Nybo Road Gravel Quarry

Application Number: **02607** Commencement Date: **25/09/2024** Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Nybo Road Gravel Quarry

1.1.2 Project industry type *

Mining

1.1.3 Project industry sub-type

Other

1.1.4 Estimated start date *

01/04/2025

1.1.4 Estimated end date *

01/12/2029

1.2 Proposed Action details

1.2.1 Provide an overview of the proposed action, including all proposed activities. *

APH Contractors Pty Ltd (the proponent) propose to extract approximately 59,120m3 of gravel from a total of 3.9ha over two stages within Lot 333 Nybo Road, Gwindinup, Shire of Capel (Shire), Western Australia. A map showing the proposal location and environment is included in Attachment Att 1. Figure 1_Proposal and Environmental Values. The following stages are proposed:

Stage 5 (2.0ha footprint) – 0.054ha of clearing

Stage 6 (1.9ha footprint) – 0.098ha of clearing

Stages 5 and 6 have Development Approval (DA) and Extractive Industries Licence (EIL) from the Shire. A clearing permit (CPS 9059/1) from the Department of Water and Environmental Regulation (DWER) for 0.185ha of clearing has been issued. A works approval from DWER (W6583/2021/1) has also been issued.

Gravel extracted from these stages will supply mainly government projects. It is expected that extraction from these two stages will be undertaken over 5 years, with progressive rehabilitation occurring on an annual basis.

For the purposes of this referral, the Avoidance Area is a total of approx. 15.1ha and is defined as all vegetated land with gravel resources on Lot 333 Nybo Road, Gwindinup. The total proposed gravel extraction area (3.9ha) has been captured as the disturbance footprint, however the impact/clearing area is only 0.15ha as the extraction area was selected based on sparsely vegetated areas to minimise the environmental impact of the proposal. The Project area (19.0ha) is the Avoidance Area plus the disturbance footprint (15.1 + 3.9 = 19.0ha).

A summary of proposed mining actions is as follows:

• The extraction area will be cleared of native vegetation by mechanical means. Cleared vegetation will be windrowed and used for rehabilitation.

• The active area will be stripped of topsoil, which will be placed in separate stockpiles along the edges of the extraction area, with stockpiles being no higher than two metres.

• Within each extraction area detention ponds will be constructed according to the Water Management Plan approved by the Shire and DWER, to managed runoff from the extraction areas. This is the only construction required by the proposal.

• Within the active cell a bulldozer will rip and blade material to a stockpile. A mobile crushing and screening plant will be used on site for approximately four weeks per year, dependent on the size of the campaign.

• Trucks will enter via Nybo Road, and use existing unsealed property roads to the pit, where loading from product stockpiles will be undertaken using a front-end loader.

• The depth of the excavation within the extraction areas will be approximately 1.5m.

• Operations are undertaken in accordance with DWER and/or Shire approved water, noise, dust, weed, and dieback management plans.

• Rehabilitation will occur on a progressive basis in fully extracted areas according to the approved Rehabilitation Management Plan. Batters will be smoothed to 1:6 (max) and the base of the pit levelled out. Areas where compaction has occurred will be ripped. Topsoil will be replaced and seeded/planted with endemic native vegetation/species suitable for black cockatoo habitat.

No hydrocarbons will be stored on site and refueling will be undertaken with a mobile fuel truck fitted with appropriate spill prevention equipment.

Operating times will be Monday to Friday 0700hrs to 1700hrs, excluding public holidays.

Previous gravel extraction (Stages 1 to 4, 7.86ha) has taken place in the southwest portion of Lot 202 which adjoints Lot 333, and a small part of this extraction (part of Stage 4) is located within the northern section of Lot 333. Gravel extraction in these stages commenced in 2011, with the current operations

footprint comprising all of Stage 4, and the eastern sections of Stages 2 and 3. Operations have also recently commenced within a small section of Stage 5 in Lot 333 (adjacent to Stage 4). Stage 1 and the western sections of Stages 2 and 3 are under rehabilitation.

This proposal will have a direct impact on black cockatoo habitat. There will be no significant indirect impacts, and no impacts to any other MNES have been identified.

1.2.2 Is the project action part of a staged development or related to other actions or proposals in the region?

Yes

1.2.3 Is the proposed action the first stage of a staged development (or a larger project)?

No

1.2.4 Related referral(s)

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1.2.5 Provide information about the staged development (or relevant larger project).

The proponent also operates the gravel quarry on the adjacent property to the north (Lot 202 Nybo Road, Gwindinup) which utilises the same access road. A small part of this extraction (part of Stage 4, 0.87ha) is located within the northern section of Lot 333, and the current operation continues from this extraction area into a northern section of Stage 5.

Gravel extraction in these stages (Stages 1 to 4, 7.86ha) commenced in 2011, with Stage 1 and the western sections of Stages 2 and 3 now under rehabilitation.

1.2.6 What Commonwealth or state legislation, planning frameworks or policy documents are relevant to the proposed action, and how are they relevant? *

Gravel, when it occurs on private (freehold) land, is not considered a mineral, and therefore does not require a mining title from the Department of Mines, Industry Regulation and Safety (DMIRS) for mining operations to be undertaken. Instead, a Development Approval (DA) and extractive industries licence (EIL) under the *Planning and Development Act 2005* (WA) and *Planning and Development (Local Planning Scheme) Regulations 2015* is required from the local government (Shire of Capel).

A Works Approval and Licence under Part V of the *Environmental Protection Act 1986* (WA) is required from the Department of Water and Environmental Regulation (DWER). The Works Approval and Licence are for the emissions of noise, dust and water from the crushing and screening operations.

A clearing permit (CP) under Part V of the *Environmental Protection Act 1986* (WA) is required from DWER for the proposed clearing of native vegetation.

Stages 5 and 6 have DA and EIL approved by the Shire of Capel, and have been issued with a CP from DWER (CPS 9059/1). A Works Approval has been granted by DWER (W6583/2021/1), and a licence will be applied for promptly.

The proposed action does not meet the significance criteria for referral under Part IV of the *Environmental Protection Act 1986* (WA).

The EPBC Act *Referral guideline for 3 WA threatened black cockatoo species: Carnaby's Cockatoo (Zanda latirostris), Baudin's Cockatoo (Zanda baudinii) and the Forest Red-tailed Black-cockatoo (Calyptorhynchus banksii naso)* (DAWE 2022) is relevant to the proposed action.

The property is mapped as Baudin's Black Cockatoo and Carnaby's Black Cockatoo "breeding likely to occur within area " with these species listed as Endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and is mapped as Forest Red-tailed Black Cockatoo "species or species habitat likely to occur within area" with this species listed as Vulnerable. A survey of the disturbance footprint has identified potential habitat trees. This guideline document shows that the proposal should be referred under the EPBC Act.

The *Matters of National Environmental Significance Significant Impact Guidelines 1.1* (DEWHA 2013) sets out significant impact criteria for endangered and vulnerable species and ecological communities listed under the EPBC Act, including for the 3 WA threatened black cockatoo species. This guideline document has been used to help determine if the proposal is a significant impact under the EPBC Act.

A desktop study was conducted to assess the proposals impact on Aboriginal heritage under the *Aboriginal Heritage Act 1972* and to address matters of Native Title under the *Native Title Act 1992*. A search of the Department of Planning, Lands and Heritage (DPLH) Aboriginal Cultural Heritage Inquiry System (ACHIS) shows no registered sites or other heritage places within 900m of the proposed disturbance footprint. No impact to Aboriginal heritage is expected, therefore no approvals are required under the *Aboriginal Heritage Act 1972*. The proponent is aware of their obligation under section 15 of the *Aboriginal Heritage Act 1972*, to report the discovery of any Aboriginal cultural material which may be uncovered in the course of their work or any other activities.

