# Council Forum

# Notes

# 11 September 2018

## Unconfirmed Notes

These notes were approved for distribution on 12 September 2018.

Stan Scott
**CHIEF EXECUTIVE OFFICER**

When the Chief Executive Officer approves these Notes for distribution they are in essence "informal notes."

At the next Ordinary Meeting of Council the Notes will be received, subject to any amendments made by the Council.

The "Received" Notes are then signed off by the Presiding Person.

Attachments that formed part of the Program, in addition to those tabled at the Council Forum are put together as attachments to these Notes with the exception of Confidential Items.

Confidential Items or attachments that are confidential are compiled as a separate Confidential Noted Program Item.

## Received Notes

These notes were received at an Ordinary Meeting of Council held on 25 September 2018.

Signed: .....

*Note: The Presiding Member at the meeting at which the notes were received is the person who signs above.*

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**ATTACHMENTS** *with separate index follows Item 14.*

# Shire of Toodyay

**COUNCIL FORUM ï 11 SEPTEMBER 2018**

# NOTES

## 1. DECLARATION OF OPENING

Cr Rayner, Shire President, declared the meeting open at 4.12pm.

## 2. RECORDS OF ATTENDANCE/APOLOGIES

| | |
|---|---|
| Cr B Rayner | Shire President |
| Cr T Chitty | Deputy Shire President |
| Cr B Bell | |
| Cr J Dow | |
| Cr P Greenway | |
| Cr E Twine | |
| Cr R Welburn | |

Staff

| | |
|---|---|
| Mr S Scott | Chief Executive Officer |
| Ms A Bell | Manager Community Development |
| Mr G Bissett | Manager Planning & Development |
| Mr S Patterson | Manager Works and Services |
| Mr H de Vos | Planning Officer |
| Mrs M Rebane | Executive Assistant |

Visitors

L Rooney G Price G Smith M Gordon D Veljacich

### 2.1 APOLOGIES

Cr C Brook

Cr B Manning

### 2.2 LEAVE OF ABSENCE

Nil

## 3. DECLARATIONS OF INTERESTS

There was no disclosures of interest

## 4. PRESENTATIONS

### 4.1 Lot 11 Chitty Road ï Austral Bricks

*Michael Taylforth from Land Insights as well as Matt Gordon from Austral Bricks attended the meeting and presented at 4.15pm (refer to the presentation in the attachments to the Council Forum Notes).*

### 4.2 Lot 3 Morangup Road ï Midland Brick

*Garry Price presented at 4.29pm (refer to the presentation in the attachments to the Council Forum Notes).*

## 5. PUBLIC QUESTIONS (relating to the contents of the program)

### 5.1 RESPONSES TO PREVIOUS PUBLIC QUESTIONS TAKEN ON NOTICE

At the Council Forum held on 14 August 2018 there were no questions taken on notice.

### 5.2 PUBLIC QUESTION TIME

L Rooney

Summary of Question One

How much of the Tourism Strategy going forward is Icon Tourism going to participate in?

*None. They are writing the strategy for us. It then becomes our strategy to implement.*

Summary of Question Two

In the strategy it shows Icon Tourism as the core of the process that delivers the strategy which was the basis of my question on page 8 which shows a Project Manager and Steering Committee with Icon Tourism in the core.

*That was purely about the development of the strategy but not the delivery of the strategy. They were central in gathering the intelligence from the stakeholders and being steered by Council.*

Summary of Question Three

What will the strategy look like going forward?

*It will look like this (the CEO held up the copy provided separately to the forum program that was tabled at the meeting) assuming Council endorses it.*

## 6. PUBLIC SUBMISSIONS (relating to the contents of the program)

Nil

## 7. AGENDA FORUM MATTERS

### 7.1 Lot 11 Chitty Road ï Extractive Industry Renewal - Austral Bricks

Points raised as follows:

¶ Road Maintenance Contributions overview provided by the Planning Officer;

¶ Hours of Operation - standardised vs. case by case basis;

¶ Councilôs exposure to SAT;

¶ School buses on Morangup Road;

¶ Include salt content of the pits vs. salt content of the pits/dams on the property;

¶ Road Contributions in trust for spending on the road ï estimate of costs required and calculation for the next 20 years to be looked at in the future;

¶ Road upgrade contribution or single per annum contribution ï reference to the agreement needs to be undertaken and provided within the Officer Report.

¶ The return/retention of the Rehabilitation Bond;

¶ Raw material excavation vs. State Planning Policy; and

¶ The writing of a ñDeveloping Contribution Planò has to establish a nexus between the contribution and the work.

Clarification was sought regarding expenditure on maintaining the road at a high quality.

**Guidance from Elected Members**

That a report be presented for consideration by Council at the September 2018 Council Meeting including reference to many of the points made above.

**7.2 Lot 3 Morangup Road ï Extractive Industry Renewal ï Midland Brick**

Points raised as follows:

¶ Operation of hours ï trucks starting at 6.30am;

¶ Increasing of the footprint ï no additional clearing;

¶ Presentation indicated when the pit was started; and

¶ Page 103 of the Program ï the date 23 October 2018 be amended.

Clarification was sought.

**Guidance from Elected Members**

That a report be presented for consideration by Council at the October 2018 Council Meeting that would include and provide clarification in relation to the above.

**7.3 Discussion Paper: Cost Recovery for the Department of Water and Environment Regulation**

Points raised as follows:

¶ Handful of clearing permits done each year;

¶ User pays system for cost recovery;

¶ Extensive list of exemptions in relation to clearing; and

¶ Groundwater bore licenses.

Clarification was sought.

**Guidance from Elected Members**

That Councillors to forward queries to Administration, via the office of the CEO, by **15 September 2018.**

That the Planning Officer prepare a report for consideration by Council at the October 2018 Council Forum / Council Meeting that would include and provide clarification in relation to the above.

**7.4 Royal Commission into Institutional Response to Child Sexual Abuse ï Local Government Child Safety Officer Position**

Points raised as follows:

¶ Ticking YES at the first point and do not leave it blank;

¶ Implications in terms of liability to local government and local government responsibilities;

¶ Supporting the comment and being aware of the implications of the local government support;

¶ Costs involved in sharing a Local Government Child Safety Officer Position between regional governments and the training of the Officer to meet the requirements of the position of a Local Government Child Safety Officer;

¶ Question 3 ï asking about Masters in Social Work, etc. The costs in regard to these types of ñdegreesò would be a huge impost if a Local Government Child Safety Officer would be made to be supported by a local government;

¶ Differing perspectives in regard to the position of a Local Government Child Safety Officer from the resources of an ñexisting staff member;ò

¶ First webinar had the aim of implementing information sharing;

¶ Paper raised further queries as it was published after the first webinar took place;

¶ The paper is asking what local government can do with existing resources; and

¶ The possibility of bringing the chaplaincy into the fold for this role.

Clarification was sought in regard to the local government role in this space.

**Guidance from Elected Members**

That the Councillors provide feedback by **15 September 2018** to CEO via email;

The CEO then passes feedback to the Manager Community Development who will provide the feedback in accordance with the requirements of the discussion paper.

The CEO to circulate a copy to the Councillors via email.

### 7.5 An Office for Advocacy and Accountability in Aboriginal Affairs in Western Australia

Clarification was sought.

Points raised as follows:

¶ Consultation with local government and other stakeholders; and

¶ Progress being made in regard to life expectancy.

**Guidance from Elected Members**

That the Manager Community Development to provide the feedback in accordance with the requirements of the discussion paper.

### 7.6 DRAFT Tourism Strategy

*The Manager Community Development provided an overview of the submissions that had been received and the likelihood of when the draft strategy would be brought back to Council (October 2018).*

Points raised as follows:

¶ Mention of maintaining the branding that the Shire currently uses for advertising and promotion (e.g. Valley for All Seasons);

¶ Encouragement of businesses to look at their own branding instead of looking at re-branding and changing of branding from a different angle;

¶ Engagement with existing operators a must;

¶ Promotion of and review of the *Valley for All Seasons brand* so that existing operators have their investment protected;

¶ Articulation of the summary of activities in relation to the branding for *Valley for All Seasons* so that it contains information about what is done in Winter, Spring, Autumn and Summer;

¶ Attraction and investment in activities and whether the tourism sector wants all year round service provision;

¶ Clarification was sought in relation to other branding that exists within the strategy; and

¶ The strategy being a very comprehensive document.

**Guidance from Elected Members**

That a report be presented for consideration by Council at the October 2018 Council Meeting.

***The Shire President ruled the meeting go behind closed doors.***

***The Council Chambers were closed to members of the public at 5.56pm.***

## 8. CONCEPT FORUM MATTERS

Nil

## 9. CHIEF EXECUTIVE OFFICER'S UPDATE

The CEO provided a verbal confidential update.

## 10. CONFIDENTIAL MATTERS

Nil

## 11. SHIRE PRESIDENT'S UPDATE

The Shire President provided a verbal overview of public engagements, and meetings attended since the last Council Forum.

## 12. REPRESENTATIVE UPDATES

The Elected Members provided a verbal overview of public engagements, and meetings attended since the last Council Forum.

## 13. STATUS REPORTS

### 13.1 COMMITTEE MEETING STATUS REPORT

The report was reviewed. *The item in respect to the community bus can be removed from the list.*

***The Shire President ruled the meeting come from behind closed doors.***

***The Council Chambers were re-opened to members of the public at 7.28pm.***

## 14. MEETING CLOSURE

The Shire President declared the meeting closed at *7.28pm.*

# Attachments to Notes

**Council Forum** **Tuesday 11 September 2018**

## PRESENTATIONS


| | | |
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| **4.1** | **Lot 11 Chitty Road – Austral Bricks** | **1** |
| **4.2** | **Lot 3 Morangup Road - Midland Brick** | **13** |


## Attachments that formed part of the Council Forum Program


**Attachments to the September 2018 Council Forum Program** **19**

*Note: These attachments contain their own numbering*



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# ‘WILLIAMSONS’ PIT

*Extractive Industry Licence and Development Approval*
*Lot 11 Chitty Road, Hoddys Well*
*Council Forum – 11th September*

# Introduction and Background

- Current application is for continuing clay extraction
- This has occurred at this site for over 20 years – red and white clay
- Previous approval issued 15 years ago (2003)
- Approximately 12 km south-west of Toodyay
- Lot 11 also has a second pit operated by another company
- Opal Vale landfill is located adjacent to the pit

# Site Location

# Summary

- Operations are expected to continue as they have been for the last 15 years
- No changes to tonnage and truck numbers
- ‘Red’ clay located on the top layers
- ‘White’ clay underneath the red clay
- Operations only occur during 8-10 weeks over summer (including excavation and carting)
- Approximately 70,000 tonnes of clay annually

# Excavation Plan

# Operations

- Operating times
  - 6am – 5pm Monday to Saturday. No operation Sunday or Public Holidays
- Life of project
  - Over 10 years (depending on demand)
- Extraction area
  - Approximately 2.84 ha (including future stage)
- Future stages
  - Excavation will continue in a north-westerly direction and the next stage could continue to the north
- Depth
  - Approximately 10-15 metres

# Operations cont.

- Access
  - Existing access from Chitty Road
  - A good-quality gravel road provides internal access to the pit
- Truck movements
  - Movements will not change (no increase)
  - Approximately 1,600 truck loads per annum
  - Movements over an 8-10 week period – (not year-round)
- Stockpiling
  - No stockpiling area required
  - Clay will be excavated and stockpiled in the pit area ready to be picked up by clay trucks

# Photos – Site Access

Site entrance

Internal access track

# Management

- The site already operates under strict management plans
- The application includes the following Management Plans to address environmental and social impact:
  - Dust Management Plan
  - Noise Management Plan
  - Visual Management and Separation Distances
  - Water Management Plan
  - Refuelling Management Plan
  - Rehabilitation Management Plan
  - Waste Management Plan

# Photos – Pit Area

Pit area facing north-east

Pit area facing south-east

# Rehabilitation

- The site will be recontoured to dams surrounded by pasture
- The aims of the Rehabilitation Management Plan are to:
  - Produce a land surface that is safe and stable and compatible with the surrounding land form
  - Recontour the pit area to a farm dam surrounded by pasture
- Overburden will be used to recontour the pit to a safe and stable condition
- A dam will be created from the void
- Surrounding area will be planted with pasture.

# Questions

# Renewal of Excavation Licence Lot 3 Morangup Road Morangup

September 2018

Garry Price

2

# Operations Overview

- Excavation in operation since 1991
- Proposal is on the same site with no increase in footprint
- Method of extraction and operation will not change
- Transport impact on Morangup Road will reduce given current demand conditions

# Proposal Overview

| Aspect | Description |
|---|---|
| Total Area of Excavation | 17.9 hectares (ha)<br>Pit Area – 6.1 ha<br>Stockpile and service areas – 10 ha<br>Under rehabilitation – 1.8 ha |
| Resource extraction | 30,000-50,000 tonnes per annum |
| Operational times | Campaign basis<br>Excavation 30-60 days every two years |
| Life of project | 10 years |
| Area cleared per year | Nil – No clearing required over next ten years |
| Truck Movements | 5-10 per hour on 80-100 days per annum |
| Actual movements last financial year | 56 days – 16 loads per day 33,346 tonnes |
| Access | Morangup Rd until end of bitumen seal, then via Lot 7 and then into Lot 3. |
| Hours of Operation | 0630 – 1700 Monday to Friday |
| | |

## Planning Policy & Land Use

- Land Use Zoning
  - Rural
  - Priority Resource Area T9
- State Planning Policy 2.5 (SPP 2.5)
  - Basic Raw Materials Policy
    - Protected
    - Used in a staged manner
    - Not impinged by competing land uses

# Questions?

# Shire of Toodyay

# COUNCIL FORUM PROGRAM

**11 SEPTEMBER 2016**

**1. DECLARATION OF OPENING**

**2. RECORD OF ATTENDANCE/APOLOGIES**

**3. DECLARATIONS OF INTEREST**

**4. PRESENTATIONS**

**4.1 Lot 11 Chitty Road**

**4.2 Lot 3 Morangup Road**

**5. PUBLIC QUESTIONS (relating to the contents of the program)**

*Questions can be made ad hoc, but it is preferred that notice be given by midday on the day of the Council Forum.*

**6. PUBLIC SUBMISSIONS (relating to the contents of the program)**

*A submission can be made ad hoc, but it is preferred that notice be given by midday on the day of the Council Forum.*

**7. AGENDA FORUM MATTERS**

*The Agenda Forum Matters listed below are attached.*

**7.1 Lot 11 Chitty Road ï Extractive Industry Renewal - Austral Bricks 1**

Attz 1 ς Clay Extraction Management Plan - Lot 11 Chitty Road - Austral Bricks - July 2018 5

**7.2 Lot 3 Morangup Road ï Extractive Industry Renewal ï Midland Brick 74**

Attz 1 ς Midland Brick - Lot 3 Morangup Road - Report; 78

**7.3 Discussion Paper: Cost Recovery for the Department of Water and Environment Regulation 172**

Attz 1 ς WALGA Information Item 17 August 2018 (Enviro Pages; 175

Attz 2 - DWER Discussion Paper 177

**7.4 Royal Commission into Institutional Response to Child Sexual Abuse ï Local Government Child Safety Officer Position 201**

Attz 1 ς Copy of PowerPoint presentation: Royal Commission into Institutional responses to Child sexual abuse ς July 2018 207

Attz 2 - Copy of PowerPoint presentation: Recap & Agenda ς August 2018;215

**7.5 An Office for Advocacy and Accountability in Aboriginal Affairs in Western Australia 224**

Attz 1 - Letter from Ben Wyatt MLA 228

Attz 2 - Summary Paper from Ben Wyatt ς An idea for making government work better for Aboriginal People 229

Attz 3 - Discussion Paper ς Government of WA ς An Office for advocacy and accountability in Aboriginal affairs in Western Australia 231

Attz 4 - Info page ς WALGA 248

**7.6 DRAFT Tourism Strategy 249**

Attz 1 ς Schedule of Public Submissions; 253

Attz 2 ς DRAFT Tourism Strategy ς *separate attachment*; SA

Attz 3 ς Submission Letters provided as a Confidential Attachment to Elected Members only via the Councillor Hub SCEA

**8. FORUM MATTERS**

Nil

**9. CHIEF EXECUTIVE OFFICERõS UPDATE**

*The CEO's Update is provided to Council as a separate confidential attachment, indexed separately.*

**10. CONFIDENTIAL MATTERS**

Nil

**11. SHIRE PRESIDENTS UPDATE**

*The Shire will provide a verbal update at the forum.*

**12. REPRESENTATIVE UPDATES**

*The Elected Members will provide a verbal update at the forum.*

**13. STATUS REPORT**

**13.1 Committee Meeting Status Report 265**

**14. MEETING CLOSURE**

# AGENDA FORUM DISCUSSION PAPER

| | |
|---|---|
| **Date of Report:** | 4 September 2018 |
| **Name of Applicant / Proponent/s:** | Austral Bricks / Land Insights |
| **File Reference No.:** | A4273/11CHI/EXT1 |
| **Author:** | H. de Vos - Planning Officer |
| **Responsible Officer:** | G. Bissett ï Manager Planning and Development |
| **Previously Before Council:** | Nil |
| **Nature of Council's Role in the matter:** | Executive |
| **Attachments:** | 1. Clay Extraction Management Plan - Lot 11 Chitty Road - Austral Bricks - July 2018 |

## 7.1 LOT 11 CHITTY ROAD ð EXTRACTIVE INDUSTRY RENEWAL ð AUSTRAL BRICKS

### PURPOSE OF THE DISCUSSION PAPER

To accompany the presentation to Council by Austral Bricks / Land Insights regarding the proposed renewal of the clay extractive industry at Lot 11 Chitty Road in Hoddyôs Well.

### BACKGROUND

Austral Bricks has been operating on this pit for some time. The most recent licence was granted in 2003 for 15 years, however this expired on 18 July 2018. There is currently no activity or cartage arising from this pit.

### SUMMARY OF THE PROPOSED DEVELOPMENT

| SUBJECT | DESCRIPTION |
|---|---|
| Operating times | The hours of operation will be from 06:00 ï 17:00 hours from Monday to Saturday. No operation will occur on Sundays or Public Holidays. |
| Life of project | Over 10 years |
| Volume extracted | Approximately 70,000 tonnes annually. |
| Site preparation | Limited site preparation is required as the site is already established for clay extraction.<br>No clearing of native vegetation will be required.<br>The pit is located in the centre of the property and cannot be seen from the public realm (roads etc.). No visual amenity actions are required. |

| SUBJECT | DESCRIPTION |
|---|---|
| | Drainage systems are already in place.<br><br>Road access, signage and fencing has already been established. |
| Pit Area | The extraction area will be approximately 2.84 hectares (including future stages). |
| Staging | The site has been used for extractive industry for over 20 years and has progressed in stages. The first stage of the operation is now an unrelated landfill facility (south-west) and clay is currently being extracted from the second stage. The future stages of the extraction will be to the north and east of the existing pit as shown on the plans. This application is for the continuation of extraction within the existing pit area and the future stage. |
| Depth | Depth of excavation is approximately 10-15 metres. |
| Excavation Process | Excavation of clay takes place in a sequence of steps which can be broadly broken down into the Excavation Campaign (i.e. removal of topsoil and overburden, excavation of clay to stockpile) and Carting Campaign (transport of clay from stockpiles to the factories). In general the steps will involve the following:<br><br>¶ Topsoil will be removed and stockpiled for later use at the decommissioning stage. Topsoil stockpiles will be 0.5-1.5 metres in height.<br><br>¶ Overburden will be removed from the pit area to a depth of approximately 1-2 metres. It will be stockpiled for later use in site re-contouring. The overburden stockpiles will be located adjacent to the pit area for readiness to push into the pit as part of land re-contouring.<br><br>¶ Clay will be excavated by a bulldozer, scraper or excavator and will be pushed into stockpiles ready to be picked up by clay transport trucks.<br><br>¶ The depth of excavation will vary depending on the availability of the resource, however the pits are expected to reach depths of up to 15 metres.<br><br>¶ Excavation will keep progressing in a north-west/north-easterly direction. Previously excavated areas are now used as a water |

| SUBJECT | DESCRIPTION |
|---|---|
| | detention basin and for drainage management.<br>¶ Material is carted from the site when required, generally over a cartage campaign lasting between 8-10 weeks during the summer months.<br>¶ It is estimated that there will be approximately 1,600 truckloads exiting the site per annum.<br>¶ Approximately 70,000 tonnes of clay is moved per annum. |
| Direction of excavation | Excavation will take place from south to north. |
| Stockpiling | Clay will be stockpiled in the pit area ready to be picked up by clay transport trucks. The red and white clay stockpiles will be kept separate. |
| Access | Existing access is provided to the site from Chitty Road. An internal gravel access track provides access from Chitty Road through to the pit area. Access tracks are already established around and within the pit area. |
| Vehicle movements | It is estimated that there will be approximately 1,600 truckloads exiting the site per annum (approximately 3,200 truck movements in and out of the site per annum). Trucks will access the site primarily during the summer months, however this will vary depending on demand for clay. In general, it is expected that carting of material will occur for approximately 8-10 weeks over the summer months. |
| Refuelling | The operation will use mobile refuelling. There will be no storage of fuel on site. |
| Structures | Temporary structures will be placed on site for workers (such as small office, lunch room and toilets) during the earthworks campaign and carting campaign. |
| Decommissioning | The pit will be re-contoured and rehabilitated into amenity lakes surrounded by pasture. |

For further details of the proposal please refer to **Attachment 1** - Clay Extraction Management Plan - Lot 11 Chitty Road - Austral Bricks - July 2018.

This application will be coming to Council for determination at its Ordinary Council Meeting on 25 September 2018.

## CONSULTATION IMPLICATIONS

Consultation in respect to the Application for Development Approval and Extractive Industry Licence currently being undertaken in accordance with Level E of Councilôs Policy M.2 ï Public Consultation Formal Matters.

This period ends on 21 September 2018.

## OFFICERôS RECOMMENDATION

That Council, in relation to the proposed renewal of the clay extractive industry licence for Austral Bricks to be located at Lot 11 Chitty Road, Hoddyôs Well as detailed in the application dated 20 August 2018, provide feedback on this proposal for consideration in the preparation of a formal Council report.

DEVELOPMENT APPLICATION

EXTRACTIVE INDUSTRY LICENCE APPLICATION

# CLAY EXTRACTION MANAGEMENT PLAN

LOT 11 CHITTY ROAD, HODDYS WELL

PREPARED FOR AUSTRAL BRICKS (WA) PTY LTD

JULY 2018

*Prepared by:*

Land Insights
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## Document details:

Document History:

| Date | Document Name | Document Manager | Summary of Document Revision | Client Delivered |
|---|---|---|---|---|
| May-18 | 1039 Williamsons EIA Rev0 | MT | Initial Draft | May-18 |
| Jul-18 | 1039 Williamsons EIA Rev1a | SR | Final Draft for Submission | Jul-18 |
| | | | | |
| | | | | |

Important Note:

"The information contained in this report has been prepared with care by the author(s), or it has been supplied to the author(s) by apparently reliable sources. In either case, the author(s) have no reason to doubt its completeness or accuracy. However, neither the author(s) company nor its employees guarantee the information, nor does it or is it intended to form part of any contract. Accordingly, all interested parties should make their own inquiries to verify the information, as well as any additional or supporting information supplied, and it is the responsibility of interested parties to satisfy themselves in all respects.

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APPENDIX D ð COMPLAINTS REGISTER

# Executive summary

Land Insights act for Austral Bricks (WA) Pty Ltd and lodge this application on their behalf. The purpose of the application is to seek an extension to the currently approved clay extraction operation on Lot 11 Chitty Road, Hoddys Well for a 10 year period. This report addresses the requirements of both the Development Approval under the Shire's Local Planning Scheme, and the Extractive Industry Licence application under the Shire's Extractive Industry Local Law. The site produces both red and white clay used by Austral Bricks in several products.

The previous approval was issued 15 years ago and clay has been progressively removed from the site since that time. The operation is located at the southern end of the property, adjoining a landfill to the south-east, unrelated to Austral Bricks. Another extractive industry pit is operated by another company unrelated to Austral Bricks.

A summary of the proposal is outlined in the table below.

| SUBJECT | DESCRIPTION |
|---|---|
| Operating times | The hours of operation will be from 06:00-17:00 hours from Monday to Saturday. No operation will occur on Sundays or Public Holidays. |
| Life of project | Over 10 years. |
| Volume extracted | Approximately 70,000 tonnes annually |
| Site preparation | Limited site preparation is required as the site is already established for clay extraction.<br>No clearing of native vegetation will be required.<br>The pit is located in the centre of the property and cannot be seen from the public realm (roads etc.). No visual amenity actions are required.<br>Drainage systems are already in place.<br>Road access, signage and fencing has already been established. |
| Pit Area | The extraction area will be approximately 2.84 hectares (including future stages). |

| SUBJECT | DESCRIPTION |
|---|---|
| Staging | The site has been used for extractive industry for over 20 years and has progressed in stages. The first stage of the operation is now an unrelated landfill facility (south-west) and clay is currently being excavated from the second stage. The future stages of extraction will be to the north and east of the existing pit as shown on the plans. This application is for the continuation of excavation within the existing pit area and the future stage. |
| Depth | Depth of excavation is approximately 10-15 metres. |
| Excavation process | Excavation of clay takes place in a sequence of steps which can be broadly broken down into the Excavation Campaign (i.e. removal of topsoil and overburden, excavation of clay to stockpile) and Carting Campaign (transport of clay from stockpiles to the factories). In general the steps will involve the following:<br>¶ Topsoil will be removed and stockpiled for later use at the decommissioning stage. Topsoil stockpiles will be 0.5-1.5 metres in height.<br>¶ Overburden will be removed from the pit area to a depth of approximately 1-2 metres. It will be stockpiled for later use in site recontouring. The overburden stockpiles will be located adjacent to the pit area for readiness to push into the pit as part of land recontouring.<br>¶ Clay will be excavated by a bulldozer, scraper or excavator and will be pushed into stockpiles ready to be picked up by clay transport trucks.<br>¶ The depth of excavation will vary depending on the availability of the resource, however the pits are expected to reach depths of up to 15 metres.<br>¶ Excavation will keep progressing in a north-west/north-easterly direction. Previously excavated areas are now used as a water detention basin and for drainage management.<br>¶ Material is carted from the site when required, generally over a cartage campaign lasting between 8-10 weeks during the summer months.<br>¶ It is estimated that there will be approximately 1,600 truck loads exiting the site per annum.<br>¶ Approximately 70,000 tonnes of clay is moved per annum. |
| Direction of excavation | Excavation will take place from south to north. |
| Stockpiling | Clay will be stockpiled in the pit area ready to be picked up by clay transport trucks. The red and white clay stockpiles will be kept separate. |

| SUBJECT | DESCRIPTION |
|---|---|
| Access | Existing access is provided to the site from Chitty Road. An internal gravel access track provides access from Chitty Road through to the pit area. Access tracks are already established around and within the pit area. |
| Vehicle movements | It is estimated that there will be approximately 1,600 truck loads exiting the site per annum (approximately 3,200 truck movements in and out of the site per annum). Trucks will access the site primarily during the summer months, however this will vary depending on demand for clay. In general, it is expected that carting of material will occur for approximately 8-10 weeks over the summer months. |
| Refuelling | The operation will use mobile refuelling.<br>There will be no storage of fuel on site. |
| Structures | Temporary structures will be placed on site for workers (such as small office, lunch room and toilets) during the earthworks campaign and carting campaign. |
| Decommissioning | The pit will be recontoured and rehabilitated into amenity lakes surrounded by pasture. |

The proposed clay extraction will comply with the dust management plan, noise management plan, water management plan, refuelling management plan and waste management plan contained within the following report.

# 1 Introduction

## 1.1 Background

Land Insights act for Austral Bricks (WA) Pty Ltd and lodge this application on their behalf. The purpose of the application is to seek an extension to the currently approved clay extraction operation on Lot 11 Chitty Road, Hoddys Well, for a 10 year period. This report addresses the requirements of both the Development Approval under the Shire's Local Planning Scheme, and the Extractive Industry Licence application under the Shire's Extractive Industry Local Law.

The previous approval was issued 15 years ago, and clay has been progressively removed from the site since that time. The operation is located at the southern end of the property. A landfill adjoins the pit area to the south-east. Another extractive industry pit is operated by another company unrelated to Austral Bricks.

Operations on the site will continue in the same manner that has occurred over the last 15 years, with seasonal excavation and cartage occurring. Excavation is expected to take longer than the 10 years being sought in this application and it is therefore foreshadowed that a further application may be made in future.

## 1.2 Purpose of report

The purpose of this report is to provide supporting information for an application for Planning Approval and an Extractive Industry Licence. The requirements of the Shire's Extractive Industry Local Law are addressed within this document. The prescribed application forms have been completed and are provided in Appendix A.

## 1.3 Importance of the resource

The white clays from Toodyay are an essential ingredient for roof tiles, clay pipes, bricks and paving blocks. As such, the extraction of clay is an important process in the supply of bricks and other

construction materials for the community. The continued demand for housing results in the demand for basic raw materials such as clay.

The site is located in close proximity to the Perth Metropolitan Area and provides a unique type and composition of clay to the Austral Bricks Armadale and Cardup plants. The material from this pit is of a particular nature that gets added to specialised blends as demand dictates. It is not a high-volume operation.

The importance of clay to the community is reflected in the following documents prepared by the State Government:

- *State Planning Policy 2.4 Basic Raw Materials* (WAPC, 2000)
- *State Planning Policy 2.5 Rural Planning* (WAPC, 2016).

### *1.4 Tenure*

| LOT # | PLAN/DIAGRAM | VOLUME | FOLIO | OWNER |
|---|---|---|---|---|
| 11 | 34937 | 2535 | 391 | Simon James Farrell<br>Michele Louise Farrell |

### *1.5 Previous approvals and site activity*

The Shire of Toodyay previously issued an Extractive Industry Licence in 2003 to allow for the extraction of clay on site for a period of 15 years. This approval expires in 2018.

### *1.6 Summary of proposed development*

Proposed development comprises the continuation of clay extraction from the site. Over the last 15 years, clay has been extracted progressively from the southern portion of the pit, moving towards the north. At present over 50% of the site has been excavated to a depth of between 10 and 15 metres. During the course of the next 10 years clay will continue to be extracted in a northerly direction.

# 2 Site description

## 2.1 Topography and landform

The topography of the site has been altered due to the ongoing clay extraction in the past. The broader site itself is relatively flat and is used for agricultural purposes. Within the pit area the current extraction is approximately 15m below current ground level at its deepest point.

## 2.2 Geology and soils

The surface geology identified by the Regolith Map of WA (DMIRS 2018) as ‘exposed rock, saprolite and saprock’.

The site largely lies within the Leaver soil-landscape system (253 ByLV). This is described as ‘*Gravelly slopes and ridges of the western Darling Plateau. Gravelly yellow and red duplexes, gravelly deep clayey sands and sandy loams over laterite and clay. E.calophylla, Dryandra spp., Adenanthos with E. wandoo and E. marginata on clay*’ (DPIRD, 2018). The southern part of the site is located within the Yalanbee soil-landscape system (253ByYA) which is described as ‘*Undulating, Darling Range upland. Pisolitic gravelly, yellowish brown soils that vary from loamy sands to clays, with pockets of pale sands and rock. E. marginata & calophylla and Dryandra on sand, E. wandoo clays and E.accedens on crests*’. Land qualities and degradation risks are outlined below

| NAME | WIND EROSION | WATER EROSION | FLOOD | LAND INSTABILITY |
|---|---|---|---|---|
| Leaver System | High risk | Low risk | Low risk | Low risk |
| Yalanbee System | High risk | Low risk | Low risk | Low risk |

Source: DPIRD, 2018

## 2.3 Vegetation and fauna

The extraction site is located on previously cleared farm land. No remnant vegetation is located within the site. Only a few scattered trees are located adjoining the existing pit and these trees will most likely be retained.

## 2.4 Hydrology

The hydrology and hydrogeology (surface and groundwater) is described below:

- Surface water catchment area (proclaimed under the *Rights in Water and Irrigation (RIWI) Act 1914* ð ìAvon River Catchmentî
- No proclaimed groundwater areas
- Hydrographic Catchment (Basin) ð Swan Coastal
- Hydrographic Catchments (Catchments) ð Swan Avon - Main Avon
- Surface Water Management Area ð Swan-Avon
- Surface Water Management Subarea ð Avon River Catchment
- No Public Drinking Water Source Areas (PDWSAîs) are located on or surrounding the property.

There are no major watercourses located on the property or close to the extraction site. Some minor watercourses flow through Lot 11 and a tributary of Jimperding Brook flows through the south-western corner of Lot 11, approximately 800 metres from the pit. Another small watercourse is located 350 metres to the north-east of the pit area and 150 metres from the future stage. All stormwater which falls on the extraction area is retained onsite and is not permitted to flow into the surrounding drainage network. The lowest part of the pit area is used as a stormwater detention basin. All water is drained and directed into the basin. The water from the basin can be used in the summer months for dust suppression.

Excavations will be above the water table and groundwater will not be intercepted. No excavation has occurred below the water table during the course of the operation to date.

## 2.5 Surrounding land use

Surrounding land is used predominantly for rural/agricultural purposes, however, given the presence of high quality basic raw material resources in the area, there are a number of other extractive industry sites in the local area, as well as landfill sites. The Opal Vale landfill site directly adjoins the quarry on Lot 11 and another clay extraction site is located at the northern end of the lot. Extractive industries also occur on Lot M1919 to the west. A few nature reserves are also located to the south of the site (Clackline Nature Reserve and Bobakine Nature Reserve).

## 2.6 Heritage

A search of the Aboriginal Heritage Database indicated that there are no Registered Heritage Sites or Other Heritage Sites on or directly adjoining the quarry. The minor watercourse at the south-western corner of Lot 11 (Jimperding Brook) is identified as a Registered Heritage Site (ID 3536 ð ûSwan Riverû).

No European heritage sites are located within or directly adjoining the property.

# 3 Statutory framework

## 3.1 State Planning Policy 1 ð State Planning Framework

The State Planning Framework including all current planning policies, strategies and guidelines of the Commission to provide a contact for decision-making for land use and development in the State.

Basic raw materials are recognised in the Framework in the following Principle:

- *Conserve the State*ís *natural assets through sustainable development.*

*State Planning Policy 2.4 ð Basic Raw Materials* is recognised under this principle.

## 3.2 State Planning Policy 2 ð Environment and Natural Resources Policy

State Planning Policy 2 aims to integrate environment and natural resource management with broader land use planning and to protect, conserve and enhance the natural environment.

Basic Raw Materials is included within Policy Measure 5.7 which states that ì*mineral resources, petroleum resources and basic raw materials are important natural resource assets and are a vital part of the economy*í. The importance of basic raw materials located in close proximity to the metropolitan area is also recognised in the Policy. It states that ì*A ready supply of basic raw materials close to developing areas is required in order to keep down the cost of land development and the price of housing*.í

The Policy sets out a list of principles which should be considered by decision-makers including

- the identification and protection of *important and economic mineral resources to enable mineral exploration and mining in accordance with acceptable environmental standards*
- the identification and protection of *important basic raw material resources and provide for their extraction and use*
- *Support sequencing of uses where appropriate to maximise options and resultant benefits to community and the environment*
- *Support, where possible, improved efficiencies in the production and consumption of mineral and basic raw material resources to ensure their availability for future environmental and human uses.*

SPP 2 supports the identification, protection and extraction of basic raw materials.

### *3.3 State Planning Policy 2.4 ð Basic Raw Materials*

State Planning Policy (SPP) 2.4 *sets out the matters which are to be taken into account and given effect to by the Commission and local governments in considering zoning, subdivision and development applications for extractive industries (for the extraction of basic raw materials) and zoning, subdivision and development applications in the vicinity of identified basic raw material resource areas*.

The policy objectives are to:

- *identify the location and extent of known basic raw material resources;*
- *protect Priority Resource Locations, Key Extraction Areas and Extraction Areas from being developed for incompatible land uses which could limit future exploitation;*
- *ensure that the use and development of land for the extraction of basic raw materials does not adversely affect the environment or amenity in the locality of the operation during or after extraction;*
- *provide a consistent planning approval process for extractive industry proposals including the early consideration of sequential land uses.*

The site is identified as a *Priority Resource Location* in SPP 2.4 which are described as *locations of regionally significant resources which should be recognised for future basic raw materials extraction and not be constrained by incompatible uses or development.*

This Clay Extraction Management Plan has been prepared in accordance with the requirements of SPP 2.4.

### *3.4 State Planning Policy 2.5 ð Rural Planning*

State Planning Policy (SPP) 2.5 aims to protect and preserve Western Australiaís rural land assets. It states that *rural land accommodates significant environmental assets and natural landscapes values, and*

*areas with mineral, petroleum, geothermal energy and basic raw materials resources, which need to be factored into planning for rural areas.*

The importance of basic raw materials is reflected in the following Policy objective:

- *Outside of the Perth and Peel planning regions, secure significant basic raw material resources and provide for their extraction*.

And is also reflected in Policy Measure which states:

- *The WAPC seeks to protect and preserve rural land for rural purposes including primary production, basic raw materials, regional facilities and protection of biodiversity and landscape*.

Policy Measure 5.9 addresses ßbasic raw materials outside the Perth and Peel Planning Regionsß. As the site is located within the Shire of Toodyay, this Policy measure applies. It states that *Basic raw materials are essential for the construction of buildings, roads and other infrastructure, and also for the sustainability of agricultural production*.

The Policy Measures are addressed in the table below.

| POLICY MEASURE | COMMENT |
|---|---|
| Significant Geological Supplies and their buffers are not to be developed for other purposes until the resource is extracted, or unless development is compatible with the future extraction of the resource. | This principle is supported by Austral Bricks. A sufficient buffer or separation distance is already established around the pit area. |
| Significant Geological Supplies and significant basic raw material resources, and an indicative separation distance or buffer, should be identified in subregional and/or local planning strategies. | The buffer or separation distance has been identified in the draft Shire of Toodyay Local Planning Strategy around the clay resources in the local area. |
| Region and local planning schemes should identify Significant Geological Supplies and significant basic raw material resources, and include provisions for their protection, access and use. | The clay resources on the site and in the local area are identified in the Shire of Toodyay Local Planning Strategy and should be reflected in the revised/new Local Planning Scheme. |

| POLICY MEASURE | COMMENT |
|---|---|
| Basic raw material resources and sites should be identified in local planning strategies and schemes as required. | The clay resources on the site and in the local area are identified in the draft Shire of Toodyay Local Planning Strategy and should be reflected in the revised/new Local Planning Scheme. |
| Region and local planning schemes should not generally prohibit the extraction of basic raw material resources. | This policy measure is supported. |
| Sequential land use planning is encouraged whereby extraction and appropriate rehabilitation can take place on a programmed basis in advance of longer term use and development. | The existing pit has undergone sequential land use planning whereby previous pit areas are now being used as a landfill site to make use of the void and the existing disturbed areas. As extraction progresses the previous stages are used for water storage and drainage management and areas of the site are recontoured as appropriate in anticipation of future rehabilitation. |
| Sensitive zones and/or land uses may be approved where it can be demonstrated they will not limit the existing or potential extraction of basic raw materials. | N/A ð no sensitive land uses are proposed near the site. |
| Where a basic raw material resource is located with native vegetation or significant biodiversity values, extraction of the resource may require referral under Part IV or Part V of the Environmental Protection Act 1986. Environmental regulation of the proposal may require vegetation retention and/or protection of other environmental assets. | N/A ð the site is not located within an area of significant biodiversity value. No vegetation clearing will be required to facilitate extraction. |
| Planning decision-makers are to have due regard to advice from environmental agencies and consider potential impacts on fragmentation and connectivity of remnant vegetation. | Noted. No vegetation clearing will be required to facilitate extraction and, as a result, there will be no fragmentation or impact to connectivity. |

| POLICY MEASURE | COMMENT |
|---|---|
| Where a basic raw material resource is located in a public drinking water source area, extraction of the resource may be subject to achieving separation distances to the groundwater table to protect water quality. Separation distances from water supply infrastructure, and other management measures to protect water quality, should be applied in planning decision-making | N/A ð there are no PDWSAîs within or surrounding the site. An appropriate separation distance of approximately 800 metres exists between the pit area and Jimperding Brook and the site is located approximately 350 metres from the watercourse to the north-west. This is adequate separation distance. The extraction will retain at least 2 metres separation to the groundwater table. |

Basic Raw Materials Fact Sheet

The Fact Sheet was prepared to assist planners implement SPP 2.5. It provides an overview of basic raw material operations, planning context and management of operations. The Fact Sheet refers to other policies and reports such as SPP 2.5, BRM Applicantîs Manual and Water Quality Protection Note 15 which provide more detailed guidelines on what a BRM application should address and how operations should be managed.

This application addresses the points in the BRM Fact Sheet, including a detailed description of the site and the operation, how the planning context relates and detailed management plans to address potential impacts such as noise, dust, visual amenity and drainage.

### *3.5 State Planning Policy 3.7 ð Planning in Bushfire Prone Areas*

State Planning Policy 3.7 provides the foundation for land use planning to address bushfire risk management in Western Australia and to inform and guide decision-makers, referral agencies and landowners to help achieve acceptable bushfire protection outcomes. It applies to development in designated bushfire prone areas.

The site is identified as being located within a îBushfire Prone Areaî on the DPLH online mapping database (2018). These areas have been mapped most likely in recognition of the native vegetation within the local area. Fire risk associated with extractive industries is generally less than the risk from general

farming as the open area of excavation forms a natural firebreak. Fire safety is incorporated into safety management for the site.

### *3.6 Shire of Toodyay Local Planning Strategy*

The Shire of Toodyay Local Planning Strategy was endorsed on the 22nd June 2018. The final Strategy is currently being prepared, however is not available to review. The draft Strategy identifies Lot 11 in the ðSpecial Useð zone. The existence of clay resources on the property is also recognised in the Strategy. Clay resources are mapped across the site and a ðbasic raw materials significant geological supplies separation distanceð is shown 500m around the clay resource area. The pit is mapped as an ðoperating mine/quarryð, and a number of other quarries are also shown in the surrounding area. Lot 11 is also affected by ðDA11 ð Opal Vale landfill bufferð which is mapped 500m around the property.

Extraction of basic raw materials is recognised in the Strategy as land use that is likely to increase over the years as pressure for relocation of extractive industries from Perth requires operators to explore new resources outside of the Metropolitan area. It states that ðplanning for the rural areas of the Shire must have regard to the potential for extraction pf basic raw materials and accommodate suitable buffer areas between sensitive land uses and extraction sitesð.

Planning for mining and extractive industries is addressed in Chapter 7.7 of the Strategy. These are set out in the table below.

| STRATEGIC DIRECTIONS & STRATEGIES | COMMENT |
|---|---|
| Facilitate the extraction of basic raw materials, subject to appropriate precautions to minimise any adverse impact on adjacent property, or on the natural environmental resources. | Existing Environmental Management Plans are already in place and contained within this report, the aim of which is to minimise potential impact to adjacent properties. |

| STRATEGIC DIRECTIONS & STRATEGIES | COMMENT |
|---|---|
| Encourage the definition of suitable buffers within LPS5 to limit the impact on adjacent property, and to avoid encroachment of sensitive development into areas subject to reduced air quality, noise or risk. | A 500 metre buffer is already identified in the draft Strategy which should be reflected in the Local Planning Scheme. Austral Bricks supports the implementation of a buffer to sensitive land uses. |
| Identify and protect basic raw materials including gravel and sand resources from inappropriate developments that would prevent their future use. | This strategy, including the protection of clay resources, is supported by Austral Bricks. |
| Identify natural resource priority areas and significant geological supplies and buffers to avoid encroachment of sensitive development into areas subject to reduced air quality, noise or other risks. | The clay resources on site are identified in the Strategy as a significant geological supply, which reflects the mapping in SPP 2.4. |
| Establish appropriate controls for extractive industries to minimise impacts on the environmental and local amenity, including roads. | Existing Environmental Management Plans are already in place and contained within this report, the aim of which is to minimise potential impact to natural environmental resources, amenity and roads. |

### *3.7 Shire of Toodyay Local Planning Scheme*

The Shire of Toodyay Local Planning Scheme No. 4 was gazetted in February 2008. The site is zoned *Special Use SU14* in the Scheme. The land uses listed are:

1. Waste disposal and treatment
2. Rural uses

The conditions are ðdevelopment of the site is to be in accordance with SAT Decision (2013) WASAT88 in regard to Matter Number DR292 2012ð and ðas per the requirements for the Rural zoneð.

