## **Application for Licence**

## Division 3, Part V Environmental Protection Act 1986

Licence Number L9209/2019/1

**Applicant** AB No 2 Pty Ltd as Trustee for Culford Unit Trust

T/A Culford Agri Industry

**ACN** 159 232 881

File Number DER2019/000341

**Premises** Culford Quarry

6364 Albany Highway

BANNISTER WA 6390

Being Part of Lot 11 on Plan 2767 as defined by the following coordinates and depicted in Figure 1:

| Reference | Latitude | Longitude |
|-----------|----------|-----------|
| Α         | -32.5730 | 116.4367  |
| В         | -32.5756 | 116.4394  |
| С         | -32.5796 | 116.4363  |
| D         | -32.5796 | 116.4333  |
| E         | -32.5729 | 116.4311  |
| F         | -32.5724 | 116.4327  |
| G         | -32.5733 | 116.4359  |
| Н         | -32.5733 | 116.4363  |

**Date of Report** 20 August 2019

## 1. Definitions

In this Decision Report, the terms in the Table below have the meanings defined.

| Term                          | Definition   |  |
|-------------------------------|--|--|
| ACN                           | Australian Company Number  |  |
| Category/<br>Categories/ Cat. | Categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations   |  |
| Decision Report               | refers to this document.   |  |
| Delegated Officer             | an officer under section 20 of the EP Act.   |  |
| Department                    | means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V, Division 3 of the EP Act.  |  |
| DMIRS                         | Department of Mines, Industry Regulation and Safety  |  |
| DWER                          | Department of Water and Environmental Regulation As of 1 July 2017, the Department of Environment Regulation (DER), the Office of the Environmental Protection Authority (OEPA) and the Department of Water (DoW) amalgamated to form the Department of Water and Environmental Regulation (DWER). DWER was established under section 35 of the <i>Public Sector Management Act 1994</i> and is responsible for the administration of the <i>Environmental Protection Act 1986</i> along with other legislation. |  |
| Emission                      | has the same meaning given to that term under the EP Act.  |  |
| EP Act                        | Environmental Protection Act 1986 (WA)   |  |
| EP Regulations                | Environmental Protection Regulations 1987 (WA)   |  |
| Licence Holder                | AB No 2 Pty Ltd  |  |
| Noise Regulations             | Environmental Protection (Noise) Regulations 1997 (WA)   |  |
| Occupier                      | has the same meaning given to that term under the EP Act.  |  |
| РМА                           | Precinct Management Area (offsite, see Figure 1)   |  |
| Prescribed<br>Premises        | has the same meaning given to that term under the EP Act.  |  |
| Premises                      | refers to the premises to which this Decision Report applies, as specified at the front of this Decision Report  |  |
| Risk Event                    | As described in Guidance Statement: Risk Assessment  |  |

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## 2. Overview of premises

### 2.1 Classification of premises

| Classification of<br>Premises | Description   | Approved Premises production or design capacity or throughput |
|-------------------------------|---|---|
| Category 12                   | Screening etc. of material: premises (other than premises within category 5 or 8) on which material extracted from the ground is screened, washed, crushed, ground, milled, sized or separated. | 50,000 tonnes per<br>annual period                            |

#### 2.2 Description of proposed activity

AB No 2 Pty Ltd (the Applicant) was granted works approval W6192/2018/1 on 21 January 2019 to construct a category 12 prescribed premises to screen up to 50,000 tonnes per year of material extracted from the Culford Quarry, which is situated within the larger Culford Farm. The Delegated Officer considers that the works approval has been complied with.

The Quarry is located approximately 98 km south east of Perth and 25 km north of the Township of Boddington. The quarry will be comprised of a 6.6 hectare area and is estimated to contain 190,000 m³ of gravel for extraction. The premises is predominantly covered by a Bluegum plantation and includes an existing gravel pit which is intended to be initially used before proceeding into a new excavation pit as shown in Figure 1 below.

The first phase of the project included preparation of the existing excavation area to allow for gravel excavation and processing, and the development of access roads. These were completed as part of the works approval works. The second phase will consist of harvesting the Bluegum plantation within the new pit which will be undertaken when needed after the existing Pity has been exhausted. The clearing activities do not require a permit clearing for native vegetation. Crushing of the excavated material and additional processing through an onsite Pug Mill may be required. These activities are considered to be consistent within the category 12 activities.



