

APPLICATION FOR CLEARING PERMIT



**LOT 3 BULLER ROAD,
WAROONA**

MARCH 2017

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1 INTRODUCTION

1.1 Applicant

The applicant for this Area Clearing Permit is Pandanus Park Aboriginal Community and AMG (WA) Pty Ltd Joint Venture (JV) (refer to **Attachment A**), a key supplier of sand products throughout Western Australia.

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1.2 Background

Pandanus Park Aboriginal Community and AMG (WA) Pty Ltd JV, are proposing to extract sand from a 14 hectare (ha) area located at Lot 3 Buller Road, Waroona (refer to **Figure 1** and **Figure 2**). The subject site is located in the municipality of the Shire of Waroona, approximately 13 km west of Waroona.

Sand extraction will require clearing of approximately 14 ha of remnant vegetation using an excavator and loader. The proposed clearing area is depicted within **Figure 2**. The proponent is seeking to commence clearing within the second quarter of 2017. Clearing will be undertaken in a staged approach, with 7ha comprised of each stage.

1.3 Scope and Purpose

This document has been prepared to support an application for a Clearing Permit (Area Permit) pursuant to Section 51E of the *Environmental Protection Act 1986* (EP Act). This document provides information regarding the current environmental condition of the subject site, including the predicted impacts of clearing and proposed management actions to mitigate predicted impacts. It also demonstrates compliance with the 10 clearing principles and other relevant legislation and policy.

1.4 Relevant Legislation and Policy

Western Australian legislation relevant to this Clearing Permit application includes:

- *Bush Fires Act 1954*;
- *Conservation and Land Management Act 1984*;
- *Environmental Protection Act 1986*; and
- *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*.

In addition to the above, there are several relevant Environmental Protection Authority (EPA) Guidance Statements that outline requirements for terrestrial flora, vegetation and fauna surveys:

- EPA Guidance Statement No. 51 – *Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia* (EPA 2004);
- EPA Guidance Statement No. 56 – *Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia* (EPA 2004); and

- EPA Position Statement No. 3 – *Terrestrial Biological Surveys as an Element of Biodiversity Protection* (EPA 2002).

1.5 Planning Context

The proposed application area is within an area zoned Rural 1 General Farming pursuant to the *Shire of Waroona Town Planning Scheme Number 7*. The *Shire of Waroona Local Planning Strategy* also identifies the application area as a sand ridge centered on Buller and Old Bunbury Roads. The Shire of Waroona has identified that mineral extraction, such as sand, in the region ‘*contribute significantly to the economy. Mineral extraction and processing is a key component of the local economy. Basic raw materials are essential for the road and construction industries*’.

In relation to State Planning Policies, the *Basic Raw Materials Statement of Planning Policy No. 2.4* and the *Greater Bunbury Regional Scheme Strategic Mineral and Basic Raw Material Policy* do not include the Shire of Waroona and therefore are not relevant for this application. In addition, the historical map Figure 4 of the *Peel Region Scheme* identifies the application area as a *known* sand resource area and the Department of Mines and Petroleum (DMP) has identified the application area as being located within a ‘regionally significant basic raw materials’ area. Further consultation with the DMP and the Shire of Waroona supports this mapping (refer to **Attachment B**)

It is noted that the Minister for Environment; Heritage has advised that the Green Growth Plan is in draft and therefore has no statutory basis and cannot be considered in this application.

1.6 Proposed Works

Extraction will be undertaken progressively in two stages in a south to north direction. These 7 ha stages are to proceed sequentially with land stabilisation works commencing upon completion of each stage.

The extraction sequence is designed to reduce the potential for stormwater erosion and dust by limiting the open pit area as far practical.

Exact timing of the staging will be dependent on demand.

2 ASSESSMENT AGAINST THE TEN CLEARING PRINCIPLES

Any clearing of native vegetation requires a permit in accordance with Part V of the EP Act, except where an exception applies under Schedule 6 of the Act or is prescribed by regulation in the *Environmental Protection (Clearing Native Vegetation) Regulations 2004*. The proposed clearing footprint is not located within an Environmentally Sensitive Area.

The clearing of native vegetation (approximately 14 ha) for the purpose of sand extraction will require an approved clearing permit. Clearing applications are assessed against the Ten Clearing Principles outlined in Schedule 5 of the EP Act. These principles aim to ensure that all potential impacts resulting from the removal of native vegetation can be assessed in an integrated manner.