Extractive industry on site is to be considered in accordance with the requirements of the ðRuralð zone. The land use ðIndustry ð Extractiveð is a ðDð use in the Rural zone. This means that the use is not permitted unless the local government has exercised its discretion by granting development approval. This application addresses the requirements of the Local Planning Scheme and requests a renewal of the Development Approval for the operation.

### *3.8 Shire of Toodyay Extractive Industry Local Law*

The Shire of Toodyay Extractive Industries Local Law were endorsed by the Shire under the *Local Government Act 1995* in June 1999. They set out the licensing requirements for extraction of basic raw materials in the Shire. This application has been prepared in accordance with the requirements of this Local Law by providing updated information on the operation and requesting a renewal of the Licence.

### *3.9 EPA Guidance Statement 3 ð Separation Distances between Industrial and Sensitive Land Uses*

The EPAís Guidance Statement No. 3 provides a guideline on the separation distances and buffers for a range of industrial land uses to sensitive land uses (such as residential dwellings). It should be noted that the distances in the policy assume the land use is not managed and, should best practice environmental management take place, these distances can be reduced.

The operations on site fit into the category *clay extraction or processing.* The potential impacts are listed as ínoiseí and ídustí. The separation distance is *500-1000 metres, depending on size and processing*, however this can be less with appropriate environmental management. In addition, no processing takes place on site which reduces the potential for impact. It should be noted that in the EPAís *Draft Environmental Assessment Guideline for Separation distances between industrial and sensitive land uses* the separation distance is 300-500 metres.

The closest sensitive land use (rural dwelling) located outside of Lot 11 is over 1,600m from the pit area (south of the site). The next closest residences are over 2,400 meters to the east and west.

The extraction area meets the minimum separation distance recommended by EPA Guidance Statement No. 3. Therefore, impacts associated with the operation (dust, noise and visual amenity) on sensitive land uses is negligible given the relatively isolated nature of the site. A detailed Environmental Management Plan is provided in Chapter 5 which addresses these matters further.

### *3.10 BRM Applicants Manual*

The BRM Applicants Manual was prepared by the DPLH in 2009 to provide a guide on the approvals process and the information required in an application. It provides a checklist for local government and applicants to make sure that all required information has been considered including site conditions, legal considerations, details of the operation and management. The checklist provided in Chapter 3.4 of the Manual is addressed below.

| SITE SELECTION CONSIDERATIONS | COMMENT |
|---|---|
| The site has safe access to major roads, and existing roads are in good condition. The access roads proposed are suitable for the volume of traffic and type of heavy vehicles. | Complied. Chitty Road and Salt Valley Road are in good condition for truck use and have been used for a number of years for this purpose. |
| The site is not in a visually significant location, such as on a ridge, or visible from major roads. | Complied. The pit is well-screened from the road. |
| The site is not situated within 500 metres to 1000 metres of any sensitive land uses, such as residential development, schools, and hospitals. | Compiled. The pit is over 1600 metres from the nearest residential property. |
| The site is not considered priority agricultural land. | Compiled. The pit is existing and is not on priority agricultural land. |
| The proposal will not involve major disturbance of acid sulphate soils. | Complied. The excavation will not disturb acid sulphate soils. |
| The proposal will not involve significant clearing of native vegetation, that is, the site is bare of vegetation from previous uses or does not contain good quality bushland of significant quantity. | Complied. No clearing of native vegetation is required. |
| The site provides adequate setback to existing wetlands, water courses and drainage lines. | Complied. The pit is 800 metres from Jimperding Brook and 350 metres from the minor watercourse to the north-east. |
| The site is not listed as a Bush Forever area. | Complied. There are no Bush Forever areas on the property. |
| The nature of the proposed activity is consistent with the current zoning, and any proposed zoning. | Complied. Extractive industries is a permitted use with Council approval. |

| SITE SELECTION CONSIDERATIONS | COMMENT |
|---|---|
| The timeframe for the proposed activity takes into account the long-term impact on the local community. | Complied. The pit is located in a rural area with low population density and with good separation from sensitive land uses, with minimal impact to the local community. |
| The proposed activity is compatible with surrounding land uses. | Complied. The surrounding land uses are other extractive industries and rural use which is compatible. |
| The proposed activity will not cause disturbance to the amenity of the area. | Complied. The pit is over 1600 metres from the nearest residential property and is not visible from the road. Dust and noise management plans are in place to reduce potential impact of operations. This all contributes to ensuring the amenity of the area is well protected. |
| The site will not have a negative visual impact on major roads, scenic areas or adjoining properties. | Complied. The pit is setback from the road a significant distance (approximately 1000 metres) and is over 1,600 metres from the nearest residential property providing adequate visual screening. Bund walls around the perimeter of the extraction area also provide additional screening. |
| The site provides an adequate separation distance to any residential or special rural area, or existing dwelling in a rural area. Typically separation distances should be 500 metres to 1000 metres. | Complied. The pit is over 1,600 metres from the nearest residential dwelling. |
| Operational issues such as hours of operation, noise and dust monitoring and site access are addressed with the view to minimising any potential noise or dust issues for surrounding sites. | Complied. There are prescribed hours of operation as well as noise and dust management plans in place. Site access is already established and well-maintained. |

| SITE SELECTION CONSIDERATIONS | COMMENT |
|---|---|
| Other relevant state and local planning policies and strategies, including but not limited to the following have been addressed:<br>¶ State Planning Policy 2.4 Basic Raw Materials<br>¶ State Planning Policy 4.1 State Industrial Buffer Policy<br>¶ extractive industry local laws<br>¶ local planning scheme provisions<br>¶ region scheme planning provisions. | Complied. Other relevant local and state planning policies have been addressed in this chapter. |

The submission checklist from the Manual is included below.

| SUBMISSION CHECKLIST | COMMENT |
|---|---|
| Written consent from owners of site. | Complied. The owners have signed the application forms. |
| DEC approval ð clearing permit (where applicable). | Complied. A clearing permit will not be required. |
| Extractive industry licence. | An extractive industry licence is being applied for. |
| Local government submission form and fees. | Complied. Forms are attached to this report. |
| WAPC submission form and fees (where applicable). | N/A ð No WAPC approval is required. |
| Certificate of title. | Complied. A certificate of title is attached. |
| Existing and proposed land contours. | Complied. The attached plans show existing contours. Proposed depth is detailed in this report. |
| Description of land ð roads, boundaries, fences, existing buildings, waterways, ridge lines, existing vegetation etc. | Complied. A detailed description of the site including vegetation, topography, hydrology, access and buildings is provided in this report. |
| Location, total area and depth of proposed excavation. | Complied. The details of the operation are provided in this report. |
| Location and proposed maximum height of stockpiles. | Complied. The details of the operation are provided in this report. |

| | |
|---|---|
| How much material is proposed to be extracted (on an annual and total basis). | Complied. The details of the operation are provided in this report. |
| Method and route(s) of proposed vehicle access to and from the site. | Complied. Transport is addressed in this report. |
| Location of proposed buildings, treatment plants, tanks etc. | Complied. The details of the operation are provided in this report. There will be only temporary structures (lunchroom and portaloo) and machinery brought in when required. |
| Noise attenuation ð hours of operation, types of vehicles to be used, maximum number of truck movements per day, earth bunding. | Complied. The details of the operation are provided in this report. |
| Screening ð location of screening and species to be planted, staging of operations. | Complied. No further vegetation screening is required, and overburden bunds are located around the perimeter of the pit. |
| Dust management plan. | Complied. A Dust Management Plan exists for the site. |
| Environmental management - measures to protect existing vegetation, acid sulphate soil management, dieback control, fire management, water quality management, drainage details, and treatment of wastes. | Complied. Various environmental management plans exist for the site and are contained in this report. |
| Rehabilitation plan. | Complied. A Rehabilitation Management Plan exists for the site. |

# 4 Works and excavation program

## 4.1 Controls

Excavation activities on site will be conducted in accordance with the *Mines Safety and Inspection Act (1994) and Regulations (1995).* Operations are managed by a licenced Quarry Manager and inspections occur on a daily basis during the excavation campaign.

Operation inspections are regularly carried out by the Resources Safety division of the Department of Mines, Industry Regulation and Safety who inspect safety, operational procedures and workplace health such as dust and noise.

Austral Bricks has procedures in place to manage safety, health, environmental impact, site completion and rehabilitation. Full personal protection is required for all persons on site at all times. All workers are required to wear full protective safety and high visibility gear when on site. All vehicles have two-way radio capability. All light vehicles will be required to register at the transportable building on site. The site is within mobile phone contact and all vehicles are equipped with two-way radios.

It is anticipated that the deepest excavation will be approximately 15 metres below natural ground level. Fences and warning signs required by the Department of Mines, Industry Regulation and Safety and the Shire of Toodyay will be maintained.

## 4.2 Excavation procedure

This application is for the continued extraction of clay on Lot 11. Excavation of clay takes place in a sequence of steps which can be broadly broken down into the Earthworks Campaign (i.e. removal of topsoil and overburden, excavation of clay to stockpile) and Carting Campaign (transport of clay from the pit or stockpiles to the factories).

### Earthworks campaigns

An earthworks campaign refers to the excavation and stockpiling of material. No processing will take place on the site. This operational procedure has been determined to help minimise disturbance to the neighbouring residents and other locals. An Earthworks campaign will take place for 6-8 weeks each year during the summer months, over this time overburden will be removed and clay excavated and pushed into stockpiles for carting. Excavation activities last only for a short period of time overall, and for a majority of the year there will be no extraction taking place.

There are two types of clay present on this site ð red clay as the first layer and white clay lies underneath. Both clay types are required at the same time (to provide for different colour bricks) and as a result, one area of the existing pit is extracted for red clay and another, deeper part of the pit is extracted for white clay. The red clay is currently being extracted from the northern area of the pit and white clay is currently being extracted within the central area of the pit. As the red clay is removed it reveals the white clay underneath.

### Cartage campaigns

The cartage campaign refers to removal of material from the site. Loading and carting from the site depends on the market demand for bricks, as well as the types of clay/colour of clay. As a result, truck movements can vary depending on demand for clay at a particular time. There will be some weeks when truck movements can be higher than others. There will also be many occasions where there will be no trucks visiting the site for many weeks at a time.

It is expected that most truck movements will be over an 8-10 week period in the summer months, however the application seeks approval for truck movements at other times during the year to allow Austral Bricks to cater for demand. Approximately 70,000 tonnes of clay is removed from the site annually which equates to 1,600 truck loads (and 3,200 truck movements in total) each year.

### Summary

In general the steps will involve the following:

- Topsoil will be removed and stockpiled for later use at the decommissioning stage. Topsoil stockpiles will be 0.5-1.5 metres in height.
- Overburden will be removed from the pit area to a depth of approximately 1-2 metres. It will be stockpiled for later use in site recontouring. The overburden stockpiles will be located adjacent to the pit area for readiness to push into the pit as part of land recontouring.
- Clay will be excavated by a bulldozer, scraper or excavator and will be pushed into stockpiles ready to be picked up by clay transport trucks.
- The depth of excavation will vary depending on the availability of the resource, however the pits are expected to reach depths of up to 15 metres.
- Excavation will keep progressing in a north-west/north-easterly direction. Previously excavated areas are now used as a water detention basin and for drainage management.
- Material is carted from the site when required, generally over a cartage campaign lasting from 8-10 weeks during the summer months.
- It is estimated that there will be approximately 1,600 truck loads exiting the site per annum.
- Approximately 70,000 tonnes of clay is moved per annum.

Hours of operation

The hours of operation will be from 06:00-17:00 hours from Monday to Saturday. No operation will occur on Sundays or Public Holidays.

### *4.3 Stages and timing*

The extraction has progressed through a number of previous stages (including the area which is now a landfill site by a different operator). There are further resources available within the existing stage, and a future stage has been identified to the north-east of the existing pit. The existing excavation will continue to move progressively north as demand requires. As was described earlier, there are two types of clay present in layers ð red clay is located on the top layer with white clay underneath. Both clay types are required at the same time (to provide for different colour bricks) and as a result, one area of the existing pit is extracted for red clay and another, deeper part of the pit is extracted for white clay. Both red and white clay is currently being extracted from the current stage. It should be noted that the rate of extraction will vary depending on the demand for clay and other external factors.

### *4.4 Depths and extent of excavation*

The pit is located at the southern end of Lot 11. The extent of excavation (existing pit area and the next stage) will generally follow the pit outline as indicated in the plan at Appendix B. The pit area (including future stages) will be approximately 2.84 hectares.

The deepest part of the existing pit is approximately 15 metres deep around the detention basin. The existing white clay excavation area is approximately 6-8 metres deep and it is expected that this area will be excavated a further 5-6 metres to 15 metres deep.

### *4.5 Overburden*

Overburden will be removed prior to excavation commencing in new areas. The depth of overburden is approximately 1-2 metres. Overburden is used to create bunds along the perimeter of the site and around the pit to assist is drainage management (i.e. to prevent water runoff from the site) and ready to be pushed back into the pit area for future recontouring.

Topsoil is stored in accordance with Agriculture WA soil conservation guidelines.

### *4.6 Site preparation*

As the site has been used for clay extraction for the past 30 years, minimal site preparation is required to continue extraction.

The site has already been previously cleared for agriculture and therefore no clearing will be required to facilitate extraction. Overburden bunds have been established around the pit and site drainage procedures are already in place.

Safety measures such as fencing, signage and gates have been established where necessary. Access to the site is already established from Chitty Road and internal tracks exist through the property to the pit area to provide access for trucks.

### *4.7 Access arrangements*

The existing access from Chitty Road will be used to gain access to the extraction site. This access is located at the south-western corner of Lot 11. Trucks enter the site from the north and exit in the same direction. An internal gravel track provides access to the pit area from Chitty Road. This track is only used by the Austral Bricks trucks. A separate access is located at the northern end of Lot 11 for the other land uses on Lot 11 (the landfill site and the other clay extraction pit), meaning that trucks associated with the Austral Bricks operation are separated from the other vehicle movements on the property.

Two separate access points are provided to the pit area to provide access to the white and red clays. A track is located at the southern end of the pit which provides access to the existing white clay pit area. A separate track is located at the northern end of the pit to provide access to the red clay pit.

Unauthorised access to the site is restricted by a locked gate at the entrance to the property.

### *4.8 Truck movements*

Trucks will access the site during the ìcartage campaignî in the summer months to access the stockpiles created during the excavation program. As the rate of extraction is not expected to change from the previous approval, there will be no variations to the number of trucks accessing the site. However, it should be noted that due to the nature of the business, there may be some variation due to the cyclic demand for clay building products. The carting regime will also vary depending on the weather and demand for the particular type of clay.

The truck movements are not expected to vary from the previous approval. It is estimated that there will be approximately 1,600 trucks accessing the site each year to transport 70,000 tonnes of clay. This equates to approximately 3,200 movements annually. It is expected that most truck movements will be for 8-10 weeks over the summer months.

Assuming the most intensive cartage campaign of 8 weeks per year, the maximum truck movements are broken down as follows:

- Approximately 1,600 trucks per year
- Approximately 200 trucks per week
- Approximately 33 trucks per day
- Approximately 3 trucks per hour.

It should be noted that the above example represents a likely rare occurrence when all clay is carted during an 8 week period. In reality, while most clay will be carted during the summer months, there may be occasions when trucks access the site at other times.

Trucks used for the extraction are 8 wheel truck and dog combinations with gross weight of 64 tons and payload of 42 tons.

### *4.9 Plant and on-site equipment*

No permanent structures associated with the clay pit will be situated on the site.

The equipment required for excavation will be brought in on a seasonal basis and will include scrapers, a bulldozer, a front-end loader, a water cart and a grader. This equipment is removed at the end of each ßearthworks campaignß.

No storage of fuel and oil is required on site. Vehicles are refuelled on the floor of the excavation or operational area, as currently occurs. No chemicals are stored on site. A Refuelling Management Plan is at Chapter 5.5.

No processing, crushing, screening or blasting will occur on site.

All supplies will be delivered and rubbish will be stored in large bins which will be emptied at an appropriate rubbish tip.

A small transportable lunch room will be located on site during the earthworks campaign and for the cartage campaign. A portable chemical toilet system will be used and serviced on a weekly basis by the supplier when the site is operational. These temporary structures will only be required during the earthworks campaign and cartage campaigns.

### *4.10 Public Safety*

Public access to the site is restricted and appropriate warning signs are placed at the entrance regarding quarrying and restricted entrance. The site has locked gates when it is not being worked.

Work on site (excavation and cartage) will be discontinuous for most of the year and there will be periods of time throughout the year when no activity will take place on site. The excavation campaign will be approximately 4 weeks duration and a majority of the carting/truck movements are expected to be over a 8-10 week period, which is only approximately 3 months total over the course of a year. This reduces the risk to public safety from machinery and truck movements.

### *4.11 Workforce*

Workers will be on site primarily during earthworks campaign or carting campaigns. At such times the workforce will vary from 1-6 workers in addition to the truck drivers who enter and leave the site.

### *4.12 Bushfire management*

Fire risk associated with extractive industries is generally less than the risk from general farming as the open area of excavation forms a natural firebreak. The pit area can be used for the emergency muster area. Fire safety is incorporated into safety management for the site.

Water contained within the detention basin can be available for firefighting if required. Earth moving equipment and the water tanker are also available for firefighting (if located on site).

# 5 Environmental management plan

## 5.1 Introduction

Environmental management is achieved through implementation of a variety of management plans throughout the duration of the operation. Compliance with these environmental management commitments can also be monitored by Local Government through the Planning Approval and Licence.

The primary aim of this Environmental Management Plan is to ensure the clay extraction activities have minimal environmental impacts and to help return the land to an appropriate end use. This chapter includes the following individual management plans:

- Dust Management Plan
- Noise and Vibration Management Plan
- Drainage Management Plan
- Separation distances and buffers
- Visual management
- Waste management
- Rehabilitation Management Plan
- Final Site Clean-up.

## 5.2 Risk Matrix

Management of the clay extraction operation is summarised in the risk matrix below. The matrix is based on the criteria in the Department of Water and Environmental Regulation's *Guidance Statement: Risk Assessments (2017)*. In general, given the site is already being used for extractive industries on rural land, there is minimal impact to the natural environment, and due to its relatively isolated nature, is adequately separated from sensitive land uses. There are existing management plans in place to address potential impacts such as dust, noise, water and waste. As a result, the risk matrix identifies all potential risks as 'Low'.

| FEATURE | ISSUE | UNMANAGED RISK | | | MANAGEMENT | MANAGED RISK | | |
|---|---|---|---|---|---|---|---|---|
| | | Likelihood | Consequence | Risk | | Likelihood | Consequence | Risk |
| Native Vegetation<br>(Maintain vegetation values, diversity and ecological functions). | Vegetation and flora may be significantly impacted. | Rare | Slight | Low | No native vegetation will be cleared and no management is required. | Rare | Slight | Low |
| | Threatened Communities may be impacted. | Rare | Slight | Low | No native vegetation will be cleared and no management is required. | Rare | Slight | Low |
| | Priority species may be impacted. | Rare | Slight | Low | No native vegetation will be cleared and no management is required. | Rare | Slight | Low |
| | Threatened Species may be Impacted. | Rare | Slight | Low | No native vegetation will be cleared and no management is required. | Rare | Slight | Low |
| | Weeds may be introduced to areas of native vegetation, become established and impact on the local environment. | Possible | Slight | Low | Machinery and personnel will not be permitted to enter areas of native vegetation on the property. | Rare | Slight | Low |
| | Dieback may be introduced or become present and impact on the local and onsite vegetation. | Rare | Minor | Low | Machinery and personnel will not be permitted to enter areas of native vegetation on the property. No native vegetation is located within the operation/pit area. | Rare | Slight | Low |
| | Fragmentation to vegetation and ecological linkages. | Rare | Slight | Low | No native vegetation will be cleared and no management is required. | Rare | Slight | Low |

| FEATURE | ISSUE | UNMANAGED RISK | | | MANAGEMENT | MANAGED RISK | | |
|---|---|---|---|---|---|---|---|---|
| | | Likelihood | Consequence | Risk | | Likelihood | Consequence | Risk |
| Fauna<br><br>(Maintain habitat and fauna communities). | Native fauna (individuals and communities) significantly impacted by the operation through land clearing, introduction of weeds and disease and activities on site. | Rare | Slight | Low | No habitat will be removed and no fauna management is required. | Rare | Slight | Low |
| | Threatened and Priority Fauna disturbed and impacted by the operation (predominantly through clearing). | Rare | Slight | Low | No habitat will be removed and no fauna management is required. | Rare | Slight | Low |
| Water<br><br>(Avoid impact to surface and ground water features and maintain hydrological regimes and water quality). | Hydrological impact to surface water features (watercourses and/or wetlands) through draining/flooding or changes to water regimes. | Rare | Slight | Low | There will be no impact to local watercourses, all stormwater will be retained on site and an adequate separation distance exists. | Rare | Slight | Low |
| | Impact to ecological functions and biodiversity of wetlands and watercourses. | Rare | Slight | Low | There will be no impact to local watercourses and an adequate separation distance exists. | Rare | Slight | Low |

| FEATURE | ISSUE | UNMANAGED RISK | | | MANAGEMENT | MANAGED RISK | | |
|---|---|---|---|---|---|---|---|---|
| | | Likelihood | Consequence | Risk | | Likelihood | Consequence | Risk |
| | Water quality impact caused from hydrocarbons, fuels and chemicals being incorrectly stored. | Possible | Moderate | Med | Fuel and hydrocarbon management in place. Refuelling Management Plan for the operation. | Rare | Slight | Low |
| | Water quality of surface impacted from runoff and introduction of sediment and any other materials. | Possible | Moderate | Med | Water Management Plan prepared for the operation which ensures that all run-off is contained on site. | Rare | Slight | Low |
| | Impact to groundwater through changes to hydrology (changes to recharge, pumping, alterations to flow etc). | Rare | Slight | Low | The operation lies above the groundwater table and does not intersect groundwater. | Rare | Slight | Low |
| Land (Maintain the integrity, safety of landform and soils). | Soils subject to significant water and wind erosion. | Possible | Minor | Med | Soils have higher wind erosion risk and low water erosion risk. Wind erosion risk can be managed through the Dust Management Plan. | Unlikely | Slight | Low |
| | Risk of acid sulphate soils forming. | Rare | Slight | Low | There is no evidence of acid sulphate soil conditions. | Rare | Slight | Low |
| | Local landform not being recontoured to be compatible with the surrounding landscape. | Rare | Minor | Low | | Rare | Slight | Low |

| FEATURE | ISSUE | UNMANAGED RISK | | | MANAGEMENT | MANAGED RISK | | |
|---|---|---|---|---|---|---|---|---|
| | | Likelihood | Consequence | Risk | | Likelihood | Consequence | Risk |
| | The final landform creating visual impact. | Rare | Slight | Low | The site is well screened from the road and the public realm and adequately separated from sensitive land uses. | Rare | Slight | Low |
| Heritage<br><br>(Protection of known heritage sites). | Impact to Aboriginal Heritage Sites. | Rare | Minor | Low | No Aboriginal Heritage sites are located on site. The nearby Jimperding Brooke will be protected from the operation (Registered Heritage Site). | Rare | Slight | Low |
| | Impact to sites of European heritage. | Rare | Slight | Low | No European heritage sites are located on site. | Rare | Slight | Low |
| Off-site impacts<br><br>(Ensure that operations have minimal off-site impact from noise, dust and traffic and minimise impact to the local community) | Noise levels cause impact to sensitive land uses (such as residential properties). | Possible | Minor | Med | Noise management in place. Noise Management Plan has been prepared. | Rare | Slight | Low |
| | Dust emissions cause impact to sensitive land uses (such as residential properties) and cause impact off-site. | Possible | Minor | Med | Dust management procedures are in place.<br><br>Dust Management Plan has been prepared. | Rare | Slight | Low |
| | Buffers and separation distances are not adequate enough to reduce impact on sensitive land uses. | Rare | Slight | Low | The closest sensitive land use is over 1,600 metres away from the operation which is significantly farther than the minimum separation recommended of 500-1000 metres. | Rare | Slight | Low |

| FEATURE | ISSUE | UNMANAGED RISK | | | MANAGEMENT | MANAGED RISK | | |
|---|---|---|---|---|---|---|---|---|
| | | Likelihood | Consequence | Risk | | Likelihood | Consequence | Risk |
| | Impact of truck use on local and regional roads and traffic. | Possible | Minor | Med | Road enhancement (widening and resurfacing) and regular maintenance takes place to provide appropriate road conditions for trucks. | Rare | Minor | Low |
| | Impact of the operation on visual amenity and that the pit area can be seen from the public realm. | Rare | Slight | Low | The site is well screened from the road and is adequately separated from the nearest sensitive land uses. | Rare | Slight | Low |

The risk matrix is defined below.

| Likelihood | Consequence | | | | |
|---|---|---|---|---|---|
| | Slight | Minor | Moderate | Major | Severe |
| Almost certain | Medium | High | High | Extreme | Extreme |
| Likely | Medium | Medium | High | High | Extreme |
| Possible | Low | Medium | Medium | High | Extreme |
| Unlikely | Low | Medium | Medium | Medium | High |
| Rare | Low | Low | Medium | Medium | High |

The following criteria has been used to determine the likelihood of the risk occurring.

| Likelihood | | | | |
|---|---|---|---|---|
| Almost certain | Likely | Possible | Unlikely | Rare |
| The risk event is expected to occur in most circumstances. | The risk event will probably occur in most circumstances. | The risk event could occur at some time. | The risk event will probably not occur in most circumstances. | The risk event may only occur in exceptional circumstances. |

The consequence criteria are described in the table below.

| Criteria | Consequence | | | | |
|---|---|---|---|---|---|
| | Slight | Minor | Moderate | Major | Severe |
| Environment | ¶ On-site impact: minimal (No discernible adverse impact). | ¶ On-site impacts: low level (discernible effect on the environment but no adverse impact)<br>¶ Off-site impacts local scale: minimal<br>¶ Off-site impacts wider scale: not detectable<br>¶ Minor number of individuals of species may be affected locally. | ¶ On-site impacts: mid level (Minor adverse affect to the environment)<br>¶ Off-site impacts local scale: low level<br>¶ Off-site impacts wider scale: minimal<br>¶ Moderate loss of individuals of species locally. | ¶ On-site impacts: high level (moderate impact to the environment)<br>¶ Off-site impacts local scale: mid level<br>¶ Off-site impacts wider scale: low level<br>¶ Short term impact to an area of high conservation value or special significance^<br>¶ Moderate damage to ecosystem function and major loss of individuals of species locally. | ¶ On-site impacts: catastrophic (significant impact to the environment)<br>¶ Off-site impacts local scale: high level or above<br>¶ Off-site impacts wider scale: mid level or above<br>¶ Mid to long term or permanent impact to an area of high conservation value or special significance^<br>¶ Significant long-term damage/loss of ecosystem function and loss of individuals of species locally. |
| Public Health and Amenity | ¶ Local scale: minimal to amenity. | ¶ Local scale impacts: low level impact to amenity. | ¶ Adverse health effects: low level or occasional medical treatment<br>¶ Local scale impacts: mid level impact to amenity. | ¶ Adverse health effects: mid level or frequent medical treatment<br>¶ Local scale impacts: high level impact to amenity. | ¶ Loss of life<br>¶ Adverse health effects: high level or ongoing medical treatment<br>¶ Local scale impacts: permanent loss of amenity. |

^ Determination of areas of high conservation value or special significance should be informed by the Guidance Statement: Environmental Siting.

*¶onsite¶ means within the Lot boundary.

## *5.3 Dust management plan*

### Introduction

Dust Management Plan aims to describe the measures that will be used by Austral Bricks to reduce the creation and effect of dust. These actions are described further below. It has been prepared in accordance with the *Guidelines for Managing the Impacts of Dust and Associated Contaminants from land Development Sites, Contaminated Sites, Remediation and Other Related Activities* (Department of Environment and Conservation, 2011).

There are a number of factors that need to be considered when preparing a Dust Management Plan for a particular site/operation, including the potential for dust generation, the course of dust, and the types of activities that might generate dust.

Dust is solid airborne particles that are dispersed into the air from soil disturbance. This can be caused by activities such as traffic moving across the pit and along gravel access tracks, excavation of material and movement of material from stockpiles onto trucks. The potential for dust generation is generally only during the excavation and carting programs which will only be for a few months of the year. The potential for dust generation during the wetter months is low due to the moisture content of the soil.

Excessive dust has the potential to impact on both the on-site workers and adjoining landowners by travelling off-site. Potential impacts are addressed by reducing the dust generation from quarrying, transporting around the site and onto trucks. Experience with the existing operation is that dust can be managed through implementation of appropriate dust management procedures.

The objectives of the Dust Management Plan are:

- To manage the potential for dust generation
- To ensure dust does not disperse past the lot boundaries
- To reduce the potential for dust to impact of the local area.

## Site Conditions

The physical characteristics of the site are described in Chapter 2 above. Some of the key points that relate to the Dust Management Plan are outlined below:

- The site is relatively isolated and is surrounded by other excavation sites and rural land uses
- The nearest sensitive receptor located off-site is approximately 1,600 metres from the pit and the closest dwelling located on the property is 450 metres from the site.
- The site has historically been used for extractive industry for over 20 years, and previous to that was used for agriculture
- There is no known contamination within the site or in the pit area
- The soil is described as gravelly yellow and red duplexes, gravelly deep clayey sands and sandy loams over laterite and clay. The pit area itself is comprised of red and white clays and the access roads are comprised of gravel.
- The local area experiences a Mediterranean climate which experiences cool, wet winters and hot dry summer. A majority of rain occurs in the Winter months (May-August) and summer months can be typically dry.

## Impact analysis

*Site features and characteristics*

The plans at Appendix B display the features of the site and the operation such as:

- Aerial photo
- Topography
- Surrounding land uses
- Cadastre (property boundaries) and the extraction area boundary
- Access tracks, roads and site entrance/exit
- Extraction area, direction of extraction, detention basin, internal tracks, pit face, bund walls/overburden etc.
- Surrounding natural features such as vegetation and watercourses.

*Operation*

A detailed description of the operation is contained in Chapter 4. An Aspect and Impact Assessment is provided below (in accordance with the Departmentís Guidelines, 2011) and provides a description of the potential for dust impact at each step of the operation.

| ACTIVITY | DURATION | ASPECT | IMPACT |
|---|---|---|---|
| Site preparation ð vegetation clearing | N/A | N/A | N/A |
| Stripping topsoil and overburden and stockpiling | 2 weeks | Stripping topsoil disturbs and creates a potential for particles to be released to the air. | Sensitive receptors adjacent to the site could be exposed to dust, causing health effects. |
| | | Stockpiling topsoil releases dust particles to the air. | |
| Excavation of clay | 8 weeks | Excavation of clay can release dust particles to the air. | |
| Loading onto trucks and carting from site | 8-10 weeks | Loading of clay onto trucks can release dust particles to the air. | |
| | | Truck movements through the pit floor and along access tracks can release dust into the air. | |

*Site classification*

The below site risk assessment/classification has been prepared for the site in accordance with the Departmentís Guidelines (2011). The classification determines the level of dust management and monitoring required for the site.

The site has a classification of ô1ô which is a score of under 199 and is considered ônegligible riskô. No management is recommended for this classification, however, dust management is provided or the site in accordance with the next classification level ôlow riskô.

## Management Plan

*Purpose*

The purpose of the Dust Management Plan is to help Austral Brick to achieve the objectives of the Plan. It includes actions such as dust control measures, corrective action and complaints protocol.

*Separation distances*

As is discussed earlier, the clay pit is relatively isolated and has an adequate separation distance to the nearest sensitive land use located off the property. The nearest residential dwelling is located approximately 1,600 metres from the pit, which is well-above the 500-1,000 metre generic buffer distance recommended by EPA Guidance Statement No. 3. This separation distance helps to reduce the potential for dust to travel to sensitive land uses.

*Complaints Procedure*

The complaints procedure is described below. It is also important that all complaints are recorded. The following activities will be conducted:

- Complaints made to the operator will be documented and dealt with expeditiously.
- Complaints received either directly from the complainant or via the Shire of Toodyay will be reviewed by the operator and interested parties to assess:

  (i) the legitimacy of the complaint;

  (ii) the aspects of the operation that triggered the complaint;

  (iii) management actions required to address the issues raised to bring operations into line with conditions imposed on the extractive operation by the Shire of Toodyay under the Extractive Industries Licence.

- Actions deemed necessary to bring operations into line with relevant legislation, regulation and license conditions will be undertaken immediately and before works are recommenced.
- Summaries of complaints and actions taken to address each specific issue will be recorded in the Complaints Register (See Appendix E).

Complainants and the Shire of Toodyay will be notified in writing of the date, time and nature of the complaint received, results of the investigation, remedial actions undertaken and date and time of recommencement of works. If any complaints are received, necessary action will take place to help rectify the issue.

*Dust Control Measures*

Dust suppression is generally achieved through the use of a ïdust suppression agentï, most commonly water. The application of water over areas prone to the generation of dust helps to reduce the likelihood that small dust particles which will be picked up by the wind.

Water will be available from the detention basin located at the base of the pit area. Watering will be undertaken as required utilising a water cart. The frequency and amount of water applied will be dependent upon local conditions and observable dust generation. The quantity of water to be used will vary as conditions will change from day to day.

All trucks will be covered by Enviro-tarp prior to leaving the site to control dust generation during transport. The Resource Manager will also make random checks at the site to ensure that dust suppression is adequate.

If weather conditions are adverse (i.e. particularly strong winds are making dust management difficult), then operations will stop until the weather improves.

Machinery and vehicles will be maintained in good working condition. The bunds will be maintained to provide a physical barrier to the movement of dust.

Summary

| POTENTIAL IMPACT | MANAGEMENT/ACTION | COMMITTMENT | TIMING |
|---|---|---|---|
| Potential impact on adjoining sensitive land uses. | 1. Maintain adequate separation distances to sensitive land uses on adjoining properties. | Impact to surrounding areas from dust will be minimised by complying with the Excavation Management Plan. | Ongoing |
| | 2. Excavate from the pit floor which will generally be below natural ground level. | | Ongoing |
| | 3. Create and maintain screening barriers with overburden. | | Ongoing |
| | 4. Maintain all equipment in good condition. | | Ongoing |
| | 5. Maintain internal access roads in good condition. | | Ongoing |
| | 6. Wet down access roads and pit areas with water as required. | | Ongoing |
| | 7. Wet down and cover loads on trucks as required. | | Ongoing |
| | 8. Schedule activities such as removal of top soil and overburden at times when materials are less likely to blow or during suitable wind conditions. | | Ongoing |
| | 9. When winds are sufficiently strong to negate the effects of dust management, operations will cease until conditions improve and compliance can be achieved. | | Ongoing |
| | 10. All non-conformances and dust related complaints immediately reported to the Quarry Manager. | | Ongoing |
| | 11. Following complaints, the source of any excessive dust will be identified and work practices will be modified or re-scheduled to reduce or eliminate the risk of future events. | | Ongoing |
| | 12. Continue training programmes on dust control requirements to all workers and contractors. | | Ongoing |

## *5.4 Noise and vibration management plan*

### Introduction

This Noise Management Plan aims to provide the measures that will be used by Austral Bricks to reduce the creation and effect of noise producing activities. The clay extraction process does not involve blasting or major noise-generating practices. Noise generated from work on site is largely from trucks and earthmoving equipment. It has the potential to impact on site workers and nearby sensitive land uses

(such as residential dwellings). This can be addressed by reducing the noise generated by the operations and ensuring adequate separation distances.

The operator of the site makes the following commitments in relation to noise:

1. Manage noise levels in accordance with the *Environmental Protection (Noise) Regulations 1997*.
2. Monitor noise levels upon instruction from the Department of Water and Environmental Regulation.
3. Manage vibration in accordance with *Australian Standard AS 2670.2 ð Evaluation of Human Exposure to Whole Body Vibration (1990)*
4. Manage noise levels to workers on site in accordance with the *Mines Safety and Inspection Act 1994 and Regulations 1995*.

The objectives of the Noise Management Plan are:

- To manage the potential for noise generation
- To reduce the potential for noise to impact of the local area.

### Noise mitigation and management

Noise can potentially generate from vehicle movements within the pit area and when transporting clay from the stockpile area. Noise-generating activities are of particular importance to sensitive land uses, such as dwellings. Being located in a rural area, the nearest off-site dwellings are a significant distance from the site. The closest dwellings off-site are located over 1,600 meters from the extraction area which is well-above the separation distance recommended by EPA Guidance Statement No. 3 (which is between 500-1000 metres). The dwelling on the property is located approximately 400 metres from the pit area.

Normal clay excavation is a relatively quiet operation (as no blasting or processing takes place on site). Excavation will be below the natural ground level and the site is surrounded by overburden to provide additional noise buffers. As extraction progresses the ground level will lower, resulting in the operation of machinery at levels below the surrounding ground level. This will act as a noise insulator and significantly reduce any residual noise associated with the operation of machinery on site. Occasionally an excavator

or bulldozer may be required to work from natural ground level to increase efficiency or safety. Ripping or pushing by a bulldozer on the natural ground level has the potential to be the noisiest part of the operation.

All equipment used for excavation is relatively new and well maintained which aims to minimise noise generation. All vehicles use broadband reversing beepers to reduce noise emissions. Noise levels will be governed by the *Environmental Protection (Noise) Regulations 1997*. The noise emitted by the main excavation equipment on site (i.e. excavator and loader) is similar to that of farm machinery, therefore there will be minimal noise impact to sensitive land uses.

Operations will only take place during the approved hours of operation, which is in compliance with the Noise Regulations.

All workers will be supplied with noise protection equipment and noise management will be in accordance with the *Mines Safety and Inspection Act 1994 and Regulations 1995.* Regular site audits are undertaken by the Department of Mines, Industry Regulation and Safety.

*Complaints Procedure*

The complaints procedure is described below. It is essential that any complaints relating to the creation of excessive noise are recorded, further investigated and acted on. The following activities will be conducted:

- Complaints made to the operator will be documented and dealt with expeditiously.
- Complaints received either directly from the complainant or via the Shire of Toodyay will be reviewed by the operator and interested parties to assess:

  (i) the legitimacy of the complaint;

  (ii) the aspects of the operation that triggered the complaint;

  (iii) management actions required to address the issues raised to bring operations into line with conditions imposed on the extractive operation by the Shire of Toodyay under the Extractive Industries Licence.

- Actions deemed necessary to bring operations into line with relevant legislation, regulation and license conditions will be undertaken immediately and before works are recommenced.
- Summaries of complaints and actions taken to address each specific issue will be recorded in the Complaints Register (See Appendix E).

Complainants and the Shire of Toodyay will be notified in writing of the date, time and nature of the complaint received, results of the investigation, remedial actions undertaken and date and time of recommencement of works. If any complaints are received, necessary action will take place to help rectify the issue.

### Vibration management

Vibration is not expected to be an issue due to the relatively small nature of machinery on site, and the lack of blasting. The operator will comply with the *Australian Standard AS 2670.2 ð Evaluation of Human Exposure to Whole Body Vibration (1990)*.

Noise management procedures are set out in the table below.

| POTENTIAL IMPACT | MANAGEMENT/ACTION | COMMITMENT | TIMING |
|---|---|---|---|
| Noise may impact on adjoining sensitive land uses. | 1. Maintain adequate separation distances to sensitive land uses on adjoining properties. | Impact to surrounding areas from noise will be minimised by complying with the Excavation Management Plan. | Ongoing |
| | 2. Excavate from the floor of the pit which will generally be below natural ground level. | | Ongoing |
| | 3. Create and maintain screening barriers (bund walls) with overburden. | | Ongoing |
| | 4. Adhering to the hours of normal operation, with work conducted in the hours identified in the application. | | Ongoing |
| | 5. All plant equipment and vehicles being fitted with appropriate noise suppression equipment to reduce noise levels so far as is practicable, with machines the quietest reasonably available. | | Ongoing |
| | 6. Maintain all equipment in good condition. | | Ongoing |

| POTENTIAL IMPACT | MANAGEMENT/ACTION | COMMITMENT | TIMING |
|---|---|---|---|
| | 7. All non-conformances and noise and vibration related complaints immediately reported to the Quarry Manager. | Comply with the *Environmental Protection (Noise) Regulations 1997* and the *Mines Safety and Inspection Act 1994 and Regulations 1995.* | Ongoing |
| | 8. Following complaints, the source of any excessive noise or vibration will be identified and work practices will be modified or re-scheduled to reduce or eliminate the risk of future events. | | Ongoing |
| | 9. Continue training programmes on noise control requirements to all workers and contractors. | | Ongoing |

## *5.5 Water Management Plan*

### Introduction

The aim of the Water Management Plan is to ensure that extractive industry activities do not have an adverse impact on water resources. It sets out the drainage management procedures and the guidelines in the event of a storm or emergency. It has been prepared in accordance with the Department of Water's *Water Quality Protection Note 15 Extractive Industries Near Sensitive Water Resources*. Relevant recommendations are included in the management plan below. The below water management procedures aim to ensure proper protection of surrounding water resources from the extractive industries operation.

Recommendation 1 in the Protection Note states that '*extractive industries should be an accepted land use near most sensitive water resources provided the operator adheres to regulatory conditions designed to meet local planning, environmental and water source protection objectives*'.

### Site conditions

Hydrology of the site is discussed in detail in Chapter 2. In summary, the site has the following features:

- No Public Drinking Water Source Areas

- No wetlands within the site
- Closest watercourses are Jimperding Brook located 800 metres to the south-west and another minor watercourse 350 metres to the north-east
- Water on site is retained and collected in a detention basin at the base of the pit.

The local Toodyay area receives a majority of rainfall between the months of May to August. The existing pit area has the capacity to retain water from high rainfall/storm events.