The site falls under the South West Settlement Area and Yued and Whadjuk People Indigenous Land Use Agreements, where Yuedand Whadjuk People and the State of Western Australia have reached a full and final settlement of all current and future applications made or to be made under the *Native Title Act 1992*. Therefore, no Native Title agreement is required for the proposed operations.

Western Australian Planning Commission (WAPC) *State Planning Strategy 2050* and WAPC *State Planning Policy (SPP) 2.4 Basic Raw Materials Policy* apply to this proposal. Basic raw materials consist of sand (including silica sand), clay, hard rock, limestone and gravel and other construction and road building materials. The resource proposed to be extracted by this proposal is gravel, a Basic Raw Material (BRM). These policy and strategy documents address land-use planning and development, and look at the role of BRM in the state’s future growth, aiming to ensure accessible and affordable supplies of BRM are available close to demand.

BRM are high volume, low value materials that are most efficiently used within the communities that produce them. BRM is essential for the construction of buildings, roads, other infrastructure and agricultural production, and to support economic development in Western Australia. Development can sterilise resources close to the urban front by limiting extraction, resulting in increased pressure on distant sources. The resultant transport requirements increase direct and other costs, including an increased carbon footprint, congestion and road safety. To maintain current living standards, BRM needs to be affordable (WAPC 2014).

As such, a continual, local supply of BRM is essential to sustain community development (WAPC, 2012). The *BRM Demand and Supply Study for the Bunbury–Busselton Region* (Western Australia Planning Commission, 2012) identified this area as one of the fastest growing residential development areas in Australia, requiring significant quantities of BRM.

This makes BRM resources such as the gravel at Lot 333 Nybo Road significant, as supplies of BRMs affect the development and industrial capability of the South West. The gravel resources of this proposal are located close to demand and have not yet been sterilized by encroaching development, making this an important resource to supply the gravel demands of the local region.

1.2.7 Describe any public consultation that has been, is being or will be undertaken regarding the project area, including with Indigenous stakeholders. Attach any completed consultation documentations, if relevant. *

All aspects of the Lot 333 Nybo Road gravel quarry proposed operations have been publicly advertised under the various approval processes, including Shire approvals and DWER clearing permit and Works Approvals.

The CPS 9059/1 application was advertised for 21 days, Shire Development Approval (DA) and Extractive Industries Licence (EIL) applications were also advertised, with no objections received.

The Works Approval W6583/2021/1 application was advertised for 21 days, with no comments received.

1.3.1 Identity: Referring party

Privacy Notice:

Personal information means information or an opinion about an identified individual, or an individual who is reasonably identifiable.

By completing and submitting this form, you consent to the collection of all personal information contained in this form. If you are providing the personal information of other individuals in this form, please ensure you have their consent before doing so.

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Personal information may be disclosed to other Australian government agencies, persons or organisations where necessary for the above purposes, provided the disclosure is consistent with relevant laws, in particular the Privacy Act 1988 (Privacy Act). Your personal information will be used and stored in accordance with the Australian Privacy Principles.

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1.3.1.1 Is Referring party an organisation or business? *

Yes

Referring party organisation details

ABN/ACN	600398945
Organisation name	LUNDSTROM ENVIRONMENTAL CONSULTANTS PTY LTD
Organisation address	6150 WA

Referring party details

Name	Mike Lundstrom
Job title	Director
Phone	0417934863
Email	admin@lundstrom-environmental.com.au
Address	21 Sellen Court Leeming, WA 6149

1.3.2 Identity: Person proposing to take the action

1.3.2.1 Are the Person proposing to take the action details the same as the Referring party details? *

No

1.3.2.2 Is Person proposing to take the action an organisation or business? *

Yes

Person proposing to take the action organisation details

ABN/ACN	126953919
Organisation name	APH CONTRACTORS PTY LTD
Organisation address	EASTMAN & CO, 26 Spencer Street, BUNBURY WA 6230

Person proposing to take the action details

Name	Warwick Kindt
Job title	Construction Manager
Phone	0418931414
Email	warwick.kindt@aphcontractors.com.au
Address	EASTMAN & CO, 26 Spencer Street, BUNBURY WA 6230

1.3.2.14 Are you proposing the action as part of a Joint Venture? *

No

1.3.2.15 Are you proposing the action as part of a Trust? *

No

1.3.2.17 Describe the Person proposing the action's history of responsible environmental management including details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against the Person proposing to take the action. *

APH Contractors Pty Ltd has been providing specialist services to the earthwork and civil construction industries within the Southwest, Great Southern and Perth-Peel regions of Western Australia for over 35 years. Their services include the supply and delivery of basic raw materials (BRM) such as sand, limestone and gravel, which has involved the development and operation of numerous quarries.

The company has attained IS09001 Quality Management Systems, AS4801 Occupational Health and Safety (OH&S) Management Systems, and IS014001 Environment Management Systems certifications. The Environmental Management Systems certification is included in Attachment Att 2. AS-NZS ISO 14001-2016- Environmental Management Systems.

APH Contractors Pty Ltd engages suitably qualified and experienced environmental consultants, to undertake their environmental approval applications and prepare associated environmental documents to ensure compliance with Local, State and Federal environmental regulations and commitments. A series of environmental management plans (rehabilitation, water, noise, dieback, weed, dust, etc) are prepared for the excavation site (depending on the site requirements) to enable activities to be undertaken in a manner which has minimal impact on the surrounding environment. Rehabilitation plans are prepared detailing activities to be undertaken throughout the life of the extraction activities. This may include information relating to topsoil management (for later use in rehabilitation), deep ripping, native vegetation planting rates and pasture establishment rates. Supplementary plans, such as water management plans are also developed to manage stormwater flows to minimise the impacts of erosion on the newly rehabilitated lands and their surrounds, and to prevent impacts to groundwater.

Auditing of compliance is undertaken on an annual basis by experienced environmental consultants.

No past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources have been taken against the proponent.

1.3.2.18 If the person proposing to take the action is a corporation, provide details of the corporation's environmental policy and planning framework

APH Contractors Pty Ltd has been providing specialist services to the earthwork and civil construction industries within the Southwest, Great Southern and Perth-Peel regions of Western Australia for over 35 years. Their services include the supply and delivery of basic raw materials (BRM) such as sand, limestone and gravel, which has involved the development and operation of numerous quarries.

APH Contractors Pty Ltd has attained IS09001 Quality Management Systems, AS4801 Occupational Health and Safety (OH&S) Management Systems, and IS014001 Environment Management Systems certifications. The Environmental Management Systems certification is included in Attachment Att 2. AS-NZS ISO 14001-2016- Environmental Management Systems.

The company's Environmental Management System is a framework which has been integrated within the existing business processes to effectively identify, measure, manage and minimise environmental impacts. The system's scope is to ensure the means for improving performance and moving towards environmental sustainability through best practice, which includes monitoring and review for continual improvement. APH Contractors Pty Ltd are focused on sustainability and endeavour to be successful in this aim via certified QMS.

The company strives to mitigate any potential impacts on the environment from their work. They do this by ensuring their workforce appreciates the environment they operate in and do everything they can to reduce any impact at the work site.

1.3.3 Identity: Proposed designated proponent

1.3.3.1 Are the Proposed designated proponent details the same as the Person proposing to take the action? *

Yes

Proposed designated proponent organisation details

ABN/ACN	126953919
Organisation name	APH CONTRACTORS PTY LTD
Organisation address	EASTMAN & CO, 26 Spencer Street, BUNBURY WA 6230

Proposed designated proponent details

Name	Warwick Kindt
Job title	Construction Manager
Phone	0418931414
Email	warwick.kindt@aphcontractors.com.au
Address	EASTMAN & CO, 26 Spencer Street, BUNBURY WA 6230

1.3.4 Identity: Summary of allocation

Confirmed Referring party's identity

The Referring party is the person preparing the information in this referral.