An examination of the Ten Clearing Principles applied against a desktop investigation, review of previous assessments and results from a site visit is provided below.

a.) Native vegetation should not be cleared if it comprises a high level of biological diversity

The subject site was burnt in January 2016 during the Waroona fires. Prior to the fires, a *Level 1 Flora and Vegetation Survey* (MBS Environmental 2015) and *Level 2 Flora and Vegetation Survey* (Woodman Environmental 2015) was undertaken within Lot 3 Buller Road.

No Declared Rare or Priority Flora were recorded within the application area during either of the flora and vegetation surveys (MBS Environmental 2015 and Woodman Environmental 2015). Furthermore, no Threatened or Priority Ecological Communities have been mapped over the subject site. This was supported by the findings of the flora and vegetation surveys whereby no TECs or PECs were recorded.

During the flora and vegetation surveys, two Declared Plant species under the *Biosecurity and Agriculture Management Act 2007*, **Gomphocarpus fruticosus* (Narrow-leaf Cottonbush) and **Zantedeschia aethiopica* (Arum Lily), were identified.

Based on the Woodman Environmental Consulting 2015 *Level 2 Flora and Vegetation Survey*, the vegetation within the application area was mapped as being in 'Good' condition. Based on the Keighery (1994) vegetation condition scale, vegetation mapped as being in 'Good' condition can be described as, "*structure significantly altered by multiple disturbances, retains basic structure/ability to regenerate*".

A fauna risk assessment (Terrestrial Ecosystems 2015) was undertaken within the application area pre-Waroona fires. Terrestrial vertebrate fauna recorded in the application area included pigs, Brushtail Possums, Western Grey Kangaroos and rabbits. There was potential evidence of Southern Brown Bandicoots occurring within the application however, this could not be confirmed. Furthermore, the presence of the conservation significant Brush-tailed Phascogale within the application area could not be determined (Terrestrial Ecosystems 2015). The assessment (Terrestrial Ecosystems 2015) also involved a Black Cockatoo habitat assessment within the broader application area which resulted in the identification of foraging habitat and potential breeding habitat.

A detailed risk assessment of the quality of fauna habitat and the value of the application area to fauna species of conservation significance was undertaken. The three species of Black Cockatoo are likely to forage in the application area, but their survival is unlikely to depend on this area. Several tree hollows that could provide a nest site for either Carnaby's or Forest Retailed Black-Cockatoos were recorded, but no evidence of nesting (e.g. chewed bark around hollow entrances) was observed during the site visit. Brush-

tailed Phascogales, Chuditch, Coastal Plains Skinks and Carpet Pythons could be in the application area. However, their presence can only be determined by a trapping survey. Nonetheless, given that the application area is located immediately adjacent to larger, better quality vegetated areas, it is very unlikely to provide habitat critical to their survival. The Rainbow Bee-eater may occasionally forage in the application area, and Fork-tailed Swifts, White-bellied Sea eagles, Osprey and Peregrine Falcons may infrequently be seen in the skies above the application area, but none would be dependent on this area for their survival. It is possible there is a small population of Southern Brown Bandicoots in the area, but they would be in a continual struggle to survive given the presence of foxes and the openness of the understorey vegetation (Terrestrial Ecosystems 2015).

A dieback assessment (Glevan 2015) was conducted within the broader application area whereby it was determined that the majority of the application area is either infested or uninfested (unproteable). The DPaW provided advice in relation to the effect that the fire would have had on dieback within the application area. The DPaW provided the following:

“The vegetation community at the site was severely impacted by Phytophthora Dieback before the Waroona fire. The disease significantly reduced biodiversity within long-term infested areas and this is likely to progress through more recently infested areas and into the uninfested area unless treatment intervention occurs. The fire only reduced visible disease expression, which will remain permanently muted in older parts of the infestation where the disease had already reached an endemic equilibrium; meanwhile a visible epidemic will eventually become obvious again in areas that had only been recently infested. The time it will take for new visible expression will be dependent on fire intensity and rainfall factors combined, but the fire will not affect disease progression or the final impact of the disease” (DPaW 2016).

This advice transparently concludes that dieback will continue to spread throughout the application area, altering the vegetation structure, vegetation condition and overall ecological value.

The application area is located approximately 250 m east from an ecological linkage as defined by the *South West Regional Ecological Linkage (SWREL) Report* (Molloy et al., 2009). The Western Power transmission line corridor is located between the ecological linkage and the application area, which is approximately 150m in width. This corridor is cleared of vegetation on an annual basis (refer to **Plate 1** and **2**). Therefore, clearing within the application area will not result in further fragmentation of the ecological linkage.

It is also noted that the SWREL axis traverses directly through the existing Buller Road Refuse Disposal Site. The periphery of this landfill is fenced with a security mesh fence (2.5 m high), which intentionally prevents fauna movement into the area. The fence is approximately 450 m long in an east west direction, directly through the SWREL.