### Management Actions

Water management procedures are based on the Department of Water's *Water Quality Protection Note 15 Extractive Industries Near Sensitive Water Resources*. The recommendations from the Protection Note and management actions are set out in the table below.

| Recommendation | Management Action/Comment |
|---|---|
| Recommendation 7<br>'Quarries should not be established on land subject to seasonal flooding, within defined flood plains or within waterway foreshore areas'. | The quarry is not located within land subject to seasonal flooding or in a flood plain or flood prone area. |

| Recommendation | Management Action/Comment |
|---|---|
| Recommendation 8<br>ÛAn adequate separation distance should be maintained between land disturbed by any extractive industry and waterways (including foreshore areas) to protect their ecological and social values and prevent degradation to water quality.Û | As is described in Chapter 2.4, there are no major surface water features (watercourses or wetlands) within or directly adjoining the extraction area. A tributary of Jimperding Brook flows through the south-western corner of Lot 11, approximately 800 metres from the extraction area. This is adequate separation distance from the watercourse. Another small watercourse is located 350 metres to the north-east of the pit area and 150 metres from the future stage. Maintenance of an adequate separation distance and vegetated buffer complies with Recommendations 8 and 19 of *Water Quality Protection Note No. 15*. The separation distance from all watercourses is more than adequate in accordance with *Operational Policy 4.3 ð Identifying and Establishing Waterways Foreshore Areas.* |
| Recommendation 9<br>ÛNatural vegetation buffers improve water quality by filtering potentially contaminated water before it enters a water body. Vegetation density and landform are important considerations when determining appropriate separation distances between land uses and waterways.Û | The Brook is vegetated which helps to maintain the ecological integrity and biodiversity value. The area between the pit and the watercourse to the north-east is also sparsely vegetated. |
| Recommendation 15<br>ÛExtractive industries should not harm native vegetation (unless permitted by a clearing licence or permit).Û | No clearing of vegetation is proposed, however if any clearing is required, a Clearing Permit will be applied for with the Department. |

| Recommendation | Management Action/Comment |
|---|---|
| Recommendation 24<br>ÿQuarries near wetlands and waterways should not disturb peat land, floodways or the groundwater table, unless the development proposal has undergone an Environmental Impact Assessment and is approved by the Minister for the Environment.ÿ | N/A The quarry is not located near a wetland or waterway. |
| Recommendation 27<br>ÿQuarry operators should use existing roads and tracks where practical. New access ways onto major roads should not be created.ÿ | Access tracks are already established and will continue to be utilised. |
| Recommendation 28<br>ÿQuarries should have security fencing and locked gates to prevent public access outside of operating hours.ÿ | The site already has all security in place. |
| Recommendation 30<br>Small-scale extractive industry sites may not have toilet and washroom facilities or an on-site wastewater treatment system. For these sites, a chemical toilet should be provided for staff. The toilet facility should be maintained in good working order and waste disposed of at a facility authorised under the Health Act 1911. | A temporary portaloo is located on site for workers during the summer months which are pumped and waste taken off-site. No wastewater systems are provided on site. |
| Recommendation 37<br>ÿAll vehicle and plant fuelling facilities (including mobile power generators) should be placed and operated within low-permeability (less than 10-9 m/s) bunded compounds designed to allow effective recovery of any fuel spill without fluid loss to the environment.ÿ | Fuel and chemical management is set out in the Refuelling Management Plan. No fuel facilities are provided and no chemical or pesticide storage takes place on site. Mobile fuel trucks visit the site to refuel vehicles. No fuel storage takes place on site. |

| Recommendation | Management Action/Comment |
|---|---|
| Recommendation 45<br>ðAll stormwater run-off from disturbed land should be contained on-site initially to achieve effective removal of sediment and turbidity. Over-land stormwater flows from outside the quarry area should be diverted via bypass drains or earthen bunds around disturbed surfaces and any stockpiles.ð | All stormwater is retained within the pit area and is not permitted to flow into surrounding areas. A water detention basin is created at the lowest point in the pit area and water is diverted and drained into this basin. Water from the basin can be used during the summer months for dust suppression as required. |
| Recommendation 46<br>ðAny surface water flowing from disturbed areas should pass through effective settling pits to minimise turbidity.ð | N/A ð Surface water is not permitted to drain outside of the disturbed area. |
| Recommendation 49<br>ðAll stockpiled materials (including topsoil overburden) awaiting transport or held for rehabilitation should be located upstream in the catchment of turbidity control facilities.ð | All stockpiles are located within the pit area. |
| Recommendation 53<br>ðEmployees should be trained, assigned specific environmental management roles, and reminded via signs or symbols of the contamination risks to water resources posed by chemicals released to the local environment.ð | All employees and contractor are educated and trained as appropriate. |
| Recommendation 54<br>ðAn environmental response program should be in place for accidental chemical spills.ð | Austral Bricks has an emergency response plan in place as required by the Department of Mines, Industry Regulation and Safety. |
| Recommendation 55<br>ðA fuel management plan that meets the requirements of the DMP should be put in place.ð | A Refuelling Management Plan is contained within this document, and Austral Bricks follows the procedures as required by the Department of Mines, Industry Regulation and Safety. |

Summary

Drainage management procedures are set out in the table below.

| POTENTIAL IMPACT | MANAGEMENT/ACTION | COMMITMENT | TIMING |
|---|---|---|---|
| Impact on surface and groundwater. | 1. Ensure groundwater table is not intercepted throughout excavation. | Compliance with the Drainage Management Plan. | Ongoing |
| | 2. Maintain the final land surface at least 2 metres above the groundwater table. | | Ongoing |
| | 3. Ensure that there is capacity in the detention basins for high rainfall events. | | Ongoing |
| | 4. Maintain all machinery in good condition to minimise risk of leaks and spills. | | Ongoing |
| | 5. Maintain the internal access road in good condition. | | Ongoing |
| | 6. Avoid spillages on roads and clean up promptly. | | Ongoing |
| | 7. Ensure rubbish is disposed of appropriately. | | Ongoing |
| | 8. Remove any illegal rubbish promptly. | | Ongoing |
| | 9. Provide an appropriately serviced portable toilet for on-site workers. | | Ongoing |
| | 10. Continue training programmes on water management requirements to all workers and contractors. | | Ongoing |
| | 11. Any significant adverse impacts to be recorded, investigated and remediated. | | Ongoing |
| | 12. Water retained on site can be used for dust suppression and tree watering if required (particularly during the summer months). Water is also likely to be lost through evaporation during summer. | | Ongoing |

## *5.6 Refuelling management plan*

Protection of water resources from fuels and other chemicals will be managed through the Refuelling Management Plan.

Refuelling from mobile tankers will take place. This method is used on most mine and construction sites and used at other Austral Bricks operations. No fuel or chemicals or lubricants will be stored on site. Refuelling will be undertaken in the active pit area to allow for containment if a spill does occur. Loaders and bulldozers will be refuelled on site to the Department of Mines, Industry Regulation and Safety and Department of Water and Environmental Regulation's standards.

The main risk of contamination is the minor drips that occur during removal of the hoses etc. These minor spills are quickly degraded by soil microbial matter. Soil and resource should quickly be placed around a spill to contain it. Any drips or minor spills should be scooped up with the clay resource and sent to the works site where they are burnt with the clay during the firing process. Large spills should be removed from the site to an approved disposal area. Impermeable liners will be used for any top-up oils.

The clay extraction process is a chemically free operation.

| POTENTIAL IMPACT | MANAGEMENT/ACTION | COMMITMENT | TIMING |
|---|---|---|---|
| Impact on surface and groundwater | 1. No fuels, lubricants or chemicals will be stored on site. They are brought to the site as required. | Compliance with DWER and DMIRS regulations and this Excavation Management Plan. | Ongoing |
| | 2. Major servicing of all machinery is to be done off site. | | Ongoing |
| | 3. Service all machinery and equipment in accordance with the maintenance schedule prescribed. | | Ongoing |
| | 4. Use an accidental spill containment and cleanup protocol. | | Ongoing |
| | 5. Regularly inspect fuel, oil and hydraulic fluids on machinery for wear or faults. | | Ongoing |
| | 6. Ensure refuelling and lubricating occurs in designated areas and equipment for the containment and clean-up of spills is provided. | | Ongoing |
| | 7. Contain spillages in working areas by shutting down equipment. | | Ongoing |

| POTENTIAL IMPACT | MANAGEMENT/ACTION | COMMITMENT | TIMING |
|---|---|---|---|
| | 8. Transport chemicals in accordance with the ôAustralian Code for the Transport of Dangerous Goods by Road and Railô. | | Ongoing |
| | 9. Any drips or minor spills should be scooped up with the clay resource and sent to the works site and burnt with the clay during the firing process. | | Ongoing |
| | 10. Any large spills should be removed from the site to an approved disposal area. | | Ongoing |
| | 11. Maintain the site in a tidy manner. | | Ongoing |
| | 12. All significant incidents are to be recorded, investigated and remediated. | | Ongoing |

### *5.7 Separation distances and visual management*

Separation distances and buffers serve the function of providing distance to sensitive land uses (such as residential dwellings). Implementation of separation distances and buffers should be used in conjunction with other management procedures (such as noise, dust and visual management). Visual impact can occur if the operation is set too high in the landscape, has insufficient visual protection or is too close to dwellings.

ôEPA Guidance Statement No. 3ô provides guidance on the separation distances and buffers for a range of industrial land uses to sensitive land uses. The distances stated in the policy assume the land use is not managed and, should best practice environmental management take place, these distances can be reduced. The operations on site fit into the category *Clay extraction or processing.* The separation distance is given *as 500-1000 metres, depending on size and processing*, however this can be less with appropriate environmental management. In addition, no processing takes place on site which reduces the potential for impact. It should be noted that in the EPAôs *Draft Environmental Assessment Guideline for Separation distances between industrial and sensitive land uses* the separation distance is 300-500 metres.

The potential impacts listed in the Guidance Statement are noise and dust. These are managed through the Noise Management Plan and Dust Management Plan contained in this report. Austral Bricks adheres to best management practices to reduce the potential for noise and dust impact. The potential for noise and dust impacts can come from either extraction in the pit area or the transport of clay from the stockpile area.

The closest occupied residence is located to the south-east and is currently 450m from the extraction area. The occupier of this house is the landowner and party to the application. Adequate noise and dust management procedures in place reduce potential impact and support the reduced separation distance. The quarry already exists at this distance and there have been no issues in the past. All other residences are over 1,600 metres from the extraction area which meets the minimum separation distance recommended by EPA Guidance Statement No. 3.

The management actions in place to address separation distances are outlined below.

| POTENTIAL IMPACT | MANAGEMENT/ACTION | COMMITMENT | TIMING |
|---|---|---|---|
| Dust and noise impacts on sensitive land uses. | 1. Establish and maintain screening bunds using overburden. | Impact to surrounding areas from noise, dust or visual amenity will be minimised by complying with the Excavation Management Plan. | Ongoing |
| | 2. No processing of clay occurs on site which greatly reduces the potential for impact. Noise will generally be limited to sound made by trucks and machinery (which aren't generally much louder than farm vehicles). | | Ongoing |
| | 3. Excavations for most of the time will be below ground level. The walls of the pit will help screen it from surrounding properties. | | Ongoing |
| | 4. Locate transportable buildings, plant and stockpiles in areas of low visual impact. | | Ongoing |
| | 5. The operation complies with all Shire and State Government planning policies. | | Ongoing |

## *5.8 Waste management plan*

### Unauthorised access dumping of rubbish

The potential for illegal dumping of rubbish occurs from trespassers entering the site illegally. The site is currently fenced around the perimeter, gates are locked and signs are present which warn the public that the site is an open pit. This is to prevent and deter trespassers from entering the site.

Any illegally dumped material will be removed promptly and removed to an approved landfill site.

### Solid domestic waste and light industrial waste

The site will only be operational intermittingly throughout the year so the potential for creating waste is small. Solid waste and light industrial waste will be stored in appropriate containers and removed from the site frequently to an approved landfill site.

### Wastewater disposal

Workers will only be present on site for a few weeks each year. During these times a transportable office/lunchroom and a portable toilet will be located on site. Wastewater will be disposed of from these facilities appropriately.

| POTENTIAL IMPACT | MANAGEMENT/ACTION | COMMITMENT | TIMING |
|---|---|---|---|
| | 1. Keep the site tidy and remove rubbish from the site to an approved waste disposal facility as required. | Compliance with this Excavation Management Plan | Ongoing |
| | 2. Recycle waste where possible. | | Ongoing |
| | 3. Gates will be locked at all times when the site is not being operated on. | | Ongoing |
| | 4. Fences will be maintained around the site. | | Ongoing |
| | 5. Maintain the portable toilet facilities as required. | | Ongoing |

## *5.9 Rehabilitation management plan*

### Objectives

The historic use of the site is for farming, and it is anticipated that the final end use will be for a similar purpose. Once clay extraction has completed the land will be recontoured to a safe and stable condition and an amenity lake will remain within the void. Land surrounding the lake can be planted with agricultural plants to facilitate its future use for farming.

The aims of the Rehabilitation Plan are to:

- Produce a land surface that is safe and stable and compatible with the surrounding land form.
- Recontour the pit area to a farm dam surrounded by pasture.

### Rehabilitation

Following completion of extraction, the overburden will be used to recontour steep slope to a safe and stable surface. Surrounding land will be replanted with pasture species. The remaining depression will be used as a farm dam.

### Final site clean up

All wastes on site will be appropriately managed during and after operation of the site in order to avoid environmental degradation. They will either be recycled or taken to an approved waste disposal site. Rubbish will be stored in large bins, which will be emptied at an appropriate rubbish tip. Clay excavation activities do not require the use of chemicals apart from lubrication materials and fuel.

After clay extraction activities have ceased, all equipment will be removed from the site and the final stages of rehabilitation will occur.

# APPENDIX A

## Application Forms

# Application for Planning Approval

Assessment No. _____

**OWNER DETAILS**

Name: Simon James Farrell and Michele Louise Farrell ABN: _____

Address: 768 Chitty Road, Hoddys Well P/code: 6566

Phone: _____ Work contact: _____ Mobile: _____

Fax: _____ Email: sjfarrell@bigpond.com

Contact person for correspondence: Simon Farrell

Signature: _____ Date: 1.8.18

Signature: _____ Date: _____

The signature of the owner(s) is required on all applications. This application will not proceed without the required signature(s). For the purpose of signing this application an owner includes the persons referred to in the Planning and Development (Local Planning Schemes) Regulations 2015 Schedule 2 clause 62(2).

**APPLICANT DETAILS** (if different from owner)

Name: Austral Bricks (WA) Pty Ltd ABN: 34 079 711 603

Address: Locked Bag 100, Midland WA P/code: 6056

Phone: 9250 0530 Work contact: _____ Mobile: 0404 817 773

Fax: _____ Email: matthew.gordon@australbricks.com.au

Contact person for correspondence: Matthew Gordon (Resources and Transport Manager)

The information and plans provided with this application may be made available by the local government for public viewing in connection with the application: Yes ☑ No ☐

Signature: (T. Tadman) Date: 1.8.18

**PROPERTY DETAILS**

Lot No.: 11 House/Street No.: 768 Location No.: _____

Diagram or Plan No.: DP 34937 Certificate of Title: Vol: 2535 Folio: 391

Title encumbrances (eg. easements, restrictive covenants): _____

Street name: Chitty Road Suburb: Hoddys Well

Nearest Street intersection: Salt Valley Road

**OFFICE USE ONLY**

Acceptance Officer's initials: _____ Date received: _____

Local Government reference No.: _____

**Administration Centre**
15 Fiennes Street (PO Box 96)
TOODYAY WA 6566
T: 9574 9300
F: 9574 2158
E: records@toodyay.wa.gov.au

# Application for Extractive Industries Licence

Assessment No. _____

**LOCALITY OF EXCAVATION SITE**

Lot No.: 11 House/Street No.: 768 Street Name: Chitty Road

Location No.: ___ Diagram/Plan No.: DP34937 Certificate of Title: Vol: 2535 Folio: 391

Title encumbrances (eg. easements, restrictive covenants): _____

**OWNER DETAILS**

Name: Simon James Farrell and Michele Louise Farrell ABN: _____
(Title, initials and surname / company name)

Address: 768 Chitty Road, Hoddys Well P/code: 6566

Phone: _____ Work contact: _____ Mobile: 0417985383

Fax: _____ Email: sjfarrell@bigpond.com

Contact person: Simon Farrell

Owner's Signature: _____ Date: 1.8.13

Owner's Signature: _____ Date: _____

Note:
1. This application can only be signed by the owner, lessor or purchaser under option, of the land on which the development is proposed.
2. An application fee will apply.

**APPLICANT DETAILS** (if different from owner)

Name: Austral Bricks (WA) Pty Ltd ABN: 34 079 711 603
(Title, initials and surname / company name)

Address: Locked Bag 100, Midland WA P/code: 6056

Phone: 9250 0530 Work contact: _____ Mobile: 0404 817 773

Fax: _____ Email: matthew.gordon@australbricks.com.au

Contact person for correspondence: Matthew Gordon (Resources and Transport Manager)

Signature: (T. Tadman) Date: 1.8.13

Nearest Street intersection: Salt Valley Road

**OFFICE USE ONLY**

D/A Fee (Account): $_____ Receipt No.: _____

Date received: _____

**Administration Centre**
15 Fiennes Street (PO Box 96)
TOODYAY WA 6566
T: 9574 9300
F: 9574 2158
E: records@toodyay.wa.gov.au

# APPENDIX B

## Plans

# APPENDIX C

## Certificate of Title

| REGISTER NUMBER | |
|---|---|
| **11/DP34937** | |
| DUPLICATE EDITION | DATE DUPLICATE ISSUED |
| **1** | **12/5/2003** |

WESTERN AUSTRALIA

# RECORD OF CERTIFICATE OF TITLE

UNDER THE TRANSFER OF LAND ACT 1893

VOLUME **2535** FOLIO **391**

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

REGISTRAR OF TITLES

**LAND DESCRIPTION:**

LOT 11 ON DEPOSITED PLAN 34937

**REGISTERED PROPRIETOR:**
(FIRST SCHEDULE)

SIMON JAMES FARRELL OF 171-173 MOUNTS BAY ROAD, PERTH
MICHELE LOUISE FARRELL OF 7 BIRD STREET, MOSMAN PARK
AS TENANTS IN COMMON IN EQUAL SHARES

(T M852332 ) REGISTERED 9/12/2014

**LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:**
(SECOND SCHEDULE)

1. EXCEPT AND RESERVING METALS, MINERALS, GEMS AND MINERAL OIL SPECIFIED IN TRANSFER 10360/1951 AND 11837/1959. SEE DEPOSITED PLAN 34937
2. *K213696 CAVEAT BY PRESTIGE BRICK PTY LTD AS TO PORTION ONLY LODGED 1/6/2007.
3. *M852333 MORTGAGE TO COMMONWEALTH BANK OF AUSTRALIA REGISTERED 9/12/2014.
4. *M982803 MEMORIAL. SOIL AND LAND CONSERVATION ACT 1945. AS TO PORTION COMPRISED IN DEPOSITED PLAN 77396 ONLY. REGISTERED 30/4/2015.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.
Lot as described in the land description may be a lot or location.

----------END OF CERTIFICATE OF TITLE----------

**STATEMENTS:**

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

| | |
|---|---|
| SKETCH OF LAND: | DP34937 |
| PREVIOUS TITLE: | 1136-878, 1996-945 |
| PROPERTY STREET ADDRESS: | 768 CHITTY RD, HODDYS WELL. |
| LOCAL GOVERNMENT AUTHORITY: | SHIRE OF TOODYAY |

NOTE 1: DUPLICATE CERTIFICATE OF TITLE NOT ISSUED AS REQUESTED BY DEALING J080063.
NOTE 2: K185165 SECTION 138D TLA APPLIES TO CAVEAT D566898

END OF PAGE 1 - CONTINUED OVER



Landgate
www.landgate.wa.gov.au

NOTE 3: M743829 DEPOSITED PLAN (INTEREST ONLY) 77396 LODGED.



Landgate
www.landgate.wa.gov.au

# APPENDIX D

## Complaints Register

# ENVIRONMENTAL COMPLAINTS FORM – Complaint No XX

**PLAINTIFF:**

**POSITION:**

**COMPANY**

**ADDRESS**

**PHONE NO:**

**MOBILE NO:**

**DATE:**

**TIME:**

**PLANT:**

**KILN SPEED:**

**WIND SPEED:**

**WIND DIR:**

**PRODUCT IN DRYER:**

**PRODUCT IN KILN:**

**EXTERNAL TEMP:**

---

**COMPLAINT**

---

**INVESTIGATION**

---

**OUTCOMES & RECOMMENDATIONS**



Harper Street, Caversham, WA, 6055
Telephone: (08) 9261 9999
Facsimile: (08) 9279 6566

# AGENDA FORUM DISCUSSION PAPER

| | |
|---|---|
| **Date of Report:** | 4 September 2018 |
| **Name of Applicant / Proponent/s:** | Midland Brick |
| **File Reference No.:** | A1492/3MORG/EXT1 |
| **Author:** | H. de Vos - Planning Officer |
| **Responsible Officer:** | G. Bissett ï Manager Planning and Development |
| **Previously Before Council:** | Nil |
| **Nature of Council's Role in the matter:** | Executive |
| **Attachments:** | 1. Midland Brick Lot 3 Morangup Road - Report |

## 7.2 LOT 3 MORANGUP ROAD ð EXTRACTIVE INDUSTRY RENEWAL ð MIDLAND BRICK

### PURPOSE OF THE DISCUSSION PAPER

To accompany the presentation to Council by Midland Brick regarding the proposed renewal of the clay extractive industry at Lot 3 Morangup Road in Morangup.

### SUMMARY OF THE PROPOSED DEVELOPMENT

| ASPECT | PROPOSAL CHARACTERISTIC |
|---|---|
| **EXCAVATION** | |
| Total area of excavation | 17.9 hectares comprised of;<br>Å Pit > 3 metres deep 6.1 hectares.<br>Å Stockpiles and service areas on natural land surface, 10.0 hectares.<br>Å Under rehabilitation 1.8 hectares. |
| Resource extraction | 30 ï 50 000 tonnes clay per year. |
| Operational time | Intermittent and restricted to campaigns; Excavation up to 30 ï 60 days every two years. Transport - ***see below*** |
| Life of project | 10 years |

| ASPECT | PROPOSAL CHARACTERISTIC |
|---|---|
| Area cleared per year | No clearing is required to extract the next ten yearsôresource |
| Area mined per year | 0.5 ha average. |
| Dewatering requirements | Nil. Water collecting in the pit is used for dust suppression. |
| Maximum depth of excavations | Up to 20 metres at final depth |
| Native vegetation to be cleared | Nil |
| **PROCESSING** | |
| Resources | Not required on site |
| Water requirements | 10 000 kL approx., obtained from site |
| Water supply source | Supplied from sump and sediment settlement dams in the base of the pit, or brought to site as required. |
| **INFRASTRUCTURE** | |
| Total area of plant and stock | Located within existing excavations. |
| Area of settling ponds | < 0.5 ha |
| Fuel storage | Mobile refuelling with no onsite storage. |
| **TRANSPORT** | |
| Truck movements | Variable but approximately 5 ï 10 per hour on up to 80 - 100 days per year. |

| ASPECT | PROPOSAL CHARACTERISTIC |
|---|---|
| Access | Existing access road across Morangup Road and then through the Midland Excavations south of Morangup Road to exit at the entrance of the bitumen to the west. |
| **WORKFORCE** | |
| Construction | Renewal ï already in operation. |
| Operation | 2 ï 4 persons |
| Hours of operation | Hours of operation, will be 7.00am to 5.00pm Monday to Saturday inclusive, excluding public holidays. |
| Restrictions | Transport is restricted to 7.00am to 5.00pm Monday to Saturday inclusive, excluding public holidays.<br>Truck movements from June to September (inclusive) will be limited to 40 truck movements per day reducing to 30 truck movements on ñeventò days or the Toodyay Agricultural Show day. |

For further details of the proposal please refer to **Attachment 1** - Midland Brick Lot 3 Morangup Road - Report.

This application will be coming to Council for determination at its Ordinary Council Meeting on 23 October 2018.

**CONSULTATION IMPLICATIONS**

Consultation in respect to the Application for Development Approval and Extractive Industry Licence currently being undertaken in accordance with Level E of Councilôs Policy M.2 ï Public Consultation Formal Matters.

This period ends on 5 October 2018.

**OFFICER'S RECOMMENDATION**

That Council, in relation to the proposed renewal of the clay extractive industry licence for Midland Brick to be located at Lot 3 Morangup Road, Morangup as detailed in the application dated 28 August 2018, provide feedback on this proposal for consideration in the preparation of a formal Council report.

# CONTINUATION OF EXTRACTIVE INDUSTRY

# EXCAVATION and REHABILITATION MANAGEMENT PLAN

## Lot 3 Morangup Road, Morangup

## (MORANGUP)

15 May 2018

Celebrating 70 years
Midland Brick

# CONTINUATION OF EXTRACTIVE INDUSTRY

# EXCAVATION and MANAGEMENT PLAN

## Lot 3, Morangup Road, Morangup

Midland Brick
102 Great Northern Highway, Middle Swan, WA, 6056
Phone 13 15 40

DOCUMENT PREPARED BY

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# SUMMARY

This application documents the management plan for the renewal of Planning Consent and an Extractive Industries Licence for Lot 3 Morangup Road, Morangup.

Clay excavation has taken place on this site since 1991 and this application represents a continuation of the existing operations in the same pits and same approved footprint.

All excavation is conducted on the plateau, below natural ground level, set back behind planted buffer vegetation to Morangup Road.

The clay resource has been delineated by an extensive drilling and excavation program. It occurs in clay and weathered amphibolites and schists and extends to depths of up to 28 metres of which depths to 20 metres will continue to be extracted. At that depth other issues such as the quality of the resource and the costs of excavation may preclude efficient extraction.

Land zoning in the area is Rural, however the site lies within the Priority Resource Area T9, of Statement of Planning Policy No 2.4 Basic Raw Materials, (SPP 2.4), Western Australian Planning Commission.

The Land zoning is “Rural”. The Rural zoning does not list basic raw materials in the Zone objectives but the Scheme allows Council to use its discretion to grant approval.

On the other hand State Planning Policy 2.5 (SPP 2.5) requires basic raw materials to be identified, protected, used in a staged manner and not impinged by competing land uses. SPP 2.5 prevails over the Town Planning Scheme which should reflect the intent of the State Planning Policy.

The methods of excavation and the equipment to be used will remain unchanged. Predictions suggest that there will be no change to the annual extraction rates of this resource and they will remain as they have for the past few years. This represents a continuation of the current transport activity with some fluctuation due to the cyclic demand for clay building products.

Clay will be excavated intermittently throughout the year in a number of campaigns, and stockpiled for use at other times of the year.

A variety of excavation methods are used depending on the configuration of the pit, the complexity of blending and the weather conditions. Excavators and loaders are used to excavate, load and form stockpiles. Loading of clay for transport to the works site is from stockpiles rather than the pit, for efficiency and quality control.

**Project Summary**

| ASPECT | PROPOSAL CHARACTERISTIC |
|---|---|
| **EXCAVATION** | |
| Total area of excavation | 17.9 hectares comprised of;<br>• Pit > 3 metres deep 6.1 hectares.<br>• Stockpiles and service areas on natural land surface, 10.0 hectares.<br>Under rehabilitation 1.8 hectares. |
| Resource extraction | 30 – 50 000 tonnes clay per year. |
| Operational time | Intermittent and restricted to campaigns<br>Excavation up to 30 – 60 days every two years.<br>Transport - see below |

| | |
|---|---|
| Life of project | 10 years |
| Area cleared per year | No clearing is required to extract the next ten years' resource |
| Area mined per year | 0.5 ha average. |
| Dewatering requirements | Nil<br>Water collecting in the pit is used for dust suppression. |
| Maximum depth of excavations | Up to 20 metres at final depth |
| Native vegetation to be cleared | Nil |
| **PROCESSING** | |
| Resources | Not required on site |
| Water requirements | 10 000 kL approx, obtained from site |
| Water supply source | Supplied from sump and sediment settlement dams in the base of the pit, or brought to site as required. |
| **INFRASTRUCTURE** | |
| Total area of plant and stock | Located within existing excavations. |
| Area of settling ponds | < 0.5 ha |
| Fuel storage | Mobile refuelling with no onsite storage. |
| **TRANSPORT** | |
| Truck movements | Variable but approximately 5 – 10 per hour on up to 80 - 100 days per year. |
| Access | Existing access road across Morangup Road and then through the Midland Excavations south of Morangup Road to exit at the entrance of the bitumen to the west. |
| **WORKFORCE** | |
| Construction | Renewal – already in operation. |
| Operation | 2 – 4 persons |
| Hours of operation | Hours of operation, will be 7.00 am to 5.00 pm Monday to Saturday inclusive, excluding public holidays. |
| | Transport is restricted to 7.00 am to 5.00 pm Monday to Saturday inclusive, excluding public holidays.<br>Truck movements from June to September (inclusive) will be limited to 40 truck movements per day reducing to 30 truck movements on "event" days or the Toodyay Agricultural Show day. |

## Management

The excavation, processing and environmental management proposed has been designed to reflect best practice and utilises Commonwealth and State Guidelines.

### Safety Management

All quarries operate under the provisions of the *Mines Safety and Inspection Act 1994 and Regulations 1995*. These are administered by the Department of Mines Industry Regulation and Safety.

The regulation is achieved through the DMIRS Safety Regulations and Reporting Systems (SRS).

All quarries on commencement are required to register with the SRS system. As part of the registration a Project Management Plan is required to be produced and lodged online.

Officers from the Safety Division of the DMIRS regularly inspect the operations in relation to health and safety.

### Environmental Management

The environmental management is designed to reflect best practise, outlined in particular in;

> Department of Resources, Energy and Tourism (Commonwealth), 2011, *A Guide to Leading Practice Sustainable Development in Mining*, and guidelines produced by Environmental Protection Authority, Department of Water, Environment Regulation, Department of Mines Industry Regulation and Safety, Western Australia Planning Commission and the Local Authority.

An Environmental Risk Assessment has been developed based on the EPA Environmental Factors which have been identified by the EPA as the factors to be considered when reviewing environmental impact and outcomes in Western Australia.

The EPA Factors have been used and added to in the following table, which provides for the environmental risk if not mitigated or managed and the assessed environmental risk when the proposed design and management procedures are effectively implemented.

All the EPA environmental factors, together with the other factors, are provided in the Environmental Risk Table to show that some are not relevant to this proposal. Leaving them out may lead to some uncertainty in a reviewer's mind.

The Environmental Risk Matrix was developed to the principles of AS/NZS ISO 140001:2004 (Environmental Management Systems) and AS/NZS ISO 19011:2014 (Guidelines for auditing Management Systems). The principles of AS/NZS 31000:2009 (Risk Management Guidelines) are also used when considering any risks.

The Risk Table includes references to the various parts of the document to enable easy review and provides a summary of the project and its management.

The risk assessment table also forms the basis of an auditable matrix.

| Environmental Factor - Objective | Potential Issues | Unmanaged Risk | | | Proposed Management | References | Managed Risk | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Likelihood | Consequence | Risk | | | Likelihood | Consequence | Risk |
| **FLORA and VEGETATION**<br><br>To maintain representation, diversity, viability and ecological function at the species, population and community level. | Vegetation communities and/or biodiversity may be significantly impacted by clearing, weeds and dieback. | E | 1 | Low | The site is a renewal of clay operations that have been approved since 1991.<br>No clearing is anticipated to be required for the next ten years. If the isolated trees are required to be taken a Clearing Permit will be applied for.<br>Clearing Permit CPS 2541/1 was used for development of the site. | 2.5 Flora | E | 1 | Low |
| | Threatened Communities may be impacted by inadvertent impacts. | E | 1 | Low | None recorded.<br>No clearing is anticipated to be required for the next ten years.<br>If the isolated trees are required to be taken a Clearing Permit will be applied for. | 2.5 Flora | E | 1 | Low |
| | Priority species may be affected by clearing, disturbance, weeds, dieback and other impacts. | E | 1 | Low | Previously recorded *Calytrix sylvana* P4 which was considered by Clearing Permit CPS 2541/1.<br>No clearing is anticipated to be required for the next ten years.<br>If the isolated trees are required to be taken a Clearing Permit will be applied for. | 2.5 Flora | E | 1 | Low |
| | Threatened Species may be impacted by inadvertent impacts. | E | 1 | Low | None recorded.<br>No clearing is required for the next ten years. | 2.5 Flora | E | 1 | Low |
| | Weeds may become established and impact on the local and on site biodiversity | C | 3 | High | A weed management program is in place and will be continued in conjunction with normal farm management 22 exotic species were recorded in 2008, in vegetation around the operations. Part of Lot 3 was chained and partially cleared in the past and may be the source of the exotic species. | 5.1.3 Weed Management Plan | C | 1 | Low |
| | Dieback disease may be present and impact on the local and onsite vegetation. | E | 1 | Low | Dieback management procedures are in place.<br>There does not appear to be any evidence of dieback disease on site. | 5.1.2 Dieback Management Plan | E | 1 | Low |
| | The developments may fragment communities, biodiversity and ecological linkages. | E | 1 | Low | The site is an extension of clay operations that have been approved since 1991.<br>No clearing is required for the next ten years. | 2.5 Flora | E | 1 | Low |

| Environmental Factor - Objective | Potential Issues | Unmanaged Risk | | | Proposed Management | References | Managed Risk | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Likelihood | Consequence | Risk | | | Likelihood | Consequence | Risk |
| **TERRESTRIAL FAUNA**<br><br>To maintain representation, diversity, viability and ecological function at the species, population and assemblage level. | Communities and fauna and/or biodiversity may be significantly impacted by clearing, weeds and dieback. | D | 1 | Low | The site is a renewal of an operational clay pit. It is cleared and there will be no increase in the open footprint.<br>Large areas of revegetation and tree planting have been installed at the pit to the south of Morangup Road which creates a visual buffer and wildlife corridor for those operations. | 2.5 Flora | D | 1 | Low |
| | Threatened Faunal Communities may be impacted by inadvertent impacts. | E | 1 | Low | No Threatened Communities occur on site. | | E | 1 | Low |
| | Priority Fauna species may be affected by clearing, disturbance, weeds | D | 1 | Low | The site is a renewal of an operational clay pit. It is cleared and there will be no increase in the open footprint. | | D | 1 | Low |
| | Threatened Fauna Species may be impacted by inadvertent impacts. | D | 1 | Low | The site is a renewal of an operational clay pit. It is cleared and there will be no increase in the open footprint. | | D | 1 | Low |
| **SUBTERRANEAN FAUNA**<br><br>To maintain representation, diversity, viability and ecological function at the species, population and assemblage level. | The development may have an impact on an isolated population of subterranean fauna. | E | 1 | Low | The site is compacted clay with no subterranean cavities. | | E | 1 | Low |

| Environmental Factor - Objective | Potential Issues | Unmanaged Risk | | | Proposed Management | References | Managed Risk | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Likelihood | Consequence | Risk | | | Likelihood | Consequence | Risk |
| **LANDFORMS**<br><br>To maintain the variety, integrity, ecological functions and environmental values of landforms and soils. | The local landform may be altered to a form that is not compatible with the surrounding geomorphology. | D | 2 | Low | The site is a continuation of the existing and approved clay pit that has operated since 1991.<br>There will be no increase in the disturbance footprints.<br>The excavations are sunk into a plateau feature with no impact on the skyline. Small stockpiles are used and are located in the east; set well back from the breakaway slope to minimise visual impact. These may be relocated into the pit if the stockpile area is excavated. | Figures | D | 2 | Low |
| | The final land surface should be fit for its required end use. | E | 1 | Low | The end use will be local native vegetation. | | E | 1 | Low |
| | The development and final landform will not lead to significant visual impacts. | D | 2 | Low | The site is a continuation of the existing and approved clay pit. There will be no increase in the disturbance footprints.<br>The excavations are sunk into a plateau feature. | | D | 2 | Low |
| | The final landform and soils may be subject to erosion by wind, water or other processes. | E | 1 | Low | The clay excavation operations are designed to minimise erosion and dust.<br>Drainage is internal with no release of surface water.<br>Clay is not subject to wind erosion, but binds tightly. | 6.3 Dust Management<br>6.4 Water Management<br>7.0 Closure and Rehabilitation. | E | 1 | Low |
| | Acid soils are not exposed or are managed to ensure that there are no long term adverse effects. | E | 1 | Low | There is no evidence of acid sulfate conditions.<br>Midland Brick has monitoring programs at all their pits. | 6.6.4 Acid Sulfate Risk | E | 1 | Low |
| | The project may contain limestone and therefore karst features. | E | 1 | Low | There is no karst. It is the wrong geological environment. | | E | 1 | Low |

| Environmental Factor - Objective | Potential Issues | Unmanaged Risk | | | Proposed Management | References | Managed Risk | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Likelihood | Consequence | Risk | | | Likelihood | Consequence | Risk |
| **HYDRO - GEOLOGICAL PROCESSES**<br><br>To maintain the hydrological regimes of groundwater and surface water so that existing and potential uses, including ecosystem maintenance, are protected. | The ecological functions of watercourses are to be maintained. | E | 1 | Low | Drainage will be internal with no release of surface water. There are no drainage lines on the plateau remnant. Older clay excavations were conducted closer to the water courses than the proposed continued excavations. | 6.4 Water Management Figures | E | 1 | Low |
| | Groundwater may be impacted by changes to recharge, over-pumping or alterations to flow paths. | D | 1 | Low | The operations are based on impermeable clay.<br>All water is retained on site in the base of the pit.<br>Midland Brick has a water testing program as necessary to ensure the quality of the clay in the pit is maintained. That sampling has not showed any adverse water parameters.<br>The base of the excavation are well above the water table. | 6.4 Water Management Figures | D | 1 | Low |
| | Wetlands may be altered by draining or flooding, | E | 1 | Low | There are no local wetlands. The closet features are the watercourses well to the east and west of Lot 3. | 6.4 Water Management Figures | E | 1 | Low |
| **WATER QUALITY**<br><br>To maintain the quality of groundwater and surface water, sediment and biota so that the environmental values, both ecological and social, are protected. | Hydrocarbons, fuels and other chemicals may impact the waterways. | C | 2 | Med | Fuel and hydrocarbon management programs are in place.<br>No fuel is stored on site.<br>Vehicles are refuelled from mobile dedicated service tankers.<br>There have been no significant adverse impacts at Midland Brick Clay Pits within the last 10 years. | 6.4 Water Management Figures | D | 2 | Low |
| | Runoff from operations may carry sediment offsite or to a water body. | C | 2 | Med | All water is retained on site in the base of the pit, the same as for past operations.<br>Runoff from operations is contained and all water is either retained or treated to removed sediment and any deleterious materials. | 6.4 Water Management Figures | E | 2 | Low |
| | Water quality during and after development and operations may be adversely affected or altered. | D | 2 | Low | All water is retained on site in the base of the pit.<br>Midland Brick has a regular water testing program conducted as necessary to determine the quality of the clay for use in brickmaking.<br>No adverse impacts on water have been recorded from the operations. | 6.4 Water Management Figures | D | 2 | Low |

| Environmental Factor - Objective | Potential Issues | Unmanaged Risk | | | Proposed Management | References | Managed Risk | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Likelihood | Consequence | Risk | | | Likelihood | Consequence | Risk |
| **OFFSITE EMISSIONS**<br><br>To maintain representation, diversity, viability and ecological function at the species, population and community level. | Dust emissions may impact the local amenity. | B | 3 | High | This is a continuation of the existing quarry on site.<br>There have been no known complaints with respect to dust within the past 5 years.<br>There are no new sensitive premises or land uses that have been constructed in the last ten years.<br>The existing access road on Lot 3 will continue to be used. | 6.3 Dust Management | D | 2 | Low |
| | Dust emissions impact on local and on site personnel health and environment. | E | 1 | Low | See above. | 6.3 Dust Management | E | 1 | Low |
| | Noise levels are to comply with the *Environmental Protection (Noise) Regulations 1997.* | E | 1 | Low | Noise levels will comply with *Environmental Protection (Noise) Regulations 1997.*<br>Midland Brick has conducted noise monitoring at the boundary of the premises in the past and determined that the noise complies with the Regulations. | 5.2.3 Noise Management | E | 1 | Low |
| | Noise levels and operational procedures are used to protect on site personnel health and safety. | C | 3 | High | The operations are designed to minimise on site noise and the potential for offsite noise.<br><br>There are no new sensitive premises or land uses that have been constructed in the last five years. | 5.2.3 Noise Management | D | 2 | Low |
| | Potential impacts from blasting will comply with the *Environmental Protection (Noise) Regulations 1997* and guidelines for ground vibration. | | | NA | There is no blasting. | NA | | | NA |
| | Employ procedures to minimise the risk of greenhouse emissions. | E | 1 | Low | Clay has been extracted from site since 1991.<br>Truck and trailer combinations and plant are more efficient than in the past leading to reduced greenhouse gas emissions. | 5.2.4 Dust | E | 1 | Low |

| Environmental Factor - Objective | Potential Issues | Unmanaged Risk | | | Proposed Management | References | Managed Risk | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Likelihood | Consequence | Risk | | | Likelihood | Consequence | Risk |
| **HERITAGE**<br><br>Known heritage sites will be protected. | Known aboriginal heritage sites will be protected. | E | 2 | Low | No archaeological or ethnographic sites are known from or recorded on Department of Planning, Lands and Heritage databases. | 2.7 Aboriginal Sites | E | 2 | Low |
| | Sites of European heritage will be protected. | | | NA | None known | | | | NA |
| | Heritage sites uncovered during operations will be independently assessed and managed through communication with the community, Government and traditional owners. | D | 2 | Low | A commitment is made to this. | 2.7 Aboriginal Sites | D | 2 | Low |

| Environmental Factor - Objective | Potential Issues | Unmanaged Risk | | | Proposed Management | References | Managed Risk | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Likelihood | Consequence | Risk | | | Likelihood | Consequence | Risk |
| **SOCIAL and HEALTH**<br><br>To minimise the impact on the local community | Human health may be impacted by adverse impacts of dust, noise, other emissions and chemicals. | E | 1 | Low | Clay has no known health impacts. Kaolin clay is used in medicines. | | E | 1 | Low |
| | Transport may impact on local, and regional roads or school bus routes. | E | 1 | Low | Transport is directly to Morangup Road with no changes to existing transport routes or number of trucks accessing the site.<br>The operating hours and truck movements are regulated by Midland Brick Policies and the Shire of Toodyay to minimise disruption to local activities particularly on the weekends or "event" days. | 4.4 Hours of Operation<br>4.7 Loading and Transport | E | 1 | Low |
| | The operations have been designed to provide sufficient buffers and visual protection. | E | 1 | Low | The operations are set back from Morangup Road with wide planted vegetated buffers.<br>The closest dwellings offsite are 700 metres away.<br>The operations are set back 200 metres from Morangup Road, behind remnant native vegetation.<br>This is an existing operation and there are no changes proposed to the area of disturbance.<br>The operations are designed to minimise visual impact.<br>There are no new sensitive premises or land uses that have been constructed in the last five years. | Figures | E | 1 | Low |

| Environmental Factor - Objective | Potential Issues | Unmanaged Risk | | | Proposed Management | References | Managed Risk | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Likelihood | Consequence | Risk | | | Likelihood | Consequence | Risk |
| **CLOSURE AND REHABILITATION**<br><br>To ensure that premises are closed, decommissioned and rehabilitated in an ecologically sustainable manner, consistent with agreed outcomes and land uses, and without unacceptable liability to the State | At the end of excavation the created soils may not be deep enough or of sufficient quality to enable sustainable local native vegetation. | B | 3 | High | A void is to be retained at the end of excavation, and this will be allowed to fill with water and provide an additional local water source.<br><br>Rehabilitation will be directed towards the final end land use of a return to pasture and parkland pasture.<br><br>Topsoil and vegetation fragments will be transferred directly from an area being cleared and spread across the surface of the areas to be rehabilitated, to provide seed sources wherever possible. If direct transfer is not possible, any material stored in dumps will be respread. | 7.0 Closure and Rehabilitation | D | 2 | Low |
| | Hardstand, and non natural materials may be left on site at the end of the project. | C | 2 | Med | This is committed to. | 7.0 Closure and Rehabilitation | D | 2 | Low |
| | Materials that are left on site that may cause long term detrimental outcomes in terms of impacts to soils, water, heritage, vegetation health or other factors. | C | 2 | Med | This is committed to. | 7.0 Closure and Rehabilitation<br>6.4 Water Management Plan | D | 2 | Low |
| | Contaminated materials may impact on site. | C | 2 | Med | All contaminated materials are to be removed from site prior to closure. | 7.04 Closure and Rehabilitation<br>6.4 Water Management Plan | D | 2 | Low |

| Environmental Factor - Objective | Potential Issues | Unmanaged Risk | | | Proposed Management | References | Managed Risk | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Likelihood | Consequence | Risk | | | Likelihood | Consequence | Risk |
| **RESOURCE REQUIREMENTS**<br><br>Basic Raw Materials are required for continued use by the community and for future developments. | There is significant basic raw material on site that is suitable for community resources. | | | | The site is nominated as Priority Resource Location T19 in State Planning Policy No 2.4 Basic Raw Materials, (SPP 2.4), Western Australian Planning Commission.<br><br>The clay resource has been identified by an extensive drilling program. It occurs in weathered schist and gneiss that extend to depths of up to 20 metres, at which depth other issues such as the quality of the resource and the costs of excavation may preclude efficient extraction. | 1.4 Description of the Resource.<br>3.0 Planning Issues. | | | |

| Environmental Factor - Objective | Potential Issues | Unmanaged Risk | | | Proposed Management | References | Managed Risk | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Likelihood | Consequence | Risk | | | Likelihood | Consequence | Risk |
| **COMMUNITY CONSULTATION**<br><br>To provide a community consultation process commensurate with the size nature and time line of the project. | Community consultation assists Midland Brick by identifying and resolving concerns before they become significant issues. | | | NA | Midland Brick has consulted with the Gidgegannup Progress Association on a number of occasions over the past few years with respect to clay extraction within the local area, access and future plans.<br>Midland Brick is represented on the community planning group with respect to safety; Toodyay Road Liaison Committee.<br>Midland Brick is active in the communities in which they operate with respect to assistance and co-operation. For example support for the Morangup Community Centre. | | | | NA |
| | A complaints and improvements procedure will assist management of the site. | | | NA | Midland Brick has an ongoing complaints program in place through its central office. | 3.6 Complaints Procedure | | | NA |

| Environmental Factor - Objective | Potential Issues | Unmanaged Risk | | | Proposed Management | References | Managed Risk | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Likelihood | Consequence | Risk | | | Likelihood | Consequence | Risk |
| **PLANNING COMPLIANCE**<br><br>To comply with Government Policy, planning zones and procedures. | The project is to comply with State and Local Planning requirements. | E | 2 | Low | The project is designed to comply with State and Local Planning requirements in particular SPP 2.5.<br>The Land zoning is "Rural". The Rural zoning does not list basic raw materials in the Zone objectives. On the other hand State Planning Policy 2.5 (SPP 2.5) requires basic raw materials to be identified, protected, used in a staged manner and not impinged by competing land uses. SPP 2.5 prevails over the Town Planning Scheme which should reflect the intent of the State Planning Policy<br><br>Industry Extractive is a "D" use in the Rural Zone.<br><br>*A "D" use means that the use is not permitted unless Council exercises its discretion by granting development Approval.* | 3.0 Planning Issues | E | 2 | Low |

| Environmental Factor - Objective | Potential Issues | Unmanaged Risk | | | Proposed Management | References | Managed Risk | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Likelihood | Consequence | Risk | | | Likelihood | Consequence | Risk |
| **SAFETY**<br><br>To ensure that the project provides high levels of safety to on site personnel and the community | The project should ensure that it provides high levels of safety to on site personnel. | C | 3 | High | The operations are designed to comply and operate to the *Mines Safety and Inspection Act 1994.*<br>The operations are registered under the Department of Mines Industry Regulation and Safety, SRS system.<br>Midland Brick have extensive safety management systems in place at all their operations.<br>A Fire Management Plan is in place. | 4.0 Project Description<br>4.9 Safety | D | 2 | Low |
| | Potential impacts should be retained on site and not cause significant risk of safety to the local and wider community. | C | 2 | Med | Transport is directly to Morangup Road and then Toodyay Road, a major traffic route.<br>There are no proposed changes to the intensity and scale of the operations or the transport routes.<br>The site is fenced and installed with locked gates. | 4.0 Project Description | D | 2 | Low |
| | A transport policy should be implemented to enable transport along public roads is conducted in a safe manner. | E | 1 | Low | Transport is directly to Morangup Road and then Toodyay Road a major highway.<br>There are no proposed changes to the route, scale or intensity of the transport operations.<br>Traffic crosses Morangup Road, travels through the property to the south to enter Morangup Road to the west at the bitumen.<br>The nominated wildflower portion of Morangup Road is avoided.<br>All public roads on which clay is carted are bitumen. | 4.7 Loading and Transport | E | 1 | Low |

| Environmental Factor - Objective | Potential Issues | Unmanaged Risk | | | Proposed Management | References | Managed Risk | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Likelihood | Consequence | Risk | | | Likelihood | Consequence | Risk |
| **GEOTECHNICS**<br><br>To ensure that all ground and geological materials is safe commensurate with the operations and final land surface. | The operational and final land surfaces will be made safe and not subject to subsidence, slippage or other adverse conditions. | C | 2 | Med | The end use is a dam and a return to pasture and parkland pasture | 4.0 Project Description<br>4.9 Safety | D | 2 | Low |
| | The quarry and operations will comply with the *Mines Safety and Inspection Act 1994.* | C | 4 | High | Midland Brick is committed with complying with the relevant Acts and Regulations. | 4.0 Project Description<br>4.9 Safety | D | 2 | Low |
| | The operational and final surfaces and features are designed to be not affected by extreme climate events. | D | 2 | Low | The site is internally draining with large capacity to retain water. | 4.0 Project Description<br>4.9 Safety<br>Figures | D | 2 | Low |

**RISK MATRIX**

| | | | Effect / Consequence | | | | |
|---|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | 4 | 5 |
| **Type** | | | Insignificant | Minor | Moderate | Major | Severe |
| Environmental Impact | | | No discernible, adverse impact, individuals of species may be affected locally. | Discernible effect on the environment but no adverse impact, minor number of individuals of species may be affected locally | Minor adverse effect to the environment (including public amenity), moderate loss of individuals of species locally. | Moderate damage to ecosystem function, major loss of individuals of species locally, loss of public amenity. | Significant long-term damage/loss to ecosystem function, extinction of a species locally |
| Likelihood | A Almost Certain | Likely that the unwanted event could occur often (once per week) during the life of an individual item or system | Medium **11** | High **16** | High **20** | Very High **23** | Very High **25** |
| | B Likely | Likely that the unwanted event could occur several times per year during the life of an individual item or system. | Medium **7** | Medium **12** | High **17** | High **21** | Very High **24** |
| | C Possible | Likely that the unwanted event could occur sometime (once per year) during the life of an individual item or system. | Low **4** | Medium **8** | High **13** | High **18** | High **22** |
| | D Unlikely | Unlikely, but possible for the unwanted event to occur once in the life of an individual item or system. | Low **2** | Low **5** | Medium **9** | High **14** | High **19** |
| | E Rare | Highly unlikely that the unwanted event could ever occur in the life of an individual item or system. | Low **1** | Low **3** | Medium **6** | Medium **10** | High **15** |

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# 1.0 INTRODUCTION

## 1.1 Background and Proposal

Clay and schist have been excavated from the Morangup area since 1971.