ABN/ACN	600398945
Organisation name	LUNDSTROM ENVIRONMENTAL CONSULTANTS PTY LTD
Organisation address	6150 WA
Representative's name	Mike Lundstrom
Representative's job title	Director
Phone	0417934863
Email	admin@lundstrom-environmental.com.au
Address	21 Sellen Court Leeming, WA 6149

Confirmed Person proposing to take the action's identity

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN	126953919
Organisation name	APH CONTRACTORS PTY LTD
Organisation address	EASTMAN & CO, 26 Spencer Street, BUNBURY WA 6230
Representative's name	Warwick Kindt
Representative's job title	Construction Manager
Phone	0418931414
Email	warwick.kindt@aphcontractors.com.au
Address	EASTMAN & CO, 26 Spencer Street, BUNBURY WA 6230

Confirmed Proposed designated proponent's identity

The Person proposing to take the action is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

1.4 Payment details: Payment exemption and fee waiver

1.4.1 Do you qualify for an exemption from fees under EPBC Regulation 5.23 (1) (a)? *

No

1.4.3 Have you applied for or been granted a waiver for full or partial fees under Regulation 5.21A? *

No

1.4.5 Are you going to apply for a waiver of full or partial fees under EPBC Regulation 5.21A?

No

1.4.7 Has the department issued you with a credit note? *

No

1.4.9 Would you like to add a purchase order number to your invoice? *

No

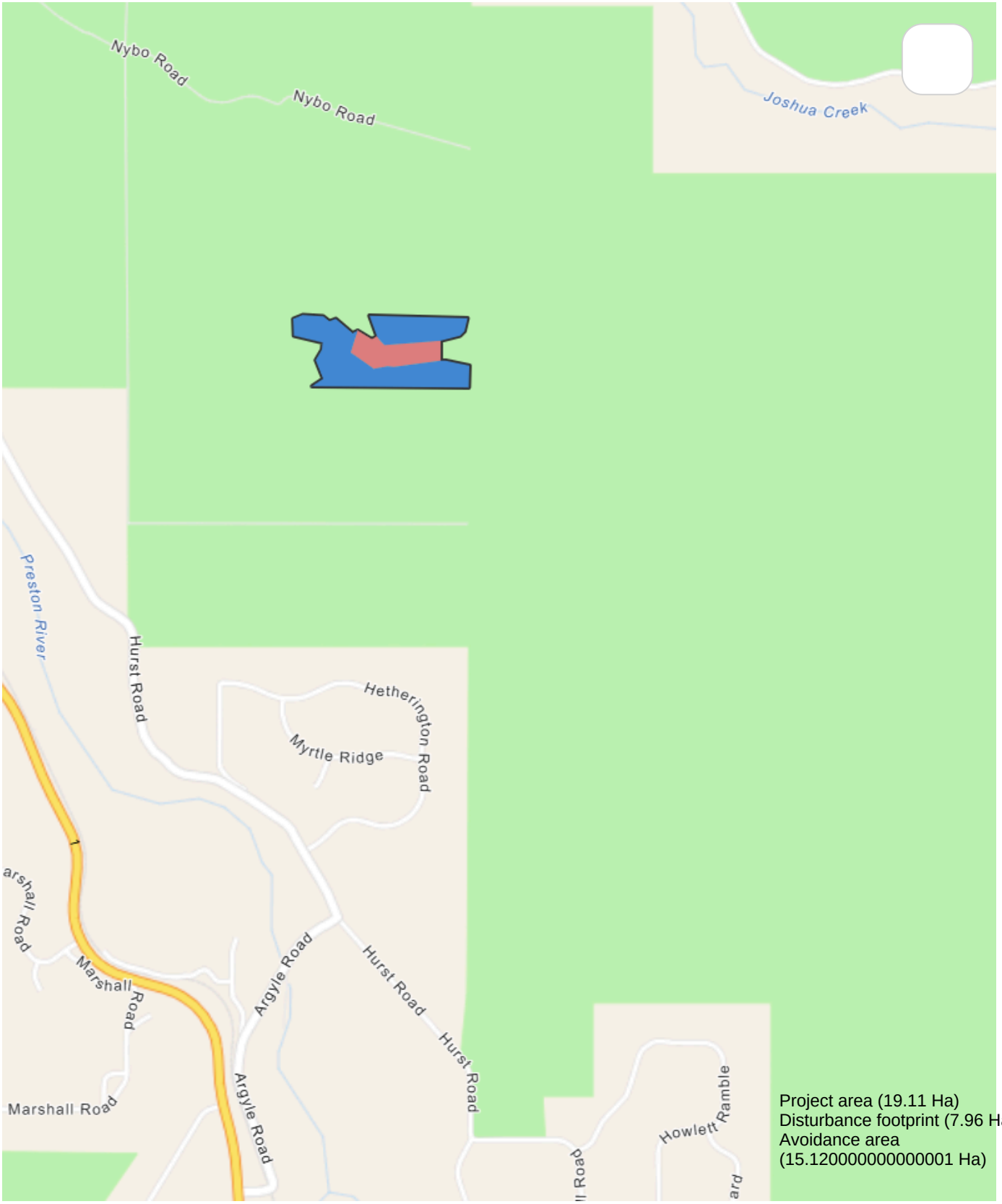
1.4 Payment details: Payment allocation

1.4.11 Who would you like to allocate as the entity responsible for payment? *

Person proposing to take the action

2. Location

2.1 Project footprint



2.2 Footprint details

2.2.1 What is the address of the proposed action? *

Lot 333 on Deposited Plan 111125, Nybo Road, Gwindinup, Shire of Capel. Property is an a

2.2.2 Where is the primary jurisdiction of the proposed action? *

Western Australia

2.2.3 Is there a secondary jurisdiction for this proposed action? *

No

2.2.5 What is the tenure of the action area relevant to the project area? *

The project area is entirely within Lot 333 Nybo Road, which is privately owned freehold land, owned by the proponent.

3. Existing environment

3.1 Physical description

3.1.1 Describe the current condition of the project area's environment.

The project is located approximately 170km south of Perth, and approximately 18km west of Capel town site, just off South Western Highway, in the South West region of WA. Boyanup town is approx. 4.5km to the northwest and Donnybrook town is approx. 6km to the south.

Access to the site is obtained via Nybo Road (sealed road), from South Western Highway. Existing unsealed gravel/sand property roads will provide access to the proposed extraction areas.

The project area is zoned as 'Rural' in terms of the Shire of Capel Town Planning Scheme No. 7 (Shire of Capel 1998). In the Greater Bunbury Region Scheme (GBRS), the subject land is zoned 'Rural'. There will be no changes to zoning for this proposal.

All adjoining land to the project area is part of Boyanup State Forest. The nearest residences are rural, with all residences more than 1000m distance from the proposed impact areas.

Lot 333 is a 24.6ha property consisting of cleared land (previously used for grazing), areas of remnant native vegetation, and gravel extraction operations (since 2019). There is no infrastructure on the property. A field visit determined that most of the remnant vegetation within the property is likely in a good to completely degraded condition due to past clearing activities and livestock grazing, except for the vegetation within the northeast of the property, which is fenced and likely in very good to excellent condition. However, a thorough vegetation survey has not been undertaken outside of the disturbance footprint.

Adjoining to the north, part of Lot 202 has been used by the proponent for gravel extraction since 2011. The extractive activities have been undertaken in 4 stages, of which Stage 1 and the western sections of Stages 2 and 3 are under rehabilitation. A small part of this extraction (part of Stage 4, 0.87ha) is located within the northern section of Lot 333.

The disturbance footprint is in a completely degraded condition, consisting of open paddocks with isolated trees and pastures. No native mid storey, understorey or ground cover remains due to past clearing activities and livestock grazing.

The project area has not suffered recent effects from bushfire, flood or other major events.

3.1.2 Describe any existing or proposed uses for the project area.

The disturbance footprint is proposed for gravel quarrying, after which it will be revegetated to native vegetation as per the DWER and Shire approved Rehabilitation Management Plan, which includes fencing to prevent grazing by livestock.