Figure 1: Site Layout Plan
Image provided as part of works approval supporting documentation

The infrastructure and equipment are outlined in the table below.

| Ref | Infrastructure or Equipment                          | Site Layout Plan Reference<br>(Figure 1) |  |  |
|-----|--|--|--|--|
| 1   | Dozer (capacity up to 250 m³/hour)                   |  |  |  |
| 2   | Front end loader (capacity up to 120 m³/hour)        |  |  |  |
| 3   | Water cart   | Existing Pit then moving into            |  |  |
| 4   | Screening Plant (capacity between 80 to 200 m³/hour) | the New Pit area                         |  |  |
| 5   | Crushing Plant (capacity between 80 to 200 m³/hour)  |  |  |  |
| 6   | Pug Mill (capacity not exceeding 200 m³/hour)        |  |  |  |
| 7   | Stormwater sump                                      | Stormwater dam                           |  |  |

Additional machinery/equipment associated with the prescribed activities, such as water cart, fuel storage tanks and front-end loaders, are being stored on the adjacent Precinct Management Area (shown in yellow shading in Figure 2 below) which is excluded from the prescribed premises boundary.

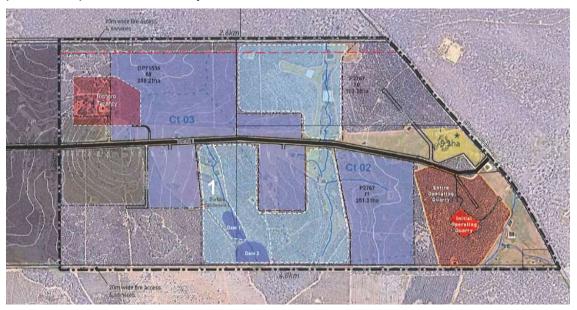


Figure 2: Overview of Culford Farm depicting the Precinct Management Area Image provided as part of works approval supporting documentation

## 3. Legislative context and other approvals

Other than placement of screening equipment and associated machinery, no other works are proposed under this application. Approvals relevant to the premises are outlined in the table below.

| Legislation                             | Number                                    | Approval   |
|---|---|--|
| Mining Act 1978                         | N/A                                       | The Applicant has confirmed that no DMIRS approval is required as the premises is not situated on a mining tenement.   |
| Planning and<br>Development Act<br>2005 | Shire of<br>Boddington<br>reference A1674 | The Shire of Boddington granted conditional Development Approval for the gravel pit on 21/12/2018. Development must be substantially commenced within two years of the approval being granted. |
| Environmental<br>Protection Act<br>1986 | W6192/2019/1                              | Approval to construct the prescribed premises.   |

## 4. Emission sources, pathways and receptors

#### 4.1 Emissions

The potential for emissions to impact on sensitive receptors has been assessed in accordance with the Department's Risk Framework. The key emissions considered in this report are dust and noise from activities including screening and crushing operations, equipment placement and use, vehicle movements, excavation, loading, unloading and storage of materials during operations.

The Applicant has proposed measures to assist in controlling these emissions, where necessary. The control measures have been considered when undertaking the risk assessment detailed in Section 5.

#### 4.2 Pathways

As dust and noise are considered potential emissions, the prevailing wind direction has been considered. The closest Bureau of Meteorology (BoM) registered weather station to the premises is Wandering (No. 010917). Based on the available climate data for Wandering station (December 1998 to August 2018), the prevailing wind directions are northerly and south-westerly in the morning and north-westerly and westerly in the afternoon. These pathways have been considered in the risk assessment table in Section 5.

#### 4.3 Receptors

Risk is assessed as a combination of emission sources, the proximity and sensitivity of receptors to those emission sources and any pathways that can allow the emission to reach and potentially harm the receptor. Figure 3 provides an overview of identified human receptors in proximity to the premises and the table below provides a summary of the key human and environmental receptors in proximity to the premises. The distance to these receptors has been determined using the Department's internal mapping software and databases.

The remaining portion of Lot 11 which surrounds the prescribed premises boundary to the north, south and west consists of a Bluegum plantation. As Bluegums are not an endemic species, the plantation itself has not been considered as a receptor. However, it is noted that the Department's databases have identified the presence of threatened fauna within this area.

Adjacent to the east boundary of the Premises, on the other side of Albany Highway, is an area of uncleared native vegetation (Dwellingup State Forest). Threatened fauna have been sighted in this area as identified in Departmental databases. These species are detailed in the Table below.