This application seeks an extension to the Extractive Industries Licence for Lot 3 Morangup Road, Morangup.

Conditions relating to the previous Excavation Licence have been incorporated into this Excavation and Rehabilitation Management Plan.

This Excavation and Management Plan has been prepared addressing the factors raised in *EPA Guidance Statement 33, Environmental Guidance for Planning and Development 2005*.

## 1.2 Proponent

Boral Bricks Western Australia Pty Ltd (known as Midland Brick) is the largest clay brick manufacturer in the Perth Metropolitan area.

Midland Brick conducts its brick and paver manufacturing activities from the Middle Swan works;

They can be contacted through;

Logistics Manager or Quarry Manager
Midland Brick
102 Great Northern Highway, Middle Swan, W.A. 6056

## 1.3 Location and Ownership

The resource lies 0.5 km north of Morangup Road, approximately 12.5 km south west from Toodyay townsite.

| | |
|---|---|
| Lot | Lot 3 |
| Location | 1115 Morangup Road, Morangup |
| Volume | 382 |
| Folio | 31A |
| Plan | |
| Owner | J E Squarcini<br>883 Wellington Street<br>West Perth, WA, 6005 |

1.4 Description of the Resource

**Onsite Resource**

The deposit consists of clay and weathered amphibolites and schists. The deposit is geologically unique and there are no similar clays/schists within 100 km of the Middle Swan works site, although some similar clays are being excavated to the north of Morangup Road. Whilst similar clays are excavated from pits to the south of Morangup Road, each pit is located on different schists and has been subjected to differing weathering regimes. Therefore the clay from each pit is a slightly different resource.

The clay is divided into two resources TW and TOW.

The weathered material extends to depths of between 3 and 28 metres, at which depth other issues such as the size of the resource at depth versus the costs of excavation may preclude efficient extraction. The majority of the resource is less than 20 metres depth and for a number of reasons the depth of excavation will be limited to 20 metres. Overburden varies from 1 to 4 metres.

Drilling programs were conducted in the exploration phase to delineate the resource. A grid pattern of drilling was undertaken and samples collected, analysed and test fired from each metre of depth. Two grades of white clay have been identified as desirable within the brick making process.

The results of the drilling program are used to delineate the clay resources and plan the excavation to optimise the potential for blending to minimise variations in the fired properties of the clay. Blending from the stockpiles is a normal part of processing.

**Regional Resource Information**

The Geological Survey of Western Australia has identified the resource as part of the Regionally Significant Basic Raw Material – Clay in 2012 in their updated mapping.

The Chamber of Commerce and Industry noted the need to protect Basic Raw Materials prior to sterilisation by encroaching development in its comprehensive research of the Basic Raw Materials of Perth and the Outer Metropolitan Area, 1996 and also listed the area as a clay resource area.

Chamber of Commerce and Industry, 1995 and 1996, provides a good summary of the brickmaking resources and the need for their development.

Research on the clay resources and the issues involved can be found in the following;

- Abeysinghe P B, 2002, *Bentonite, Attapulgite and Common Clays in Western Australia*, Geological Survey of Western Australia, Mineral Resources Bulletin 20.
- Western Australia, Western Australian Planning Commission, *State Planning Policy 2.4, Basic Raw Materials.*
- Chamber of Commerce and Industry, 1995 and 1996, *Managing the Basic Raw Materials of Perth and the Outer Metropolitan Region*, Parts 1 and 2.
- Chamber of Commerce and Industry, 2008, *Basic Raw Materials Access and Availability*, 1996 - 2008.

## 1.5 Aims of the Proposal

Clays from the site will continue to be essential for blending with other clays to enable Midland Brick to produce the wide range of brick types demanded by consumers.

The aims are to:

- Extract white clay resource from the site.
- Continue to provide a range of clays for blending

- Excavate clay from Priority Resource area, T9.
- Enable the site to be rehabilitated.

# 2.0 EXISTING ENVIRONMENT

## 2.1 Climate

The climate of the area is classified as Mediterranean, with dry hot Summers and cool wet Winters.

Data is recorded at Northam and Toodyay, where rainfall only is recorded.

Precipitation at Northam is 531 mm per year of which 75% falls in the five wettest months, May to September inclusive. Evaporation exceeds rainfall in all but the four wettest months.

Average maximum temperatures are likely to be less than Northam where the figures are 33.9 degrees C for the hottest month, January, with a yearly mean maxima of 25.1 degrees C and a mean minima of 10.9 degrees C.

In Summer wind blows from the east 69% of the time at 9.00 am, and predominantly from the west/south west at 3.00 pm. Winter winds are more variable.

## 2.2 Geology and Geomorphology

The area is underlain by a folded sequence of weathered schists of the Jimperding Metamorphic Belt. This consists of interbedded schists and quartzites intruded by granites, dolerite dykes and minor quartz and pegmatite veins.

Within the resource area the rock is a deeply weathered white and light coloured, muscovite sericite schist, with variable amounts of quartz.

Capping this is a shallow laterite profile that forms the soil and overburden.

The quarry lies on a flat slightly sloping plateau, which drains to the north west to Martigup Brook and then to the Avon River and east to Jimperding Brook and then to the Avon River. Even though the edge of the plateau lies 50 – 100 metres from the edge of the pit, the main water flow from the natural land surface is to the north west.

All water in the disturbed areas drains to the pit.

The eastern edge of the plateau lies at 295 metres AHD dropping across Lot 3 to 265 metres AHD in the north western corner of the pit.

A survey plan is attached, prepared by Survey Graphics.

## 2.3 Soils

Soils are gravelly loam soils grading to light coloured clay subsoils at shallow depth over weathered schists.

**Acid Sulfate**

There has been an increased interest in acid sulfate soils since the release of WAPC Planning Bulletin 64.

However the interest has been over-reactive, with assessments sought and risk applied in many areas where there is no geological risk or evidence of acid sulfate potential or actual conditions.

The most definitive survey procedure was produced by the Acid Sulfate Soil Management Advisory Committee NSW, 1998, in their *Acid Sulfate Manual.* This Manual forms the basis for much of the assessment procedures in Australia, including those adopted by the Western Australian Planning Commission and the Department of Environment Regulation. The *Acid Sulfate Manual* adopts the procedure of reviewing the published data followed up by field assessment, which has been completed for this site. If a geological risk is determined, then a Preliminary Acid Sulfate Assessment is conducted.

Acid sulfate only becomes a potential risk when a number of circumstances are present.

- There is rock, soil or regolith present that is carrying sulfides.
- Sulfide carrying materials from below the water table are to be exposed to the atmosphere.
- Excavation below the water table is to be carried out exposing the sulfide carrying materials to oxygen in the atmosphere.
- Dewatering of the sulfide carrying materials is proposed, exposing them to oxygen.
- Regolith conditions are already highly acidic, below pH4, under which oxidation can occur through electron exchange without the need for the presence of oxygen.

None of these conditions occur on site, based on geological mapping of the site during the site inspection, examination of the drill data, examination of the pit and from published information.

On this site the geology of the weathered granite and dolerite does not contain disseminated sulfides. Any sulfide minerals that may occur in the unweathered basement rocks has geologically been weathered and dissolved within the Tertiary weathering regime. In addition the clay to be extracted is above the water table in oxidised conditions.

Midland Brick has conducted an extensive drill based exploration program. Samples are collected from each metre of depth and all samples are analysed for a number of parameters including soluble salts.

During excavation, Midland Brick regularly samples the clays and stored water on site, as part of their production quality control and environmental monitoring policy.

It should be noted that the only at risk sulfur minerals are reduced sulfur, ie sulfide sulfur. Therefore Midland Brick sample data for sulfur is normally an overestimation because total sulfur sulfide is normally analysed for rather than sulfide sulfur.

Understanding variations in the concentrations of these naturally occurring components in the deposit is important in controlling the kiln firing cycle and the ultimate body colour and surface appearance of the fired products.

Sampling of the clay resources on this site shows that the average Total Sulfur content is 0.0085% for the 2005 year for example. This level of sulfur is acceptable for use in brickmaking and is below the limit of 0.03% sulfide sulfur, the trigger limit of above which further investigations are recommended in the NSW Acid Sulfate Manual.

In the case of this resource, the sulfur is most likely present as oxidised sulfate and not sulfide, making any acid sulfate risk even less likely.

The pits are all internally draining and then drain to sediment settlement dams at either end of the resource. The water in these dams is regularly tested for salinity and pH.

## 2.4 Hydrogeology and Water Catchments

The natural land surface drains to the north west to Martigup Brook and then to the Avon River and east to Jimperding Brook and then to the Avon River. Even though the edge of the plateau lies 50 – 100 metres from the edge of the pit, the main water flow from the natural land surface is to the north west.

In existing and proposed pits all drainage from the active working areas and excavation is to the base of the excavation, and thus all surface water is retained on site.

Water management is addressed in the Water Management Plan.

## 2.5 Flora

The resource area was cleared under an approved clearing Permit. A Flora and Vegetation Study was completed in support of that Permit and a summary presented below. The vegetation survey is appended to this report to provide information on the pre-existing vegetation which will guide rehabilitation to local native species.

Whilst no additional vegetation clearing is proposed at this stage the information from a vegetation study completed by Landform Research on 23 October 2018 is included.

In general the vegetation is a low Jarrah Marri Woodland grading to Wandoo Low Woodland in the west.

The Jarrah - Marri Woodland ranges from 5 to 18 native species /100m2 combined with 5 to 7 exotic species.

The vegetation consists of *Eucalyptus marginata and E. calophylla (Corymbia calophylla)* with generally open understorey and patches of vegetation in better condition typified by an understorey of *Acacia pulchella, Leucopogon propinquus, Phyllanthus calycinus, Hibbertia hypericoides* with a number of Asteraceae and in patches *Dryandra sessilis (Banksia sessilis*).

The small area between the road and the pit is in much better condition and has a higher species richness and low numbers of exotic species. It better reflects the original vegetation community.

Some species were found in this small remnant that did not occur in the disturbed vegetation, such as *Calytrix sylvana, Hakea prostrata, Petrophile divaricata, Pimelea ciliata* and *Daviesia incrassata.* These species may reflect changes to the soil conditions in addition to much less disturbance.

The Wandoo Woodland to the west shows the disturbance but is in better condition with 17 and 20 native species /100m$^2$ and only 2 and 1 exotic species respectively.

North of the previously cleared/disturbed area the vegetation on laterite gravel and duricrust is in much better condition.

From the soils and vegetation it appears that the better soils with higher capability for agriculture have previously been cleared or chained and the area of lower agricultural capability such as the laterite gravel and duricrust have remained uncleared.

The vegetation condition was assessed as a mosaic of Degraded with patches of Good Condition across the area between the road and the line of older clearing to the north. This area covers potential future clay resources and was therefore also assessed in this study, however that area does not form part of the 1.0 hectare area applied for in Clearing Permit 2541/1. The high number of exotic species confirms the degraded nature of parts of the site.

The small area between the current pit and the road is in Good to Very Good Condition.

Another way of looking at vegetation condition is to use a structure condition approach as shown in the table below. This can provide a better understanding of the vegetation than using the subjective visual descriptors of Bush Forever 2000, which can distort the true picture of the condition.

| **VEGETATION STRUCTURE** | **HEIGHT** | **Jarrah Marri Woodland** | **Wandoo Woodland** | **Small area between the road and pit** |
|---|---|---|---|---|
| Overstorey | > 4 m | Degraded to Good | Good | Good |
| Tall Shrub layer | 2 – 4 m | Completely Degraded to Good | Degraded to Good Normally reduced in Wandoo Woodland | Good |
| Lower Shrub Layer | 0.5 – 2 m | Completely Degraded/ Degraded | Degraded to Good | Very Good to Excellent |
| Ground Cover | <0.5 m | Completely Degraded/ Degraded to Good | Good | Very Good to Excellent |

To gain a more definitive assessment of the vegetation condition Kaesehagen 1995 can be used to compare the average species richness of the vegetation communities.

The richness of 20 or less species/100m2 is regarded as being only up to half to two thirds of the likely species richness of undisturbed vegetation.

Using the field data and not visual interpretation, according to Kaesehagen 1995, the vegetation will vary from Very Poor to Fair - Good north of the road, with Fair - Good grading to Very Good – Excellent in the small remnant between the pit and the road.

The vegetation fits with the DBPA searches of the general vegetation communities and complexes, that is Beard 1006, Heddle Yalanbee Complex in Low Rainfall and Mattiske Coolakin (Ck) and Yalanbee (Y6). See the attached Flora and Vegetation Report.

No evidence of dieback disease was observable.

Only one Priority species was found to occur on site, that is *Calytrix sylvana* which was only found to occur as several plants in the small area between the road and the existing pit. No other Priority taxa were observed.

*Calytrix sylvana* is a Priority 4 species, the lowest level of nomination being generally not well surveyed.

Priority species are listed on DBCA databases but are not afforded any protection under legislation.

The vegetation complexes are well represented and there are no Threatened or Priority Vegetation Complexes or Communities within the local area.

No Threatened or Priority Ecological Communities were identified.

No plant communities or taxa are listed as a Threatened Ecological Community or taxa under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999.*

The location lies just west of the EPBC listing for Eucalypt Woodlands of the WA Wheatbelt as it lies on the plateau remnants of the Darling Surface and is dominated by Jarrah – Marri Forest.

| **FAMILY** | **GENUS - SPECIES** |
|---|---|
| Amaranthaceae | *Ptilotus humilis* var *humilis* |
| | *Ptilotus manglesii* |
| Apiaceae | *Daucus glochidiatus* |
| Anthericaceae | *Dichopogon callipes* |
| | *Tricoryne elatior* |
| Asteraceae | *Brachyscome iberidifolia* |
| | *Hyalosperma cotula* |
| | *Lagenophora huegelii* |
| | *Podolepis gracilis* |
| | *Rodanthe citrina* |
| | *Waitzia acuminata* |
| | *Waitzia suaveolens* |
| Casuarinaceae | *Allocasuarina huegeliana* |
| Cyperaceae | *Lepidosperam costale* |
| | *Lepidosperma tenue* |
| | *Schoenus sp* |
| Dilleniaceae | *Hibbertia commutata* |
| | *Hibbertia hypericoides* |
| | *Hibbertia spicata* |
| | *Hibbertia subracemosa* |
| Droseraceae | *Dorsera granduligera?* |
| Epacridaceae | *Leucopogon propinquus* |
| | *Leucopogon sprengelioides* |
| Euphorbia | *Phylanthus calycinus* |
| Goodeniaceae | *Lecheaultia biloba* |
| Haemodoraceae | *Haemodorum simplex* |
| Iridaceae | *Orthrosanthus laxus* |
| Laxmanniaceae | *Laxmannia squarrosa* |
| Loranthaceae | *Nuytsia floribunda* |
| Mimosaceae | *Acacia amuninata* |
| | *Acacia microbotrya* |
| | *Acacia pulchella* |
| Myrtaceae | *Calytrix sylvana* |
| | *Calytrix glutinosa* |
| | *Eucalyptus calophylla* |
| | *Eucalyptus marginata* subsp *thalassica* |
| | *Eucalyptus wandoo* |
| | *Leptospermum erubescens* |
| | *Scholtzia involucrata* |
| Orchidaceae | *Caldenia flava* |

| | |
|---|---|
| | *Caladenia marginata* |
| | *Caladenia (sterile)* |
| | *Cyanicula sericea* |
| Papilionaceae | *Bossiaea eriocarpa* |
| | *Daviesia decurrens* |
| | *Daviesia incrassata* |
| | *Daviesia inflata* |
| | *Gompholobium tomentosum* |
| | *Gompholobium knightianum* |
| | *Gompholobium marginatum* |
| | *Hovea trisperma* |
| Poaceae | *Neurachne alopecuroidea* |
| | *Austrostipa hemipogon* |
| | *Austrostipa sp* |
| Polygalaceae | *Comesperma calymega* |
| | *Muehlenbeckia adpressa* |
| Proteaceae | *Adenanthos cygnorum* |
| | *Dryandra lindleyana* var *mellicula* |
| | *Dryandra sessilis* |
| | *Dryandra squarrosa* |
| | *Grevillea pilulifera* |
| | *Grevillea synaphea* |
| | *Hakea ampiplexicaulis* |
| | *Hakea lissocarpha* |
| | *Hakea prostrata* |
| | *Hakea trifurcata* |
| | *Isopogon dubius* |
| | *Petrophile divaricata* |
| Rhamnaceae | *Trymalium floribundum* |
| | *Trymalium ledifolium* |
| Stackhousiaceae | *Stackhousia scoparia* |
| Stylidiaceae | *Stylidium brunonianum* |
| | *tylidium calcaratum* |
| | *Stylidium luteum* |
| Thymelaeceae | *Pimelea ciliata* |
| Xanthorrhoeaceae | *Xanthorrhoea preissii* |
| Zamiaceae | *Macrozamia riedlei* |
| **TOTAL NATIVE SPECIES** | **77** |
| **SPECIES RICHNESS was 15 native species per 100 m$^2$ plus 3.75 exotic species** | |

**Note**

The names and classifications are taken from the 2008 survey even though there have been several changes since that time.
The use of *Dryandra* was used in 2008 because the incorporation of *Dryandra* into the Genus *Banksia* was not generally recognised in the literature or botanists at that time (eg Collins et al and Cavanagh and Pieroni). The same applies for *Corymbia*

## 2.6 Fauna

Apart from the quarry footprint the remainder of the land is native vegetation. There have been no known impacts on local fauna apart from the provision of water as a result of water collecting in the base of the pit.

Little indigenous fauna is to be expected considering the cleared nature of the site. Some birds and perhaps smaller reptiles and amphibians are likely to be present and the number will be increased by the extensive planting of trees along Morangup Road.

## 2.7 Aboriginal Sites

No archaeological sites are known from the area to be excavated and no evidence of aboriginal occupation has been found during excavation. The land has been grazed and cropped for many years, minimising the potential for archaeological material to remain in place or be identified.

No sites are recorded on the Department of Planning Lands and Heritage database.

Should any site be discovered, Midland Brick will cease operations in the immediate area pending an assessment by a recognised independent consultant. Midland Brick has a good record with the protection of aboriginal sites as shown by their involvement in the Upper Swan site in conjunction with the Western Australian Museum and the Department of Planning.

# 3.0 PLANNING ISSUES

## 3.1 Current Land use

The surrounding area outside the pit and road networks, is remnant vegetation that was disturbed in the past but in more recent times has been allowed to revegetate.

Austral clay pits operate to the west.

Clay is currently being extracted from the existing pit in accordance with an Extractive Industries Licence. Midland Brick also operates another clay pit to the south, of Morangup Road. The two pits are operated together.

This section of Morangup Road is recognised as a scenic road, but is avoided because of the selected transport route which runs through the pit to the south, to avoid Morangup Road at this location.

## 3.2 State Planning Policies

**State Government Policies and Planning Schemes**

***State Planning Policy 1.0, State Planning Framework Policy***

The State Planning Policy Framework provides for the implementation of a planning framework through the recognition and implementation of Regional Planning Policies above Local Planning Schemes and Policies.

A number of State Policies have been released under the State Planning Framework Policy.

State Planning Policy 2.0, Environment and Natural Resources Policy
State Planning Policy 2.4, Basic Raw Materials
State Planning Policy No 2.5, Agricultural and Rural Land Use Planning
State Planning Policy No 4.1, State Industrial Buffer Policy

These are considered in turn.

A number of other key State Government Policies are also relevant to the local regional planning.

State Planning Strategy 2050, (June 2014)

***State Planning Policy 2.0, Environment and Natural Resources Policy***

This policy provides for the protection of all natural resources under a number of sections;

5.1 General Measures
5.2 Water Quality including stormwater and wetlands
5.3 Air Quality
5.4 Soil and Land Quality
5.5 Biodiversity
5.6 Agricultural Land and Rangelands
5.7 Minerals Petroleum and Basic Raw Materials
5.8 Marine Resources and Aquaculture
5.9 Landscape

5.10 Greenhouse Gas Emissions and Energy Efficiency.

In addition to recognising the importance of protecting air quality, soil and land quality, water and wetlands and landscapes, the importance of Basic Raw Materials to the community is identified with reference to *SPP 2.4 Basic Raw Materials, State Gravel Strategy 1998* and *State Lime Strategy 2001*.

Section 5.7 of SPP 2.0, deals with Minerals, Petroleum and Basic Raw Materials.

Part of Section 5.7 states;

Basic raw materials include sand, clay, hard rock, limestone and gravel together with other construction and road building requirements. A ready supply of basic raw materials close to development areas is required in order to keep down the cost of land development and the price of housing.

Planning strategies, schemes and decision making should:

> *Identify and protect important basic raw materials and provide for their extraction and use in accordance with State Planning Policy No 10 (2.4); Basic Raw Materials.*
>
> *Support sequencing of uses where appropriate to maximise options and resultant benefits to community and the environment.*

The other factors of the natural environment are provided with the best protection possible, by this management plan, by selection of the site, operational staging and footprint and rehabilitation, bearing in mind the constraints of excavating and processing the resource.

***State Planning Policy 2.4, Basic Raw Materials***

This policy makes many statements on the intent and actions which local authorities should use to protect and manage basic raw materials.

Section 3.4 is very specific in explaining that basic raw materials need identification and protection because of increased urban expansion and conservation measures, (3.4.1), (3.4.2) and (3.4.4). Sections 3.4.5 and 3.4.6 recognise that environmental and amenity matters need to be considered.

There are specific provisions in Section 6.2 Local Planning Scheme Provisions, such as;

> No support for the prohibition of extractive industries in zones that permit broad rural land uses.
>
> Providing an appropriate P, D or A use.
>
> Not precluding the extraction of basic raw materials on land which is not identified as a Priority Resource Location, Key Extraction Area or Extraction Area (6.4.2).

Currently the Department of Planning, Lands and Heritage and Department of Mines, Industry Regulation and Safety are reviewing and updating the basic raw materials policy over the whole Swan Coastal Plain and near areas, including Bunbury to Augusta and the Darling Scarp.

The Geological Survey of WA has produced new mapping identifying Strategically Important Basic Raw Materials.

The excavation of resources is recognised by State Planning Policy No 2.4, Basic Raw Materials, (WA Planning Commission, 2000). The site is shown as lying within the Priority Clay resource and is listed as Quarry T9. Figure 1.

Lot 3 is identified as a regionally significant basic raw material (clay) resource by the Western Australian Geological Survey.

***State Planning Policy No 2.5, Agricultural and Rural Land Use Planning, 2016***

SPP 2.5 Agricultural and Rural land Use Planning predominantly deals with the continued rural use of suitable land and its protection for the future. The policy was updated in December 2016 and provides strong measures to identify, protect and use basic raw materials.

SPP 2.5 does reiterate the need to protect and use basic raw materials.

Basic Raw Materials are included in the definitions as

> *Sand (including silica sand), clay, hard rock, limestone (including metalurgical limestone), agricultural lime, gravel, gypsum, and other construction materials. The materials may be of State, regional or local significance depending on the resource location, size, relative scarcity, value and demand for the product.*

Amongst seeking to protect agricultural values, Policy Objective 4 (c) states

> *Outside the Perth and Peel Planning regions, secure significant basic raw material resources and provide for their extraction.*

Section 5.9 deals with Basic Raw Materials and seeks to achieve the following in an environmentally acceptable manner;

> *Protect the resources until the resource is extracted (5.9.a)*
>
> *Identify significant basic raw materials on sub-regional and local planning strategies, region and local planning schemes (5.9.b, 5.9.c, 5.9.d)*
>
> *The extraction of basic raw materials should not be generally prohibited (5.9.e)*
>
> *Provide for sequential land use (5.9.f)*
>
> *Limit sensitive land uses to locations demonstrated to not limit existing or potential extraction of basic raw materials (5.9.g)*
>
> *Provide for the consideration of native vegetation or significant biodiversity values and may require retention and protection of vegetation and environmental assets (5.9.h)*
>
> *Have regard for the potential impacts of fragmentation and connectivity of native vegetation (5.9.i)*
>
> *Maintain adequate buffers to protect water quality in public drinking water source areas (5.9j).*

SPP 2.5 also supports preventing conflicting land uses (5.12.1), supports the generic buffers recommended by other Government documents such as the EPA Guidelines for separation distances (5.12.3), and seeks to restrict subdivision from impinging on basic raw material resources.

The Policy is also supported by Guidelines that seek to protect the Landscape and secure Transport Routes.

***State Planning Policy No 4.1, State Industrial Buffer Policy***

SPP 4.1 discusses the need to consider adjoining land uses when locating buffers but does not prescribe set buffers for operations such as this. The development and processing of the resource has been designed to maintain maximum buffer distances. In situations where the buffers are less, actions such as the provision of perimeter bunding to provide visual and noise management, tree planting and operational procedures are used to mitigate and reduce impacts.

This is discussed further in Section 2.11 Surrounding Landuses and Buffers of this document.

***State Planning Strategy, 1997***

The Western Australian Planning Commission (WAPC) released the State Planning Strategy in 1997. It comprises a range of strategies, actions, policies and plans to guide the planning and development of regional and local areas in Western Australia and assists in achieving a coordinated response to the planning challenges and issues of the future by State and Local Governments.

The State Planning Strategy contains the following five key principles. These are:

- Environment & resources: to protect and enhance the key natural and cultural assets of the State and to deliver to all Western Australians a high quality of life which is based on sound environmentally sustainable principles.

- Community: to respond to social changes and facilitate the creation of vibrant, accessible, safe and self-reliant communities.

- Economy: to actively assist in the creation of regional wealth, support the development of new industries and encourage economic activity in accordance with sustainable development principles.

- Infrastructure: to facilitate strategic development of regional Western Australia by taking account of the special assets and accommodating the individual requirements of each region.

- Regional Development: to assist the development of regional Western Australia by taking account of the special assets and accommodating the individual requirements of each region.

The continued provision of clay provides construction materials to achieve sustainable development of the Metropolitan Area.

The resource is strategically located close to Midland Brick Middle Swan works and therefore continuing to source clay from the quarry provides for significantly reduced transport costs, impacts and greenhouse gas emissions.

## 3.3 Zoning and Local Policies

***Local Authority***

**Shire of Toodyay Town Planning Scheme No 4**

The Land zoning is "Rural". The Rural zoning does not list basic raw materials in the Zone objectives. On the other hand State Planning Policy 2.5 (SPP 2.5) requires basic raw materials to be identified, protected, used in a staged manner and not impinged by competing land uses. SPP 2.5 prevails over the Town Planning Scheme which should reflect the intent of the State Planning Policy

Industry Extractive is a "D" use in the Rural Zone.

> *A "D" use means that the use is not permitted unless Council exercises its discretion by granting development Approval.*

**Toodyay Local Planning Strategy 2007**

The Local Planning Strategy is to direct future planning for the Shire of Toodyay.

Whilst the subject land lies within the Rural Zone it is identified in the Local Planning Strategy as an Extraction Area.

The Local Planning Strategy provides for Landscape Protection.

The Local Planning Strategy also states that it must have regard to the potential for extraction of basic raw materials and that the pressure on such developments will increase.

**Toodyay Local Law – Extractive Industries 1995**

The Extractive Industry Local Law enables extracted material to be taken offsite for commercial purposes. The local law provides day to day control on the operation of extractive industries.

## 3.4 End Use

The end use is undecided at this stage so rehabilitation will be to local native vegetation.

The contoured surface will therefore be restored to a gently sloping surface draining to a sediment settlement dam.

## 3.5 Legislative Framework

Table 1 Legislative Framework

| Legislation | Environmental Factor regulated/affected | Discussion | Action |
|---|---|---|---|
| *Aboriginal Heritage Act 1972* | Aboriginal heritage sites | Recorded Heritage Sites<br>A database search of DPLH has been conducted and no site recorded | A commitment is made to halt activities that may impact on a site if any is found during excavation, pending assessment by consultants. |
| *Planning and* | Development | Planning Consent is required from the | A concurrent application for |

| | | | |
|---|---|---|---|
| *Development Act 2005* | approvals for on site constructions and any ensuing environmental impacts. | Shire of Toodyay. | development approval and Extractive Industry Licence is lodged. |
| *Shire of Toodyay Extractive Industries Local Law 1995* | The operations of the quarry are regulated by both the Planning Approval and Extractive Industries Licence | An Extractive Industries Licence is required. | An application for an Extractive Industry Licence is concurrently lodged. |
| *Health Act 1911* | Environmental and health impacts from waste water treatment and community health. | No matters of significance that would trigger this legislation have been identified. | The proposal complies with the Health Department Guideline for Dust separation. (See Dust Management)<br>No waste materials will be disposed of on site. |
| *Department of Planning, Land and Heritage Transport Impact Guidelines 2016* | New developments may need to consider transport options. | This is an existing operation with no changes to the access and scale of activities or transport. | The Guidelines provide for exemptions from further assessments for existing operations that are to continue in a similar manner.<br>No assessment is required because there are no significant changes to the transport operations.<br>There are agreements in place with the Shire of Toodyay with respect to transport that will be reconsidered. |
| Western Australian Planning Commission Planning Bulletin 111/2016 | New developments may need to consider fire risk and mitigation such as a bushfire policy and BAL attack document. | This is an existing operation with no changes to the access and scale of activities or transport or fire risk.<br>The pit acts as a fire management zone as it is devoid of vegetation. | No assessment is required because there are no significant changes to the fire risk.<br>The Bulletin provides for exemptions from further assessments where there are no materials to burn and where there are no changes to the operations. |
| *Environmental Protection Act 1986*<br>*Part IV* - Assessment | Referred to the EPA if the project is or may constitute a significant environmental impact. | This is a currently operating quarry. | No referral to the EPA will be required. |
| *Environmental Protection Act 1986*<br>*Part V* – DWER Licence | Environmental factors that may be significantly impacted related to Prescribed Premises.<br>Processing and Screening | If screening or even a crushing plant is to be in excess of 5 000 tonnes per year the operation will require a Department of Water Environment Regulation Licence. | No material is crushed or screened. |
| *Environmental Protection (Noise) Regulations 1997* | Noise impacts. | There are no proposed changes to the operations which are set back 200 from Morangup Road, with the closest dwelling being over 700 metres away to the south east.<br>The excavation complies with the EPA generic buffer guidelines. | Noted. See Noise Management. |
| *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* | Clearing and disturbance of native vegetation. | Clearing Permit under the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* is required *under the Regulations*. | A Clearing Permit will not be required. |
| *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth) | Matters listed on the EPBC database. | The matters listed under the *EPBC Act 1999* which might apply to this site such as Black Cockatoo habitat. | The proposal does not require the clearing of Black Cockatoo habit. |
| *Wildlife* | Provides for the | The clearing of vegetation is covered | The proposal does not require the |

| | | | |
|---|---|---|---|
| *Conservation Act 1950* | protection of flora and fauna. | under the *Environmental Protection (Clearing of Native Vegetation) Regulation.* | clearing of Black Cockatoo habit.<br>The occasional large trees on site will be retained. |
| *Conservation and Land Management Act 1984* | Parks and Reserves and issues relating to flora and fauna. | There are no issues that trigger this legislation. | Noted.<br>The site has previously been excavated and initially this proposal will utilise the previously excavated areas and rehabilitate them as the pit moves forwards. |
| *Biodiversity Conservation Act 2016* | The legislation seeks to protect and manage biodiversity in all its forms through regulation, conservation and restoration. | There are no issues that trigger this legislation. | Noted.<br>The site has previously been excavated and initially this proposal will utilise the previously excavated areas and rehabilitate them as the pit moves forwards. |
| *Heritage of Western Australia Act 1990* | Heritage | No heritage matters are identified locally or on quarry footprint. DPLH databases were searched. | Noted. |
| *Waterways Conservation Act 1976* | Water quality and management of surface water | There are no watercourses on site. | A Water Management Plan has been prepared and is included. |
| *Rights in Water and Irrigation Act 1914* | Water quality and management of surface water | There are no watercourses on site. | Noted |
| *Country Areas Water Supply (CAWS) Act 1947* | Water supplies | The site lies within water management areas, WMA/1 Avon River Management Area and SWA/1 Avon River Catchment Area | Noted. See Water Management Plan. |
| State Agreement Acts | Specific acts that relate to certain large projects that may impact on some locations. | Not applicable | |
| *Contaminated Sites Act 2003* | Contaminated materials that may arise from excavation or be used in excavation and processing. | The only factor that is likely to fall under this category is the storage and use of maintenance items and on site maintenance. | No materials are present or to be used which would trigger this legislation apart from normal fuel and maintenance.<br>A Water Management Plan has been prepared that includes commitments to remove any contaminated soils or other material regularly and at the end of excavation as part of the closure actions. |
| *Dangerous Goods Safety Act 2004* | Potential for dangerous good to impact on the environment. | Refers to fuel, which is required and blasting under the *Dangerous Goods Safety (Explosives) Regulations 2007*. | Midland Brick will comply with the requirements for fuel through management plans that will be implemented.<br>Fuel and Servicing Management Plans are included in the attached Water Management Plan. |
| *Mines Safety and Inspection Act 1994* | Safety and management of mining operations which in turn may impact on the environment. | | The site is registered under the SRS and a Project Management Plan, Risk Assessment and Emergency plans approved.<br>The Project Management Plan addresses all aspects of mining.<br>The SRS System addresses ongoing Health and Safety. |

## 3.6 Stakeholder Register

Table 2 Stakeholder Register

| Stakeholder | Potential Considerations<br>Date - Timing | Proponent Response - Outcome |
|---|---|---|
| **Internal Stakeholders** | | |
| Midland Brick Internal Management | • Ongoing<br>• Day to day management of the operations,<br>• Future directions and ownership. | • The operations have extracted clay since 1991. The methods of operation and transport are not proposed to change and the volume of material removed will be similar to past higher extraction years. |
| **External Stakeholders** | | |
| Landholder | • Ongoing and prior to closure | • Liaison will be conducted as required. |
| EPA | • The pit has operated since 1991 and no changes are proposed. | • No referral is necessary. |
| Department of Biodiversity Conservation and Land Management | • Manages native flora and fauna | • No clearing is required or proposed. |
| Department of Environment and Energy Commonwealth | • The only listed matter that might apply is Black Cockatoos which are listed as Threatened if significant feeding and nesting habitat is to be impacted. | • The proposal does not require the clearing of Black Cockatoo habitat. |
| Shire of Toodyay | • Provides Planning approval under Town Planning Scheme 4.<br>• Issues Extractive Industries Licence for the quarry under the Local Law.<br>• Regulates land zonings and planning in conjunction with the Western Australian Planning Commission<br>• Controls the measures used to prevent bush fires.<br>• Regulates truck use on local roads.<br>• Issues approvals for transport vehicle owners to apply to MRWA (Main Roads) for permits to utilise oversize vehicles on specific roads.<br>• The eastern section of Morangup Road is nominated as a Wildflower Road. | • Midland Brick will continue to work with the Shire of Toodyay on complying with the conditions and minimising local impacts.<br>• Midland Brick transports clay across Morangup Road through the approved clay operation to the south of Morangup Road to the bitumen section of Morangup Road, avoiding the nominated wildflower section and the gravel part of Morangup Road. |
| Nearby Residents | • The quarry has operated since 1991.<br>• No changes to the scale or type of operations are proposed.<br>• There are no further nearby residential developments since the last approval. | • Nearby landholders will be notified by the Shire who will also advertise the project.<br>• The distance to residences will not change and complies with all Government Policies. |
| Department of Lands Planning and Heritage (DAA) and traditional land holders | • Maintains heritage databases | • Department of Planning Lands and Heritage database has been searched and no sites have been found. |
| DWER | • May provide advice on aspects of environmental impact and management.<br>• Issues clearing permits under the Environmental Protection Act 1986. (Not required) | • No clearing is proposed so a Clearing Permit is not required |
| | • Published guidelines for water quality management for extractive industries.<br>• Licenses bores and oversees water use.<br>• Has control over the management of ground and surface water in the area, including water catchments. | • Complies with DWER Guidelines for water management and separation to the groundwater of > 2 metres.<br>• The site lies within water management areas, WMA/1 Avon River Management Area and SWA/1 Avon River Catchment Area. |
| | • A DWER Licence is required under *Part IV of the Environmental Protection Act 1986* for crushing or screening if the annual volumes exceed 5000 - 50 000 tonnes. (Category 70 Prescribed Premises). | • There is no crushing or screening of clay, therefore no Licence is in place or required. |

| | | |
|---|---|---|
| WAPC | • Prepares State Planning Policies.<br>• Provides approval under the MRS on Development Approval for Extractive Industries.<br>• Prepared State Planning Policy 2.4, Basic Raw Material Strategy. Whilst SPP 2.5 now covers this area, the existing clay extraction is listed as T9 in SPP 2.4 (2000).<br>• SPP 2.5 now covers this area, the existing clay resource. | • Noted |
| Main Roads | • Responsible for Toodyay Road. | • Noted |
| DMIRS Safety Division | • Controls the safety and methods of excavation through the Mines Safety and Inspection Act 1994.<br>• Oversees the health and safety of workers.<br>• Responsible for regulation of mines under the Mining Act 1978. | • Noted and in place.<br>• The site is registered in DMIRS SRS system. |

## 3.7 Surrounding Landuses and Buffers

Excavation is worked from inside out on the floor of the pit up to 15 metres below natural ground level.

The proposal is set back from the boundaries of the subject land and has the same footprint as previously approved.

A number of Government Policies relate to buffer distances and the protection of basic raw materials. *State Planning Policy No 4.1, State Industrial Buffer Policy*, (draft July 2004) discusses the need to consider adjoining land uses when locating buffers but does not prescribe set buffers for operations such as this.

State Planning Policy No 4.1, State Industrial Buffer Policy, (2004) discusses the need to consider adjoining land uses when locating buffers.

The State Industrial Policy 4.1 does not specify a set buffer distance, but notes that buffers are to be based on “scientific study” and are flexible. It further specifies the buffers by reference to other documentation such as the Environmental Protection Policies, EPA Generic Buffer Guidelines; that is the EPA generic buffer is used in the absence of supporting or scientific studies and information.

The buffer referred to can be both on site and offsite although in this case only on site buffers are required.

*EPA guidance "Separation Distances between Industrial and Sensitive Land Uses",* June 2005 lists the generic buffers for sand and limestone pits as 300 - 500 metres but for clay 500 – 1000 metres depending on the extent of processing. In many ways the extraction of clay is similar to sand or between sand and limestone. There is no onsite crushing of the clay, which is excavated and either loaded directly onto trucks or stockpiled for later transport. The generic buffer for clay therefore is too great and that is reflected in the EPA Draft Generic Buffer Guidelines 2015, which are 300 – 500 metres for clay extraction.

The issue of appropriate buffers is a matter of the distance and protection measures to prevent impact on adjoining land users. This applies mainly to noise, dust and visual impact, all of which are treated separately. Therefore excavation has been designed in a manner to minimise potential impacts on the dwelling to the east.

As there is no blasting or processing on site, the clay and weathered schist is relatively soft, and the pit is well protected by excavation into a plateau, the minimum generic buffer is more applicable.