The project area will continue to be utilised for livestock grazing.

3.1.3 Describe any outstanding natural features and/or any other important or unique values that applies to the project area.

Ecological linkages create corridors that allow the movement of fauna between areas of remnant vegetation and are an important conservation tool. Ecological linkages can be continuous corridors, however when these are not available, discrete patches of vegetation can act as stepping stones.

There are no Ecological Linkages within the property. The closest is a South West Regional Ecological Linkages Axis Line running north to south approx. 620m west of the disturbance footprint.

Given the lack of a continuous tree canopy within the disturbance footprint, and the extent of native vegetation forming a continuous linkage within the west of the project area, the proposed clearing is unlikely to have an impact on the linkage.

There are no Environmentally Sensitive Areas (ESA) as defined by the Clearing Regulations (DWER) within 1000m of the disturbance footprint. The closest ESA is located approximately 3.7km north.

No state Threatened Ecological Communities (TEC) protected under the *Biodiversity Conservation Act 2016* are mapped nearby (within 2km of the project area) (DBCA 2024).

The project area is surrounded by the Boyanup State Forest.

Most of the natural features discussed above have been captured in Attachment Att 1. Figure 1_Proposal and Environmental Values.

There are no other natural features and/or any other important or unique values relevant to the project area.

3.1.4 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.

The elevation in Lot 333 ranges between 152m AHD in the northeast, decreasing in elevation east to west with 112m AHD in the southwest corner. The northeastern half of property has gentle slopes, the southwestern half of the property has steep slopes.

The elevation of the disturbance footprint ranges from 146m AHD on the western boundary to 152m AHD on the eastern boundary and is characterised by a gentle gradient of up to 5%.

The depth of the excavation will be up to 1.5m.

3.2 Flora and fauna

3.2.1 Describe the flora and fauna within the affected area and attach any investigations of surveys if applicable.

The vegetation of the disturbance footprint falls within the South West Forest Region of Western Australia in the Blackwood Plateau and Plain Sub-region. The disturbance footprint is located within the *Kingia* Vegetation Complex, described as 'Open forest of *Eucalyptus marginata subsp. marginata-Corymbia calophylla-Allocasuarina fraseriana-Banksia grandis-Xylomelum occidentale* on lateritic uplands in perhumid and humid zones' (Webb et al. 2016).

Within the 3.9ha disturbance footprint, a total of 0.15ha of native vegetation is required to be cleared. The native vegetation within the disturbance footprint is in 'completely degraded' condition, consisting of a few isolated trees (primarily jarrah) with no native mid storey, understorey or ground cover. The native mid storey and ground layer have been replaced by pasture grasses.

The native vegetation within the disturbance footprint is completely degraded and the entire site has been accessible by stock, it is therefore highly unlikely populations of conservation significant flora could be sustained within the disturbance footprint.

A black cockatoo habitat tree assessment was undertaken by zoologist Greg Harewood in September 2020 using a drone and pole mounted camera (included as attachment Att 3. Survey_Report_Lot_333_Nybo_Road_Black_Cockatoo_Habitat_Assessment). The assessment involved the inspection of 25 trees within and adjacent to the disturbance footprint. Generally the trees were not tall, with most either 0-5m or 5-10m high, and only 3 trees (out of the 25 inspected) were 10-15m high. 13 potential habitat trees (all Jarrahs) were identified within the proposed disturbance footprint (seven within Stage 5, and six within Stage 6), captured in the map attached as Att 1. Figure 1_Proposal and Environmental Values. The survey determined that most trees had no hollows, with the only 2 trees identified with hollows confirmed as *not* suitable hollows for black cockatoo nesting purposes.

All 3 threatened black cockatoo species may potentially use Jarrah trees for breeding, therefore the survey identified breeding habitat for the following Threatened species:

• Baudin's Black Cockatoo (*Zanda baudinii*) – Endangered

• Carnaby's Cockatoo (*Zanda latirostris*) - Endangered

• Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*) – Vulnerable

There are no known breeding sites within 12km of the project area. The project area is 14.5km to the closest Carnaby's Cockatoo confirmed breeding area.

Jarrah trees are an important foraging species of Forest Red-tailed Black Cockatoos; however they are not a preferred foraging species for Baudin's or Carnaby's Cockatoo.

Within 12km of the project area there are 8 mapped black cockatoo roosting sites. The closest mapped black cockatoo roosting site is 580m southwest of the disturbance footprint, attributed to the Preston River and associated riparian environment. The disturbance footprint is unlikely to be of particular importance for roosting, as it is not near water, and the trees are not very tall, with only 3 trees identified as >10m (but <15m) in height.

3.2.2 Describe the vegetation (including the status of native vegetation and soil) within the project area.

The project area is located on the northern most section of the Blackwood Plateau. The eastern boundary of Lot 333 is defined by the Darling Scarp and the western boundary by the Whicher Scarp.

The project area is situated in the Jarrah Forest Interim Biogeographic Regionalisation of Australia (IBRA), near the boundary with the Swan Coastal Plain (SWA2) IBRA subregion of the Swan Coastal Plain IBRA bioregion (to the west of the property). The project area is also near the boundary between the Northern and Southern Jarrah Forest IBRA subregions (JAF1 and JAF2). The Northern Jarrah Forest subregion overlays Archaean granite and metamorphic rocks; is capped by an extensive lateritic duricrust; dissected by later drainage; and broken by occasional granite hills. Vegetation comprises jarrah - marri forest with bullich and blackbutt in the valleys (Williams and Mitchell 2001).

The vegetation of the project area falls within the South West Forest Region of Western Australia in the Blackwood Plateau and Plain Sub-region. The majority of the project area, including the disturbance footprint, is mapped within the *Kingia* Vegetation Complex, described as 'Open forest of *Eucalyptus marginata subsp. marginata-Corymbia calophylla-Allocasuarina fraseriana-Banksia grandis-Xylomelum occidentale* on lateritic uplands in perhumid and humid zones'. Two small sections along the west and southeast of the property (associated with the lower elevations) are located within the *Rosa* Vegetation Complex, described as 'Woodland to open forest of *Corymbia calophylla-Eucalyptus marginata subsp. marginata-Xylomelum occidentale* on slopes and tall shrubland of *Agonis linearifolia* in valley floors in the humid zone' (Webb et al. 2016).

A field visit determined that most of the remnant vegetation within the project area is likely in a good to completely degraded condition due to past clearing activities and livestock grazing, except for the vegetation patch within the northeast of the property, which is fenced and likely in very good to excellent condition. However, a thorough vegetation survey has not been undertaken except for the disturbance footprint.

The project area lies within the *Kingia* soil-landscape subsystem. The soil is described as 'broad undulating lateritic crests over sedimentary rocks; relief 5-20m; slopes 1-10%; sandy gravels with some deep sands' (DPIRD 2021). The hydrogeology of the site is described as sedimentary rock with extensive and deep aquifers.

Bedrock geology of the disturbance footprint and the surrounding landform is described as interbedded sandstone, siltstone and shale with minor conglomerate. Surface geology of the proposed extraction area is described as sand plain, may include some residual alluvium; sand dominant, gravel and clay. Within the disturbance footprint, the gravel reaches a thickness of 1.5m.

A search of the CSIRO's Australian Soil Resource Information System (ASRIS) database determined there were no acid sulphate soil (ASS) sites identified in the vicinity of the the disturbance footprint, with the area being classified as having an 'Extremely Low/Very Low Probability of Occurrence' of ASS (CSIRO 2021).

Department of Biodiversity, Conservation and Attractions (DBCA) Forest Disease Risk Areas mapping shows that Lots 333 and 202 are not within a Disease Risk Area or Priority Protection Area. The surrounding area associated with the Boyanup State Forest is within a Forest Disease Risk Area, but not in a Priority Protection Area.