The risk assessment in Section 5 considers these human and environmental receptors in the context of emissions and potential pathways.



Figure 3: Distance to sensitive human receptors
Image provided as part of works approval supporting documentation. Modified by DWER officers

DWER has received correspondence that the Caretaker's residence (Farm House in Figure 3) acknowledges that they will not be considered a receptor for the purposes of this assessment.

| Receptor   | Distance from Prescribed Premises      |  |  |  |  |  |
|--|--|--|--|--|--|--|
| Human receptors  |  |  |  |  |  |  |
| Farm caretakers residence (owned by the Applicant)   | Approximately 420 m north              |  |  |  |  |  |
| Three Ways Roadhouse (service station with no accommodation)                               | Approximately 800 m south east         |  |  |  |  |  |
| Residential dwelling   | 6.5 km south                           |  |  |  |  |  |
| Environmental receptors  |  |  |  |  |  |  |
| Seasonal minor surface water creek system  | 80 m south-east of Premises boundary   |  |  |  |  |  |
| Seasonal minor surface water creek system  | 920 m west of Premises boundary        |  |  |  |  |  |
| Priority 2 Public Drinking Water Source Area<br>(PDWSA) – Serpentine Dam Catchment<br>Area | 1.9 km north-west of Premises boundary |  |  |  |  |  |

| Receptor                                   | Distance from Prescribed Premises   |  |  |
|--|---|--|--|
|  | Numbat – approximately 240 m east of boundary;                                      |  |  |
|  | Baudin's Cockatoo – approximately 270 m north of boundary;                          |  |  |
|  | Carnaby's Cockatoo – approximately 960 m south-east of boundary;                    |  |  |
|  | Chuditch/western quoll – approximately 1.3 km south-east of boundary;               |  |  |
| Threatened fauna (various species sighted) | Forest red-tailed black Cockatoo – approximately     1.3 km south-east of boundary; |  |  |
|  | Quenda/southern brown Bandicoot – approximately 1.3 km south-east of boundary;      |  |  |
|  | Peregrine falcon – approximately 1.5 km west, south-west of boundary;               |  |  |
|  | White-tailed black Cockatoo – approximately 1.5 km west, south-west of boundary.    |  |  |

### 5. Risk Assessment

Risk ratings have been assessed for each key emission source and take into account potential source-pathway-receptor linkages. The mitigation measures / controls proposed by the Applicant have been considered in determining the risk rating.

## 5.1 Risk assessment - operation

| Risk Event  |                     |   |   |                     |          |        | Regulatory controls (refer to  |  |
|---|---------------------|---|---|---------------------|----------|--------|--|--|
| Source/Activities*  | Potential emissions | Potential receptors, pathway and impact   | Applicant controls  | Consequence rating* |          | Risk*  | Reasoning  | conditions of the granted instrument)                                  |
|   |                     | Air/windborne pathway causing impacts to health and amenity of closest human receptors (roadhouse) approximately 800m south-east from the premises.       | Unsealed roads and stockpiles to be wet down with water cart, portable sprinklers or hoses as required.  Crushing and screening plants fitted with water sprayers. Portable sprinklers/hoses can be utilised in the event of water spray malfunction.  Site traffic limited to 40 km/hour.  Ongoing visual inspection for dust emissions. If required, additional dust control measures such as mulching, hydro seeding or use of chemical crusting agents can be used. | Minor               | Unlikely | Low    | The Applicant's proposed dust mitigation controls are considered to be sufficient at mitigating dust emissions.              |  |
| Excavation activities  Screening activities  Crushing activities  Pug mill  Unloading, loading and storage of material  Vehicle movements | Dust                | Air/windborne pathway causing impacts to surface water quality on seasonal minor surface water creek system (located 80 m from premises boundary).        |   | Moderate            | Unlikely | Medium | The Applicant's proposed dust mitigation controls are considered to be sufficient at mitigating dust emissions               | Condition 2 requiring the operation and maintenance of infrastructure. |
| onsite  |                     | Air/windborne pathway causing impacts to transient threatened fauna (closest fauna species sighted 240 m from premises boundary within the State Forest). |   | Moderate            | Unlikely | Medium | however these are to be included in the licence as regulatory controls to manage the likelihood of the risk event occurring. |  |