The closest dwelling to excavation is the owner's house, situated 360 metres to the south from the proposed excavation. There are some sheds located 390 metres from the north eastern edge of the resource, located below the edge of the plateau and protected by the landform and vegetation.

The closest dwelling is 700 metres to the east, below the ridge line and behind tree belts. As far as is known there is another dwelling 1000 metres south of the operations.

The extensive tree and vegetation belt, 200 metres wide is retained between the pit and road, should ensure that the pit will not be seen from Morangup Road.

During rehabilitation the land surface will be formed into gentle slopes draining to a dam and revegetated to local native vegetation.

## 3.8 Social Impacts

There are no proposed changes to the scale and nature of the excavations. The access points and intensity of excavation will not change.

Midland Brick has ongoing community consultation procedures in place, particularly with the Shire of Toodyay and Morangup Community Group. Support has been provided for the Morangup Community Centre for the extension of the buildings used to “house” both the Ambulance and Fire Fighting appliances.

Midland Brick maintains an “Open Door Policy” with the public who may contact the company at any time.

## 3.9 Complaints Mechanism

No complaints have been received from any adjoining landowners during the past excavations.

The following complaints mechanism is proposed.

1. The contact details will be displayed at the entrance to the operations.
2. A complaints book will be provided and maintained by Midland Brick.
3. Upon receipt of a complaint Midland Brick will investigate and action the complaint.
4. When a complaint is found to be legitimate, Midland Brick will, where possible, undertake any reasonable actions to mitigate the cause of the complaint and where possible, take reasonable steps to prevent a recurrence of the situation in the future.
5. Details of any complaints, the date and time, means by which the complaint was made, the nature of the complaint, the complainant, investigations and any resulting actions and the reasons, will be recorded in the Complaints Book.
6. The Shire of Toodyay will be informed of any complaint or any other report provided to a Government Department within 3 working days.
7. The complaints book will be made available for viewing or requested details made available to the Shire of Toodyay or any other official upon request.

# 4.0 PROJECT DESCRIPTION

## 4.1 Extraction and Processing

**Excavation Summary**

| ASPECT | PROPOSAL CHARACTERISTIC |
|---|---|
| **EXCAVATION** | |
| Total area of excavation | 17.9 hectares comprised of;<br><br>• Pit > 3 metres deep 6.1 hectares.<br>• Stockpiles and service areas on natural land surface, 10.0 hectares.<br>• Under rehabilitation 1.8 hectares. |
| Resource extraction | 30 – 50 000 tonnes clay per year. |
| Operational time | Intermittent and restricted to campaigns<br>Excavation up to 30 – 60 days every two years.<br>Transport - see below |
| Life of project | 10 years |
| Area cleared per year | No clearing is required to extract the next ten years resource |
| Area mined per year | 0.5 ha |
| Dewatering requirements | Nil<br>Water collecting in the pit is used for dust suppression. |
| Maximum depth of excavations | Up to 20 metres at final depth |
| Native vegetation to be cleared | Nil |

**Excavation Methods**

No changes are proposed to the methods or scale of the clay extraction.

The total quantity of clay from the Morangup locality is determined by the sales orders for the various types of brick. If more clay is taken from one pit such as north or south of Morangup Road, less will be taken from other pits. Overall there is not anticipated to be any increase in clay removed from the Morangup locality as annual production has reduced significantly in recent years due to the downturn in housing construction.

1. Excavation is undertaken on an intermittent basis due to weather conditions and changing demand for these clay grades.

2. Any laterite cap rock will be recovered by ripping with a bulldozer and stockpiled separately for later crushing or use in rehabilitation.

3. Any natural gravels will be salvaged and used for the construction and maintenance of haul roads either by direct transfer or storage for later use.

4. Topsoil/overburden are scraped from the first excavation cell and stored for future land rehabilitation. Topsoil will be stored in low dumps approximately 0.5 metres high if it cannot be spread directly. As excavation progresses the stored topsoil will be progressively used for rehabilitation.

5. Softer soils and below grade clay which are classed as overburden will be removed and stockpiled separately, adjacent to the excavation, for use in rehabilitation of the pit.

6. A variety of excavation methods are used depending on the clay being extracted, the configuration of the pit, complexity of the blending requirements and weather conditions. At times clay is excavated by loader or excavator tipping directly to road trucks for delivery to the Middle Swan factory site. On other occasions a dump truck is used to transport the clay to stockpiles for blending.

7. Scrapers are also used to remove overburden or transport clay to the stockpiles because they are very efficient, but the pit configuration does not always permit this.

8. The deposit may be worked as one or two benches depending on the depth of the excavation.

9. Water collecting in the pit from precipitation is directed into a sump at the base of the pit, from which it can be used for dust suppression and other activities.

10. Rehabilitation will progressively follow excavation wherever possible. The current form and nature of the pit means that there is little ability to rehabilitate land during the first five years.

**Stockpiles**

The bulk of the clay is excavated to stockpiles, sampled and tested, and then loaded onto road trucks as required for delivery to the factory's undercover storage stockpiles. During normal winters or very wet conditions it is impractical to extract clays directly from the ground, so it is necessary to stockpile some clay on the property as an emergency supply. Stockpiles are also required, because there is insufficient space to store all resources at the Middle Swan site.

Although clay is transported throughout the year, excavation is discontinuous, and dependent on the need for particular clay types, and to avoid very wet conditions. It is more efficient to excavate material for a period of weeks to produce in pit stockpiles from which clay can be transported in the intervening time, as this maximises the use of equipment. In pit stockpiles are often thrown up in windrows along the working benches by excavators. This technique is used to facilitate drying of very wet clays before they can be transported.

1. Currently the stockpiles are located in the east of the site.

2. Clay is recovered from the stockpiles using rubber tyred loaders loading directly to road trucks. On site processing is not required.

3. Normally 12 - 24 months supply of clay is removed and stockpiled in a campaign and the clay loaded from that stockpile for the remainder of the year.

4. The maximum quantity of clay stored in the stockpiles normally represents 24 months supply but depends on production requirements and seasonal factors.

## 4.2 Final Contours

*1.* On completion, the land surface will be retained as a void. The batters will be graded to ensure the final slopes form an interim stable land surface in compliance with the *Mines Safety and Inspection Act (1994) and Regulations (1995).*

2. The final contours are proposed to be formed to a gently sloping depression and farm dam. The concept final slope will not be steeper than 1 : 4 vertical to horizontal up to the surface outside the area of excavation. In the pit and dams slopes greater than 1 : 4 vertical to horizontal will be retained where erosion is controlled.

3. The void will be formed into a self draining landform that drains to a dam – sump located on the floor of the resource area.

4. Experience by Midland Brick has shown that dams of this type, in completed clay pits, can be constructed in a manner whereby they will not overflow. This is done by calculating the runoff from the created catchment and ensuring that it is contained.

5. A similar situation will occur on site with the naturalised final water level anticipated to be around 262 metres AHD.

## 4.3 Staging and Timing - Bonds

The total quantity of clay removed annually from site is not expected to change significantly from that of previous years.

The quantity removed has varied from 30 000 to 50 000 tonnes per year. At these consumption rates there is sufficient resource for 10 years' supply.

| | |
|---|---|
| Total area of excavation | 17.9 hectares comprised of;<br><br>• Pit > 3 metres deep 6.1 hectares.<br>• Stockpiles and service areas on natural land surface, 10.0 hectares.<br>• Under rehabilitation 1.8 hectares. |

See the Staging Plan Figure 5.

## 4.4 Hours of Operation

Clay will be excavated intermittently throughout the year in a number of campaigns, and stockpiled for use at other times of the year.

Clay is normally transported from this site on up to 80 - 100 days each year but this can vary.

The hours of operation applied for are proposed to be 7.00 am to 5.00 pm Monday to Friday with no work on Saturdays or Sundays and public holidays.

Transport is restricted to 7.00 am to 5.00 pm Monday to Saturday inclusive, excluding public holidays.

Limits to the number of truck movements from June to September (inclusive) are to be restricted to the 5 week days or 40 truck movements per day reducing to 30 truck movements on "event" days or the Toodyay Agricultural Show day.

Restricting transport times or numbers will not change the total number of trucks on the road, to move the volumes of clay. Rather restrictions concentrate truck movements and are not desirable.

In addition this regime reduces the brick manufacturing cost by spreading the high capital cost of equipment over the maximum number of working hours/year.

## 4.5 Access and Security

Excavation will normally be conducted in campaigns. It is more efficient to excavate material for a period of weeks to produce on site stockpiles from which clay will be transported in the intervening time, as this maximises the use of bulldozers and other equipment. There will also be times when there is no excavation activity on site because stock piles at the Middle Swan works site are being utilised. The excavation methods are described in 4.1 Extraction and Processing.

The existing crossovers on Morangup Road, secured with lockable gates, will continue to be used for the duration of the project.

The access road enters from the west and that will be the route used. The access road sweeps around and then swings to the north, with a cross over to a resource on the northern side of Morangup Road, which is only used for accessing the northern operation and not this site. This arrangement has been in place for many years and avoids traversing a section of Morangup Road.

The site is fenced and installed with locked gates at all times other than when the pit is being worked.

Table 3 Seasonal Closure and Campaign Closure

| | CLOSURE OBJECTIVE | **Completion Criteria** | **Actions for Care and Maintenance Greater than 12 months** |
|---|---|---|---|
| 1.0 COMPLIANCE | | | |
| 1.1 | All legally binding conditions and commitments relevant to closure and rehabilitation will be met. | 1.1 | Prior to undertaking temporary closure.<br><br>• Review the latest documentation.<br>• Assess compliance with the conditions and commitments<br>• Faces and the landform are to comply with DMIRS Guidelines and be stable for the long term. |
| 2.0 SAFETY | | | |
| 2.1 | Make the site safe. | 2.1 | Prior to vacating;<br><br>• Secure the site and any plant or structures to be left.<br>• Mobile plant and other equipment not required will be removed from site.<br>• The site will be cleaned, structures will be removed.<br>• Provide fencing, bunding, signage or other measures as required to provide a safe site, particularly above any faces.<br><br>**Security**<br>• Complete activities to make the site safe.<br>• Provide bunding and warning signs above faces as required.<br>• Provide locked gates or log access restraints as required or maintain staff on site.<br>• Check and maintain perimeter fences.<br>• Visual audit of completed ground, to verify compliance. |
| 3.0 HYDROGEOLOGY | | | |
| 3.1 | Ensure that there are no materials that could cause pollution or environmental | 3.1 | • Remove fuel service materials.<br>• Remove any materials from which leaching may occur. |

| | | | |
|---|---|---|---|
| | harm. | | |
| 4.0 BIODIVERSITY | | | |
| 4.1 | Minimise the risk to on site or offsite biodiversity. | 4.1 | • Implement the Dieback Management Plan.<br>• Implement the Weed Management Plan.<br>• Inspect the site for Significant Environmental and Declared weeds. Treat accordingly<br>• Inspect adjoining native vegetation and rehabilitation for edge weed effects. Treat accordingly. |
| 5.0 STAKEHOLDERS | | | |
| 5.1 | Ensure stakeholder issues are considered. | 5.1 | • Prior to temporary closure, as necessary, consult with the relevant stakeholders to check whether the closure planning, where possible, considers their interests and carry them out as necessary. If care and maintenance continues modify procedures in response to changes in stakeholder position, policies or conditions. |

## 4.6 Equipment

Over the years the company has improved efficiency by purchasing modernequipment as it has become available. With the increased size and weight of the excavation equipment, the recovery of resource can be maximised.

During campaigns there may be one to two pieces of the same plant on site to expedite the winning of resource in a defined time, such as two excavators or two scrapers to rehabilitate the land surface. Although the list of plant below is extensive, it will not all be used at one time.

Table 4 Equipment Register

| Summary of Equipment | Comment |
|---|---|
| Site office and/or containers | A transportable site office and crib room is installed on Lot 3 on the northern side of Morangup Road and is used when this site is operational. A building licence is approved for this development. |
| Toilet system | A serviced portable toilet system is located on Lot 3 and is used during campaigns. |
| Weighbridge | A weighbridge is not proposed. |
| Maintenance vehicles | Midland Brick has mobile maintenance truck based facilities that access the site as required. |
| Bulldozer | A D11R Bulldozer or similar will be used to reform the landscape and open various stages of the pit.<br>Apart from land restoration, operates on the floor of the pit. |
| Excavator | Used to extract clay. During campaigns two excavators may be used operating on the pit floor with the off highway dumpers. |
| Loader | Used to recover clay from stockpiles and load road trucks. A Cat 966/972 or similar loader will be used for loading and handling products.<br>At times there may be two loaders on site at one time, for example when recovering material from the face and loading from stockpiles. |
| Off Highway Dumpers | CAT 740 or similar off highway dumpers work with the excavator to transport resource from the face to the stockpiles. |
| Drill rig | Midland Brick has its own drill rig that will be used to test extensions of the clay resource.<br>The drill is equipped with dust extraction equipment and skirts. |
| Water tanker | A water tanker is to be available on site during excavation and transport operations to provide for dust suppression as recommended by the Quarry Manager or supervisor. |

| | |
|---|---|
| Fuel Storage | Fuel is not proposed to be stored on site. Vehicles are to be refuelled from dedicated fuel supply and maintenance trucks. |

## 4.7 Loading and Transport

As the rate of extraction from the local area is not expected to change over the next few years there will be a continuation of the current transport activity with some fluctuation due to the cyclic demand for clay building products.

The number of truck movements is not anticipated to change. The number of road truck movements will continue to vary throughout the year depending on whether the resource is being transported or not. Road transport will use truck and dog configurations to cart clay.

The rate of transport used will however depend on market and operational demands and these may change from time to time within the applied for hours of operation/transport.

Resource is likely to continue to be transported from this site on up to 80 - 100 days each year.

Transport is restricted to 7.00 am to 5.00 pm Monday to Saturday inclusive, excluding public holidays

The number of truck movements from June to September (inclusive) on 5 days per week at a maximum of 40 truck movements per day days and no work on the Toodyay Agricultural Show day.

All vehicles are fitted with automatic tarpaulins, which cover the clay during transport. (No tarp; no load).

A water tanker will be on site during operations at dry times of the year; as recommended by the Site or Quarry Manager. This will draw water from the dam to wet down the access roads, stockpile areas and pit floor as required.

Generally workers will be on site only during excavation or transport of clay. At such times the workforce will vary from 3 to 6 persons in addition to the truck drivers who enter and leave the site.

## 4.8 Water Use

Water used for on site dust suppression is drawn from the base of the pit.

This water is also available for fire fighting and will continue to be used.

A water tank and standpipe will be installed as deemed necessary by the Quarry Manager to provide facilities for the wetting down of loads and roads.

Potable water will be brought to the site as required.

## 4.9 Safety

**Operations**

Excavation will be conducted to *Mines Safety and Inspection Act 1994 and Regulations 1995.* Excavation practices, and operations procedures are in compliance with the Act. Health and safety issues are overseen by the Department of Mines, Industry Regulation and Safety.

Regular inspections and audits are carried out by officers of the DMIRS to inspect safety, operational procedures and workplace health such as dust and noise.

Midland Brick have in place Safety Management Plans and a site specific Emergency Response Plan to cover operational procedures, which include workforce induction and training to ensure that all employees involved are made aware of the environmental and safety implications associated with all stages of the mining activities. All workers are required to wear full protective safety and high visibility gear when on site.

Vehicles are not permitted on site without registering with mobile plant on site. Full personal protection is required for all persons on site at all times.

The site is registered under the DMIRSSRS reporting system for minesites and quarries.

**Emergency**

The site is within mobile phone contact and all vehicles are equipped with two way radios.

Emergency injured persons drills have been conducted onsite with the co-operation of the Local Volunteer Emergency Group at Morangup.

Support has been provided for the Morangup Community Centre for the extension of the buildings used to “house” both the Ambulance and Fire Fighting appliances.

Midland Brick liaises with the local volunteer emergency groups to ensure emergency preparedness procedures are in place.

**Fire**

There is less potential fire risk from quarries than other land uses because quarries clear land and vehicles are restricted to cleared access roads, the pit floor, processing and stockpile areas. The clay is damp and there is water in the pit.

These cleared areas form a natural firebreak. The main risk comes from an external fire in the surrounding vegetation, impacting on the quarry. As such the fire risk is no greater than a rural property.

The water on site currently, and available in the sumps in the base of the pit, will be available for fire fighting and represents a reduction in risk.

Fire risk is normally controlled through the *Bush Fires Act 1954* and local authority bylaws.

The safety of workers is managed through a Safety Management Plan developed through the *Mines Safety and Inspection Act 1994 and Regulations 1995*.

There are a number of management actions that can be taken in quarries to minimise fire risk and these are used wherever possible. The actions are used where applicable and as the opportunity presents to minimise fire risk.

- Restrict vehicles to operational area, particularly on high fire risk days.
- Use diesel rather than petrol powered vehicles
- Maintain perimeter fire breaks as required
- Ensure fire risk is addressed and maintained through the Safety Management Plan
- Provide an emergency muster area, communications and worker induction and training
- Maintain the site radio contact procedures
- Provide fire extinguishers to vehicles
- Establish on site water supplies for potential use in extinguishing fire
- Secure the site from unauthorised access
- Maintain fire breaks
- The safety of workers is managed through a Safety Management Plan.
- Midland Brick has contributed and supports the Morangup Community facilities including the rural fire brigade.

# 5.0 5.1 BIODIVERSITY MANAGEMENT PLAN

## 5.1 Biodiversity

The area of proposed excavation is cleared, In general the vegetation is a low Jarrah Marri Woodland grading to Wandoo Low Woodland in the west. See Section 2.5 Flora.

**Flora - Land Clearing**

The resource area is cleared. No clearing is anticipated to be necessary during the current life of the approval. If any trees are required to be cleared a Clearing Permit will be obtained before the trees are removed, in compliance with the legislation.

**Fauna**

There is little native fauna present in the area due to the level of clearing.

The planting of native trees in the buffer, combined with the provision of a permanent water site in dams, will lead to an increase in the richness and number of indigenous faunal species in the area, particularly birds.

The survival of fauna in the area will be more related to the future land use than the operation of the quarry. The future use is proposed to be a return to local native vegetation.

**Wetlands**

There are no wetlands on the resource area or Lot 3.

## 5.2 Dieback Management Plan

Dieback of vegetation is often attributed to Phytophthora cinamomi even though there are other Phytophthora species and other diseases such as Armillaria that can cause dieback like symptoms. Microscopic soil-borne fungi of the genus Phytophthora kill a wide range of native plants and can cause severe damage to many vegetation types, particularly those from the families Proteaceae, Epacridaceae, Xanthorrhoeaceae and Myrtaceae.

In most cases dieback is caused by a pathogen which infests the plant and causes it to lose vigour, with leaves dying, and overtime may kill the plant. As such the management of Dieback is essentially related to plant hygiene when coming onto a site and within a site.

There are several guides to the management of Dieback.

- *Department of Environment and Conservation DBCA Dieback Hygiene Manual 1992 is a practical guide to Dieback management.*
- *Department of Environment and Conservation DBCA Best Practice Guidelines for the Management of Phytophthora cinamomi, draft 2004.*
- *Dieback Working Group 2005, Management of Phytophthora Dieback in Extractive Industries.*

Dieback is only likely to be an issue when equipment is brought to the site from a dieback affected area either through vehicles or plant and soil materials therefore the following general principles are applied to Dieback management.

On this site, the resource area is cleared and has already been excavated.

The access roads are hard gravel.

However as a matter of good environmental management Midland Brick will use practices that will minimise the introduction of weeds or plant pathogens.

The aim of dieback management during excavation is to minimise the risk of entry of dieback into the site.

In many ways the management of the site for dieback is similar to that for the management of weeds, and the two management practices should be considered together.

The other management is to ensure that all excavation equipment and road transport vehicles are clean and free from soil and vegetable matter prior to entering the operations. This is normal practise by Midland Brick who strive for high levels of resource hygiene to minimise any potential for dieback spread.

The following actions are taken on this site.

- Excavation is undertaken using practices recommended by various guidelines. See *CALM Dieback Hygiene Manual 1992* which is more practical and *CALM Best Practice Guidelines for the Management of Phytophthora cinamomi, draft 2004.* See also *Dieback Working Group 2005, Management of and Dieback in Extractive Industries.*

- The access roads are to be hard gravel sourced from on site surface being maintained.

- The pits are formed to prevent water from leaving the pit and entering remnant vegetation.

- The quarry activities operate separately from the stockpile and loading areas and will effectively be a "split" operation.

- The site is secured from unwanted access.

- Excavation vehicles are restricted to the excavation area, stockpiles and access roads.

- Road transport vehicles are restricted to the stockpile, loading and access areas.

- A hygienic site is maintained by not bringing any soil or plant material onto the site except for rehabilitation purposes. A dedicated wash down bay is not required for an operation such as this.

- Prompt removal of any rubbish or dumped materials is practised.

- All quarrying, excavation and transport vehicles are required to be cleaned when coming from a dieback affected area, prior to leaving their source.

- Stockpiles will be contained on the dedicated stockpile area.

- Water from excavations is contained and directed to settlement dams in the base of the pits. The dams do not overflow and water is not normally discharged from the site by Midland Brick.

- These measures will produce a similar water regime to the situation prior to excavation. Ponding of surface water is to be avoided particularly. The pit will operate in cells that are internally draining to retain all surface water or drain to the sediment settlement dam and sumps in the base of the pit.

- The use of water for dust suppression will reduce the volume of water within the pit by using it for dust suppression.

- All vehicles and equipment to be used during land opening or land reinstatement, are clean and free from soil or plant material when arriving at site. This will occur at the previous site or at the Midland Brick works site by using brushing and compressed air.

- No contaminated or suspect soil or plant material is, or will be, brought onto the site.

- Compliance with the Weed Management Policy.

## 5.3 Weed Management Plan

The management of weeds is essentially similar to that for plant diseases. The impact of weeds is really the impact within the local area and the more they are controlled the better. It is desirable that the site does not become a haven for environmental weeds and therefore a management and control program is warranted at all sites.

Weeds can be declared under the *Agriculture and Related Resources Protection Act 1976* which requires that Declared Weeds are eradicated. Other weeds are not Declared but may be classified as Environmental Weeds because they are well known for impacting on vegetation.

The access roads are to be hard gravel.

A Vegetation study was completed by Landform Research on 23 October 2008 and the following exotic species recorded.

| FAMILY | GENUS - SPECIES |
|---|---|
| Asteraceae | *Arctotheca calendula* |
| | *Bidens pilosa* |
| | *Carduus pycnocephalus* |
| | *Conzya bonariensis* |
| | *Hypochaeris sp* |
| | *Sonchus asper* |
| | *Symphyotrichum subulatum* |
| | *Urospermum picroides* |
| | *Ursinia anthemoides* |
| | *Taraxacum sp* |
| Boraginaceae | *Echium plantageum* |
| Caryophyllaceae | *Silene gallica* |
| Fabaceae | *Lupinus cosentinii* |
| | *Trifolium sp* |
| Gentianaceae | *Centaurium erythraea* |
| Geraniaceae | *Pelargonium capitum* |
| Iridaceae | *Morea flaccida?* |
| Orchidaceae | *Monadenia bracteata* |
| Poaceae | *Avena barbata* |
| | *Briza maxima* |

| | |
|---|---|
| Primulaceae | *Anagallis arvensis* |
| Solanaceae | *Solanum nigrum* |

As a matter of good environmental management Midland Brick will use practices that will minimise the introduction of weeds or plant pathogens.

Generally if the actions taken for Dieback are applied they will also control weeds.

The management of weeds uses the following principles.

- The resource areas are cleared.
- Weeds are managed in conjunction with the normal farm management and agricultural practices.
- All vehicles and equipment used during site preparation, excavation and closure are clean and free from soil or plant material when arriving at site. See Dieback Management Plan.
- Vehicles are prohibited from entering remnant vegetation, apart from normal travel along made firebreaks.
- Illegally dumped rubbish is the major source of weeds and is removed promptly.
- No weed contaminated or suspect soil or plant material is brought onto the site.
- When clearing land or firebreaks vehicles are to work in conjunction with dieback principles and push from areas of better vegetation towards areas of lower quality vegetation.
- Weed management works from least affected areas to most affected.
- Declared weeds are treated promptly by digging out or spraying if present.
- Weeds will be treated promptly no matter how few there are.
- Ongoing monitoring of weeds should be undertaken at least annually in autumn, prior to winter rains.
- Compliance with the Dieback Management Policy.

# 6.0 OFFSITE MANAGEMENT PLAN

## 6.1 Aesthetics

Visual Impact can occur in a number of circumstances, by the operation being set too high in the landscape, by being too close to neighbours and by insufficient visual protection.

There are a number of management actions that can be taken in quarries to minimise visual impact and these will be used wherever possible. The general management actions are summarised below together with the visual impact issues that relate to this site. The actions will be used where applicable and as the opportunity presents to minimise visual impact.

Guidance on visual impact is contained in Department of Planning, Lands and Heritage, 2007, *Visual Landscape Planning in Western Australia (DoP 2007)*. Guidance can also be found in Forest Commission of Victoria, undated, Landscape Types of Victoria.

The Shire of Toodyay Local Planning Strategy provides for Landscape Protection to be considered with developments.

Excavation is worked from inside out on the floor of the pit up to 20 metres below natural ground level.

The current clay excavation is hidden by the existing planted buffers and setbacks from Morangup Road. Apart from the entrance of the haul road there is little evidence of activity on the site.

The excavation site does not appear to be visible from the new dwelling to the east at a distance of 700 metres because of the intervening landform and vegetation.

During rehabilitation the land surface will be formed into gentle slopes and revegetated with local native vegetation in the depression.

Where possible excavation will be progressively followed by rehabilitation, which will be completed as soon as practicable following the closure of each previous stage.

Table 5 Visual Management

| OPERATIONAL PROCEDURES | COMMITMENTS AND ACTIVITIES CONDUCTED ON SITE | MANAGED VISUAL RISK |
|---|---|---|
| Locate exposed features behind natural barriers and landform. | • The pit is worked from below natural ground level, using the land surface to provide screening.<br>• Wide 200 metre buffers to Morangup Road are maintained. | Low |
| Operate from the floor of the pit below natural ground level. | • This is used with excavation between 5 and 20 metres below natural ground level. | Low |
| Avoid breaks in the skyline due to workings and haul roads. | • The excavation areas lie on a relatively flat area with no obvious skyline.<br>• Excavation is set into the flat natural surface.<br>• Operations are located low in the landscape behind existing trees. | Low |
| Push overburden and interburden into positions where they will not be seen or can form screening barriers. | • These are used for safety but are not required for visual management. | Low |
| Stage workings and progressive rehabilitation to provide visual | • The excavation areas are staged. | Low |

| | | |
|---|---|---|
| protection of later activities. | | |
| Adopt good house keeping practices such as orderly storage and removal of disused equipment or waste. | • Midland Brick maintains a tidy site on all their operations. | Low |
| Provide progressive rehabilitation of all completed or disturbed areas. | • The site will be retained as a void and revegetated to local native species. | Low |
| Minimise the amount of ground used at any one time. | • This is to be used wherever possible. There will be no change to the existing footprint. | Low |
| Install fences and gates, which are compatible with the style of the area. | • Fences and locked gates are in place as farm style fencing.<br>• Roadside vegetation hides most of the fences. | Low |
| Minimise offsite impacts of night lighting. | • Night operations are not used. | NA |
| Paint and maintain buildings exposed, plant and equipment with low impact colours. | • No permanent plant is used.<br>• Facilities are used at the operations to the south of Moranup Road. | NA |
| Locate roads and access to prevent direct views into the site | • No new roads are proposed.<br>• The existing access road will be used. | Low |
| Ensure transport vehicles do not spill material on public roads and ensure prompt cleanup if it occurs. | • Company practices and driver/operator training address the need to minimise spill by ensuring the trucks are not overloaded or material is not left on the outside of trays.<br>• Collection of spills is carried out when reported.<br>• Drivers are instructed to be responsible for their loads. | Low |

## 6.2 Noise Management

The excavation methods and the excavation footprint will remain the same as those approved since 1991.

Normally excavation equipment is located on the quarry floor below natural ground level, to provide maximum shielding when the pit is sufficiently large and deep enough to accommodate this. Occasionally an excavator or bulldozer may be required to work from natural ground surface to increase efficiency or safety.

Midland Brick has noise management procedures in place. The main on ground management activities are summarised below. They are the same management procedures that are used by other clay excavators in the local area and within the past five years of operations.

Sound travels mostly in a "line of sight" manner. Solid barriers are very effective in attenuating or suppressing sound transmission.

The equipment used on site is listed in Section 3.6 Equipment. Not all equipment operates at the same time.

**General Noise Regulation**

Offsite noise is governed by the *Environmental Protection (Noise) Regulations 1997.*

The *Environmental Protection (Noise) Regulations 1997,* require that sensitive premises including dwellings in non industrial areas are not subjected to noise levels exceeding 45 dBA for more than 10% of the time, 55 dBA for more than 1% of the time and never exceeding 65 dBA during normal working hours. There are penalties for tonality of 5 dB, modulation 5 dB and 10 dB for impulsiveness, although impulsiveness is not likely to be relevant.

Occupational noise associated with the quarrying processes falls under the *Mines Safety and Inspection Act 1994 and Regulations 1995.* The management of occupational noise is normally handled by providing all necessary hearing protection, as well as conducting worker inductions, and educational programs for all staff. Regular site audits of quarry and mining operations are normally conducted by the Department of Mines, Industry Regulation and Safety.

Noise can originate from a number of operations and may impact on onsite workers, or travel offsite and impact on external sensitive premises. Both potential noise impacts are addressed by reducing the noise generated from the quarrying and processing operations.

There are a number of management actions that can be taken in quarries to minimise noise generation or travel and these will be used wherever possible. The general management actions are summarised below together with the potential noise impact issues that relate to this site. The actions will be used where applicable and as the opportunity presents to minimise noise on this site.

The *Environmental Protection (Noise) Regulations 1997*, require that sensitive premises including dwellings in non industrial and rural areas, are not subjected to general noise levels (excluding blasting), during the hours 7.00 am to 7.00 pm Monday to Saturday that exceed 45 dBA. Allowable noise to 55 dBA is permitted for up to 10% of the time and to 65 dBA for 1% of the time. Noise levels are not to exceed 65 dBA during normal working hours.

Between 9.00 am and 7.00 pm on Sundays and Public Holidays and between 7.00 pm and 10.00 pm on all days the base level is 40 dBA.

At night, between 10.00 pm and 7.00 am Mondays to Saturday and before 9.00 am on Sundays and Public Holidays, the permitted level drops to 35 dBA.

The 10% and 1% "time above" allowances apply at night and on Sundays and Public Holidays as well.

There are penalties for tonality of 5 dB, modulation 5 dB and 10 dB for impulsiveness, that are added to the permitted levels. That is, if the noise is tonal or modulated the permitted levels drop by 5 dB.

Impulsiveness is not likely to be relevant for the quarry under normal circumstances but tonal may apply to certain equipment.

Influencing factors are external noise and nearby land uses such as busy roads, and industrial properties. Schedule 1 of the *Environmental Protection (Noise) Regulations 1997* provides for the premises (area defined by the lot boundaries) of excavations to be provided with an industrial influencing factor in the calculation of assigned noise levels, by way of the 100 and 450 metre influencing factor circles.

Under Schedule 1 of the Noise Regulations the premises on which the extraction of basic raw materials, such as clay, hard rock, sand and limestone, is occurring is classified as Industrial Land for the purposes of calculating influencing factors. This was defined as the whole cadastral boundaries in State Administrative Tribunal decision {2013} WASAT 139, Bushbeach v City of Mandurah.

At a distance greater than 15 metres from the sensitive premises (eg dwelling), and commercial premises a base level of 60 dBA applies at all times with the 10% time permitted to be up to 75 dBA and the 1% permitted to be up to 80 dBA. For Industrial premises the base level is 65 dBA at all times with the 10% time permitted to be up to 80 dBA and the 1% permitted to be up to 90 dBA.

**Noise Management**

There are a number of management actions that can be taken in quarries to minimise noise generation or travel .

These actions are routinely used by Midland Brick where applicable and as the opportunity presents to minimise noise on site. The same methods are proposed.

Table 6 Noise Management

| **GENERAL NOISE MANAGEMENT** | | |
|---|---|---|
| **OPERATIONAL PROCEDURES** | **COMMITMENTS** | **MANAGED NOISE RISK** |
| • Comply with the *Environmental Protection (Noise) Regulations 1997.* | • Midland Brick is committed to continued compliance with the Regulations.<br>• In the past, Midland Brick has conducted noise monitoring at the boundary of the premises and determined that the noise complies with the Regulations.<br>• No complaints are known from the past 10 years of operation. | Noted |
| • Maintain adequate buffers to sensitive premises. | • The operations comply with the EPA generic buffer distances of | Low |

| | | |
|---|---|---|
| | 300 to 500 metres and have proven to be effective during the past operations.<br>• The closest dwelling remains the dwelling to the east at a distance of 700 metres from the closest operations<br>• No changes are proposed to the previously applied footprint in terms of distances to the closest dwellings. | |
| • Locate exposed features behind natural barriers and landform. | • Excavation is conducted on the floor of the pit behind the faces and natural landform to provide maximum noise screening.<br>• All mobile plant and equipment operate behind features and landform to provide maximum noise screening where possible; behind bunds if sufficient overburden is available.<br>• With buffer distance available on site to the nearest dwellings, and the operations occurring behind the brow of the plateau remnant in the east, no noise screening bunds are required as confirmed by the lack of complaints and issues from past excavations. | Low |
| • Maintain all plant in good condition with efficient mufflers and noise shielding. | • This is used and is committed to. All plant is to be maintained in sound condition. | Low |
| • Maintain haul road and hardstand surfaces in good condition (free of potholes, rills and product spillages) and with suitable grades. | • No changes to the access roads are proposed.<br>• See dust management | Low |
| • Implement a site code outlining requirements for operators and drivers for noise management. | • A site code is to be implemented and is committed to site induction and training for all personnel for all parts of the operations. | Low |
| • Shut down equipment when not in use. | • Shutdown is used to save fuel and maintenance costs in addition to noise minimisation. | Low |
| • Fit warning lights, rather than audible sirens or beepers, on mobile equipment wherever possible. | • Lights or low frequency frog beepers are to be used rather than high pitched beepers to restrict noise intrusion. | Low |
| • Provide a complaints recording, investigation, action and reporting procedure. | • A complaints recording and investigation procedure is proposed and will be implemented and maintained. | Low |
| • Provide all workers with efficient noise protection equipment. | • All personal noise protection equipment will be provided to staff as required. | Low |
| • Minimise and conduct at the least disruptive times. | • Quarrying is to be conducted during the approved working hours. | Low |
| • Use transport routes that minimise community disruption. | • Transport will not change.<br>• Exit is across Morangup Road, though the operations to the south, exiting to the bitumen section of Morangup Road to the west. | |

**Occupational Noise**

Occupational noise associated with the quarrying processes falls under the Mines *Safety and Inspection Act 1994 and Regulations 1995*.

Midland Brick has developed a Risk Based Health Management Plan as required by DMP. This covers health policies, planning, monitoring and equipment selection to minimise impacts on workers from dust, noise or vibration.

The management of occupational noise is normally handled by providing all necessary hearing protection, as well as conducting worker inductions and educational programs for all staff. Regular site audits of quarry and mining operations are normally conducted by the DMIRS.

As part of its commitment Midland Brick continues to be pro-active with its worker safety awareness;

- by providing all necessary safety equipment such as ear protection,
- identifying sections of the plant where hearing protection is required, as well as,
- conducting induction and educational programs for its staff.

The operating noise levels around the site are regularly monitored by independent consultants in accordance with the *Mines Safety and Inspection Act 1994*, and the results communicated to the Department of Mines, Industry Regulation and Safety (DIRS). All staff are provided with comprehensive ongoing training on noise protection as part of Midland Brick' commitment to occupational health and safety.

The DIRS conducts Occupational Noise Audits at quarries, as part of their supervisory role.

Warning signs are used to identify areas of potential noise.

## 6.3 Dust Management

### 6.3.1 Environmental Dust

***Background***

Excessive dust has the potential to impact on both the workers and the adjoining land, and its potential for generation must be taken in context.

There are a number of key aspects to dust impacts;

- What is the source of particles?
- What is the potential for the particles to be disturbed?
- What is the nature of the particles and how are they likely to behave?
- What types of impacts are the particles likely to have if they move?
- What management actions can be used to mitigate or reduce dust impacts?

Most dust on site will be generated during vehicle movements.

Commonly called "dust," scientists and regulators refer to the term particulate matter (or PM) to describe the range of particles that exists in the air breathed in.

Particulate matter exists naturally in the atmosphere, eg sea-salt spray and pollens. PM can be increased due to human activities such as vehicle exhaust, industrial processes, power stations, mining, farming and wood heaters, or smoke from bushfires.

Exposure to PM can be associated with health and amenity impacts if the exposure is excessive.

The likely risk of these impacts depends on a range of factors including the size, structure and composition of the PM and the general health of the person.

Particulate matter needs to be suspended in the air to carry any distance. The particles must be smaller than sand grains, which will only carry short distances because the grains are too large to move at any more than bouncing. The particles that are able to be suspended are called Suspended Particulate Matter and the total amount of that is referred to as TSP.

Little published data is available from general mining in Western Australia even though monitoring is undertaken at some sites. There is data specifically from mining, (predominantly coal) from New South Wales (NSW Health) where particulate levels have been measured to be;

PM <2.5 microns as 2 – 5% of emissions (One micron is 1 / 1000 of 1 mm).

> PM< 2.5 are invisible and called “fine particles”. They are the main health issue and are caused by vehicle emissions whether they are along roads or on private land. Vehicle emissions will not occur at night or at other times when the site is not active.

PM 2.5 – PM10 microns as 15 – 45%

> PM 10 (particles between 2.5 and 10 microns) are invisible and called “coarse particles”. They can be breathed in, but are removed by alveoli and mucous. (NSW Health). This dust may be generated when land is cleared and topsoil disturbed or the site is subject to traffic in summer.

PM>10 microns as 50 – 70%

PM>10 is visible dust and will, based on the resource, be the vast majority of the particles.

Normally all sizes of dust are generated together, and there will be visible dust being generated when invisible dust is being formed. Therefore any visible dust present is a good sign and early indicator of a dust risk. A summary of the sources and proportions of dust is shown in; NSW EPA and NSW Ministry of Health Environmental Health Branch 2015, Review of the health impacts of emission sources, types and levels of particulate matter air pollution in the ambient air in NSW.

This is backed up by occupational monitoring through the Department of Mines Industry Regulation and Safety. Unpublished data from those quarries shows quarries are compliant or can readily be made compliant with the health and safety and community standards through normal dust management practices. See Section 1.4 Occupational Dust.

***Clay Excavations***

The main risk from dust during clay excavation is from fine clay particles disturbed by repeated traffic on site and fine particles that are generated during transport along the access roads.

In clay pits such as this the clay stays moist throughout the year so excavation from the face or floor does not generate dust.

Through the winter months of May to September inclusive, there is little dust risk because rainfall exceeds evaporation. The rainfall is sufficient to wet the whole soil profile to depth, with excess water reaching the water table.

In summer, when evaporation exceeds rainfall, elevated areas of clay dry out and can be crushed by repeated vehicle movements. Without the traffic the clay stays in lumps that do not degrade or produce fine dust particles.

However in elevated and dry stockpile areas or trafficked areas where the clay can dry out and be crushed there is potential for dust to be generated. Most of this dust is regarded as nuisance dust.

Clay can be ground very fine from repeated disturbance such as vehicle movements. Any contained sand grains are hard and are not normally reduced in size even by traffic movements.

Clay itself is not poisonous, and kaolin clay has been and is still used in some medicines.

For this operation the main access road and internal roads are gravel but these are wetted down as required . The closest dwelling is 700 metres and carries a negligible risk of dust impact by the DWER assessment score. See Table below.

Occupational dust associated with the quarrying processes falls under the *Mines Safety and Inspection Act 1994 and Regulations 1995* overseen by the Department of Mines Industry Regulation and Safety who regularly inspect the site.

***Tree Belt - Buffers***

Dust particles are readily stopped by tree belts and distance, with which the site complies. Tree belts slow the wind and allow the dust to settle. See *Planning Guidelines Separating Agricultural and Residential Land Uses, Department of Natural Resources Queensland 1997( Pages 65 – 111) and Department of Health WA, 2012, Guidelines for Separation of Agricultural and Residential Land Uses* which uses the same criteria *(Pages 112 – 118).*

The Queensland Guidelines predominantly relate to agricultural spray drift, but based on particle size also relate to dust.

The Guidelines provide for a buffer of 300 metres for open agricultural land, dropping down to 40 metres where an effective tree belt is in place. The Western Australian Department of Health also uses the same guidelines.

The Guidelines are based on field studies and demonstrate the effectiveness of tree belts and distance in providing screening against particulate travel.

A minimum of 700 metre buffer distances is available to the closest dwelling with a 200 metre vegetated buffer to Morangup Road, which complies with the Guideline and the Queensland research.

The key Environmental Objectives for the operations are;

- Manage the potential for the generation of dust.
- Visually monitor dust levels and take steps to reduce the potential impact of dust on occupational and environmental aspects of the operation and local area.

***Assessment of Dust Risk***

***Dust Guidelines***

Dust management is an integral part of the extraction and processing of any basic raw material.

The most common form of disturbance is by mobile plant and vehicle impacts. In this local area dusty roads have the most potential to produce dust, such as the access road which is no different to any other local unsealed road.

The potential for dust emissions falls under the *Guidance for the Assessment of Environmental Factors, EPA, March 2000*. Assessments of the potential dust risk are normally made using the Land development sites and impacts on air quality, *Department of Environmental Protection and Conservation Guidelines, November 1996.*

These guidelines are still in place but are incorporated into the *DEC (DER) 2011 Guideline for Managing the Impacts of Dust and Associated Contaminants from Land Development Sites, Contaminated Sites Remediation and other Related Activities.*

The DEC (DER) in 2008 released a draft Guideline for the Development and Implementation of a Dust Management Plan.

The site has operated since 1991 and effective dust management is in place and has proven to be effective.

Even so a dust risk assessment has been completed using the DEC (DWER) 2011 Guideline.

Table 7 Dust Risk Assessment from DWER (DEC)

| **PART A Number** | **Item** | **Score** | |
|---|---|---|---|
| | | **Clay excavation in summer** | **Loading and stockpiling in summer** |
| 1 | Nuisance potential of the material | Very low when trafficked and untreated – 1 | Medium when trafficked and untreated – 4<br>Low with effective water sprays and wetting down - 2 |
| 2 | Topography and vegetation screening | Well screened - 1 | Well screened - 1 |
| 3 | Area of site activities | Trafficked areas are 1 to 5 hectares in area - 3 | Trafficked areas are 1 to 5 hectares in area - 3 |
| 4 | Type of work being undertaken | Bulk earthworks - 9 | Partial earthworks - 6 |
| | | | |
| | Summer total without dust measures | 14 | 15 |

| **PART B Number** | **Item** | **Score** | |
|---|---|---|---|
| | | **Clay excavation** | **Loading and stockpiling** |
| 1 | Distance to premises | 700 metres - 6 | 700 metres -6 |
| 2 | Effect of prevailing wind | Not affected - 1 | Not affected - 1 |
| | | | |
| | Summer total without dust measures | 98 | 105 |

| **Activity** | **Calculated Score** | **Allocated Risk of Dust** |
|---|---|---|
| Excavation with dust suppression. | 105 | Classification 1<br>Negligible Risk,<br>No recommended actions or contingencies required for the dwellings.<br>Dust management will be required for pit best practice and worker environment. |
| Loading and stockpiling with dust suppression | 105 | Classification 1<br>Negligible Risk,<br>No recommended actions or contingencies required for the dwellings.<br>Dust management will be required for pit best practice and worker environment. |

***Buffers***

The clay excavations comply with the EPA Generic Buffers for clay excavation . See Section 3.0.

***Occupational Dust***

Occupational dust associated with the quarrying processes falls under the *Mines Safety and Inspection Act 1994 and Regulations 1995* overseen by the Department of Mines, Industry Regulation and Safety (DIRS).

Midland Brick will provide induction and protective equipment for all persons on site.