Project Dieback's Disease Confidence Mapping classifies the vegetation within Lots 333 and 202 as Low Confidence Uninfested *Phytophthora cinnamomi* (Pc) (small area difficult to interpret, lack of vegetation, disturbance present) (Project Dieback 2023). The surrounding vegetation (Boyanup State

Forest) to the north, east and south is mapped as High Confidence Uninfested Pc, however to the west, and a section to the southeast, it is mapped High Confidence Infested Pc (Project Dieback 2023).

No obvious signs of dieback infestation were observed in the uncleared vegetation within the disturbance footprint during a field visit by Lundstrom Environmental Consultants on 24 August 2020.

The project area has not suffered recent effects from bushfire, flood or other major events.

3.3 Heritage

3.3.1 Describe any Commonwealth heritage places overseas or other places recognised as having heritage values that apply to the project area.

There are no places recognised as having heritage values that apply to the project area. There are no Commonwealth heritage places within 20km of the project area. There are no State Register listed places within 1.9km of the project area.

3.3.2 Describe any Indigenous heritage values that apply to the project area.

A desktop study was conducted to assess the proposals impact on Aboriginal heritage under the *Aboriginal Heritage Act 1972.* A search of the Department of Planning, Lands and Heritage (DPLH) Aboriginal Cultural Heritage Inquiry System (ACHIS) shows no registered sites or other heritage places within 900m of the proposed disturbance footprint (search results are included as Attachment Att 4. Lot 333 AHIS Register Search Results Report and Map).

No impact to Aboriginal heritage is expected, therefore no approvals are required under the *Aboriginal Heritage Act 1972*. The proponent is aware of their obligation under section 15 of the *Aboriginal Heritage Act 1972*, to report the discovery of any Aboriginal cultural material which may be uncovered in the course of their work or any other activities.

In regard to native title, it is noted that native title has been surrendered under the South West Settlement native title agreement made with the WA Government. Additionally, the properties are freehold land owned by the proponent Ltd and freehold land has extinguished any remnant native title at the time of its grant.

3.4 Hydrology

3.4.1 Describe the hydrology characteristics that apply to the project area and attach any hydrological investigations or surveys if applicable. *

The project area is situated within the Preston River Basin and the Leschenault Estuary-Preston River Catchment. The majority of the project area is within the Middle Preston Sub Catchment, with a small section in the northeast corner within the Joshua Brooke Sub Catchment.

The nearest watercourse are Joshua Brook (minor, perennial) to the north and east (1.7km east at the closets point), and Preston River to the west (1.7km west at the closets point). There is also a perennial minor tributary of the Preston River approx. 920m south of the disturbance footprint.

The project area does not fall within a Public Drinking Water Source Area.

There are no wetlands within 1000m of the project area. The closest is a Multiple Use Palusplain Wetland approx. 1.9km west of the disturbance footprint. There are no other water bodies in proximity to the project area.

The elevation of the project area ranges between 152m AHD in the northeast, decreasing in elevation east to west and north to south to 122m AHD in the south and west. Surface runoff is towards the south and west. The disturbance footprint has gentle slopes and no drainage lines are evident.

A search of the Australian Soil Resource Information System (ASRIS) represents the drainage on Lot 333 as “rapid surface drainage” (CSIRO 2013).

A search of the Water Information Reporting tool (WIR) from the Department of Water and Environmental Regulation (DWER) was undertaken to determine the maximum groundwater level at Lot 333 Nybo Road. The closest DWER bore (DNB 5D) is located approximately 3km away from the property. The maximum groundwater level over the project area within a 25-year period was 33.79mAHD in October 2015.

Surface topography within the proposed disturbance footprint ranges from 146m AHD to 152m AHD. This will result in a separation distance of over 100m between the groundwater table and the excavation.

The vegetation within the impact area is not growing in, or in association with, an environment associated with a watercourse or wetland/groundwater.

4. Impacts and mitigation

4.1 Impact details

Potential Matters of National Environmental Significance (MNES) relevant to your proposed action area.

EPBC Act section	Controlling provision	Impacted	Reviewed
S12	World Heritage	No	Yes
S15B	National Heritage	No	Yes
S16	Ramsar Wetland	No	Yes
S18	Threatened Species and Ecological Communities	Yes	Yes
S20	Migratory Species	No	Yes
S21	Nuclear	No	Yes
S23	Commonwealth Marine Area	No	Yes
S24B	Great Barrier Reef	No	Yes
S24D	Water resource in relation to large coal mining development or coal seam gas	No	Yes
S26	Commonwealth Land	No	Yes
S27B	Commonwealth Heritage Places Overseas	No	Yes
S28	Commonwealth or Commonwealth Agency	No	Yes

4.1.1 World Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.1.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.1.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are no records of World Heritage sites relevant to the project area.

4.1.2 National Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.2.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.2.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are no records of National Heritage sites relevant to the project area.

4.1.3 Ramsar Wetland

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.3.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.3.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are no Ramsar Wetlands relevant to the project area.

4.1.4 Threatened Species and Ecological Communities

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Threatened species

Direct impact	Indirect impact	Species	Common name
No	No	Banksia mimica	Summer Honeypot
No	No	Botaurus poiciloptilus	Australasian Bittern
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
Yes	No	Calyptorhynchus banksii naso	Forest Red-tailed Black-Cockatoo, Karrak
No	No	Dasyurus geoffroii	Chuditch, Western Quoll
No	No	Drakaea micrantha	Dwarf Hammer-orchid
No	No	Eleocharis keigheryi	Keighery's Eleocharis
No	No	Morelotia australiensis	Southern Tetraria
No	No	Myrmecobius fasciatus	Numbat
No	No	Numenius madagascariensis	Eastern Curlew, Far Eastern Curlew
No	No	Pseudocheirus occidentalis	Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit
No	No	Synaphea sp. Fairbridge Farm (D.Papenfus 696)	Selena's Synaphea
No	No	Synaphea sp. Pinjarra Plain (A.S.George 17182)	
Yes	No	Zanda baudinii	Baudin's Cockatoo, Baudin's Black-Cockatoo, Long-billed Black-cockatoo
Yes	No	Zanda latirostris	Carnaby's Black Cockatoo, Short-billed Black-cockatoo

Ecological communities

Direct impact	Indirect impact	Ecological community
No	No	Banksia Woodlands of the Swan Coastal Plain ecological community

4.1.4.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.4.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

3 Threatened black cockatoo species: Carnaby's Cockatoo (endangered) *Zanda latirostris*, Baudin's black cockatoo (endangered) *Zanda baudinii*, Forest Red-tailed (FRT) Black Cockatoo (vulnerable) *Calyptorhynchus banksii naso*

The project area is mapped as Baudin's Black Cockatoo and Carnaby's Cockatoo "breeding likely to occur within area", and is mapped as Forest Red-tailed (FRT) Black Cockatoo "species or species habitat likely to occur within area".

The disturbance footprint consists of a few isolated trees (primarily Jarrah) with no native mid storey, understorey or ground cover. However, Jarrah trees are an important foraging species of Forest Red-tailed Black Cockatoos (though not a preferred foraging species of Baudin's or Carnaby's Cockatoo). The projected foliage within the disturbance footprint is <4% and it is therefore defined as lower-quality native foraging habitat.

The disturbance footprint has been surveyed and a total of 13 potential habitat trees (all Jarrahs) have been identified. Two trees had hollows but were not suitable hollows for black cockatoo nesting purposes. The remainder of the trees had no hollows.

The project area does not contain a known night roosting site. The disturbance footprint is unlikely to be of particular importance for roosting, as it is not near water, and the trees are not very tall, with only 3 trees identified as 10m - 15m tall, and the rest <10m.

The proposed action will not result in fragmentation of connected habitat nor altered fire regimes. No night works are proposed, therefore there will be no light pollution.