| Risk Event  |                     |  |   |                     |                       |        | Regulatory controls (refer to  |  |
|---|---------------------|--|---|---------------------|-----------------------|--------|--|--|
| Source/Activities*  | Potential emissions | Potential receptors, pathway and impact  | Applicant controls  | Consequence rating* | Likelihood<br>rating* | Risk*  | Reasoning  | conditions of the granted instrument)  |
| Excavation activities Screening activities Crushing activities Pug mill | Noise               | Air/windborne pathway causing impacts to health and amenity of closest sensitive noise receptors (roadhouse) approximately 800 m south-east from the premises.       | Operations proposed to occur between 6am and 5pm.  Regular machinery servicing.   | Moderate            | Possible              | Medium | The proposed operational time of 6am is considered as 'night-time' hours in the <i>Environmental Protection (Noise) Regulations</i> (EP Noise Regulations) and is afforded a lower assigned decibel level. The Applicant has not provided information to demonstrate compliance with the EP Noise Regulations. | Condition 3 requiring noise monitoring to be undertaken to confirm compliance with the EP Noise Regulations  |
| Unloading, loading and storage of material  Vehicle movements           | Sediment            | Overland flow of storm water causing impacts to offsite State Forest, surface water and threatened fauna from the increase of suspended solids into the environment. | Stormwater drains constructed onsite will divert stormwater and suspended sediment away from the operational areas and into an onsite stormwater sump for infiltration. Sediments will be contained in this sump. | Minor               | Unlikely              | Low    | The Applicant's proposed stormwater mitigation controls are considered to be sufficient at mitigating sediment emissions. Additional controls proposed to manage the likelihood of the risk event occurring.   | Condition 2 requiring the maintenance of onsite infrastructure such as the stormwater sump and requiring all drainage channels to be directed to the sump. |

<sup>\*</sup>Consequence ratings, likelihood ratings and risk descriptions are detailed in the Department's Guidance Statement: Risk Assessments (February 2017)

## 6. Consultation

| Method  | Comments received   | DWER response  |
|---|---|--|
| Application<br>advertised on DWER<br>website and <i>The</i><br><i>West Australian</i><br>01/07/2019 | No comments received  | N/A  |
| Application referred<br>to Shire of<br>Boddington<br>25/06/2019                                     | Comments received 27/06/2019 confirmed Shire support for the proposal and that planning approval was in place.  | N/A  |
| Applicant notified of draft 19/07/2019  | The Applicant provided comments on 2 August 2019. The comments requested that the Caretaker's residence, which is owned by the Applicant, should not be considered a sensitive receptor.  | The Delegated Officer has agreed to the Applicant's requests and this document and the licence conditions have been updated to reflect that. |
|   | The Applicant also requested that noise monitoring not be undertaken at the Caretaker's residence as it is not a receptor, and that an additional month be granted to allow for the noise monitoring at the roadhouse to be undertaken, extending this from two to three months from when the licence is granted. |  |
|   | The Applicant consented to the remainder of the comment period being waived in the event that the above changes were implemented.   |  |

## 7. Conclusion

This assessment of the risks of operational activities on the premises has been undertaken with due consideration of a number of factors, including the documents and policies specified in this decision report (summarised in Appendix 1).

DWER notes that it may review the appropriateness and adequacy of controls at any time and that, following a review, DWER may initiate amendments to the approval under the EP Act.

Tracey Hassell
A/MANAGER WASTE INDUSTRIES
REGULATORY SERVICES

Delegated Officer under section 20 of the Environmental Protection Act 1986

# **Appendix 1: Key documents**

| Document title  | Availability                          |  |  |
|---|---------------------------------------|--|--|
| Licence (L9209/2019/1) application form and supporting documentation (June 2019)                                | DWER records (A1795271)               |  |  |
| Works Approval (W6183/2018/1) application form and supporting documentation (October 2018)                      | DWER records (A1732966;<br>A1732975)  |  |  |
| Works approval W6192/2018/1   |                                       |  |  |
| DER, July 2015. <i>Guidance Statement: Regulatory principles</i> . Department of Environment Regulation, Perth. |                                       |  |  |
| DER, October 2015. <i>Guidance Statement: Setting conditions</i> . Department of Environment Regulation, Perth. | accessed at your dwar we gray ou      |  |  |
| DER, August 2016. <i>Guidance Statement: Licence duration</i> . Department of Environment Regulation, Perth.    | accessed at <u>www.dwer.wa.gov.au</u> |  |  |
| DER, February 2017 <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.   |                                       |  |  |
| DER, February 2017. <i>Guidance Statement: Decision Making</i> . Department of Environment Regulation, Perth.   |                                       |  |  |