The DMIRS require personal dust monitoring to ensure dust levels comply with health risk guidelines.

The dust management procedures used on site comply with these guidelines.

Midland Brick has developed a Risk Based Health Management Plan as required by DMIRS. This covers health policies, planning, monitoring and equipment selection to minimise impacts on workers from dust, noise or vibration.

***Actions and Management***

Table 8 Dust Management

| ACTIVITY | POSSIBLE RISK SEVERITY and FREQUENCY | OPERATIONAL PROCEDURES AND COMMITMENTS | RISK AFTER MANAGE MENT |
|---|---|---|---|
| **EARTHWORKS** | | | |
| Land Clearing, construction earthworks and building the bund | Low<br>-<br>Occasionally to open new ground | • No Clearing is required.<br>• This involves removing the topsoil for use in revegetation and topping the screening bunds, followed by removal of the overburden.<br>• Clearing will be conducted to only remove the area required for immediate mining to expose the resource and construct the operational features.<br>• If winds are sufficiently strong, or other weather conditions are unacceptable to negate the effects of dust management, operations will cease until conditions improve and compliance can be achieved.<br>• Visual monitoring of the visual dust is the best and fastest method of monitoring dust risk and dust generation and faster response can be achieved than alarms or monitors. If visual dust is significant then smaller particles may also be present. | Low |
| Land restoration | Low<br>-<br>Once per year or less frequent | • Land restoration is infrequent and normally conducted only once per year.<br>• Scheduled activities such as ripping, overburden and topsoil spreading will be conducted at times of low dust risk | Low |
| **EXCAVATION - PROCESSING** | | | |
| Excavation | Low<br>-<br>Frequent | • There are no changes to the clay excavation methods.<br>• Excavation will be conducted on the floor of the pit to provide maximum shelter for dust protection.<br>• The local surrounding vegetation acts as a partial wind break to reduce on site wind speed and therefore reduce the potential for dust lift off.<br>• The tree buffers to the east and Morangup Road provide compliance with Government Guidelines. | Low |
| Loading and stockpile creation | Low<br>-<br>Frequent and in campaigns | Loading from the face produces little dust and is covered under excavation.<br>Loading from the stockpiles occurs on limited days per year. At that time a water truck is available for dust suppression of the trafficked areas if deemed required by the quarry manager. | Low |
| **TRANSPORT** | | | |
| Road condition | Low<br>-<br>Frequent | • The access road is gravel.<br>• All public roads travelled are sealed.<br>• All loads for transport outside the pit are covered.<br>• The access road and crossover are maintained in good condition as they are sealed.<br>• Midland Brick and the Shire of Toodyay liaise with respect to the access road and transport routes. | Low |

| | | | |
|---|---|---|---|
| Health and Amenity | | • A readily auditable trigger of no visible dust to cross the property boundary in line with DWER Licence and best practice in WA.<br>• The trigger for dust management is the generation of visual dust.<br>• The loader operator or site controller will observe the amount of dust being generated as they are in the best position to assess dust generation and to direct remediation in consultation with the quarry manager.<br>• On site induction training will include observation and mitigation where possible of all dust emissions.<br>• Occupational dust associated with the quarrying processes falls under the *Mines Safety and Inspection Act 1994 and Regulations 1995* overseen by the Department of Mines Industry Regulation and Safety who regularly inspect the site.<br>• Included in the program are personal dust monitoring assessments. If on site dust is managed, offsite dust risk is also managed.<br>• Operations will temporarily cease if conditions occur where dust cannot be managed through breakdowns or extreme weather events.<br>• The latest weather conditions will be reviewed as required to assess the potential impacts on dust risk. | |
| Complaints | | • All complaints relating to dust are to be investigated immediately on receipt of a complaint.<br>• A record of all dust complaints is to be maintained together with the mitigation measures to be used to reduce the dust impacts.<br>• As far as is known there have been no complaints with respect to dust in the last ten years. | |

### 6.3.2 Dust Monitoring

Most dust generated from processing and vehicle movements has a very large visible component.

The loader operator or designated person is in the best position to assess dust and implement management to mitigate or reduce the dust risk and generation.

Human monitoring can detect potential dust risks prior, and take action prior, to significant dust being generated. They notice dust immediately such as from tyres, whereas machine monitoring has to rely on significant dust being generated, travelling to the boundaries of the premises and triggering an alarm. The operators would be negligent if they let the dust get to that level of impact prior to taking action.

The auditable condition is visible dust crossing the boundary of the premises; the lot boundary. This is the condition used on Department of Water Environment Regulation Licences and all other quarries such as clay, sand and hard rock quarries in Western Australia and has worked well in the past.

It is also the method used by the Department of Mines Industry Regulation and Safety to rapidly assess occupational dust on site.

All operators on site are instructed to be vigilant to dust generation and management and report any excessive dust or potential dust management issues.

Visual monitoring is even more effective when complemented by an extensive reporting and complaints process and this is used.

The effectiveness of the dust management is shown by no complaints regarding dust normally being received. No complaints are known relating to dust from excavation within the past five years.

## 6.4 Water Management

### 6.4.1 Water Quality Guidance Statements

The operations lie within small catchments that arise locally at the edge of the Scarp and drain east down the Scarp.

The Department of Water, Environment Regulation (DWER) WQPN 15, Water Quality Protection Note "Extractive Industries near sensitive water resources 2009, provides guidelines for quarries within catchments.

All facilities and procedures on site are designed to comply with the DWER – DIRS Water Quality Protection Guidelines for Mining and Mineral Processing and are all complied with

- Overview
- Minesite water quality monitoring
- Minesite stormwater
- WQPN 28 Mechanical servicing and workshop
- Mine dewatering
- WQPN Landuse Compatibility in Public Drinking Water Source Areas
- WQPN 15 Extractive Industries near sensitive water resources. (Not strictly relevant to the site but the methodology is useful).

Guidance on the quality of water can also be found in;

- Western Australian Water Quality Guidelines for Fresh and Marine Waters, EPA Bulletin 711, 1993.
- ANZECC, 1992, Australian Water Quality Guidelines for Fresh and Marine Waters.
- A number of documents provide guidance on the management and disposal of surface water that can lead to waterways, wetlands and underground water systems. These mainly apply to urban development but the methods are also applicable to the quarrying industry.
- Engineers Australia 2003, Australian Runoff Quality, National Committee on Water Engineering.
- Stormwater Management Manual for Western Australia, Department of Environment WA, 2004.
- Guidelines for Groundwater Protection in Australia, ARMCANZ, ANZECC, September 1995.

### 6.4.2 Water Source and Use

***Water Use***

Water used for on site dust suppression is drawn from the base of the pit as deemed necessary by the Quarry Manager to provide facilities for the wetting down of loads and roads.

This water is also available for fire fighting and will continue to be used.

Potable water will be brought to the site as required.

***Operational and Process Water***

Operational water will be similar to that used previously, being taken from the base of one of the pits.

Water storage dams in the base of the pit will continue to supply water for on site activities such as dust suppression. These do not overflow because of the combination of catchment, water use and evaporation.

***Dewatering***

De-watering of the pit is not necessary because the natural slope of the resource is towards the sediment settlement dams.

Midland Brick use the water from the in pit dams for their own purposes and dust suppression. However there are times when water that accumulates from the precipitation is required to be pumped out prior to summer when water is directed to the natural surface water flows.

Excess water occasionally has to be removed from the pit and is pumped to the north of the pit, where it filters through vegetation to intersect the natural surface water flows to the west and north west.

### 6.4.3 Hydrogeology

The pits exist and no changes are proposed to their previously approved footprints.

***Surface Water***

The natural land surface drains to the north west to Martigup Brook and then to the Avon River and east to Jimperding Brook and then to the Avon River.

Even though the edge of the plateau lies 50 – 100 metres from the edge of the pit, the main water flow from the natural land surface is to the north west. No water is released from the pit and no water flows to or over the breakaway.

In existing and proposed pits all drainage from the active working areas and excavation is to the base of the excavation, and thus all surface water is retained on site.

There is no proposed alteration to drainage lines, and neither surface water nor ground water will be affected.

Dams do intersect the minor drainage, and capture surface water and contain water from the pits.

At the end of excavation the pit will be left as a void as occurs on other previously excavated pits in this location. The void will fill naturally with water to a balance point achieved by the balance between rainfall, evaporation, volume of the pit and use.

The elevation of the final water level can be gauged from the excavations in the older, rehabilitated pits and is anticipated to be an elevation of around 262 metres AHD but that depends on the amount of backfill used in the pit and the steepness of the sides of the created water storage dam.

The water in the pit does not overflow.

The site lies within water management areas, WMA/1 Avon River Management Area and SWA/1 Avon River Catchment Area.

***Groundwater***

The pits will be up to 20 metres deep at their maximum, although there is potential to go deeper. This is well above the valley slopes to the north at the Avon River which lies 1 km away at contours of below 170 metres. The water table will rise up the plateau but is well below the base of the pit.

No evidence of seepages or water table have been observed in the pit. No groundwater has been encountered in this or other excavations, with water in the pits originating from precipitation. If groundwater had been encountered in the existing excavations then ongoing dewatering would be required which is not the case.

***Recharge***

The area prior to excavation was free draining with the surface water draining to the west north west to eventually intersect Martigup Brook and then to the Avon River.

There will be little change to recharge. Prior to excavation the land was Jarrah Marri Forest and will be returned to local native vegetation.

During excavation when the clay is exposed there will be an increase in surface water runoff because of reduced permeability of the clay and reduced evapotranspiration of the vegetation removed. However this will again reduce when the pit is revegetated.

In order to maximise the environmental management of water the excavation is being developed to be internally draining with no dewatering and all surface water retained on site.

The proposed operation complies with all Government Policies and Guidelines.

***Salinity***

Past excavation activities have not experienced any adverse effects from salinity.

Clay is loaded from the pit directly to road trucks or stored in stockpiles. Surface water runoff from the clay stockpiles is directed to sumps and is retained on site. These water storage ponds are regularly tested for pH and soluble salt values as part of an on going monitoring program which is conducted by the company's environmental department.

Extensive sampling of the clays was conducted during the drilling program and will continue through the life of the excavation. Water quality has been found to be <1000 mg/L with a pH within the range 5.6 – 6.7.

Dissolved Solids, as salt, is monitored and it is normal practice to minimise and manage input materials for the manufacturing process.

On some sites salinity can be important because if it is in excess, by reusing it for dust suppression, there can be a build up over time through evaporation. The substantial winter rainfall dilutes any surface materials.

There has been no evidence of salinity buildup on this site during the 30 plus years' operations at this locality. The water quality in the dams in the base of the pit is normally fresh.

It must also be remembered that any salinity within the clay is removed from site and incorporated into the brick making process slightly lowering the salt loading on site.

### 6.4.4 Acid Sulfate Risk

Acid sulfate only becomes a potential risk when a number of circumstances are present.

There is rock, soil or regolith present that is carrying sulfides.

Sulfide carrying materials from below the water table are to be exposed to the atmosphere.

Excavation below the water table is to be carried out exposing the sulfide carrying materials to oxygen in the atmosphere.

Dewatering of the sulfide carrying materials is proposed, exposing them to oxygen.

Regolith conditions are already highly acidic, below pH4, under which oxidation can occur through electron exchange without the need for the presence of oxygen.

None of these conditions occur on site based on geological mapping of the site during the site inspection, examination of the drill data, examination of the pit and from published information, or from observations in the pits.

On this site the geology of the weathered granite and dolerite does not contain disseminated sulfides. Any sulfide minerals that may occur in the unweathered basement rocks has geologically been weathered and dissolved within the Tertiary weathering regime. In addition the clay to be extracted is above the water table in oxidised conditions.

Midland Brick has conducted an extensive drill based exploration program. Samples are collected from each metre of depth and all samples are analysed for a number of parameters including total Carbon, Sulfur and soluble Salts.

During excavation, Midland Brick regularly samples the clays and stored water on site, as part of their production quality control and environmental monitoring policy.

It should be noted that the only at risk sulfur minerals are reduced sulfur, ie sulfide sulfur. Therefore Midland Brick sample data for sulfur is normally an overestimation because total sulfur sulfide is normally analysed for rather than sulfide sulfur.

Understanding variations in the concentrations of these naturally occurring components in the deposit is important in controlling the kiln firing cycle and the ultimate body colour and surface appearance of the fired products.

Sampling of the clay resources on this site showed that the average Total Sulfur content was 0.0085% for the 2005 year for example. This level of sulfur is below the trigger limit of 0.03% sulfide sulfur, above which further investigations are recommended in the NSW Acid Sulfate Manual.

In the case of this resource, the sulfur is most likely present as oxidised sulfate and not sulfide, making any acid sulfate risk even less likely.

Even though the geological conditions preclude acid sulfate conditions on this site, Midland Brick will continue with their ongoing testing for sulfur as part of their normal production procedures. If total sulfur levels exceed 0.03% the species of sulfur will be determined to see if the sulfide sulfur exceeds the trigger level at which further studies will be conducted.

The pits are all internally draining and then drain to sediment settlement dams at either end of the resource. The water in these dams is regularly tested for salinity and pH.

### 6.4.5 Protection of Catchments

***Catchments***

In Department of Water, Environment Regulation *WQPN 15, Water Quality Protection Note "Extractive Industries near sensitive water resources*, there are 62 recommended management of water procedures.

WQPN 15 applies to gravel, clays, hard rock and limestone. It generally permits extraction within 3 metres of the highest known water table. The clay extraction complies with the guideline separation.

Department of Water 2013, Western Australian water in mining guideline, provides guidance on extraction in mines.

The excavation of clay from the site complies with the DWER guidelines and uses the management actions wherever there is environmental benefit.

The protection of surface and ground water from contamination by hydrocarbons is viewed by Midland Brick as a critically important issue in managing its environmental responsibilities at this site. The company has examined this risk and adopted a range of policies and procedures to mitigate the impact of hydrocarbon spills on the environment.

There is an internal and external audit system in place to ensure employees and contractors comply with SHE Management Plans and policies.

Midland Brick commit that it will ensure its personnel and any contractors employed on site adopt management practices and procedures to minimise any adverse environmental impacts.

A buffer of over 50 to 100 metres in width is formed along the eastern side of the site and no water from the pits is released or flows.

All water from the pit, stockpile and disturbance areas is contained within the pit and is not permitted to escape to the local catchments.

***Surface Water Protection***

Precipitation collects in the base of the pit in a sump, from where it is used as the main source of water for dust suppression and washing activities.

As noted above a buffer of over 50 - 100 metres in width is formed along the eastern side of the site and no water from the pits is released or flows.

Any drips of fluid such as hydraulic fluid, or fuel, that fall on the hard stand or pit, are diluted with precipitation or dust mitigation water and captured by the dams. The clay and schist with the petroleum drips is collected, and taken to the Middle Swan Works site as normal resource. The organic material is burned as the bricks are fired.

Surface water is protected by the procedures used for refueling, maintenance and other water protection measures.

### *Groundwater Protection*

No chemicals are used apart from normal lubricants, which is similar to sand excavation, that is one of the few industries that are permitted to operate in a Priority 1 Public Drinking Water Source Area, indicating the clean nature of the activity. See Department of Water Land Use Compatibility in Public Drinking Water Areas.

Groundwater is protected by the clay base being tight and an aquiclude/aquitard. The base of the pit does not intersect the water table and there are no significant seepages or water inflows into the pit apart from surface water.

The proposed operations comply with the practices for operating DOW Policies and Guidelines, below and above the water table.

The other measures to protect groundwater are the actions to protect surface water such as refueling and maintenance procedures. See below.

### *Waste Rock and Tailings Management*

There is no washing of products. Subgrade materials are used for subsoil restoration or used for perimeter bunding and landform restoration.

There will be no waste rock or tailings, but there will be some interburden that will be placed in completed sections of the pit.

Any fines from the operational areas are captured by the sumps and dams located in the base of the pit.

### Unauthorised Access and Illegal Dumping

The potential for rubbish to be dumped relates to authorized access to the site. Access is restricted by perimeter fencing and locked gates. Fences are maintained and upgraded as required and have been in place and successfully secure for many years.

The site is regularly patrolled and any illegal material is promptly removed and taken to an approved landfill or other suitable site, depending on the nature of the material.

Waste generated on site is recycled wherever possible and periodically disposed of at an approved landfill site. Any illegally dumped materials are to be removed promptly to an approved waste facility.

***Solid Domestic and Light Industrial Waste***

All solid domestic and light industrial waste is stored in commercial waste storage containers and/or removed to an approved landfill facility. There is no waste disposal on site. Waste storage containers are sealed so that rainfall cannot enter and, as needed, impermeable, therefore preventing the formation of leachates or loss of fluids.

***Wastewater Disposal***

A serviced portable toilet system is located on Lot 3 on the northern side of Morangup Road and is used during campaigns.

This complies with WQPN 15 Extractive Industries near sensitive water resources.

***Refuelling***

Extraction of clay is a clean operation similar to And excavation in the nature of the risk to groundwater. No chemicals are used apart from normal lubricants, which is similar to sand excavation, and sand excavation is one of the few industries that are permitted to operate in a Priority 1 Public Drinking Water Source Area, indicating the clean nature of the activity. See Department of Water Land Use Compatibility in Public Drinking Water Source Areas.

All spills are to be cleaned up in accordance with the summarised procedures following.

Documents specific to the fuel and maintenance are the DOW – DMP Water Quality Protection Guidelines for Mining and Mineral Processing

- Mechanical servicing and workshop facilities
- Above-ground fuel and chemical storage
- WQPN 28 Mechanical servicing and workshop (2006)
- WQPN 15 Extractive Industries near sensitive water resources.

A list of the management actions for maintenance is provided. The actions will be used where applicable and as the opportunity presents to maintain water quality on this site.

Midland Brick have in place safety and pollution management procedures for all their operations. They also use self contained service and recovery vehicles to undertake minor servicing in the field.

***Refuelling - Fuel Management Plan***

No changes are proposed to the existing operations.

No significant adverse fuel or other incidents have occurred since the operations commenced.

Refueling uses dedicated mobile fuel tankers. There will continue to be no onsite fuel storage. This method has been undertaken during past excavation activities for 26 years and is the same as is used on most mine and construction sites as well as many farming properties.

Over 90% of the hydrocarbons consumed on site are within earthmoving machinery and there are minor quantities used in small stationary engines which generate power or drive water pumps. The balance of approximately 10% is consumed by road transport vehicles which remove clay from the site.

All fuels and lubricants are delivered to site on a purpose built service truck which dispenses fuel and oils to the earthmoving equipment on demand. Diesel is dispensed to the machines via a "Wiggins" filling system, which is designed to automatically shut off fuel delivery once the machine storage tanks are full. This prevents wastage of a valuable resource and ensures over filling does not occur during this procedure.

Various grades of oils are dispensed from dedicated tanks on the service truck via hand held volume metering pumps.

Daily records are kept of quantities of fuel and oil consumed by each machine to monitor operational efficiency and early detection of excessive consumption or leakage of fluids.

Clay transport vehicles that visit the site are not serviced or refuelled at the clay pits.

Service trucks and the earthmoving machine operator are appropriately trained to ensure compliance with the Company's standard working procedures and expectations in regard to refuelling equipment. This is covered within Midland Brick document SWP LOG 013 -01 "Mobile Plant & Vehicle Prestart I Post —op of Service Truck" as attached in Appendix 2. Pages 7-10 cover dispensing of fuel of vehicles within the clay pits.

Refueling is carried out in accordance with Midland Bricks Refueling Procedures that are in accordance with the DOW – DMP Water Quality Protection Guidelines for Mining and Mineral Processing, Mechanical servicing and workshop facilities and Above-ground fuel and chemical storage.

All on site refueling is to take place from vehicles compliant with, and in accordance with the Dangerous Goods Safety Act 2004 and the relevant Regulations.

Refueling occurs in the active operational area to allow for containment if any spill did occur.

Transport chemicals in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).

***Servicing and Maintenance***

All major servicing of vehicles is conducted off site. Minor maintenance is carried out with dedicated trucks equipped with oil and waste recovery systems. Wherever possible major mechanical repairs to earthmoving equipment is performed offsite at dedicated contractors' workshops or within Midland's Middle Swan workshops.

All maintenance and servicing uses dedicated oil and waste recovery systems. This is consistent with WQPN 15 Extractive Industries near sensitive water resources.

The service truck is equipped with a vacuum pump and waste oil tank which is used to remove any spilt or used lubricants generated during routine servicing on site. All wastes collected by this method are returned to Midland Brick's Middle Swan workshop facility for storage and recycling by a licensed contractor.

Waste oil and other fluids derived from the routine maintenance of mobile machinery, is transported off site and disposed of at an approved landfill site via recycling contractors. Grease canisters, fuel filters, oil filters and top-up oils are stored off site.

Vehicle washdown is not used on site.

Regular inspections and maintenance of fuel, oil and hydraulic fluids in storages and lines will be carried out for wear or faults.

Servicing plant and equipment is always conducted in accordance with the required maintenance schedules.

Accidental spill containment and cleanup protocols will be implemented as necessary.

Rubbish generated is to be recycled wherever possible and periodically disposed of at an approved landfill site.

The site is maintained in a tidy manner by removing all rubbish regularly offsite.

***Spill Management***

If a spill should occur each site is equipped with a self contained oil & fuel spill absorbent kit. The fuel service truck, mechanic's vehicle and several supervisors' utilities also carry spill kits to ensure there is a rapid response capability.

In the event of a large spill the area can be bunded off with low permeability clay to contain the flow. After collection of the spill with absorbent granules, any remaining contaminated clays and bunding materials are scooped up and delivered to Midland Brick's clay shed for disposal.

The main risk of contamination is the minor drips that occur during the removal of hoses etc. Minor spills are quickly degraded by soil microbial matter. Any drips or minor fluid spills are scooped up with the resource and sent to the Middle Swan works site, where they are burnt with the schist during the firing process.

Employees are trained to respond to such an event in accordance with the company's Safety Health and Environmental management System, specifically SHE-MP -003 "Dangerous Goods Management Plan" and SWP No: 042-01 "Using (Oil & Fuel) Spill Kit".

All significant spills of over 5 litres are reported to Midland Brick environmental department and the incident is investigated, before it is remediated. Midland Brick's environmental officers report the incident to Boral corporate office and to the relevant authorities within the appropriate regulated time frame.

The only other risk is from a tank rupture, but tanks are designed to manage this eventuality. All significant adverse incidents (such as a fuel spill of >5 litres) in one dump, are to be recorded, investigated and remediated. A record is to be kept of incidents, and DWER and Shire of Toodyay notified within 24 hours of an incident. This is much less than the DWER requirement trigger of 100 litres.

Soils and hardstand such as those on this site are generally adsorptive. The main risk of contamination is the minor drips that occur during the removal of hoses etc. Minor spills are quickly degraded by soil microbial matter.

Soil and resource will quickly be placed around the spill to contain it in as small an area as possible. When contained, the contaminated materials will be scooped up and removed to an approved landfill or other approved site or taken to the works site in the clay resource for burning during firing of the clay.

Spillage or leakage will be contained in plant and working areas by shutting down plant or equipment if the plant or equipment is the source of the spill (provided it is safe to do so).

***Dangerous Goods and Hazardous Substances***

There is no transport, storage or handling of hazardous materials involved in clay extraction apart from fuel.

### 6.4.6 Monitoring

***Background***

Midland Brick has, for years, sampled the clay and water in the pit as deemed necessary by the Quarry Manager and brickmaking section to maintain quality control.

***pH***

PH in all water bodies normally varies between neutral and slightly acidic which is normal for bodies of water on the Darling Scarp and plateau. In most local creeks pH normally rises in summer when the dissolved solids are higher, and falls in winter when the influx of rainfall leads to the surface flows becoming fresher.

Extensive sampling of the clays was conducted during the drilling program and will continue through the life of the excavation. Water quality has been found to be <1000 mg/L with a pH within the range 5.6 – 6.7.

Sampling of the clay is conducted regularly to inform the brickmaking production as deemed necessary by the Quarry and/or Production Managers.

***Oil and Grease***

As no water is to be released from site, no water sample monitoring of oil and grease in the watercourses is required.

There is ongoing visual monitoring by site personal of the water in the dams and for spills within the pit. The maintenance team who service and refuel vehicles are trained to be vigilant and provide visual monitoring.

***Suspended Solids***

Again, as there is no release of water, there is no monitoring of surface water for suspended solids required.

Water from the dams is used for dust suppression and therefore any fine material, as suspended solids, is retained on site. No monitoring is required.

***Dissolved Solids and Salt***

Dissolved Solids, as salt, is monitored and it is normal practice to minimise and manage input materials for the manufacturing process.

***Monitoring***

As the water on site is contained in the existing pit no surface water can escape or impact on watercourses. No monitoring s required.

# 7.0 CLOSURE

## 7.1 Background

Clay excavation has taken place in this general location since 1971, and since 1991 from Lot 3. The old clay pits south of Morangup Road have been reshaped to include water storage dams.

Large areas of revegetation have already been planted south of Morangup Road, as shown in the attached figures. A total of about 30 hectares trees and screening tree belts have been planted with 15 000 trees have already been planted on site.

***Closure Objectives***

The closure and rehabilitation is developed from a set of closure objectives that are designed to provide a local native vegetation end land use.

The closure objectives are shown in Table 10 below.

In Table 10 the methods to be used to achieve the closure and rehabilitation objectives are shown, referenced to each of the closure objectives.

In order to provide monitoring and auditing of the closure and rehabilitation objectives a set of Completion Criteria are developed in Table 11 where the monitoring and restoration procedures are listed. The Completion Criteria are provided with a number, which is listed in each table as relevant.

Occasionally with clay excavations an operation is placed under care and maintenance or has a temporary closure. In such a situation some actions have to be taken to ensure the site is safe and does not have the potential to provide additional environmental impact. The provisions for temporary closure are shown in Table 3.

As part of the development of the closure and rehabilitation an inventory of the materials on site is provided in Table 9.

The materials inventory is a checklist of the materials that might occur when extracting materials from the ground and does not necessarily indicate that such materials are present on site.

***Closure Summary***

The extraction of clay is an interim use prior to reconstruction to local native vegetation.

Dieback and Weed Management in addition to monitoring and replanting failed areas is proposed.

Appropriate topsoil management is an important element in achieving successful rehabilitation on the restored surface.

Rehabilitation will progressively follow mining, with completed areas of the excavation being revegetated as soon as practicable.

The final land surface will be smoothed and sloped to be compatible with the existing natural landform of the area.

A definitive time for seeding and the planting of tube stock is not prescribed, but rather a commitment to establish the vegetation within the first autumn/winter following placement of the overburden/topsoil.

***Proposed Final Contours***

Final contours are discussed in Section 4.2 Final Contours.

In summary the end land surface will be in accordance with the safety considerations of the *Mines Safety and Inspection Act 1995* and the requirements and guidelines of the DMIRS; for example *Guidelines on Safety Bund Walls Around Abandoned Open Pits 1991.*

The depth of the pit will continue to be reformed to an undulating floor around 20 metres below the natural land surface with perimeter faces battered down to 1 : 4 vertical to horizontal.

The excavated area will be formed into a self draining landform that drains to swales in the clay with no surface water running off from site.

***Materials Inventory***

The materials remaining at closure from clay mining are natural soil materials that do not produce any remaining or lingering environmental risk.

An audit of the potential materials that may be present from mining at closure is presented below.

Table 9 Materials Inventory

| Type | Comment | Treatment | Reference |
|---|---|---|---|
| Soil | Topsoil is natural and contains no detrimental materials. | None required.<br>To be used in rehabilitation. | |
| Subsoils - Overburden | Subsoil clay is natural and contains no detrimental materials. | Non required.<br>Generally taken as resource. | |
| Waste rock and non surface material and tailings | Not present. The pit bottoms in clay which is a natural material normally occurring on the surface. | None required. | |
| Saline surface water | The water quality is fresh. | No treatment necessary | |
| Saline ground water | The water quality is fresh. | No treatment necessary | |
| Acidic materials and drainage | Not present. The clay does not contain sulfides and there is no risk of acidic materials developing.<br>The clay does not carry acidic materials or any at risk materials.<br>Concurs with *Nattaporn-Prakongkep, R J Gilkes, B Singh and S Wong, 2011, Mineralogy and chemistry of sandy soils in the Perth metropolitan area of the Swan Coastal Plain, Department of Environment and Conservation.* | No treatment necessary.<br>Testing by Midland Brick shows that the pH of the water in the pit is normal and near neutral. | Field geological examination by Landform Research |
| Sodic or dispersive materials | The water quality is fresh. | | Field geological examination by Landform Research |
| Asbestos – asbestiform minerals | None present. | | Field geological examination |
| Radioactive materials | Not present | The clay does not contain radioactive minerals. | Published WA Geological Survey radiometric mapping |
| Metallic or chemical materials | Not present | No metallic or sulfidic materials or minerals will be impacted by the proposed extraction. | Field geological examination and experience and published information. |
| Tailings storage | Not required | | |
| Ablutions waste | | Serviced portable toilet system is provided. | Water Management Plan |
| Dangerous Goods and Hazardous Materials | ***None will remain on closure***. | There are normally no hazardous materials used for clay mining apart from fuel, and servicing. The only other materials are for tasks such as weed management and are dealt with under those sections. | |
| | **FUEL** | Any soil or other materials with | Water Management |

| | | | |
|---|---|---|---|
| | The various plant will be refueled from mobile tanker.<br><br>***None will remain on closure***. | drips and spills will be removed offsite to an approved waste site or location. | Plan |
| | **SERVICE MATERIALS**<br>Only minor lubrication will be conducted on site<br>All major servicing will be conducted offsite.<br><br>***None will remain on closure*** | Any wastes will be collected and removed from site promptly to an approved recycling or waste disposal area.<br>Only minor servicing will be conducted on site. All major servicing will be conducted offsite. | Water Management Plan |
| General waste | | Regularly removed from site to an approved disposal area | Water Management Plan |

## 7.2 Closure Implementation

The following procedures will be used for final closure and rehabilitation of any stage of excavation and on completion of the clay pit.

As the end use is not determined at this stage revegetation will be to local native vegetation as was provided for in the previous approvals.

- The closure of completed areas of the operations will be progressive with closure of all remaining ground at the end of operations.
- Maintenance and monitoring will be conducted until completion criteria is met. A three year cut off is provided for rehabilitated soils.
- Unexpected or early closure will be completed in the same way as permanent closure below but the full rehabilitation will be completed as one operation.

Table 10 Closure and Rehabilitation Techniques

| | CLOSURE OBJECTIVE | **Completion Criteria** | **Actions for Permanent Closure of any stage or the operations.** |
|---|---|---|---|
| 1.0 COMPLIANCE | | | |
| 1.1 | All legally binding conditions and commitments relevant to mine closure and rehabilitation will be met. | 1.1a<br>1.1b | • Rehabilitate any areas that are no longer required to local native vegetation.<br>• Review the latest documentation.<br>• Comply with legal requirements and commitments and conditions of approval.<br>• Assess compliance with the conditions and commitments and end use.<br>• Design the rehabilitation to comply with, and be able to achieve the completion criteria and commitments.<br>• Compile an audit table of all conditions and commitments that relate to closure and conduct an audit of those items upon the completion of each stage of rehabilitation and annually until sign off. |
| 2.0 LANDFORM AND SOILS | | | |
| 2.1 | All non natural structures, with mining will be removed. | 2.1 | • All non natural inert materials associated with quarrying will be collected and removed from site unless required for internal roads.<br>• All ground once occupied such as hardstand is to be deep ripped and soils reconstructed as required.<br>• If not required, roadbase, hardstand and any other inert materials left over |

| | | | |
|---|---|---|---|
| | | | from the site operations will be scraped and picked up and will be used to backfill the pit faces or reused.<br>• The portable toilet and any other structures no longer required will be removed.<br>• Visual audit of completed ground, to verify compliance. |
| 2.2 | All wastes will be removed from site. | 2.2a<br>2.2b | • Visual audit of completed ground, to verify compliance with "no contamination to be left".<br>• Soil testing may be required if there is evidence of adverse materials remaining such as fuel spills.<br>• As a result of any testing remediation will be undertaken to ensure that the site is not contaminated.<br>• Check samples will be collected to verify a lack of contamination. |
| 2.3 | The land surface will be visually similar to the surrounding landform as a depression containing a small dam. | 2.3 | • Whilst the landform will be a depression, the form will not be dissimilar to the edges of the plateau which drop away, such as the land immediately east.<br>• Complete the activities to make the site safe.<br>• Faces and the landform are to comply with DMIRS Guidelines and be stable for the long term.<br>• Where possible match the landform to the adjoining excavated and non excavated surfaces.<br>• Push down or backfill faces and slopes.<br>• The excavated floor is to be undulating at up to 20 metres below the natural land surface/, and the batter slopes less than 1 : 4 vertical to horizontal.<br>• The excavated surface is to be resistant to wind and water erosion.<br>• Visual observations and survey of the landforms to confirm compliance. |
| 2.4 | The land surface and soils are to be capable of local native vegetation – trees. | 2.4 | • The soils are to be constructed from overburden overlain by topsoil, leaf litter, vegetation fragments as available in areas of native vegetation.<br>• Deep rip the floors and batter slopes along contour as required. Deep rip any compacted hardstand or internal roads.<br>• At the end of the current excavation the overburden to depths of 300 mm followed by recovered topsoil and then the vegetation fragments (if available) will be spread across the excavated area as the key part of the final rehabilitation.<br>• Visual observations and discussions with operators. |
| 3.0 HYDROGEOLOGY | | | |
| 3.1 | The reformed surface be >2 metres above the highest groundwater table. | 3.1 | • Push down or backfill faces and slopes.<br>• The existing and proposed floor elevation has a much greater separation than 2 metres to the water table.<br>• Visual observations and survey of the landforms to confirm compliance. |
| 4.0 BIODIVERSITY | | | |
| 4.1 | The rehabilitated areas will, in time, form sustainable local native vegetation. | 4.1 | **Biological Hygiene**<br><br>• Implement the Dieback Management Plan.<br>• Implement the Weed Management Plan.<br><br>**Topsoil Recovery**<br><br>• During land clearing the topsoil will be pushed to the edges of the excavation and retained in low dumps, separate from the overburden. The topsoil is in variable condition but contains some weeds in edge vegetation.<br>• Overburden removed will also be pushed to the perimeter of the pit to form perimeter bunding.<br>• Stored topsoil is a good source of local native seed and will be used to assist in a return to local native vegetation.<br>• When stored topsoil is used it may be diluted and mixed with fresh topsoil.<br><br>**Revegetation**<br><br>• Where possible any disturbed areas that are no longer required will be rehabilitated using the methods described above within 12 months of becoming available.<br>• After the land has been ripped and over burden added, topsoil and vegetation fragments will be transferred directly from an area being cleared and spread across the surface to provide seed sources and habitats |

| | | | |
|---|---|---|---|
| | | | wherever possible. If direct transfer is not possible, any material stored in dumps will be respread.<br>• Larger vegetation will be formed into occasional piles for habitat creation on the lower elevations.<br>• Pre-seeding weed control is only likely to be required where topsoils are used that contain weed species. This is unlikely to be the case on this site where the existing vegetation is in good condition.<br>• Any weeds likely to significantly impact on the rehabilitation will be sprayed with Roundup or other herbicide or grubbed out, depending on the species involved. Fusilade will be used where grasses present an impediment to rehabilitation Weed affected topsoil and overburden will be buried.<br><br>***Native vegetation***<br><br>• Methods of sourcing seed will be;<br>➢ Direct transfer of topsoil.<br>➢ Brushing by cutting branches of adjoining and suitable local vegetation.<br>➢ Sourcing and planting additional tube plants as required as a result of site trials.<br>• Rehabilitation will take place during the first winter months following the restoration earth works of each particular section of quarry. Leaving the completed earth works for one season will reduce the success of rehabilitation by at least 50%, due to compaction effects.<br>• Local species are to be used in revegetation, and all materials brought to the site will be dieback and weed free.<br>• Any materials brought to the site will be dieback and weed free.<br>• Trees/shrubs will be installed as tube plants during June - August in clumps on the rehabilitated land surface and will be provided with a 10 g tree fertiliser tablet placed beside the plant.<br>• Tube plants are to be established in low undulations and not on the high points of furrowed soil. The planting rate is to achieve the completion criteria allowing for deaths.<br><br>***Completion Criteria***<br><br>*The Completion Criteria set from previous approvals is repeated below.*<br>• *A self sustaining cover of native vegetation.*<br>• *Weed species at levels not likely to threaten the native species*<br>• *A self sustaining cover of indigenous shrubs, that is capable of regenerating following fire. It should be free of weeds likely to impact on the effectiveness of the vegetation.*<br>• *A minimum of 500 trees and shrubs per hectare will be established on rehabilitated dumps, roads and other disturbed areas.*<br><br>***Species List***<br><br>The species list can be taken from the vegetation survey appended to this Report.<br><br>• Observations, discussions with operators and vegetation assessment. |
| 4.2 | The re-established surface will be free from Declared or Significant Environmental weeds that could compromise the success of the rehabilitation or impact on adjoining vegetation. | 4.2 | • Inspect the site for Significant Environmental and Declared Weeds.<br>• If found, inspect adjoining native vegetation for edge effects.<br>• Inspect rehabilitation and the edges of access roads.<br>• Provide weed control using the methods outlined in the Weed Management.<br>• Implement Dieback protection measures outlined in the Dieback Management Plan.<br>• Observations, discussions with operators and vegetation assessment. |
| 5.0 STAKEHOLDERS | | | |
| 5.1 | The interests of all relevant | 5.1 | • Prior to closure, consult the stakeholders to check whether the closure planning, where possible, considers their interests and carry them out as |

| | | | |
|---|---|---|---|
| | stakeholders will be considered during operations, closure planning and closure. | | necessary.<br>• Consult with Shire of Toodyay and the landholder in relation to their requirements for closure.<br>• Review the latest documentation.<br>• Comply with legal requirements and commitments.<br>• Closure audit. |
| 6.0 SAFETY | | | |
| 6.1 | The site will be left safe for continued use a local native vegetation. | 6.1 | • Provide warning signs as required.<br>• Provide fences, bunding and warning signs above faces as required.<br>• Provide locked gates or access restraints as required.<br>• Inspect all areas and ensure the land surfaces and access points, are stable to erosion from wind and water.<br>• The disturbed land will be made safe and in compliance with the *Mines Safety and Inspection Act 1994 and* DMIRS Mine Closure Guidelines.<br>• Holes, sumps drains, ditches and the like will be filled and removed if not required for future land management.<br>• Audit of completed ground, to verify compliance using visual observations. |

## 7.3 Species List

The species listed below are provide for advice only.

Other species may be substituted.