Plate 1



Plate 2

In consideration of the above information, the native vegetation does not comprise a high level of biological diversity however, it may provide foraging habitat for the three threatened species of Black Cockatoo. Therefore, the proposal may be at variance to this Principle. Accordingly, suitable mitigation measures and offsets are proposed as provided within **Section 3**.

b.) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia

Based on available habitat, during the fauna assessment (Terrestrial Ecosystems 2015) it was determined that the following conservation significant species could occur in the area, Brush-tailed Phascogales, Chuditch, Coastal Plains Skinks, Carpet Pythons, Rainbow Bee-eater, Fork-tailed Swifts, White-bellied Sea eagles, Osprey and Peregrine Falcons. A detailed risk assessment was undertaken whereby it was determined that clearing is unlikely to have a significant impact on any of these species based on the following:

- The vegetation within the application area has been rated as being in 'Good' condition (structure significantly altered) as a result of historical anthropogenic disturbances and impacts from dieback, pests and weed invasion;
- None of these species would be dependent on the application area for their survival;
- Within Lot 3, the application area is located adjacent to a large vegetated area in better condition;
- The Buller Nature Reserve is located approximately 700m west of the application area which provides better quality habitat.

During the Black Cockatoo habitat assessment, a total of 114 eucalypts with a diameter at breast height of 50 cm were recorded within the broader application area. Of these, 19 trees contained a hollow that could be suitable as a nesting site for Black Cockatoos. However, these trees were not climbed and hollows were not closely inspected, so it is likely that many of these hollows on closer inspection would not be suitable as nesting sites for Black Cockatoos due to a burnt interior, inappropriate internal dimensions, jagged floor, etc. There was no obvious evidence of chewing around hollow entrances to suggest hollows were a Black Cockatoo nesting site (Terrestrial Ecosystems 2015).

As previously discussed, Terrestrial Ecosystem (2015) conducted a detailed risk assessment to determine the potential impacts of clearing on species of conservation significance. Based on the outcomes of their assessment, it was determined that "*clearing the vegetation will not result in the loss of significant habitat necessary for the maintenance of fauna indigenous to Western Australia* (Terrestrial Ecosystems 2015)".

Nonetheless, given that the proposed action will result in the removal of foraging habitat for the three threatened species of black cockatoos, the proposal is likely to be at variance to this Principle. Accordingly, suitable mitigation measures and offsets are proposed as provided within **Section 3**. Furthermore, following discussions with the Commonwealth Department of Environment and Energy regarding the potential impacts to black cockatoos as a result of this proposal, it was advised that provided a suitable offset can be provided, the proposal is likely to be acceptable.

c.) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora

No Declared Rare or Priority Flora were recorded within the application area during either of the flora and vegetation surveys (MBS Environmental 2015 and Woodman Environmental 2015).

On this basis, the proposed clearing is not at variance to this Principle.

d.) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

No Threatened or Priority Ecological Communities have been mapped over the subject site. This was supported by the findings of the flora and vegetation surveys whereby no TECs or PECs were recorded (MBS Environmental 2015 and Woodman Environmental 2015).

On this basis, the proposed clearing is not at variance to this Principle.

e.) Native vegetation should not be cleared if it is a remnant of native vegetation in an area that has been extensively cleared.

The State Government is committed to the *National Objective Targets for Biodiversity Conservation*, which includes targets that prevent clearance of ecological communities with an extent below 30% of that present pre-1750 (Department of Natural Resources and Environment 2002; EPA 2000). Beyond this value, species extinction is believed to occur at an exponential rate and any further clearing may have irreversible consequences for the conservation of biodiversity and is, therefore, not supported.

The vegetation proposed to be cleared is defined as Beard vegetation association 1000 (Hopkins *et al.* 2001) and Hedde vegetation complex 'Southern River Complex' (Hedde *et al.* 1980), both of which are identified as having a representation of below 30%.

In consideration of the above, the proposed clearing is likely to be at variance to this Principle. Accordingly, suitable mitigation measures and offsets are proposed as provided within **Section 3**.

f.) Native vegetation should not be cleared if it growing in, or in association with, an environment associated with a watercourse or wetland.

An approximate buffer of 150 m from the application area to the nearest Conservation Category wetland will be provided and a two metre separation distance to groundwater will be maintained. The DPaW typically imposes a minimum 50 m buffer to wetlands of conservation significance (EPA 2008), while the *Coastal and Lakelands Planning Strategy 1999* recommends 100 m buffer for wetlands of regional significance for ecosystem maintenance.

