands to be used in developments within the Peel Region.
	March 2021	Discussions between Peter Hick, representing Cougar Sands and Alan Claydon, Director of Built and Natural Environment City of Mandurah 16 March 2021.	
Shire of Shire of Murray	2021	Peter Hick, representing Cougar Sands and with an interest in phosphorous retaining soils has had several contacts with Rod Peake of the Shire of Murray.	Raising the awareness of the need for high PRI sands to be used in developments within the Peel Region.
	8 October 2024	Dean Unsworth CEO Shire of Murray met with Cougar Sands.	Expressed the need for fill sand, especially high phosphate retaining sand for all the proposed development within the Shire of Murray
Shire of Waroona	July 2023	Telephone discussions regarding the existing and proposed sand excavation.	The new application is to be lodged in addition to an updated Extractive Industry Licence for the current Development Approval for the existing sand pit.
	November 2023	Planning Officer Craig Zanotti inspected the operations	Made some comments and recommendations with respect to fuel management revegetation and the Extractive Industry Licence. These were signed off as a result of the site visit on 15 October 2024.
	14 October	Shire President Shire of Waroona Mike Walmsley, reviewed the operations and proposed 21.53 ha extension	Appeared to be supportive in principle.

Stakeholder	Date - Timing	Potential Considerations	Proponent Comment - Outcome
	2024		
	15 and 16 October 2024 Site visit and email	Shire of Waroona Chief Executive Officer Mark Goodlet, Manager Works and Waste Services Bradley Oborn, Director Infrastructure and Development Services, Karen Oborn, and Mirella Goldhawk reviewed the operations and the proposed 21.53 ha extension.	Email from Shire of Waroona *"As discussed, the Shire of Waroona would like to be present when you are discussing your proposal with the other State Agencies. We feel this will be the quickest way forward, as this will enable us to be running our assessment processes in parallel with other agencies, and have the same conversations. Rather than waiting, reviewing and then referring your application out to other agencies and / or vis versa.* *Whilst we are opposed to any further land clearing in the Shire as discussed, in principal, we feel your proposal has merit and might be a good outcome for yourselves, the sectors needing your products, and the preservation of the environment in the long term, given the rehabilitation plans, land swap and conservation proposal verbally discussed today.* *We also understand the angst that can arise in relation to the time these matters can take to process. Please be assured we are happy to work with you to expedite these processes if possible, to enable you to get an answer regarding your proposal and expansion application as soon as practicable.* *In addition, if it's problematic, or results in lengthy delays to transfer the proposed section of lot 1001 into the National Park as part of any potential expansion approval conditions - the Shire of Waroona is happy to look at being the land "owner" and placing a conservation convent over the land. As these can usually only be repealed by a public vote of parliament, so are extremely unlikely to ever be overturned, because the 'public' hasn't ever supported.* *This option can usually be a lot quicker that the State National Park route, and might enable you to meet the possible conditions of a potential approval in a more timely manner if needed.* *At this stage I cannot think of any other mechanisms to expediate is process for you, but I will continue to seek out options for you."*
Hinds Sand Supplies	3 December	Discussions and letter of support for the proposed extension because of the need for sand within the Peel – Bunbury Region.	Letters of support, stressing the needed for sand, especially phosphate retaining sand for development within the Peel Region.

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	2020		
Origin Projects	4 February 2021	Discussions and letter of support for the proposed extension to supply sand for the many urban developments within the Peel Region from Peter Hill Managing Director Origin Projects.	
Cossill and Webley	5 November 2020	Discussions and letter of support for the proposed extension to supply sand for Austin Lakes development within the Peel Region from Peter Connell Senior Associates Cossill and Webley Origin Projects.	
EPA	June 2021	Meeting with Robert Hughes and Natalie McAlpine of the Office of the EPA/DWER	Discussions of the proposal. No decisions, outcomes or suggestions were possible at the meeting which was information awareness for the proponents and EPA.
Department of Lands Planning and Heritage (DAA).	February to July 2023 Heritage	Brad Goode and Associates liaised with DPLH with respect to potential on site heritage.	Department of Planning Lands and Heritage database has been searched and no sites have been found. Brad Goode and Associates have conducted archaeological and ethnographic surveys in association with representatives of the traditional owners.
South West Aboriginal Land and Sea Council	May – June 2023	An Activity Notice was lodged with the South West Aboriginal Land and Sea Council	South West Aboriginal Land and Sea Council recommended persons to assist with an ethnographic survey which is planned for August 2023.
Traditional land holders	22 July 2023	George Walley visited the site on 22 July 2021. Frank Nannup and George Walley inspected the site later in 2021	Appeared comfortable working with Cougar Sands.
		The traditional owners formed the key part of the heritage surveys conducted by Brad Goode and Associates and the traditional owner representative during 2023 and will review any agreements that may arise. Traditional owners and representatives have been contacted over the years and have already inspected the site and enabled the collection of suitable stakes from other parts of Lot 1001 for traditional use.	See Heritage Survey. The traditional owners appear to be comfortable with the original proposal of 52.1 hectares, which is now reduced to 21.53 ha.

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DWER	Early 2018 - 2019	Initial discussions have been held with the Peel office in early 2018 with liaison with the DWER during the approval of a small recycling facility in the east of Lot 1001.	There has been extensive liaison between Cougar Sands and DWER with respect to the Licences issued by DWER under L9341/2022/1 in regard to water management and for the inert material recycling on the existing sand operations. Monitored water bores are in place. Further discussions will be initiated by Cougar Sands, during the application process.
	Ongoing	A DWER Licence is required under Part IV of the Environmental Protection Act 1986 for screening if the annual volumes exceed 5,000 - 50,000 tonnes. (Category 70 Prescribed Premises).	A Licence will be applied for, if screening exceeds 5,000 tonnes per year.
Western Australian Planning Commission (WAPC)		The application for Planning Consent will be referred to the WAPC by the Shire of Waroona during the application for Development Approval.	Whilst Sate Planning Policy 2.5 covers this area, the Shire of Waroona lies at the southern portion of the Peel Region and so a separate approval from the WAPC will be required.
Nearby Residents		The quarry has operated for around 25 years.	No changes to the scale or type of quarry operations are proposed. There are no dwellings within 1 km of the operations, although there are two residences opposite the entrance. The same entrance will be used and the pit will be further away and better protected by landform. Nearby landholders will be notified by the Shire who will also advertise the project. The distance to residences will not change and complies with all Government Policies. Cougar Sands will liaise with the two local residents near the entrance to the operations. A complaints procedure and recording system are in place. As far as is known there have been no complaints related to sand excavation within the past 5 years.

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	June 20-24	Letter drop to the dwellings within 1 kilometre of the quarry.	No responses were received by Cougar Sands or the Shire of Wanneroo.
DEMIRS Safety Division	Ongoing	Conditions on tenement. Controls the safety and methods of excavation through the *Work, Health and Safety Act.2000.* Responsible for regulation of mines under the *Work, Health and Safety (Mines) Regulations 2022.*	Noted and in place. The current operations already fall under the management of DEMIRS for the operation of the quarry and that process will be continued.