Smaller local species will be added through the use of topsoil

| **FAMILY** | **GENUS - SPECIES** | **TREE – TALLER SHRUB** |
|---|---|---|
| Casuarinaceae | *Allocasuarina huegeliana* | *X* |
| Dilleniaceae | *Hibbertia commutata* | |
| | *Hibbertia hypericoides* | |
| | *Hibbertia spicata* | |
| | *Hibbertia subracemosa* | |
| Euphorbia | *Phylanthus calycinus* | |
| Loranthaceae | *Nuytsia floribunda* | *X* |
| Mimosaceae | *Acacia amuninata* | *X* |
| | *Acacia microbotrya* | *X* |
| | *Acacia pulchella* | |
| Myrtaceae | *Corymbia - Eucalyptus calophylla* | *X* |
| | *Eucalyptus marginata* subsp *thalassica* | *X* |
| | *Eucalyptus wandoo* | *X* |
| | *Leptospermum erubescens* | *X* |
| Papilionaceae | *Bossiaea eriocarpa* | |
| | *Daviesia decurrens* | |
| | *Daviesia incrassata* | |
| | *Daviesia inflata* | |
| | *Hovea trisperma* | |
| Proteaceae | *Adenanthos cygnorum* | *X* |
| | *Banksia- Dryandra sessilis* | *X* |
| | *Banksia - Dryandra squarrosa* | *X* |
| | *Hakea ampiplexicaulis* | *X* |
| | *Hakea lissocarpha* | *X* |
| | *Hakea prostrata* | *X* |
| | *Hakea trifurcata* | *X* |
| Rhamnaceae | *Trymalium floribundum* | *X* |
| | *Trymalium ledifolium* | |
| Xanthorrhoeaceae | *Xanthorrhoea preissii* | |
| Zamiaceae | *Macrozamia riedlei* | |

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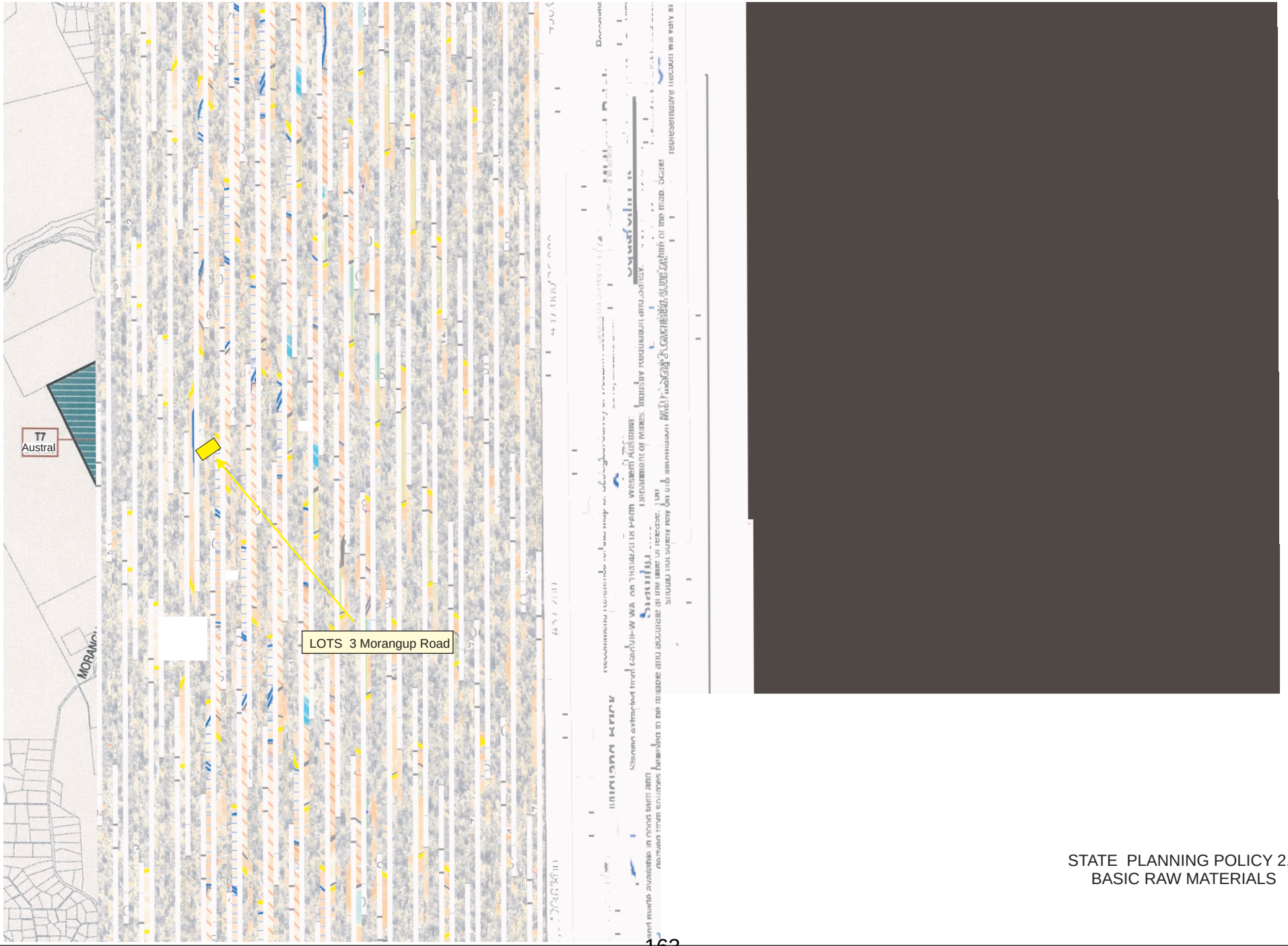



STATE PLANNING POLICY 2.4
BASIC RAW MATERIALS



Figure 1 STATE PLANNING POLICY 2.4

## CLAY EXCAVATION (ONE BENCH)

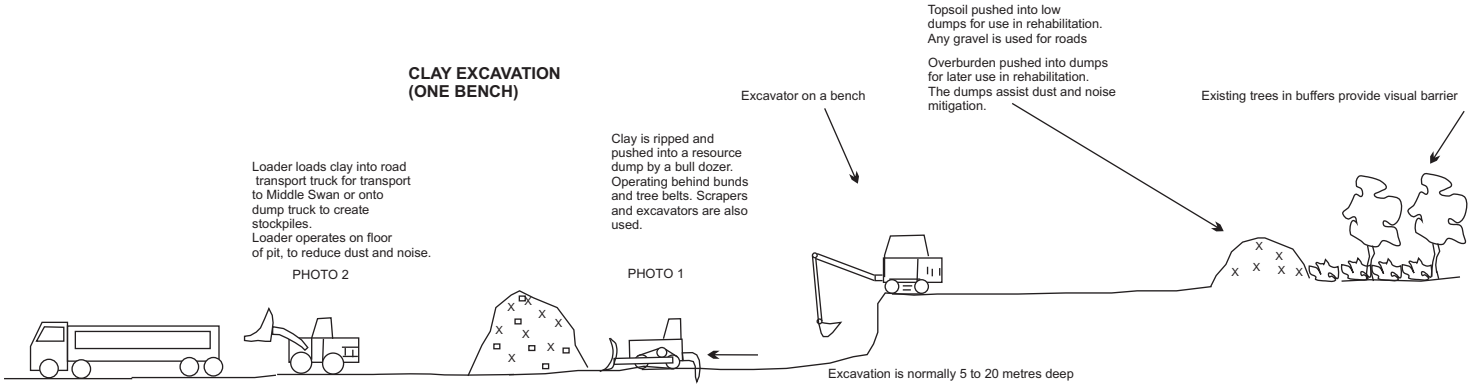


PHOTO 5 Vegetated visual and noise screening south of Morangup Road

PHOTO 1 Bulldozer moving material

PHOTO 2 Loading road trucks

## CLAY EXCAVATION (TWO BENCHES)

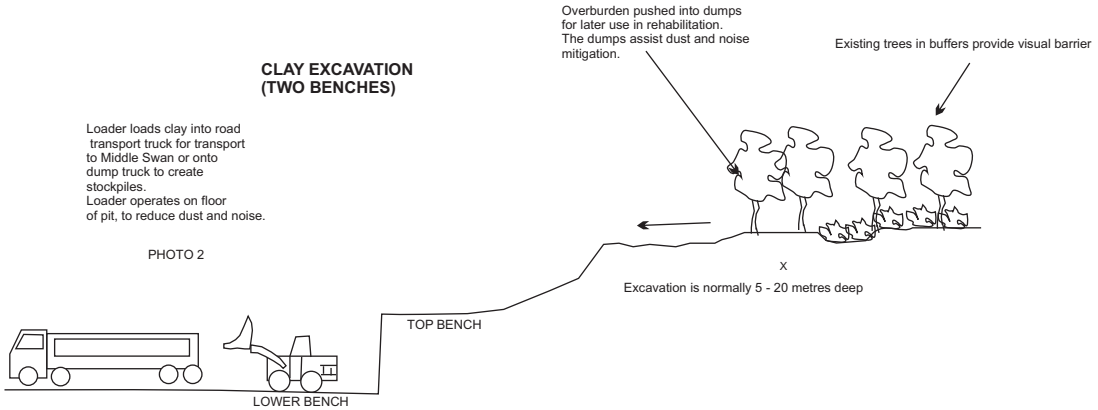


PHOTO 3 Typical clay resource

PHOTO 4 Stockpiles

## LAND RESTORATION AND REHABILITATION

Celebrating 70 years Midland Brick

**TYPICAL CLAY EXCAVATION**
**MIDLAND BRICK COMPANY PTY LTD**

**Figure 6**

Vegetated buffer to Morangup Road and access road

Clay resource

View across the rehabilitated western end of the clay pit

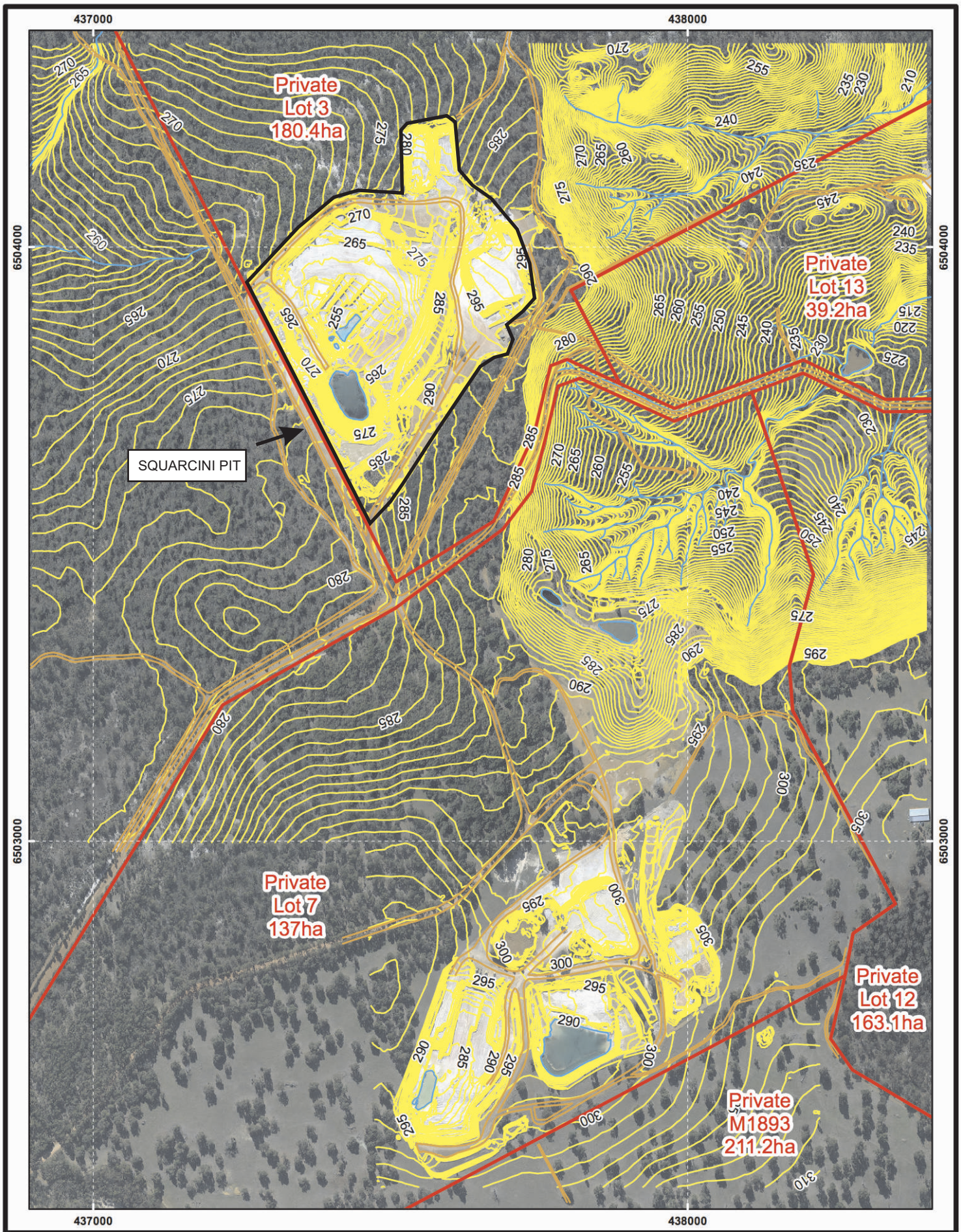
Weathered gneiss and schist clay resource in the active pit

Celebrating 70 years Midland Brick

**MIDLAND BRICK SQUARCINI PIT - SITE PHOTOGRAPHS**



**Figure 7**




COMPILED BY: SURVEY GRAPHICS JULY 2017
DATE OF PHOTOGRAPHY: 4th JUNE 2017
HORIZONTAL DATUM: GDA94 MGA 50
CONTOUR INTERVAL: 1m

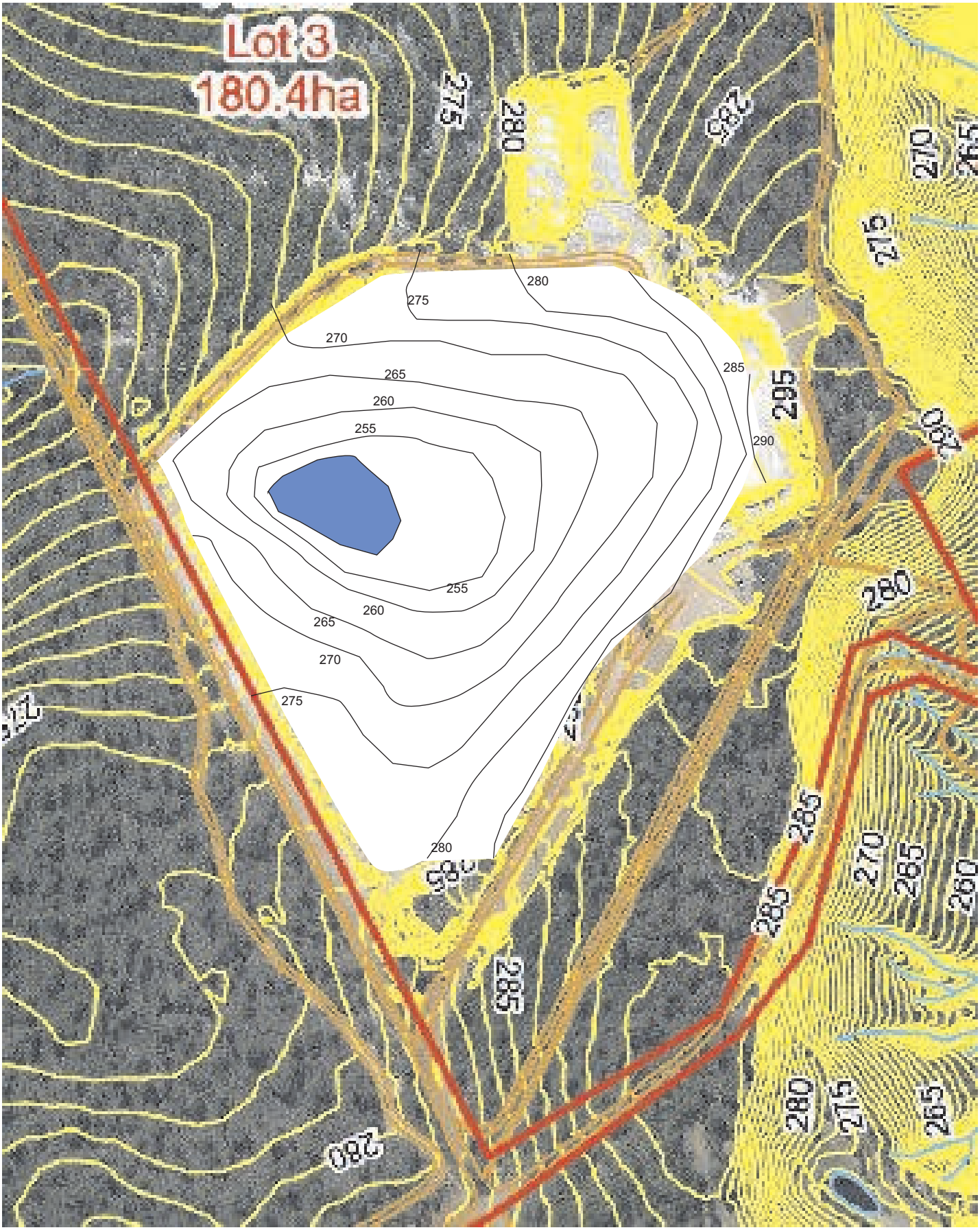
BORAL MidlandBrick

**SQUARCINI PIT & WENDALE PARK**

0 75 150 300 450 m

1 : 8,000 @ A4

**Figure 8**




MIDLAND BRICK - SQUARCINI PIT - CONCEPT FINAL CONTOURS

Figure 9

## AGENDA FORUM DISCUSSION PAPER

| | |
|---|---|
| **Date of Report:** | 3 September 2018 |
| **Name of Applicant / Proponent/s:** | The Department of Water and Environmental Regulation (DWER) |
| **File Reference No.:** | ENV1 & TEC32 |
| **Author:** | Graeme Bissett ï Manager of Planning and Development |
| **Responsible Officer:** | Stan Scott ï Chief Executive Officer |
| **Previously Before Council:** | Nil |
| **Nature of Council's Role in the matter:** | Advocacy. |
| **Attachments:** | 1. WALGA Information Item 17 August 2018 (Enviro Pages); and<br>2. DWER Discussion Paper. |

## 7.3 DISCUSSION PAPER: COST RECOVERY FOR THE DEPARTMENT OF WATER AND ENVIRONMENT REGULATION

### PURPOSE OF THE DISCUSSION PAPER

To bring the discussion of the proposed DWER increases in application fees for applications for native vegetation clearing and water licences/ permits to Council for consideration.

### BACKGROUND

The DWER have released a discussion paper (**Attz 2)** that proposes increases in fees for the assessment of both applications for native vegetation clearing permits and applications for water licences and permits. Submissions are due to the DWER by close of business 1st of November 2018.

WALGA are involved in advocating on Local Governments behalf and have produced their own information page for Councilsôinformation (**Attz 1**)

### CONSULTATION IMPLICATIONS

The DWER have scheduled the following consultation sessions:

| | |
|---|---|
| **Geraldton** ï Tues 28 Aug 2018 | **Broome** ï Tues 4 Sept 2018 |
| **Bunbury** ï Tues 11 Sept 2018 | **Perth** ï Tues 13 Sept 2018 |

*Note: One Officer from the Planning and Development Services Team will be attending the Perth session.*

**STRATEGIC IMPLICATIONS**

There are no adverse strategic implications envisaged from this report.

**POLICY IMPLICATIONS**

There are no adverse policy implications envisaged from this report.

**FINANCIAL IMPLICATIONS**

It is proposed to significantly increase the cost of the applications for clearing and water licenses/permits which will impact of Councils. The discussion paper outlines the existing fees and those proposed.

**LEGAL AND STATUTORY IMPLICATIONS**

Potential implications include substantial increases in application fees for permits to clear native vegetation under Part V of the Environmental Protection Act (1986), and in application fees for licences under the Rights in Water and Irrigation Act (1914).

**RISK IMPLICATIONS**

If implemented, this proposal could increase the risk of unauthorised clearing and water extraction if potential applicants perceive the costs are too high or unfair. This may also in turn have an impact on compliance costs and impact Local Government officer time in following up complaints.

**SOCIAL IMPLICATIONS**

There are no adverse social implications envisaged from this report.

**ENVIRONMENTAL IMPLICATIONS**

There are no adverse environmental implications envisaged from this report.

**ECONOMIC IMPLICATIONS**

This proposal, if implemented, will increase costs to applicants and have a direct economic impact on any activity that is required to obtain approvals or permits relating to clearing or water extraction covered.

**OFFICER COMMENT / DETAILS**

WALGA has pointed out the ñ*discussion paper proposes significant increases in clearing permit fee's that will have financial and program implications for Local Governments undertaking the clearing of native vegetation for activities such as road maintenance and construction, cemetery management and parks maintenance".*

Likewise, WALGA advises ñ*similar implications could apply for Local Governments accessing, or requiring further access to groundwater or surface water resources, through the application or amendment of licenses (new or a renewal of 5C licences, trades transfers and agreements, construction or alteration of bores, bed and bank permits)"*.

WALGA is still seeking further clarification from the DWER on cumulative impacts on Local Government budgets. This will be passed on when received.

This matter is being brought to Councilôs attention in preparation for further formal consideration at the October 2018 Forum and Ordinary Council Meetings of the 9th and 23rd respectively. This will give members time to consider this matter and give feedback for consideration at these meetings. Additional information gathered from attending the information workshop will also be included.

It is requested that members email feedback to the Manager of Planning and Development in this regard.

**OFFICERôS RECOMMENDATION**

That Members note the proposals in the Department of Water and Environmental Regulationôs discussion paper on the proposal to increase application fees for permits to clear native vegetation under Part V of the Environmental Protection Act (1986), and for licences under the Rights in Water and Irrigation Act (1914) for consideration. It is proposed this matter will be brought back to the October 2018 Forum and Council Meeting for further consideration. It is requested any feedback on this matter be forwarded to the administration for inclusion at these meetings.

# INFOPAGE

**To: Chief Executive Officer**

**Organisation: All Councils**

**Fax No:**

**Reference: 05-064-2-0022**

**From: Mark Batty - Executive Manager Environment and Waste**

**Date: 17 August 2018**

**Pages: 2**

**Priority: High**

**Subject: DWER Fees and Charges Discussion paper**

**IN BRIEF:**

| | |
|---|---|
| Operational Area: | **Infrastructure, Parks and Gardens** |
| Key Issues: | DWER have released a discussion paper that proposes significant increases in fees for the assessment of both applications for native vegetation clearing permits and applications for water licences and permits.<br>Potential implications include substantial increases in application fees for permits to clear native vegetation under Part V of the *Environmental Protection Act (1986)*, and in application fees for licences under the *Rights in Water and Irrigation Act (1914).*<br>WALGA is currently seeking data from DWER in order to quantify the extent of the financial and administrative implications to Local Government's asset maintenance schedules and irrigation licencing regimes.<br>Submissions due to DWER by COB 1st November 2018**.** |
| Action Required: | **Read the discussion paper, consider the implications, and make a submission, as required.** |

The Department of Water and Environmental Regulation (DWER) has released a discussion paper on a cost recovery approach for the assessment of applications made under Part V of the *Environmental Protection Act (1986)*, and for licences for the approval to both take water (5C licence) and construct or alter a bore (26D licence) under the *Rights in Water and Irrigation Act (1914).*

The DWER discussion paper and additional information can be found at: https://www.dwer.wa.gov.au/consultation/costrecovery

**Potential implications for Local Government**

The discussion paper proposes significant increases in clearing permit fee's that will have financial and program implications for Local Governments undertaking the clearing of native vegetation for activities such as road maintenance and construction, cemetery management and parks maintenance.

Likewise, similar implications could apply for Local Governments accessing, or requiring further access to groundwater or surface water resources, through the application or amendment of licenses (new or a renewal of 5C licences, trades transfers and agreements, construction or alteration of bores, bed and bank permits).

**Consultation**

DWER consultation sessions are currently scheduled for:-
Geraldton – Tuesday 28th August
Broome – Tuesday 4th September
Bunbury – Tuesday 11th September
Perth – Tuesday 13th September

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**www.walga.asn.au**

WALGA is currently seeking licence and associated data from DWER to ascertain the potential cumulative impacts for both Local Government budgets, and if additional sector specific consultations are required. Should you seek to make a submission, please provide WALGA a copy, c/- the contact details below, to assist in the formulation of the WALGA submission.

The DWER is now seeking feedback on the discussion paper by COB on 1st November 2018.

**For further information please contact:**
Executive Manager, Environment and Waste, Mark Batty on 9213 2078 or email mbatty@walga.asn.au.


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**www.walga.asn.au**

Government of **Western Australia**
Department of **Water and Environmental Regulation**

# Discussion Paper on cost recovery for the Department of Water and Environmental Regulation

## Supporting the delivery of improved environmental and water regulation

August 2018

# Discussion Paper on cost recovery for the Department of Water and Environmental Regulation

Supporting the delivery of improved environmental and water regulation

Department of Water and Environmental Regulation

August 2018

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# 1 Regulation and cost recovery

## 1.1 Aims and objectives

The Department of Water and Environmental Regulation (DWER) seeks feedback on the implementation of a cost recovery approach for the assessment of applications made under Part V of the *Environmental Protection Act 1986* (EP Act) and *Rights in Water and Irrigation Act 1914* (RIWI Act).

Specifically, the department is interested in hearing from stakeholders and the community on cost recovery for the assessment of:

applications for native vegetation clearing permits
applications for water licences and permits.

## 1.2 Opportunity to comment

The department invites submissions on the matters presented in this discussion paper and particularly the following questions:

Native vegetation clearing fees

Would a strategic approach to clearing, through a strategic purpose permit, benefit you?
Is the 'purpose component' reasonable to apply considering the added complexity of assessing this type of clearing permit?
Is the proposed fee structure fair and does it adequately reflect differences in the financial capacity of clearing permit applicants?
What is the likely impact on your business or industry of the proposed clearing fee structure?

Water licence and permit fees

Do you consider it reasonable for taxpayers to pay 100 per cent of the cost of assessing water licence and permit applications and if so, why?
If water licence and permit assessment fees were introduced, what do you consider to be an appropriate fee for a water licence or permit application?
Would you consider a risk-based model for determining water licence and permit application fees to be appropriate? If not, what basis could the department use to structure fees?
What would be the likely impact on your business or industry if water licence and permit fees were introduced?
If water licence and permit assessment fees were introduced, how could the collection of fees be timed to better support your business or industry? For example, would you benefit from paying fees up front, at the end of a licence assessment or annualised over the term of the licence?

For an effective submission:

Clearly state your views and the section you are referring to.

Support your response with reasons.

Suggest alternatives to address any issues that you believe will result in a better outcome.

Please note that unless marked ‘confidential’ submissions may be published on the department’s website or cited in other public documents.

Submissions can be made on the department’s website at www.dwer.wa.gov.au or by downloading, completing and emailing a response form to fees@dwer.wa.gov.au or posting it to:

Cost recovery responses

Department of Water and Environmental Regulation

Locked Bag 33

Cloisters Square

PERTH WA 6850

The closing date for submissions is 5pm WST, Thursday 1 November 2018.

For queries about making a submission, contact Aaron Compton at aaron.compton@dwer.wa.gov.au or on 08 6364 6773.

The EP Act and the RIWI Act are available on the Parliamentary Counsel’s Office website at www.legislation.wa.gov.au.

The department will review and analyse the submissions and prepare a response that will be made publicly available in late 2018.

# 2 Introduction

## 2.1 The role of the Department of Water and Environmental Regulation

The department administers Western Australia's key legislation for the protection of the environment and of water resources. It provides a one-stop-shop for environmental and water approvals, streamlining regulatory assessments for proposals to strengthen the state's economy and deliver good community and environmental outcomes.

This is being achieved through:

- risk-based regulation of proposals that may impact on water resources and the environment
- assessing the impacts of proposals
- setting and enforcing conditions of approval
- providing accurate and timely information and advice to customers and other government agencies.

## 2.2 Modern regulatory approach

Contemporary regulation recognises the principle of user-pays. The user-pays principle generally identifies that the full or partial cost of service of regulatory activities should be borne by those who benefit most from the service. Currently, the cost of assessing applications for native vegetation clearing permits and water licences and permits is primarily borne by the taxpayer, not the applicants who derive the benefit.

The department has developed key performance indicators (KPIs) to track performance in delivering regulatory assessments on time. Feedback from our stakeholders has told us that protracted assessment times create uncertainty for businesses. To meet the expectations of our customers, it is necessary to consider options for the future funding of regulatory services to improve our performance against KPIs.

The processing and assessment of applications for permits to clear native vegetation and water licences and permits carries a significant cost to the department. All applications need to be assessed in accordance with legislative and policy requirements, and may also include the need for consultation with other government agencies and the community.

The department implements a risk-based approach to carry out its regulatory functions. Therefore, the resources allocated for assessments vary, depending on the complexity of the application, including the environmental or water resource values which may be impacted.

## 2.3 Government direction on cost recovery

The government is focused on delivering sustainable economic and social development in Western Australia (WA). Consistent, timely and transparent decision-making benefits industry, the community, the economy and the environment. Government considers WA taxpayers bearing almost the full cost of providing regulatory services unsustainable. Increased cost recovery from those deriving a benefit from regulatory services is considered fair and equitable.

The principles underpinning cost recovery are based on *Costing and pricing government services: guidelines for use by agencies in the Western Australian public sector* (June 2015). The following principles have been used in the department's consideration of cost recovery measures:

- ensure a fair and equitable process for applicants
- achieve (or make adequate progress towards achieving) full cost recovery, where appropriate
- resist over-recovery of costs
- achieve competitive pricing (in comparison to service providers locally and in other jurisdictions)
- reflect movements in input costs.

# 3 Schedule 1 – Native Vegetation Clearing

## 3.1 Background

### Clearing regulatory framework and history

The need to control the environmental effects of clearing native vegetation has long been recognised in WA.

In some parts of WA (especially parts of the Wheatbelt and the Swan Coastal Plain) native vegetation has been cleared beyond safe ecological limits. Clearing results in the loss of biodiversity, with fragmented habitats becoming more susceptible to climate change, disease, and weed and introduced animal invasion. Salinisation of land and inland waters, altered water regimes, soil erosion and eutrophication are all direct consequences of clearing native vegetation.

The enactment in 2004 of the clearing provisions in the EP Act created a consolidated statutory platform for the regulation of clearing native vegetation. The legislation is supported by the Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (the Regulations).

Under this framework all clearing of native vegetation is prohibited unless a clearing permit is granted, or the clearing is exempted under the EP Act or Regulations.

Under s.20 of the EP Act, the power to assess and determine a clearing permit application has been delegated to officers within the Department of Mines, Industry Regulation and Safety (DMIRS). This delegation applies to clearing permit applications that relate to activities authorised under the *Mining Act 1978,* and various petroleum and state agreement legislation.

The right balance between clearing and protecting native ecosystems benefits all community members because it underpins WA's economic and social development and our way of life, for now and for future generations.

### The services the agency delivers

The Chief Executive Officer (CEO) of the department (or their delegate) is responsible for administering the EP Act and its regulations, including the assessment and determination of clearing permit applications.

Applications to clear native vegetation are assessed against ten clearing principles contained in the EP Act which broadly consider biodiversity and conservation values of native vegetation as well as water quality impacts and land degradation risks. Applications are also assessed with consideration of planning instruments and other matters considered relevant.

Assessments are undertaken in a structured, consistent and transparent manner and consider both direct and cumulative impacts arising from clearing. The public have the opportunity to provide submissions on applications. Decisions on applications and the related assessment are published by the Department. Decisions are subject

to appeal by the applicant or third parties. Appeals are determined by the Minister for Environment who is advised by the Appeals Convenor.

WA is vast and has exceptional and world-recognised environmental values, including high levels of biodiversity. The assessment of applications to clear native vegetation can be complex, due to a highly variable landscape where certain regions have been subject to significant levels of historical clearing or subject to other threatening processes. In more remote areas, there may be limited knowledge on the environmental values of native vegetation subject to a clearing permit application.

Due to the complexity of some assessments, the need for expert advice, interactions with other legislation, as well as the need to negotiate with applicants at times to ensure impacts of clearing are avoided, minimised, mitigated or offset, the department has not been able to achieve its published performance indicator of 80 per cent of decisions within 60 business days for several years.

As a trusted regulator, the department aims to ensure clear and consistent decisions which deliver certainty for industry and create transparency for all stakeholders and the community. The department's decisions are evidence based, using expert knowledge from within the department and across our partnerships to deliver sound environmental outcomes.

Under its strategic plan, DWER is committed to streamlining its approach to regulatory assessments and advice, to provide consistency and certainty for stakeholders. Internal practices and processes and online systems are being redeveloped to deliver good customer service and decisions delivered in accordance with regulatory best practice principles. The Department will also ensure that regulated stakeholders meet their commitments and it undertakes appropriate compliance and enforcement.

### Existing fees for clearing permit applications

Fees for clearing permit applications were established in regulation 7 of the Regulations on their commencement in 2004 and have not changed since. The real costs associated with managing and assessing applications have increased since that time.

The current fee structure was set having regard to the history of clearing regulation under the *Soil and Land Conservation Act* being primarily for agricultural purposes. There is currently a nominal application fee (between $50 to $200) dependant on the permit type and in the case of area permits, the spatial extent of the application.

## 3.2 Rationale for change and benefits

### Cost of service

The cost of service to administer the clearing provisions under Part V, Division 2 of the EP Act in 2016/17 was estimated at $5.8 million. Under the current fee structure, fees generated approximately $63,000 leaving the department under recovered by approximately 99 per cent in 2016/17.

The average cost for the assessment of a clearing permit is estimated to be around $10,000. This estimate includes costs associated with the assessment of clearing permit applications, including the employment of staff and maintenance of systems, and determining compliance with decisions on clearing permit applications.

In contrast, to the real cost of assessment, the fees that the department charged ranged from $50 to $200 for area permits with a flat rate of $200 for purpose permits. It is clear that there is a significant discrepancy between the current fee structure and the average cost of managing a permit application to decision stage.

### Existing and emerging pressures on clearing regulation

The department has a published performance indicator of determining 80 per cent of applications within 60 days of receipt. This indicator has not been met since the 2014/2015 financial year.

Quarterly performance reporting on the timeliness of decision-making is available on DWER's website at www.dwer.wa.gov.au.

Due to current resourcing constraints to meet the required level of assessment, the timeliness of finalising clearing permit decisions is significantly below the performance indicator. As a result, there has also been a steady growth in the number of protracted open applications at the end of each quarter.

### Anticipated service improvement

Government has agreed that additional revenue that might be raised from increased fees will be reinvested in the department to improve service delivery and efficiency in its regulatory services. Based on 2016/17 financial year data, should the proposed fee structure be implemented, the annual revenue received is estimated at $1.3 million (compared with current revenue of $63,000).

While additional revenue will be directed at employing staff for the assessment of clearing permit applications and related compliance areas, resources will also be invested in improving systems and streamlining business processes. This will improve timeliness of decision-making on environmental approvals and ensure an appropriate response to the increasing demand for environmental assessments and approvals relating to economic growth.

The additional staff will also contribute to the development of strategic approaches for the assessment and management of native vegetation and ensuring better transparency through publication of relevant data. Additional compliance resources will allow the Department to carry out more targeted and proactive inspection and audit activities.

## 3.3 Benchmarking

### Clearing fees in other jurisdictions

In other Australian jurisdictions, clearing of native vegetation is regulated through a variety of means, making a direct comparison difficult.

However, current fees to apply for a clearing permit within WA are considerably lower than comparable jurisdictions. For example, while fees in WA range from $50 to $200, the base fees for clearing approvals in South Australia is $596 and applications to clear native vegetation in rural areas of New South Wales range from $3000 to $9000, depending upon the location and size of the clearing area and the presence of threatened ecological communities. Within Queensland the fee is in excess of $2500.

Under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) the Commonwealth government has implemented a detailed fee regime which applies a number of separate fees at various stages of the referral and assessment process. In addition to a referral fee, base fees of approximately $8000 - $25,000 apply to the assessment of a matter that has been deemed to be controlled action. For the assessments undergoing a process established through the bilateral agreement between the state of Western Australia and the Commonwealth government a base fee of approximately $18,000 is payable to the Commonwealth government.

## 3.4 Proposal for improved cost recovery

### Proposed fee structure

A new fee structure is proposed that is scaled to align fees with the level of risk to the environment, taking into consideration the difference between activities undertaken for property management (including non-exempt activities associated with fences and firebreaks) and clearing associated with larger commercial activities, such as extractive industry, construction of infrastructure and large agricultural proposals. Table 1 outlines the proposed fee structure.

Proposed fees reflect the higher environmental costs associated with clearing in the highly cleared South West Land Division (intensive landuse zone) compared with clearing elsewhere (extensive landuse zone).

Given that current fees are estimated at 99 per cent under-recovered of the cost of service, the proposed fee structure does not reflect full cost recovery. It is not considered reasonable or practicable to achieve 100 per cent cost of service recovery through a revised fee structure.

The proposed fee structure in Table 1 below, aims to achieve a greater level of cost recovery (about 25 per cent) then currently exists. The fee structure reflects a proportionate cost for clearing regulation for increased assessment complexity.

**Table 1: Proposed revised fee structure for clearing permits**

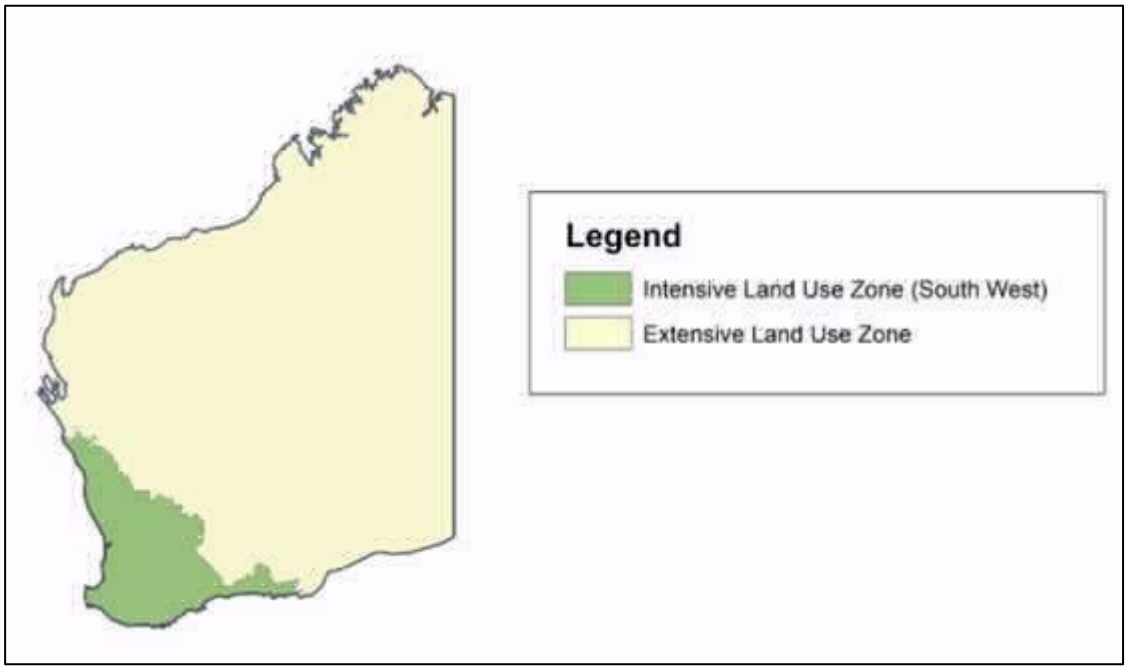
| Permit type | Application area (ha) | Current fee ($) | Revised fee | | |
|---|---|---|---|---|---|
| | | | Area component (extensive land use zone) ($) | Area component (intensive land use zone) ($) | Purpose component |
| Area permit | <1 | 50 | 500 | 1000 | N/A |
| | 1–10 | 100 | 750 | 1500 | |
| | 10–50 | 200 | 1000 | 2000 | |
| | 50–100 | | 1500 | 3000 | |
| | 100–500 | | 2000 | 4000 | |
| | 500–1000 | | 2500 | 5000 | |
| | >1000 | | 5000 | 10,000 | |
| Purpose permit | <1 | 200 | 500 | 1000 | $2000 (agriculture, horticulture, forestry or local government) $5000 (basic raw materials, other development, State development or utilities) |
| | 1–10 | | 750 | 1500 | |
| | 10–50 | | 1000 | 2000 | |
| | 50–100 | | 1500 | 3000 | |
| | 100–500 | | 2000 | 4000 | |
| | 500–1000 | | 2500 | 5000 | |
| | >1000 | | 5000 | 10,000 | |

The proposed fee structure shown in Table 1 accounts for the differences in the complexity of assessing clearing permit applications based on two key factors – the scale and the location of the proposed clearing.

The scale of clearing is to some extent captured through the existing fee structure; however, a flat fee exists for purpose permit applications and area permit applications seeking approval to clear more than 10 hectares (ha). The revised fee structure reflects the increasing complexity of assessing larger applications and those in highly cleared landscapes.

The location of the revised fee structure delineates between clearing within or outside of the 'intensive land use zone' that covers the State's South West. This intensive land use zone has been subject to significant levels of clearing by intensive agriculture and urban expansion (see Figure 1).

**Figure 1: Intensive and extensive land use zones**




The fee structure also applies a 'purpose component' to applications for purpose permits. Such permits allow the clearing of different areas from time to time for a purpose specified in the application, such as ongoing maintenance projects. Purpose permit applications can be more complex to assess and administer over their term.

Differentiation in the purpose component fee has regard to the economic capacity of the applicant as well as the assessment complexity and the public benefit. The kinds of activities considered to fall within each of the purpose groups are shown in Table 2.

**Table 2: Purpose definitions**

| Purpose | Description |
|---|---|
| State development | Mineral production, mineral exploration, petroleum production, basic raw materials, petroleum exploration (for applications administered by the Department and DMIRS), clearing under state agreements administered under delegation by DMIRS, and other associated activities including geotechnical investigations |

| Purpose | Description |
|---|---|
| Local government | Clearing by local governments for purposes such as road construction and maintenance, building or structures and other infrastructure |
| Utilities | Clearing by utilities including the Water Corporation, Western Power, Horizon Power, Main Roads Western Australia, Verve Energy, Telstra, Alinta Energy, WestNet Rail and the Public Transport Authority. Purposes include infrastructure construction and maintenance, railway construction, and road construction and maintenance |
| Agriculture/horticulture /forestry | Clearing for timber harvesting, plantations, horticulture, grazing and pasture, cropping, drainage, pastoral diversification (such as aquaculture and irrigated agriculture) and associated activities including firebreaks, fire hazard reduction and fence-line maintenance |
| Basic raw materials | Clearing for the purposes of extractive industry (e.g. sand, rock and gravel extraction) |
| Other development | Clearing for purposes including buildings or structures, industrial and landscaping and associated activities |

## 3.5 Discussion and targeted questions

### Analysis of fee impacts

While proposed fees for the largest area permits are significant, these comprise a small portion (around two per cent) of total permit applications and are typically associated with clearing for large mineral or petroleum production, large agricultural projects and major infrastructure.

Applications for the highest tier of clearing area categories are not anticipated in the intensive clearing zone, based on historical application data. Therefore clearing areas in excess of 1000 hectares (ha) will be practicably capped at $5000. This is well below clearing permit fee levels in New South Wales.

Applicants who typically need to clear a number of different areas, at different locations and at different times, are encouraged to consider a longer term, consolidated and strategic approach to their clearing needs through a single permit (or more) for a longer duration period, rather than applying for multiple permits. This would typically apply to local governments, for the care and maintenance of roads. The granting of one or more comprehensive permits will not just reduce the cost of the application, but will also lessen the administrative burden of complying with multiple permits and also provide the permit holder with greater certainty. It will also potentially enable better environmental outcomes, particularly if offsets are required.

To outline the effect of the proposed new fee structure, two scenarios are provided below.

<u>Scenario 1 – Agriculture/Horticulture/Forestry</u>

A land owner located in the intensive land use zone applies for an area permit to clear five hectares of native vegetation. The fee for this application would be $1500.

A land owner located in the extensive land use zone applies for an area permit to clear five hectares of native vegetation. The fee for this application would be $750.

Scenario 2 – Local government

A local government in the South West applies to clear two hectares of native vegetation for road widening. The fee would be $3500. If the local government was located in the Pilbara region, the fee would be $2750.

The above scenario envisages the submission of individual applications. It is acknowledged that some applicants, particularly local governments have typically lodged multiple applications over an annual period.

The department supports a more strategic approach to native vegetation clearing and for the consolidation of applications by local governments.

A strategic approach to clearing permit applications will have a direct benefit in terms of reduced cost to the applicant and is also likely to yield additional benefits, such as:

- longer permit timeframes/validity
- reduced administrative burden for government and permit holders in complying with, and assessing compliance against multiple permits
- greater potential for the use of strategic offsets
- more comprehensive and cumulative assessment of clearing impacts
- more certainty in the decision, following a single appeal process.

## Targeted questions

In considering the proposed new fee structure for applications for clearing permits, the department is interested in your views. Your feedback on the following questions is sought, as well as any other feedback that you may wish to give.

- Would a strategic approach to clearing, through a strategic purpose permit, benefit you?
- Is the ‘purpose component’ reasonable to apply considering the added complexity of assessing this type of clearing permit?
- Is the proposed fee structure fair and does it adequately reflect differences in the financial capacity of clearing permit applicants?
- What is the likely impact on your business or industry of the proposed clearing fee structure?

# 4 Schedule 2 – Water

## 4.1 Background

The Department of Water and Environmental Regulation plans for and manages all water resources throughout Western Australia. A key part of this role is regulating the take and use of water to ensure water is used sustainably, impacts on other users and the environment are managed and the water resources themselves are protected from degradation.

To take and use water, construct or alter wells, or to interfere with the bed and banks of a watercourse in proclaimed surface water and groundwater areas, authorisation is required under the RIWI Act. Authorisation is also required for artesian groundwater resources across the state and permits may apply in unproclaimed areas accessed via a road or reserve. These authorisations are granted through three instruments:

5C water licence – approval to take water
26D licence - approval to construct or alter wells
Bed and banks permit – approval to interfere with the bed and banks of a watercourse.

### 5C Water licence - approval to take water

Authorisations to take water are provided for under section 5C of the RIWI Act. '5C' water licences enable the holder to access a particular volume of water in a designated period. Water licences may contain conditions for taking and using that water and can be traded and transferred.

5C licences are typically issued for up to 10 years at which point they can be renewed or forfeited.

### 26D licence - approval to construct or alter a bore

Under section 26D of the RIWI Act, a licence is required to:

commence, construct, enlarge, deepen or alter any artesian well; or

commence, construct, enlarge, deepen or alter any non-artesian well in a groundwater area proclaimed under the RIWI Act.

Licences are issued for the duration of the works.

### Bed and banks permit - approval to interfere with the bed and banks of watercourses

The main type of permit issued under s.17 of the RIWI Act is a permit to interfere with the bed and banks of watercourses in proclaimed surface water areas. Permits are also issued under s.11 and 21A for access via a road or reserve.

Permits are typically issued for the duration of the works.

### Statutory obligation for assessing licences and permits

The assessment of applications for water licences under the RIWI Act requires consideration of a range of factors and can be complex. Clause 7(2) of Schedule 1 of the RIWI Act prescribes the criteria against which 5C and 26D licence applications must be assessed including for new licences, renewals, amendments and applications to trade or transfer. The regulatory criteria are similar for applications to interfere with bed and banks of a watercourse and are prescribed in Clause 7(2) of Part 2 of the Rights in Water and Irrigation Regulations 2000.

The regulatory criteria by which applications are assessed must consider if the taking of water:

a) is in the public interest
b) is ecologically sustainable
c) is environmentally acceptable
d) may prejudice other current and future needs for water
e) would, in the opinion of the Minister have a detrimental effect on another person
f) could be provided for by another source/could be undertaken in another way
g) is in keeping with –
   i. local practices
   ii. a relevant local by-law
   iii. a plan approved under Part III Division 3D Subdivision 2
   iv. relevant previous decisions of the Minister
h) is consistent with –
   i. land use planning instruments
   ii. the requirements and policies of other government agencies, or
   iii. any intergovernmental agreement or arrangement.

## 4.2 Licence and permit applications assessed in 2015-2017 and current cost recovery

### Number of licences and permits assessed

The department currently administers around 13,000 licences and permits across the State. These cover 730 groundwater and 296 surface water resources. In 2016/17, the total volume of water licensed for use was 3723 GL.

Between July 2015 and June 2017, DWER assessed an average of 2739 applications per year across all application types.

Applications for new 5C licences and 26D licences to construct or alter wells represented the largest number of assessments undertaken by the department followed by 5C licence renewals.

Trades, transfers and agreements form the cornerstone of an effective water market, promoting the use of water to its highest economic value. Over these years, the Department assessed an average of 306 trades, transfers and agreement applications annually.

Licence amendments involve the changing of a licence at the request of the licence holder and most often seek to increase the volume of water to be taken or to change other licence conditions. The department assessed an average of 228 licensee initiated amendments per year in 2015-2017.

Amendments to licences may also be initiated by DWER and include updating licence conditions, amending contact details and other administrative changes. From 2015-2017, an average of 334 department-initiated amendments were undertaken annually. These transactions would not be subject to cost recovery.

The department also assessed an average of 200 applications to interfere with bed and banks of watercourses each year. These applications vary widely from the construction of bridges through to complex diversions of watercourses that can impact on many water users.