In accordance with the *Water quality protection note no. 25* (DoW 2016) sand extraction is one of the few industries deemed compatible within a Priority 1 Public Drinking Water Source Area which can be attributed to their typically benign impacts to groundwater. This is supported by correspondence received from the Department of Water (DoW) regarding the extraction industry licence associated with the application area, whereby no specific issues associated with the proposed land use were identified (refer to **Attachment C**).

The applicant has modified the application area to ensure that no wetland vegetation is included within the clearing area.

Based on the above, a very conservative buffer has been applied to protect the wetlands and the application area does not contain any wetland vegetation. Therefore, the proposed clearing is not at variance to this principle.

g.) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

The proponent has committed to implementing dust and erosion control management measures (as per the *Site Management Plan* (MBS 2015)) which have been successfully applied at existing sand extraction operations. Such management measures are standard practice for all sand extraction operations, where the soil composition is predominately similar.

Furthermore, it is noted that the cleared portion of Lot 3 Buller Road has remained largely unvegetated since 2004. No evidence of problematic wind erosion has been observed within this area.

Accordingly, the application area is not considered to be at variance to this principle.

h.) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

The application area is located approximately 600 m east of the Buller Nature Reserve. The following anthropogenic features are located between the Buller Nature Reserve and the application area:

- Buller Road Refuse Disposal Site;
- Western Power transmission line corridor;
- Buller Road; and
- Cleared paddocks currently used for livestock grazing.

There is no direct connection between the Buller Nature Reserve and the application area and therefore the proposed clearing will not result in any impacts to the Reserve. Furthermore, within the proponent's *Site Management Plan* (MDW 2015), a series of dieback hygiene management measures have been proposed to avoid the spread of dieback.

Based on the above, it is considered unlikely that the proposed clearing within the application area will result in any direct impacts to the Buller Nature Reserve and therefore the application is not at variance to this Principle.

i.) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

The subject site does not contain any defined natural surface water channels and is not located within a 'Public Drinking Water Source' area (SLIP 2009). The closest surface water feature to the application area is wetland, located approximately 150 m west.

Given the low environmental risks sand extraction operations pose to hydrology (refer to *Water quality protection note no. 25* (DoW 2016)), standard practice for the management of surface water involves retaining all surface water within the application area and allowing onsite infiltration to occur. The proposal will not result in any localised hydrological modifications as a 2m separation distance to groundwater will be maintained and surface water will continue to infiltrate onsite within the application area. The DoW have also provided advice whereby no specific issues associated with the proposed land use were identified (refer to **Attachment C**).

On this basis, the application is not at variance to this Principle.

j.) Native vegetation should not be cleared if the clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

The primary soil unit in the application area is 'leached sand' (Northcote *et al.* 1960-68). Given the sandy nature of the soils within the application area, the proposed clearing is unlikely to cause or exacerbate the incidence or intensity of flooding.

The proposed clearing is not at variance to this Principle.

3 OFFSET PROPOSAL

In order to mitigate potential impacts associated with the proposed clearing activities, the following site specific management activities will be implemented.

3.1 Avoidance Measures

It is important to note that the entirety of the application area is mapped as 'Regionally Significant Resource for Sand' (Strickland 2013).

The proponent has endeavoured to avoid any vegetation in association with a wetland of conservation significance. Accordingly, the application area does not contain any wetland vegetation.

Aside from the wetland vegetation, no other areas containing especially significant environmental values can be reasonably isolated from the application area. It is noted that a small portion (1.7 ha) of the application area is uninfested with *Phytophthora* dieback and therefore is of increased environmental value. However, this uninfested portion is centrally located within the application area, surrounded by infested areas and is thin and linear in shape (refer to **Attachment D**). Consequently, protection of this area from infestation would be extremely difficult to achieve and would provide negligible environmental value given that it provides no habitat connectivity, and its size and shape is not conducive to fauna movement.

On this basis, it is considered that no other feasible avoidance measures can be implemented within the application area.

3.2 Mitigation Measures

In addition to the *Site Management Plan* (MDW 2015), the following management and mitigation measures are proposed.

3.2.1 Vegetation and Flora Management

The management objectives for vegetation and flora are:

- Restrict vegetation clearing to a practical minimum;
- Prevent unauthorised clearing of native vegetation outside of the clearing footprint;
- Ensure vegetation clearing is undertaken in an appropriate manner to maximise success of later rehabilitation activities; and
- Minimise disturbance to remaining vegetation to retain health and integrity.