Black cockatoos are frequently observed in urban environments and have adapted well to the noise and movement of human developments. The adaptive behaviour of black cockatoos, in addition to the surrounding vegetation that may be utilised as a refuge during operation hours, and past extraction operations on the property, make it unlikely that noise from the proposed action will have an impact on black cockatoos.

The proposed action will not result in increase in nest competitors nor increase in invasive species that are harmful to black cockatoos. The proponent follows best practice hygiene protocols according to approved management plans to avoid the spread of pests, weeds and disease, and these have been effective over the previous years of mining at the site. This includes a Dieback Hygiene Procedure document and Management Plan.

Strict speed limits on site mean vehicle strikes are very unlikely.

Hydrological and water quality impacts are not anticipated from the proposed action, due to the small scale and low impact nature of the proposal. The proposed action is not located near any sensitive water resources.

The proposed footprint has been selected to only include isolated trees within completely degraded, open paddock with no native understorey in order to minimise environmental impacts.

All extraction boundaries are demarcated (surveyed and pegged) with a 10m (or greater) buffer to the 'drip zone' of most trees outside of the disturbance footprint, to prevent impacts to surrounding vegetation from extractive activities.

The proposed action is small scale, short-lived (extraction is finalised within a few years of clearing) and low risk.

The proposed action involves the clearing of up to 0.15ha of potential breeding habitat (13 potential habitat trees) for the following Threatened species:

• Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*) - Vulnerable

• Carnaby's Cockatoo (*Zanda latirostris*) – Endangered

• Baudin's black cockatoo (*Zanda baudinii*) – Endangered

The proposed action involves the clearing of up to 0.15ha of lower-quality foraging habitat for the following Threatened species:

• Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*) - Vulnerable

Therefore, the proposed action does have a direct impact on foraging and breeding habitat for the above listed protected matters. No other direct impacts nor indirect impacts are expected from the proposed action.

NO IMPACTS:

Flora

Synaphea sp. Pinjarra Plain (A.S.George 17182)

Synaphea sp. Fairbridge Farm (D.Papenfus 696) Selena's Synaphea

Eleocharis keigheryi Keighery's Eleocharis

Drakaea micrantha Dwarf Hammer-orchid

Morelotia australiensis Southern Tetraria

Banksia mimica Summer Honeypot

The vegetation condition of the disturbance footprint is rated as 'Completely Degraded', as it has been converted to pasture and parkland cleared copses of a few native trees. The entire footprint has been accessible by stock, and it is highly unlikely populations of the conservation significant flora listed above could be sustained.

Birds

Curlew Sandpiper *(Calidris ferruginea);* Sharp-tailed Sandpiper *(Calidris acuminata)*

Unlikely to occur, the disturbance footprint does not represent suitable habitat for these species. Several shorebirds such as the Curlew Sandpiper and Sharp-tailed Sandpiper are likely to occur in the region in wetland habitats.

There are no watercourses or wetland environments within the project area.

Numenius madagascariensis Eastern Curlew, Far Eastern Curlew

Unlikely to occur, the disturbance footprint does not represent suitable habitat for this species. Within Australia, this shorebird has a mostly coastal distribution and in shallow water of lagoons and other near-coastal wetlands; they are rarely recorded inland.

There are no watercourses, lakes or wetland environments within the project area.

Botaurus poiciloptilus Australasian Bittern

Unlikely to occur, the disturbance footprint does not represent suitable habitat for this species. The Australasian bittern is found living in wetlands where it forages.

Mammals

Chuditch, Western Quoll (*Dasyurus geoffroii)*

Unlikely to occur, unlikely habitat for chuditch due to fragmented nature of native vegetation within the property and completely degraded nature of disturbance footprint with absence of understorey and midstorey vegetation.

Chuditch require large areas of intact habitat to survive. Chuditch are rarely found where habitat is severely fragmented by clearing, except as transient animals.

Pseudocheirus occidentalis Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit

Unlikely to occur, unlikely habitat for Western Ringtail Possum due to completely degraded nature of disturbance footprint with absence of understorey and midstorey vegetation.

The remnant native vegetation within the project area has been mapped as Western Ringtail Possum Habitat Suitability E (very low). All remnant vegetation adjacent to the project area has also been mapped as very low suitability (DBCA 2018).

Myrmecobius fasciatus Numbat

Unlikely to occur, the disturbance footprint is unlikely habitat for the Numbat due to its completely degraded nature with absence of understorey and midstorey vegetation and only a few isolated trees in pastures.

Banksia Woodlands of the Swan Coastal Plain TEC (Endangered)

The property is mapped as Banksia Woodlands of the Swan Coastal Plain Threatened Ecological Community (TEC) “Community may occur within area”.

No state protected Threatened Ecological Communities (TECs), including Banksia Woodlands of the Swan Coastal Plain TEC, are mapped nearby (within 2km of the project area) (DBCA 2024).

The vegetation within the disturbance footprint is 0.15ha in ‘Completely Degraded’ condition and does not meet the criteria to be considered as part of the Banksia Woodlands of the Swan Coastal Plain Threatened Ecological Community (TEC).

Without a detailed vegetation survey it cannot be determined if the remnant vegetation within the project area meets the criteria to be considered as part of the Banksia Woodlands of the Swan Coastal Plain TEC. A buffer of 10m or more from the adjoining native vegetation exists along most of the disturbance footprint perimeter, and this combined with best practice hygiene protocols according to approved management plans to avoid the spread of pests, weeds and disease, will ensure the surrounding native vegetation is not impacted.

4.1.4.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact? *

No

4.1.4.6 Describe why you do not consider this to be a Significant Impact. *

3 Threatened black cockatoo species: Carnaby's Cockatoo (endangered) *Zanda latirostris*, Baudin's black cockatoo (endangered) *Zanda baudinii*, Forest Red-tailed (FRT) Black Cockatoo (vulnerable) *Calyptorhynchus banksii naso*

The Significant Impact Guidelines 1.1 lists significant impact criteria for endangered (Carnaby's and Baudin's) and vulnerable (FRT) species. From these lists, the proposed action has been identified as having the potential for the following significant impact to the 3 Threatened black cockatoo species:

• Adversely affects habitat critical to the survival of the species.

The Referral guideline for 3 WA threatened black cockatoo species: Carnaby's Cockatoo (*Zanda latirostris*), Baudin's Cockatoo (*Zanda baudinii*) and the Forest Red-tailed Black-cockatoo (*Calyptorhynchus banksii naso*) (DAWE 2022) provides referral thresholds for black cockatoos. The following black cockatoo impacts are likely to require a referral:

• Loss of any potential nesting habitat.

• The loss of equal to or greater than 1 hectare of high-quality native foraging habitat.

• The loss of equal to or greater than 10 hectare of lower-quality native foraging habitat.

The proposed clearing of 0.15ha of lower-quality native foraging habitat does not have a significant impact, with referral likely required if clearing of lower-quality native foraging habitat is >10ha.

The proposed action involves the clearing of 13 potential habitat trees (of which 11 had no hollows, and 2 had small hollows not suitable for black cockatoos). The trees are not very tall, with only 3 trees identified as 10m - 15m tall, and the rest <10m. No nesting trees, nor trees with suitable hollows for black cockatoo nesting purposes will be impacted.

There are no known breeding sites within 12km of the project area. The project area is located 14.5km to the closest confirmed breeding area.

Native vegetation extent mapping shows there is approx. 29,550ha of native vegetation remaining within 15km of the project area (DPIRD 2020). Much of this vegetation is likely to support foraging and breeding habitat for black cockatoos. Loss of 0.15ha due to the proposed clearing represents a small proportion (~0.0005%) of the native vegetation extent within 15km. Similarly, there is approx. 20,420ha of native vegetation remaining within 12km of the project area. Loss of 0.15ha due to the proposed clearing also represents a small proportion (~ 0.0007%) of the native vegetation extent within 12km.