**Table 3: Number of licence and permit assessments for 2015-2016 and 2016-2017**

| Assessments by application type | 2015-16 | 2016-17 |
|---|---|---|
| New 5C licences | 696 | 503 |
| Renewal of 5C licences | 472 | 380 |
| Trades, transfers and agreements | 330 | 281 |
| Construction or alteration of wells | 647 | 646 |
| Bed and banks permits | 159 | 240 |
| Licensee initiated amendments | 232 | 225 |
| Department initiated amendments | 237 | 430 |
| **Total** | **2,773** | **2,705** |

### Current cost recovery

The cost incurred by the department to assess water licence and permit applications in 2015-2016 and 2016-2017 was $15,577,921 and $14,606,870 respectively.

This cost reflects assessment of licence and permit applications against the statutory assessment criteria and does not include costs associated with water resources planning and management.

Under Schedule 1 Part 1 and Part 2 of the *Rights in Water and Irrigation Act Regulations 2000*, administrative fees for licence transfers, licence reprints, meter testing, registration of security interests and access to the water register are payable. The Department recovers $61,200 for the above transactions, noting these fees do not cover assessment costs.

## 4.3 Water fees in other jurisdictions

Western Australia is the only Australian jurisdiction that does not apply any form of cost recovery for managing water resources, including for water licence administration and assessment and water resource planning.

Comparing water fees across Australia is difficult due to different legislative regimes, including the application of a combination of assessment, volumetric and supply charges. There is additional complexity as water fees are also dependent on each state's approach to cost recovery, either fully or partially, and issues related to specific locations.

For example, in Queensland, there are no fees for renewal of licences or licences to construct a well. A flat annual charge of $79 applies.

In New South Wales, amendment fees vary greatly depending on the type of amendment being sought. An annual water management charge also applies to recover the cost of planning and management activities.

In Victoria, water corporations issue licences. Five corporations issue groundwater licences, and fees comprise both application and volumetric based-charges.

Figure 2 provides a general overview of some transaction fees and annual charges in other Australian jurisdictions.

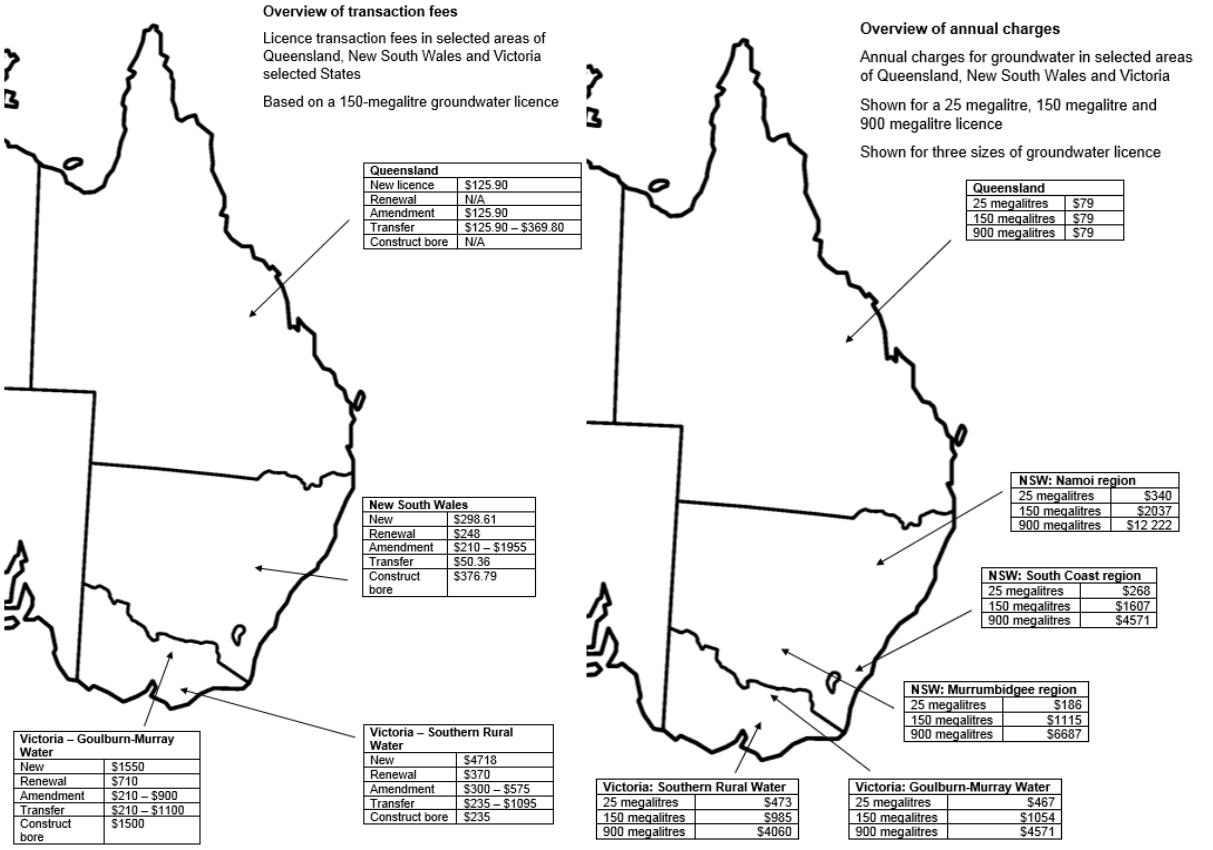



Figure 2 Overview of transaction fees and annual charges in other Australian jurisdictions.

## 4.4 Fee structure for mining and public water supply scheme sectors

On 10 May 2018, the government announced the introduction of fees for water licence and permit assessments for the mining and the public water supply scheme sectors. These fees were introduced to recover the cost of assessing applications for some of the State's largest water users by volume.

The new fees are reflective of the level of effort required to assess licence and permit applications with effort based on risk to the water resource determined by two factors:

- volume of water
- level of allocation of the water resource.

Water licence volume is a good indicator of risk, with high volumes more likely to impact on other water users, water-dependent ecosystems, and the water resource itself.

The second determiner of risk is the allocation status of the water resource to which the licence or permit application relates. The department establishes allocation limits

to protect the long-term viability of the water resource to meet current and future water demand and for the protection of the environment. The greater the level of allocation of a resource, the greater the risk to other users and the environment.

Table 4 shows the risk matrix to be applied in determining the level of assessment required for licence and permit applications from the mining and public water supply scheme sectors.

**Table 4: Risk matrix for licence and permit applications for mining and public water supply scheme sectors**

| Volume of application (each year) | Allocation status of water resource | | | |
|---|---|---|---|---|
| | Water resource is <30% allocated | Water resource is between 30% and 70% allocated | Water resource is between 70% and 100% allocated | Water resource is >100% allocated |
| 0–50,000 kL | Low | Low | Medium | High |
| 50,000–500,000 kL | Low | Medium | High | High |
| >500,000 kL | High | High | High | High |

For applications for licences to construct or alter wells and permits to interfere with bed and banks of watercourses which do not involve consideration of volumetric water impacts and the allocation status of the water resource, the assessment of the instrument will be undertaken as low risk.

Table 5 shows the fee structure to be applied to the mining and public water supply scheme sectors. This fee structure represents the full cost of assessing licence and permit applications, with the exception of applications for licence trades, transfers and agreements and department-initiated licence amendments. For the mining and public water supply scheme sectors, these fees will recover $720,000 per year.

The full cost of assessing licence trades, transfers and agreements is comparable to that of a new licence. Currently, a fee of $200 is charged for these transactions. If increased cost recovery were to be introduced, no changes to these fees would be applied in order to continue supporting an effective water trading market.

**Table 5 Water licence and permit fee structure applying to only mining and public water supply scheme sectors**

| Application type | Risk assessment level | Old fee ($) | New fee ($) |
|---|---|---|---|
| New 5C licence (take water) assessment fee | Low risk | 0 | 5357 |
| | Medium risk | 0 | 7143 |
| | High risk | 0 | 8929 |
| Renew existing 5C licence assessment fee | Low risk | 0 | 4001 |
| | Medium risk | 0 | 5335 |
| | High risk | 0 | 6668 |

| Application type | Risk assessment level | Old fee ($) | New fee ($) |
|---|---|---|---|
| Trades, transfers or agreements application fee (non-refundable) | Not applicable | 200 | 200 |
| Amend 5C licence assessment fee | Low risk | 0 | 4407 |
| | Medium risk | 0 | 5876 |
| | High risk | 0 | 7345 |
| Construct and alter well licence assessment fee | Low risk | 0 | 172 |
| | Medium risk | 0 | 215 |
| | High risk | 0 | 269 |
| Permit for bed and banks assessment fee | Low risk | 0 | 2477 |
| | Medium risk | 0 | 3302 |
| | High risk | 0 | 4128 |

### Methodology for determining the fee structure for the mining and public water supply scheme sectors

In 2010, the Economic Regulation Authority (ERA) conducted an independent inquiry into water resources management and planning charges (*Economic Regulation Authority inquiry into water resources management and planning charges – costing of water activities* (May 2010).

In supporting the inquiry, the department determined the relative effort required for each type of licence or permit assessment.

Using the average of the numbers of each application type received by the department in 2015-2016 and 2016-2017 and the cost to the department of assessing applications for these years, the average cost of assessing each licence and permit type was determined.

The low-risk and high-risk application fees were derived by applying factors of 0.75 and 1.25 to the average cost.

The cost of assessing licences to construct or alter wells was further revised to reflect improvements made since 2010 in assessing these types of applications.

## 4.5 Points for discussion

In considering your submission, the department is interested in your views on the following points:

> Do you consider it reasonable for taxpayers to pay 100 per cent of the cost of assessing water licence and permit applications and if so, why?
> If water licence and permit assessment fees were introduced, what do you consider to be an appropriate fee for a water licence or permit application?
> Would you consider a risk-based model for determining water licence and permit application fees to be appropriate? If not, what basis could the Department use to structure fees?

What would be the likely impact on your business or industry if water licence and permit fees were introduced?

If water licence and permit assessment fees were introduced, how could the collection of fees be timed to better support your business or industry? For example, would you benefit from paying fees up front, at the end of a licence assessment or annualised over the term of the licence?

# AGENDA FORUM DISCUSSION PAPER

| | |
|---|---|
| **Date of Report:** | 4 September 2018 |
| **Name of Applicant / Proponent/s:** | Department of Local Government, Sports and Cultural Industries and WALGA |
| **File Reference No.:** | SAF 1 |
| **Author:** | A Bell ï Manager Community Development |
| **Responsible Officer:** | S Scott - Chief executive Officer |
| **Previously Before Council:** | Nil |
| **Nature of Council's Role in the matter:** | Executive |
| **Attachments:** | 1. Copy of Power Point presentation Royal Commission into Institutional responses to Child sexual abuse ï July 2018<br>2. Copy of Power Point presentation Recap & Agenda ï August 2018 |

## 7.4 ROYAL COMMISSION INTO INSTITUTIONAL RESPONSE TO CHILD SEXUAL ABUSE ð LOCAL GOVERNMENT CHILD SAFETY OFFICER POSITION

### PURPOSE OF THE DISCUSSION PAPER

The Department of Local Government, Sports and Cultural Industries and WALGA are seeking Local Government feedback on recommendations from the Royal Commission findings.

The main point for consideration is, with support from governments at the national, state and territory levels, Local Governments should designate child safety officer positions from existing staff profiles.

### BACKGROUND

The Royal Commission was established in 2013 to investigate failures of public and private institutions to protect children from sexual abuse.

As stated in the attachment:

*Broadly, the Royal Commission's aims were to:*

- *Identify what institutions should do to better protect children;*
- *Investigate how to improve reporting of and responding to reports of institutional child sexual abuse;*
- *Eliminate impediments to responding to the abuse, and*
- *Address the impact of past and future abuse.*

*The Royal Commission Final Report was released on 15 December 2017 and contained a total of 409 main and sub-recommendations:*

- *310 recommendations applicable to the WA Government*
- *99 recommendations outside the jurisdiction of the WA Government*

The Commonwealth, state and territory Governments were to provide an initial response to Royal Commission recommendations by June 2018.

There are specific Royal Commission Recommendations which will relate to Local Governments. These are listed below in consultation implications.

**CONSULTATION IMPLICATIONS**

Two webinars have been provided by the Department of Local Government, Sport and Cultural Industries through the months of July and August 2018. The Manager of Community Development listened to the presentations. Attached for Elected Members information are both presentations which offer further details.

There are Specific Royal Commission Recommendations that would impact on Local Governments. Listed below are the recommendations;

- A Designated Child Safety Officer position from existing staff profiles to out the following functions:
  - Developing child safe messages in Local Government venues, grounds and facilities
  - Assisting local institutions to access online child safe resource
  - Providing child safety information and support to local institutions on a needs basis
  - Supporting local institutions to work collaboratively with key services to ensure child safe approaches are culturally safe, disability aware and appropriate for children from diverse backgrounds.

Other recommendations with links to Local Government regarding Community and Sporting groups:

*Sport and recreation (includes sport, recreation, exercise groups, dance, martial arts, cadets/other defence force activity for children, outdoor adventure groups, Scouts/Girl Guides, hobby and community groups, arts and crafts groups, cultural and musical pursuits, tuition groups).;*

- *Implement the child safe standards;*
- *Developing a national sport and recreation child safety advisory committee. (Commonwealth Government jurisdiction); and*
- *Expanding and funding Play by the Rules.*

The Department of Local Government, Sports and Cultural Industries have commenced discussions with State Sporting organisations to seek feedback from them as to their roles in working with the recommendations from the Royal Commission.

*Other recommendations*

- *Legal responsibilities and Redress;*
- *Improving responses to and reporting child sexual abuse (Reportable Conduct, HSB and Failures to Report);*
- *Recordkeeping and information sharing;*
- *Working with Children Checks; and*
- *Mandatory Reporting and Prescribed Bodies.*

The findings of the Royal Commission are extensive and require careful and thorough consideration as to how implementation of the recommended reforms will occur. Reform will be a long-term commitment. The State Government will develop a staged implementation plan which will identify reform priorities, timeframes and resourcing options.

**WALGA is collecting responses form the sector to provide essential feedback to the Department of Local Government, Sport and Cultural Industries as part of a wider engagement process of the Royal Commission, as well as to gather feedback that will be considered when developing the State Governmentôs implementation plan.**

To assist Council in a response, the Manager of Community Development has noted draft responses to the questions. These can be amended prior to the response being sent back to the Department and WALGA.

1. **Do you support the Royal Commission recommendation that all Local Governments should appoint child safety officers from existing work profiles?**

   **Yes**

   **No**

   **Other (please specify) ï** All children have the right to be safe from harm. If designated role is for on-sharing of Child Safe messages and training throughout venues and community, this could be undertaken within existing staff resources. If this role is required to do more ï further details are needed, with further consideration given.

2. **What impact would the designation of child safety officers have within a Local Governmentôs workforce?**

   Increase in work load. However this depends on the final outcomes of these recommendations to Local Governments.

3. **From your existing workforce, does your Local Government have the following skills?**
   - **Masters Social Work**
   - **Bachelor Degrees (Social Work, Human Services, Social Welfare, Psychology, Behavioural Science)**
   - **Graduate Certificates/Diplomas (Human Services, Child Protection, Advanced Community Services, Statutory Child Protection, Youth Work)**
   - **Knowledge and/or experience (child and lifespan development, child and family violence, family dynamics and impacts of traumas, interpersonal violence, cultural factors and family dynamics**
   - **Knowledge and/or experience in Aboriginal and Torres Strait Islander cultures an issues relating to overrepresentation in the child protection system**
   - **Other (please specify) ï** As far as known the staff do not have these specific qualifications. This question on skills then raises further queries as to how in-depth this suggested role would become ï similar to Child Protection, or will it be more of an educational role to on-share Child Safe messages?
4. **In which areas of your current Local Government work profile do you believe this designation would occur and how might it benefit and/or be effective in supporting the community to create child safe environments?**

   Community Development/Communication Officer/Sport & Recreation (including Pool Manager once completed), Rangers.

   Developing and sharing of Child Safe messages with Community and Sporting Groups. On-line and print messages via website, Facebook, Shire Newsletter. Information brochures/posters at Shire Venues. Rangers are a possibility for sharing information as needed when out in community, however any incidents should be referred and reported direct to Police and Child Protection.
5. **Does your Local Government directly deliver services in the following?**
   - **Sport and Recreation -** Yes
   - **Club Development Officers ï** Yes via Community Development
   - **Vacation Care -** No
   - **Occasional Care ï** No
   - **Offsite excursions or overnight camps for children/youth -** No

- **Youth Advisory Council ï** With School -Prefect Meetings and CRC
- **Library service child, parent and family programs -** Yes
- **Capacity building initiatives community organisations ï** Yes as needed
- **Volunteer workforce management ï** Yes but within Shire services ï not community groups
- **Other (please specify)**

6. **What training, resources, support would be required by your Local Government to successfully implement designated child safety officers?**

   Unknown at this stage, as unknown as to what is required from Shire Staff.

7. **Would your Local Government have the capacity to make use of online training and support if offered by State Government?**

   Yes

8. **What would be the most effective method of supporting Local Government with the implementation of child safety officers?**

   - Continue to inform of future progress on this matter and seek input from LGôs
   - On-line training
   - Network forums for all LGôs ï however these to need address the differences between Metro, Regional, Rural and Remote Local Governments.

9. **Where do you believe is the best fit for the role and responsibility of Local Government in ensuring child safety?**

   - **Prevention through the provision of information, education, signage and other awareness raising initiatives** - Yes
   - **Responding by law by identifying and reporting children who experience, or at risk or experiencing, harm to ensure that people are safe from abuse, neglect and harm ï** No, these incidents should be directly reported to Police and Child Protection.
   - **Ongoing intervention through the provision of support and assistance to children young people and their families to meet protection care needs ï** No, these incidents should be directly reported to Police and Child Protection.
   - **Other (please specify)**

**STRATEGIC IMPLICATIONS**

Vision We are a vibrant rural community that celebrates our past and embraces a sustainable future.

Mission Local Government and community working together to obtain the best possible social, economic and environmental outcomes for the Toodyay Shire.

Council's Strategic Priorities

Community Services:

Building trust, partnerships and support for community action.

**POLICY IMPLICATIONS**

In the future policies may need to be considered.

**FINANCIAL IMPLICATIONS**

Future financial implications are unknown at the time of writing this report.

**LEGAL AND STATUTORY IMPLICATIONS**

Future legal and statutory implications are unknown at the time of writing this report.

**RISK IMPLICATIONS**

Future risk implications are unknown at the time of writing this report.

**ENVIRONMENTAL IMPLICATIONS**

This proposal does not contain any notable environmental implications.

**SOCIAL IMPLICATIONS**

Society as a whole, by addressing and implementing the recommendations should assist in making communities safer for children.

**OFFICER COMMENT / DETAILS**

The Department of Local Government, Sports and Cultural Awareness and WALGA are seeking feedback from Local Governments by end of September.

Council will be kept informed of future developments on this matter.

**OFFICER'S RECOMMENDATION**

1. Council to provide feedback via the office of CEO for input into the Shire of Toodyay's submission by September 14th 2018, should there be any different responses to those supplied in this report; and
2. Shire response will be sent to both WALGA and Department of Local Government.

# ROYAL COMMISSION INTO INSTITUATIONAL RESPONSES TO CHILD SEXUAL ABUSE

WA Government position and response to recommendations

July 2018

*'that for institutions to be safe for children, the communities in which they operate need to be safe for children. The whole nation can contribute to change to keep children safe'.* (Royal Commission)

# RC Overview

The Royal Commission was established in 2013 to investigate failures of public and private institutions to protect children from sexual abuse.

Broadly, the Royal Commission's aims were to:

- identify what institutions should do to better protect children;
- investigate how to improve reporting of and responding to reports of institutional child sexual abuse;
- eliminate impediments to responding to the abuse; and
- address the impact of past and future abuse.

The Royal Commission Final Report was released on 15 December 2017 and contained a total of 409 main and sub-recommendations:

- 310 recommendations applicable to the WA Government
- 99 recommendations outside the jurisdiction of the WA Government

Commonwealth, state and territory Govts to provide an initial response to RC recommendations within six months (June 2018) – Recommendation 17.1

# Specific RC Recommendations

Local Government - With support from governments at the national, state and territory levels, local governments should designate child safety officer positions from existing staff profiles to carry out the following functions:

- developing child safe messages in local government venues, grounds and facilities
- assisting local institutions to access online child safe resources
- providing child safety information and support to local institutions on a needs basis
- supporting local institutions to work collaboratively with key services to ensure child safe approaches are culturally safe, disability aware and appropriate for children from diverse backgrounds.



Sport and recreation (includes sport, recreation, exercise groups, dance, martial arts, cadets / other defence force activity for children, outdoor adventure groups, Scouts / Girl Guides, hobby and community groups, arts and crafts groups, cultural and musical pursuits, tuition groups). :

- Implement the child safe standards.
- Developing a national sport and recreation child safety advisory committee. (noted – Commonwealth Govt jurisdiction)
- Expanding and funding Play by the Rules.

Other recommendations

- Legal responsibilities and Redress
- Improving responses to and reporting child sexual abuse (Reportable Conduct, HSB and Failures to Report)
- Recordkeeping and information sharing
- Working with Children Checks
- Mandatory Reporting and Prescribed Bodies

# WA Govt – Initial Response

Publicly release 27 June 2018 of the WA Government's position in relation to the 310 recommendations

Broadly, the Western Australian Government's six-month response:

- provides a commitment to addressing historical abuse that has occurred, preventing abuse from happening and to act swiftly to respond to abuse should it happen again;
- identifies the WA Government's response to each of the Royal Commission's recommendations;
- acknowledges the need for national coordination, consistency and flexibility;
- demonstrates work already undertaken, through examples of leading practice;
- sets out the approach to progressing implementation of the recommendations; and
- commits to provide public annual reports.

Key principles of the WA Government response:

- protect the leading-practice frameworks and initiatives already implemented
- require flexibility of national approaches
- focus on building a community where children are safe
- improve responses whenever exceptions occur.

# DLGSC and Stakeholders

The Royal Commission recommendations have a community-wide effect; that relates to all levels of Government(s) and formal institutions, through to not-for-profits and community organisations / clubs operating solely with volunteers throughout Australia.

Given the extensive interconnections and the impact broadly across the community; implementation of the Royal Commission's recommendations will require:

- careful consideration
- engagement and consultation with stakeholders when considering and developing implementation strategies and priorities
- particularly taking into account the differences in organisational skill-level, capacity, resources and local circumstance.
- Must be focused on the outcome – making it safer for children.

# Next Steps

Director General 1St communique to DLGSC stakeholders in late June 2018

Implementation Framework developed and delivered for the WA Government's consideration in November 2018, articulating:

- reform priorities
- lead agencies, partners and stakeholders
- timeframes
- indicative costings (potentially for future budget submission)

The WA Government are already participating in several discussions with the Commonwealth and other states, in relation to national strategies and frameworks regarding child safeguarding that will impact on DLGSC, our organisational stakeholders and ultimately, the broader community

Need for DLGSC to be well informed of key national and state level developments, to effectively lead the recommendations it is responsible for, to provide timely and well considered input and to ensure effective two-way

**DG 2ND COMMUNIQUE EARLY AUGUST – INFORMATION AND DISCUSSION PAPER**

**Key stakeholder consultation will occur over the next few months (to late September 2018) during implementation planning following a developed engagement strategy; where possible existing DLGSC industry partner conferences, forums, workshops and meetings will be targeted for engagement.**

WA Government must report on progress every year (December) to Parliament

# Discussion Prompt Questions

Local Government:

12. What impact would the designation of child safety officers have within a local government's workforce?
13. What areas of the local government do you believe this designation would occur and how might it benefit and / or be effective in supporting the community?
14. What training, resources and support would be required by the local government to successfully implement designated child safety officers?
15. What would be the most effective method(s) of supporting local government with the implementation of child safety officers?

Child Safe Standards:

1. What do the child safe standards mean to organisations and the community?
2. How could child safe standards be met or delivered in varying WA community settings (metropolitan, regional or remote)?
3. Should child safe standards be regulated or principles-based? *
4. In addition to overnight stays (e.g. camps), what other high-risk areas could be regulated to comply with the Standards?
5. What training, resources and support would be required by an organisation and the community with either approach (regulated or principles-based) to the standards?
6. What special considerations would be required to support institutions/organisations/groups with a high percentage of volunteers, seasonal factors (summer/winter; wet/dry) and regular turn-over?
7. What should organisations be required to do to demonstrate they are meeting the child safe standards?

Legislation:

16. What additional training and resources would be required to support the implementation of any legislative change to working with children checks?

Record Keeping and Information Sharing:

17. What support will be needed to implement principles of record keeping and information sharing across different organisations and institutions?
18. Are organisations aware of and compliant with existing record keeping and information sharing legislation (Associations Incorporation Act 2015, Privacy Act 2014)?
19. What information would better assist community-level organisations to improve child safeguarding?
20. Has your organisation had trouble accessing information regarding an individual coming from overseas, and their appropriateness to undertake child-related work or activities (i.e. coaching or volunteering)?

Further information on:

- The WA Government's response to the Royal Commission recommendations can be accessed at: http://www.dpc.wa.gov.au/childabuseroyalcommission
- The Royal Commission at: https://www.childabuseroyalcommission.gov.au/
- National Redress Scheme at: https://www.nationalredress.gov.au/

*'that for institutions to be safe for children, the communities in which they operate need to be safe for children. The whole nation can contribute to change to keep children safe'.*

# Recap and Agenda

Royal Commission Final Report – December 2017

WA State Government's initial response released in late June 2018 (Accept, Accept in Principle, Reject or Further Consideration)

Director General 1St communique to DLGSC stakeholders in late June 2018 – awareness of Royal Commission and State Government initial response.

Director General 2nd communique to Local Governments – early August 2018. Contained Information and Discussion Paper

1. Summary of Findings
2. Key Recommendations
3. Key Discussion Points

WALGA Webinar – Friday, 10 August 2018 – focused on information and awareness of Royal Commission.

Implementation Framework developed and delivered for the WA Government's consideration in November 2018, articulating:

- reform priorities
- lead agencies, partners and stakeholders
- timeframes
- indicative costings (potentially for future budget submission)

2nd Webinar today focusing on understanding developed since and key question areas

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# Current Status

- WA Government overall approach focused on:
  - Stronger Prevention (including Safer Institutions and Supportive Legislation)

    Create an environment where children's safety and wellbeing is the centre of thought, values and actions.
    Places emphasis on genuine engagement with and valuing of children
    Creates conditions that reduce the likelihood of harm to children and young people

  - Reliable Responses (including Effective Reporting)

    Creates conditions that increase the likelihood of identifying any harm
    Responds to any concerns, disclosures, allegations or suspicions of harm.

  - Supported Survivors

- Implementation Planning
  - Iterative process
  - Recommendations and reforms are interrelated and, in some cases, sequential
  - Need the questions, queries and concerns now
  - Factored into Implementation Plan (the things we must consider)

- Implementation
  - Multi years, long term
  - Priority approach
  - In some cases, first phase of implementation may include more further consultation and understanding
  - Sequential – foundations first, followed by other phases
  - In some cases, implementation may be staged or targeted up-front

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# Local Govt recommendation

Local Government - With support from governments at the national, state and territory levels, local governments should designate child safety officer positions from existing staff profiles to carry out the following functions:

- developing child safe messages in local government venues, grounds and facilities (Comms, CD / Rec and Youth)
- assisting local institutions to access online child safe resources (Comms, Libraries)
- providing child safety information and support to local institutions on a needs basis (CD / Rec and Youth)
- supporting local institutions to work collaboratively with key services to ensure child safe approaches are culturally safe, disability aware and appropriate for children from diverse backgrounds. (CD / Rec and Youth)

Focus is on 'Stronger Prevention'

- Achieved through:
  - Education (information, awareness and messaging – nationally consistent)
  - Capacity Building
  - Resources
  - Support and advice

- **Approach (not standalone / additional**
  - **as much about thinking and doing differently, rather than more (think OHS)**
  - **about fulfilling existing functions with a different perspective**

- Implementation
  - Training - on line and in-person (Ease of access, constantly available for state-wide audience) – common with other reforms
  - Resources

- Boundaries (not mandatory reporters – LG's only responsible for themselves, key agencies will be there (WAPOL, DOC, Child Protection)
  - Know what to do and what not to, when to stop and call for help

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# Other Recommendations

Sport and recreation (includes sport, recreation, exercise groups, dance, martial arts, cadets / other defence force activity for children, outdoor adventure groups, Scouts / Girl Guides, hobby and community groups, arts and crafts groups, cultural and musical pursuits, tuition groups). :

- Implement the child safe standards.
- Developing a national sport and recreation child safety advisory committee. (noted – Commonwealth Govt jurisdiction)
- Expanding and funding Play by the Rules.

Focus on "Stronger Prevention" via Safer Institutions

Dual approach – Regulated and Non-regulated
National standards to be adopted (COAG) October 2018 – (Draft) National Principles

1. Child safety and wellbeing is embedded in organisational leadership, governance and culture.
2. Children and young people are informed about their rights, participate in decisions affecting them and are taken seriously.
3. Families and communities are informed and involved in promoting child safety and wellbeing.
4. Equity is upheld and diverse needs respected in policy and practice.
5. People working with children and young people are suitable and supported to reflect child safety and wellbeing values in practice.
6. Processes for complaints and concerns are child focused.
7. Staff and volunteers are equipped with the knowledge, skills and awareness to keep children and young people safe through ongoing education and training.
8. Physical and online environments promote safety and wellbeing while minimising the opportunity for children and young people to be harmed.
9. Implementation of the national child safe principles is regularly reviewed and improved.
10. Policies and procedures document how the organisation is safe for children and young people.

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# Other Recommendations

- Reportable Conduct – Focus on "Reliable Responses and Effective Reporting"
  - Crossover with Child Safe Standards and Complaint Handling
- Base framework that describes
  - Type of Conduct
    - Sexual offences / Sexual misconduct / Physical violence / Behaviour that causes emotional or psychological harm / Significant neglect
  - What the different types of conduct look like
  - Exceptions
  - What is reasonable belief
  - Where to get support
- Responsibilities of organisations and members
  - Preventative
  - Responsive – systems and processes to enable notification and reporting
  - Reporting requirements and obligations
- Potential for a staged-approach (still under discussion along with overall structure)

- Recordkeeping and information sharing
- Legal responsibilities and Redress
- Mandatory Reporting and Prescribed Bodies

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# Other Recommendations

- Working with Children Checks – "Stronger Prevention' through Supportive Legislation - nationally consistent, protect current safeguards and address challenges

- The Royal Commission made recommendations for independent oversight for:
  - Child safe standards (recommendation 6.10-6.11);
  - Institutional responses and complaint handling processes through the establishment of a reportable conduct scheme (recommendation 7.9-7.12)
  - Accreditation of out of home care service providers (recommendation 12.5); and
  - Youth detention environments (recommendation 15.9-15.10)

- The State Government has given in-principle support for all the independent oversight recommendations.

- The Department of the Premier and Cabinet are developing policy advice to Cabinet, regarding the most effective ways to give effect to oversight of the four key areas.

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# Discussion Prompt Questions

Local Government:

12. What impact would the designation of child safety officers have within a local government's workforce?
13. What areas of the local government do you believe this designation would occur and how might it benefit and / or be effective in supporting the community?
14. What training, resources and support would be required by the local government to successfully implement designated child safety officers?
15. What would be the most effective method(s) of supporting local government with the implementation of child safety officers?

Child Safe Standards:

1. What do the child safe standards mean to organisations and the community?
2. How could child safe standards be met or delivered in varying WA community settings (metropolitan, regional or remote)?
3. Should child safe standards be regulated or principles-based? *
4. In addition to overnight stays (e.g. camps), what other high-risk areas could be regulated to comply with the Standards?
5. What training, resources and support would be required by an organisation and the community with either approach (regulated or principles-based) to the standards?
6. What special considerations would be required to support institutions/organisations/groups with a high percentage of volunteers, seasonal factors (summer/winter; wet/dry) and regular turn-over?
7. What should organisations be required to do to demonstrate they are meeting the child safe standards?

Legislation:

16. What additional training and resources would be required to support the implementation of any legislative change to working with children checks?

Record Keeping and Information Sharing:

17. What support will be needed to implement principles of record keeping and information sharing across different organisations and institutions?
18. Are organisations aware of and compliant with existing record keeping and information sharing legislation (Associations Incorporation Act 2015, Privacy Act 2014)?
19. What information would better assist community-level organisations to improve child safeguarding?
20. Has your organisation had trouble accessing information regarding an individual coming from overseas, and their appropriateness to undertake child-related work or activities (i.e. coaching or volunteering)?

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# Next Steps

- Feedback, concerns and questions to inform implementation
- Format
  - Email to WALGA or DLGSC
  - Written submission (Officer comment or Council)
- Timeframe – End of September

*'that for institutions to be safe for children, the communities in which they operate need to be safe for children. The whole nation can contribute to change to keep children safe'.*

Click to save a picture to your desktop.

Further information on:

- DLGSC Information and Discussion Paper:

https://www.dlgsc.wa.gov.au/resources/publications/Pages/Child-Abuse-Royal-Commission.aspx

- The WA Government's response to the Royal Commission recommendations can be accessed at: http://www.dpc.wa.gov.au/childabuseroyalcommission

- The Royal Commission at: https://www.childabuseroyalcommission.gov.au/

- National Redress Scheme at: https://www.nationalredress.gov.au/

*'that for institutions to be safe for children, the communities in which they operate need to be safe for children. The whole nation can contribute to change to keep children safe'.*

## AGENDA FORUM DISCUSSION PAPER

| | |
|---|---|
| **Date of Report:** | 3 September 2018 |
| **Name of Applicant / Proponent/s:** | Hon Ben Wyatt MLA ï Treasurer; Minister for Finance; Energy; Aboriginal Affairs |
| **File Reference No.:** | ABG1 |
| **Author:** | A Bell ï Manager Community Development |
| **Responsible Officer:** | S Scott ï CEO |
| **Previously Before Council:** | Nil |
| **Nature of Council's Role in the matter:** | Advocacy |
| **Attachments:** | 1. Letter from Ben Wyatt MLA;<br>2. Summary Paper from Ben Wyatt ï An idea for making government work better for Aboriginal People;<br>3. Discussion Paper ï Government of WA ï An Office for advocacy and accountability in Aboriginal affairs in Western Australia; and<br>4. Info Page ï WALGA. |

## 7.5 AN OFFICE FOR ADVOCACY AND ACCOUNTABILITY IN ABORIGINAL AFFAIRS IN WESTERN AUSTRALIA

### PURPOSE OF THE DISCUSSION PAPER

The Department of Premier and Cabinet are seeking Local Government feedback into this proposal for a new office for advocacy and accountability in Aboriginal Affairs in Western Australia.

### BACKGROUND

The Department of Aboriginal Affairs no longer exists.

A new organisation would be different. It would be made up on one officially appointed person with special legal powers, and a team of support staff to assist them. This person would be independent from the Government ï Ministers would not be able to tell them what to do.

As written in the discussion paper:

*In 2017, the Government embarked on a suite of reforms to improve how the public sector works across the board.*

*The Government commissioned an Independent Service Priority Review to drive reform of government service delivery, accountability and efficiency. The Review's final report identified structural and systemic weaknesses in the*

*State's public sector, and set out a blueprint for reform to achieve better outcomes.*

*A major finding of the report was the need for greater accountability and transparency across government, and better alignment of government services to community needs. On Aboriginal affairs in particular, the report noted that the existing systems and structure sometimes allow the public sector to continue doing what it has always done despite poor or worsening outcomes. The report recommended a number of actions for improvement, which are now a part of the Government's broader public sector reform program to be implemented in 2018 and beyond.*

*The Government also made sweeping changes to the number and structure of government departments. Among these changes was the abolition of the Department of Aboriginal Affairs, whose functions were shifted to other State Government Departments, and establishment of an Aboriginal policy function in the Department of the Premier and Cabinet. Moving Aboriginal policy into a central agency ensures that Aboriginal issues are given the highest priority and embedded in the Government's core policy agenda. While these changes are important, there remains a gap in the State's Institutional framework - there is no independent entity with the express function of holding Ministers and agencies accountable for improving opportunities for Aboriginal people.*

*This gap has been addressed in various ways in other jurisdictions: south Australia's Commissioners for Aboriginal Engagement; Victoria's Treaty Commissioner, New South Wales' Deputy Ombudsman for Aboriginal Programs; and the Government Champions program in Queensland (and, until recently, a similar program in the Northern Territory). Although the particular solutions differ, together they demonstrate a widespread recognition of the same basic challenge, and the need for systemic reforms to tackle it.*

*The proposal in this discussion paper for a new independent office for accountability and advocacy in Aboriginal affairs is progressing the Government's reform agenda. Taken in isolation, the impact of any one of these initiatives is likely to be modest. But together, the Government expects them to drive real change in the lives of Aboriginal people and improve how the public sector works across the board.*

**CONSULTATION IMPLICATIONS**

An email with Letter, summary page and discussion paper was sent to all Local Governments in WA late June 2018. (Attachments 1, 2 & 3).

WALGA followed up with an Info Page to all Local Governments on 16 August 2018. (Attachment 4).

Manager of Community Development contacted Policy Manager, Community, Kirstie Davis on 3 September 2018. It was advised that Local Governments are responding in various ways - Officer Comment or Council view/comment.

Although there are two close off dates for submissions, all Local Governments through the busyness of the workplace ï budgets and end of financial year - have been unable to respond within noted timeframes. WALGA has advised the Manager of Community Development that - Nicholas Duff from the Department of Premier and Cabinet has advised that the timeframes are flexible, however would like to have input from Local Governments in as soon as possible.

Shire of Toodyay via Forum and Council meetings in September should be able to respond to this discussion paper by end of September.

**WALGA is seeking Local Government feedback on the following Discussion Paper questions:**

1. **What are your views about the outline of the officeôs basic features? (Outlined on page 10 ï 12 of the Discussion Paper). Does it miss out anything important? Is there anything included that shouldnôt be?**
2. **What should be the formal name for the office?;and**
3. **How should Aboriginal people and organisations be involved in the appointment process of the office-holder? Who should be involved?**

**STRATEGIC IMPLICATIONS**

Vision

We are a vibrant rural community that celebrates our past and embraces a sustainable future.

Mission

Local Government and community working together to obtain the best possible social, economic and environmental outcomes for the Toodyay Shire.

Councilôs Strategic Priorities

Community Services:

Building trust, partnerships and support for community action.

**POLICY IMPLICATIONS**

This proposal does not contain any notable policy implications.

**FINANCIAL IMPLICATIONS**

This proposal does not contain any notable financial implications.

**LEGAL AND STATUTORY IMPLICATIONS**

This proposal does not contain any notable legal and statutory implications.

**RISK IMPLICATIONS**

This proposal does not contain any notable risk implications.

**ENVIRONMENTAL IMPLICATIONS**

This proposal does not contain any notable environmental implications.

**SOCIAL IMPLICATIONS**

This proposal does not contain any direct notable social implications at this current point in time for the Shire of Toodyay. Into the future this proposed Office for advocacy and accountability in Aboriginal affairs in Western Australia could assist in giving a stronger voice to Indigenous Community Members in Toodyay in matters relating to Aboriginal issues in WA.

**OFFICER COMMENT / DETAILS**

A written submission to WALGA will be completed in late September following input from Council.

**OFFICERÕS RECOMMENDATION**

1. Council to provide feedback via the office of CEO for input into the Shire of Toodyayõs submission by September 14th 2018.
2. A further report with all input will be brought back to the September Council Meeting.
3. Final submission, once approved by Council (September Council Meeting) will be sent to Aboriginal Policy Unit/Department of the Premier and Cabinet and WALGA by end of September.

# Hon Ben Wyatt MLA
## Treasurer; Minister for Finance; Energy; Aboriginal Affairs

Mr Stan Scott
Chief Executive Officer
Shire of Toodyay
PO Box 96
TOODYAY WA 6566

28 June 2018

Dear Mr Scott

On 7 June 2018, I was proud to announce the McGowan Government's plan to consult with Aboriginal people on how we can improve the way government works with and for Aboriginal Western Australians.

I have released a discussion paper to explore the idea of creating an independent statutory office to strengthen government's accountability to Aboriginal people and advocate for Aboriginal people's interests in government policy and performance.

The attached discussion paper explains the reasoning behind this proposal, and describes some of the basic features such an office might have. An information sheet is also attached to assist with your communications with community members about the proposal.

It is my view that such an organisation can only be successful if it has the support of the broader community, and I am very keen to hear from you on whether the Shire of Toodyay supports the concept. If supportive, I would also be keen to hear the views of the Shire of Toodyay on the office's functions, structure, powers, name and appointment process.

As this is an open process, we will publish all written feedback online unless you ask us not to, and will also produce a summary report. Written submissions and face-to-face consultations will inform a model for the new office that will be considered by the Government.

To make sure your views are taken into account, please contact us by **7 September 2018**. Written submissions can be sent to AboriginalPolicy@dpc.wa.gov.au. To speak to somebody in person, please contact the Aboriginal Policy Unit on (08) 6552 5444.

Yours sincerely

Ben Wyatt MLA
**TREASURER; MINISTER FOR FINANCE; ENERGY; ABORIGINAL AFFAIRS**

GOVERNMENT OF WESTERN AUSTRALIA

# An idea for making government work better for Aboriginal people

I'm Ben Wyatt, the Minister for Aboriginal Affairs and Treasurer for Western Australia.

One of my priorities as Minister for Aboriginal Affairs is for the State Government to work with Aboriginal people to get better social, economic, cultural and health outcomes.

The WA Government is already doing many different things to make this happen, and I'd like to share an idea with you about something I think we could do in the future.

Right now, it is just an idea. Over the next few months we will be talking to many Aboriginal people, as well as people in government and others. We will then write a report on what people have told us. Your input will help us decide what to do next.

## Stronger accountability and advocacy

Our idea is to set up a new organisation to hold the government **accountable** for the way it works with Aboriginal people, and to **advocate** for the things that matter to Aboriginal people in WA.

In the past, governments have at times made decisions that have not been good for Aboriginal people, or delivered services in the wrong way and not made a real difference. We believe this would happen less if there was stronger government accountability to Aboriginal people. We think an official advocate for Aboriginal people would help the government listen better to Aboriginal people's priorities, views, concerns and ideas.

### *Accountability*

When we talk about someone being accountable, we mean they have to be open about what they've been doing so other people can see if they're doing the right thing.

For example, the committee members of a corporation are accountable to the members. At the AGM the committee needs to explain what the corporation has done in the last year, especially about money. This way everyone can see if they are doing a good job or not.

### *Advocacy*

An advocate helps the government listen to people outside government and speaks up about the things that are important to those people.

For example, when a land council writes a letter to ask the Federal Government to change the law on native title, the land council is doing advocacy for traditional owners.

## What would be the new organisation's job?

The organisation would have legal powers to get information from the government, and make official reports to Parliament.

This would allow it to:

- Look at how government services are working how they can do better
- Check to see if the government is following the rules (legislation, human rights)
- Help the government and Aboriginal organisations work better together
- Look at the information the government is using to make decisions, to see if it should get better information or make a different decision
- Share success stories and examples of good partnerships

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## Would this be a new government department like the old Department of Aboriginal Affairs (DAA)?

No. DAA does not exist anymore, and the new organisation we are talking about would be different. It would be made up of one officially appointed person with special legal powers, and a team of support staff to help them. This person would be **independent** from the Government – Ministers would not be able to tell them what to do.

## Would the new organisation help with individual problems like Centrelink breaches or tenancy issues?

No. There are already organisations for this, like the Ombudsman, the Aboriginal Legal Service, and community legal centres. The new organisation's job would be making sure the systems and rules are fair, culturally appropriate, and reflect the priorities of Aboriginal Western Australians.

## Would this organisation have elected representatives from

## What would the organisation actually do?

- Running investigations and inquiries
- Writing reports and submissions
- Talking to people in government: State, Federal and local
- Talking to Aboriginal people and organisations across the State
- TV and radio interviews, press releases, newspaper articles, social media

## We want to hear from you

1. **What do you think of the idea?**
   Do you have comments or suggestions?

2. **What should the name of the organisation be?**
   Some previous suggestions include "Commissioner for accountability in Aboriginal affairs", "First Nations Voice", or