The proposed clearing has been selected to only include isolated trees within completely degraded, open paddock with no native understorey in order to minimise environmental impacts. The proposed action is small scale, short-lived (extraction is finalised within a few years of clearing) and low risk. The small scale, low risk nature of the proposed action means the impact is small and no impact in the conservation status of these species is anticipated.

Although the proposed action is likely to have direct impacts on black cockatoos, the impact is minor and not likely to have a significant impact on potential breeding or foraging habitat for the 3 Threatened black cockatoo species.

No direct or indirect significant impacts are expected from the proposed action on MNES.

4.1.4.7 Do you think your proposed action is a controlled action? *

No

4.1.4.9 Please elaborate why you do not think your proposed action is a controlled action. *

3 Threatened black cockatoo species: Carnaby's Cockatoo (endangered) *Zanda latirostris*, Baudin's black cockatoo (endangered) *Zanda baudinii*, Forest Red-tailed (FRT) Black Cockatoo (vulnerable) *Calyptorhynchus banksii naso*

The proposed action requires the clearing of up to 0.15ha of 'completely degraded' condition native vegetation within a 3.9ha disturbance footprint. The native vegetation within the disturbance footprint consisting of a few isolated trees (primarily jarrah) with no native mid storey, understorey or ground cover.

As per the section above, the impacts for the 3 Threatened black cockatoo species are not considered significant impacts.

The disturbance footprint will be revegetate and rehabilitate to result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area with species suitable for black cockatoo habitat, as per the approved Rehabilitation Management Plan. This will result in an environmental benefit to the 3 Threatened black cockatoo species, with revegetation resulting in better quality vegetation across the disturbance footprint.

As such, the proposed action is not considered a controlled action.

4.1.4.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

Avoidance

All possible avoidance measures have been undertaken in choosing the location for the proposed action. The disturbance footprint only includes a few isolated trees (primarily jarrah) within completely degraded, open paddock with no native understorey or mid storey remaining. The proposed action avoids any trees with suitable hollows for black cockatoo nesting purposes.

However all impacts cannot be avoided, as there is insufficient gravel resources located within completely cleared areas that would result in no clearing of potential habitat trees. In order to excavate the required priority resource, the clearing of paddock trees is unavoidable, including the 13 potential habitat trees.

Mitigation

The proponent implements Weed, Water, Noise, Dust, Dieback, and Hydrocarbon management as part of their operations, to ensure the management of any potential impacts. All management plans have been approved by the Shire of Harvey, and Noise, Dust, Water and Hydrocarbon Management Plans are also approved by DWER as part of licensing of the operations.

All clearing will be carried out as per the proponent's procedures for pegging/delineation of the approved clearing footprint to ensure no over clearing occurs. Slow, progressive one directional clearing is undertaken to allow any fauna present at the time of clearing to move to adjacent vegetation if required.

To avoid impacts to native vegetation adjacent to extraction boundaries, most trees outside of the approved extraction areas have been demarcated with a 10m buffer from all extraction boundaries.

Proper hygiene management as per Weed and Dieback Management Plans will be implemented during clearing, as well as in the ongoing operations. This will minimise any potential impacts on adjacent remnant vegetation.

Furthermore, the proposed action is short term, as extraction is expected to be finalised within 5 years. Once extraction is finalised, the areas will be rehabilitated as per the DWER and Shire approved Rehabilitation Management Plan (included as attachment Att 5. Rehabilitation Management Plan), which includes topsoil management (for later use in rehabilitation), smooth landforming, deep ripping, herbivore and erosion control, and rehabilitation targets, as well as monitoring and maintenance measures. It is proposed to revegetate with native vegetation that is representative of black cockatoo habitat.

4.1.4.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

No offsets are proposed as the action is not considered a control action.

Despite the avoidance and mitigation measures undertaken in this proposal, the clearing of paddock trees (13 potential habitat trees, of which 11 had no hollows, and 2 had small hollows not suitable for black cockatoos) is unavoidable for the economical extraction of this state level, high priority resource.

While the proposed action is not considered a controlled action, and no significant direct or indirect impacts are expected on any MNES, the proponent proposes to rehabilitate and revegetate the disturbance footprint to native vegetation that is representative of black cockatoo habitat in order to mitigate the proposed clearing. This will result in an environmental benefit to the 3 Threatened black cockatoo species, with revegetation resulting in better quality vegetation across the disturbance footprint.

4.1.5 Migratory Species

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Direct impact	Indirect impact	Species	Common name
No	No	Actitis hypoleucos	Common Sandpiper
No	No	Apus pacificus	Fork-tailed Swift
No	No	Calidris acuminata	Sharp-tailed Sandpiper

Direct impact	Indirect impact	Species	Common name
No	No	Calidris ferruginea	Curlew Sandpiper
No	No	Calidris melanotos	Pectoral Sandpiper
No	No	Motacilla cinerea	Grey Wagtail
No	No	Numenius madagascariensis	Eastern Curlew, Far Eastern Curlew

4.1.5.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.5.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

Fork-tailed Swift (*Apus pacificus*)

The Fork-tailed Swift is a Migratory species that is thought to be almost entirely aerial when visiting Australia, so the impact area is not likely to provide important habitat for this species.

Grey Wagtail (*Motacilla cinerea)*

Unlikely to occur, the impact area does not represent suitable habitat for this species. The Grey Wagtail is a vagrant to wetlands in the region.

Eastern Curlew, Far Eastern Curlew *(Numenius madagascariensis)*

Unlikely to occur, the impact area does not represent suitable habitat for this species. Within Australia, this shorebird has a mostly coastal distribution and in shallow water of lagoons and other near-coastal wetlands; they are rarely recorded inland.

Curlew Sandpiper *(Calidris ferruginea)*

Sharp-tailed Sandpiper *(Calidris acuminata)*

Pectoral Sandpiper (*Calidris melanotos*)

Common Sandpiper (*Actitis hypoleucos*)

Unlikely to occur, the impact area does not represent suitable habitat for these species. Several Migratory shorebirds (Curlew Sandpiper, Sharp-tailed Sandpiper, Pectoral Sandpiper and Common Sandpiper) are likely to occur in the region in wetland habitats.

There are no watercourses or wetland environments within the project area.

4.1.6 Nuclear

4.1.6.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.6.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The proposal does not involve any nuclear action.

4.1.7 Commonwealth Marine Area

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.7.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.7.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are no records of Commonwealth Marine Areas relevant to the project area.

4.1.8 Great Barrier Reef

4.1.8.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.8.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The project area is located in WA and not near the Great Barrier Reef.

4.1.9 Water resource in relation to large coal mining development or coal seam gas

4.1.9.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.9.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The project does not involve water resource in relation to large coal mining development or coal seam gas.

4.1.10 Commonwealth Land

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.10.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.10.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are no records of Commonwealth Land relevant to the project area.

4.1.11 Commonwealth Heritage Places Overseas

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.11.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.11.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are no records of Commonwealth Heritage Places Overseas relevant to the project area.

4.1.12 Commonwealth or Commonwealth Agency

4.1.12.1 Is the proposed action to be taken by the Commonwealth or a Commonwealth Agency? *

No

4.2 Impact summary

Conclusion on the likelihood of significant impacts

You have indicated that the proposed action will likely have a significant impact on the following Matters of National Environmental Significance:

None

Conclusion on the likelihood of unlikely significant impacts

You have indicated that the proposed action will unlikely have a significant impact on the following Matters of National Environmental Significance:

- World Heritage (S12)
- National Heritage (S15B)
- Ramsar Wetland (S16)
- Threatened Species and Ecological Communities (S18)
- Migratory Species (S20)
- Nuclear (S21)
- Commonwealth Marine Area (S23)
- Great Barrier Reef (S24B)
- Water resource in relation to large coal mining development or coal seam gas (S24D)
- Commonwealth Land (S26)
- Commonwealth Heritage Places Overseas (S27B)
- Commonwealth or Commonwealth Agency (S28)

4.3 Alternatives

4.3.1 Do you have any possible alternatives for your proposed action to be considered as part of your referral? *

No

4.3.8 Describe why alternatives for your proposed action were not possible. *

Basic Raw Material (BRM) such as gravel are crucial for road building, construction and residential development. BRM are high volume, low value materials that are consumed by the communities that produce them. As such, continual local supply of BRM is essential to sustain community development. There is a shortage of accessible regional gravel required for WA's South West road construction and maintenance programs, building and infrastructure, and agricultural production. Expansion of the road networks, rapid development and competing land uses combined with environmental and social constraints have produced shortages in readily available gravel (WAPC 2014; WAPC 2021).

Sites located close to demand, with suitable quantities and quality of resource, without social or environmental constraints, with compatible zoning, and with landowner agreement or option for ownership, are very difficult to find. Dust, noise, visual, and traffic impacts require minimum distances to residents and other sensitive receptors. Environmental factors such as those listed below hinder the access to many gravel resources:

- Surface water

- Shallow depths to groundwater
- Sensitive water resources
- Environmentally Sensitive Areas (ESA)
- Fauna, Flora and Ecological Communities of conservation significance e.g. TECs, PECs
- Acid Sulfate Soils (ASS)
- Dieback (*Phytophthora cinnamomic)*
- Bush Forever areas

Given the above factors, no feasible alternatives with less environmental impacts have been identified to supply the local community with the crucial gravel resources required to sustain community development.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1. Figure 1_Proposal and Environmental Values.pdf Map showing proposed operations and environmental values of proposed action	02/10/2024	No	High

1.2.6 Commonwealth or state legislation, planning frameworks or policy documents that are relevant to the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Link	Basic Raw Materials https://www.planning.wa.gov.au			High
#2.	Link	Referral guideline for 3 WA threatened black cockatoo species https://wwa-threatened-black-cockatoo-species-20..			High
#3.	Link	State Planning Policy (SPP) 2.4 Basic Raw Materials Policy . https://www.wa.gov.au/system/files/2022-02/SP..			High
#4.	Link	State Planning Strategy 2050 https://www.wa.gov.au/system/files/2021-05/FUT-S..			High

1.3.2.17 (Person proposing to take the action) Proposer's history of responsible environmental management

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attt 2. AS-NZS ISO 14001-2016- Environmental Management Systems.pdf APH Contractors Pty Ltd's Environmental Management Systems Certification	06/07/2021	No	High

1.3.2.18 (Person proposing to take the action) If the person proposing to take the action is a corporation, provide details of the corporation's environmental policy and planning framework

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attt 2. AS-NZS ISO 14001-2016- Environmental Management Systems.pdf APH Contractors Pty Ltd's Environmental Management Systems Certification	05/07/2021	No	High

3.1.3 Natural features, important or unique values that applies to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attt 1. Figure 1_Proposal and Environmental Values.pdf Map showing proposed operations and environmental values of proposed action	01/10/2024	No	High
#2.	Link	Threatened Ecological Communities (DBCA-038) https://catalogue.data.wa.gov.au/dataset/threate..			High

3.2.1 Flora and fauna within the affected area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attt 1. Figure 1_Proposal and Environmental Values.pdf Map showing proposed operations and environmental values of proposed action	01/10/2024	No	High
#2.	Document	Attt 3. Survey_Report_Lot_333_Nybo_Road_Black_Cockatoo_Habitat_Assessment_Report.pdf Black cockatoo habitat tree assessemnt at Lot 333 Nybo Rd	07/09/2020	No	High
#3.	Link	The extension of vegetation complex mapping to landform boundaries within the Swan Coastal Plain https://library.dbca.wa.gov.au/static/FullTextFi..			High

3.2.2 Vegetation within the project area

	Type	Name	Date	Sensitivity	Confidence

#1.	Link	Australian Soil Resource Information System (ASRIS) http://www.asris.csiro.au	High
#2.	Link	Dieback Information Delivery and Management System (DIDMS) https://didms.gaiaresources.com.au/data/editor/v..	High
#3.	Link	Jarrah Forest 1 (JF1 - Northern Jarrah Forrest subregion) https://library.dbca.wa.gov.au/FullTextFiles/021..	High
#4.	Link	Soil and Landscape Mapping – Best Available (DPIRD-027) https://catalogue.data.wa.gov.au/dataset/soil-la..	High
#5.	Link	The extension of vegetation complex mapping to landform boundaries within the Swan Coastal Plain https://library.dbca.wa.gov.au/static/FullTextFi..	High

3.3.2 Indigenous heritage values that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 4. Lot 333 AHIS Register Search Results Report with map.pdf Aboriginal Heritage Inquiry System Search Results Report for Lot 333 Nybo Rd	21/08/2020	No	High

3.4.1 Hydrology characteristics that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Link	Australian Soil Resource Information System (ASRIS) http://www.asris.csiro.au			High

4.1.4.2 (Threatened Species and Ecological Communities) Why your action has a direct and/or indirect impact on the identified protected matters

	Type	Name	Date	Sensitivity	Confidence
#1.	Link	DBCA-049 Western Ringtail Possum Habitat Suitability			High

		https://public-services.slip.wa.gov.au/public/re..	
#2.	Link	Threatened Ecological Communities (DBCA-038) https://catalogue.data.wa.gov.au/dataset/threate..	High

4.1.4.6 (Threatened Species and Ecological Communities) Why you do not consider the direct and/or indirect impact to be a Significant Impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Link	Native Vegetation Extent (DPIRD-005) (Western Australia) https://catalogue.data.wa.gov.au/dataset/native-..			High

4.1.4.10 (Threatened Species and Ecological Communities) Avoidance or mitigation measures proposed for this action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 5. Rehabilitation Management Plan.pdf Approved Rehabilitation Management Plan for the disturbance footprint on Lot 333	27/01/2022	No	High

4.3.8 Why alternatives for your proposed action were not possible

	Type	Name	Date	Sensitivity	Confidence
#1.	Link	State Planning Policy (SPP) 2.4 Basic Raw Materials Policy https://www.wa.gov.au/system/files/2022-02/SPP-2..			High
#2.	Link	State Planning Strategy 2050 https://www.wa.gov.au/system/files/2021-05/FUT-S..			High

5.2 Declarations

Completed Referring party's declaration

The Referring party is the person preparing the information in this referral.

ABN/ACN 600398945

Organisation name	LUNDSTROM ENVIRONMENTAL CONSULTANTS PTY LTD
Organisation address	6150 WA
Representative's name	Mike Lundstrom
Representative's job title	Director
Phone	0417934863
Email	admin@lundstrom-environmental.com.au
Address	21 Sellen Court Leeming, WA 6149

☑ Check this box to indicate you have read the referral form. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

☑ By checking this box, I, **Mike Lundstrom of LUNDSTROM ENVIRONMENTAL CONSULTANTS PTY LTD**, declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

Completed Person proposing to take the action's declaration

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN	126953919
Organisation name	APH CONTRACTORS PTY LTD
Organisation address	EASTMAN & CO, 26 Spencer Street, BUNBURY WA 6230
Representative's name	Warwick Kindt
Representative's job title	Construction Manager
Phone	0418931414
Email	warwick.kindt@aphcontractors.com.au

Address EASTMAN & CO, 26 Spencer Street, BUNBURY WA 6230

☑ Check this box to indicate you have read the referral form. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

☑ I, **Warwick Kindt of APH CONTRACTORS PTY LTD**, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf or for the benefit of any other person or entity. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

✔ Completed Proposed designated proponent's declaration

The Proposed designated proponent is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

☑ Check this box to indicate you have read the referral form. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

☑ I, **Warwick Kindt of APH CONTRACTORS PTY LTD**, the Proposed designated proponent, consent to the designation of myself as the Proposed designated proponent for the purposes of the action described in this EPBC Act Referral. *

☐ I would like to receive notifications and track the referral progress through the EPBC portal. *