Management actions to minimise disturbance to vegetation include:

- Undertake clearing in two discrete stages to minimise potential impacts associated with erosion;
- Plan clearing such that it does not result in the creation of isolated remnants of native vegetation that have no ecological corridors to allow fauna movement to adjacent areas;
- Peg/flag areas to be cleared to avoid any unnecessary disturbance to adjacent vegetation not approved to be disturbed;
- Create strategic firebreaks where necessary;
- Restrict vehicle movement to designated access tracks, to prevent vegetation damage and erosion.

3.2.2 Fauna Management

The following environmental aspects of the proposed sand mining activities have been identified as requiring management to ensure protection of fauna values:

- Vegetation/habitat clearing;
- Vehicle movements;
- Human activity; and
- Noise emissions and vibration.

The proposed management actions to mitigate potential impacts to fauna include:

- During clearing activities ensure that a suitably qualified person is onsite to assist with the removal of fauna from vegetation within the clearing footprint;
- Upon completion of sand extraction activities, fill or make safe all mined areas to prevent fauna entrapment;
- Restrict all vehicle use to designated roads and access tracks;
- Enforce compliance with onsite speed limits at all times, including on access tracks and in the stockpile and processing area.

3.2.3 Weed and Pathogen Management

The proposed management actions to mitigate potential impacts associated with weeds and pathogens include:

- All earthmoving and ground engaging equipment will be inspected and cleaned of vegetation, mud and soil prior to entry and exit of the subject site;
- Monitor spread of weeds onsite by controlling germination of weeds; and
- Spot spraying and hand pulling of emergent weed species within the subject site will be carried out to gradually deplete seed stocks and reduce or eliminate any new colonies.

3.3 Residual Impacts

The residual impacts associated with clearing the application are as follows:

- Clearing 14 ha of vegetation associated with underrepresented vegetation associations/complexes (i.e. Beard vegetation association 1000 and Southern River Complex); and
- Clearing 14 ha of black cockatoo foraging and potential breeding habitat.

As previously discussed, the majority of the application area is either *Phytophthora* dieback infested or unprotectable from infestation. This has resulted in a significantly altered vegetation structure in endemic syndrome areas, whereby banksia overstorey and herbaceous layers have been significantly depleted (DPaW 2016 and Glevan 2015). The condition of vegetation within the application area is expected to continue to decline due to the dieback infestation.

3.4 Offset Proposal

This offset proposal aims to offset the residual environmental impacts, as outlined above in a manner that is consistent with the requirements of State Government.

In view of these considerations, the proponent proposes two direct offsets to counterbalance the residual environmental impacts associated with the proposed clearing:

- Direct Offset 1: Conservation covenant over 106 ha of non-secure remnant native vegetation; and
- Direct Offset 2: Revegetation of 2 ha within a conservation significant wetland.

3.4.1 Direct Offset 1

Direct Offset 1 involves conservation covenant over 106 ha of remnant vegetation within Lot 3 Buller Road (refer to **Figure 3**). This vegetation provides the following significant environment values:

- Good quality black cockatoo habitat;
- Wetlands of conservation significance;
- Direct connection to the ecological linkage;
- Vegetation associated with underrepresented vegetation associations/complexes (i.e. Beard vegetation association 1000 and Southern River Complex); and
- Priority flora (*Acacia semitrullata*).

Following negotiations with the landowner, the proponent will enter into a conservation covenant (voluntary written agreement) with the Commissioner of Soil and Land Conservation under section 3 of the *Soil and Land Conservation Act 1945*. The purpose of the conservation covenant is to protect and manage the native vegetation within the offset in such a way as to retain and promote its growth. The term of the conservation covenant will be in perpetuity and will bind the landowner and all successive landowners through registration as a memorial on the property's certificate of title.

3.4.2 Direct Offset 2

It is proposed to revegetate 2 ha within Lot 3 Buller Road to improve the condition of vegetation associated with a conservation significant wetland (refer to **Figure 3**). Revegetation will be undertaken in accordance with a Revegetation Management Plan which will include weed control, planting requirements, and maintenance and management measures.

3.5 WA Environmental Offsets Policy

Compliance with the offset principles detailed in the *WA Environmental Offsets Policy* is demonstrated in the following Table.

Table 1. Compliance with the WA Environmental Offsets Policy.

No.	WA Environmental Offset Principle	Current Project
1	Environmental offsets will only be considered after avoidance and mitigation options have been pursued.	Section 2 discusses avoidance and mitigation measures associated with this application.
2	Environmental offsets are not appropriate for all projects.	This application will not result in environmental impacts so significant that an appropriate offset cannot be applied.
3	Environmental offsets will be cost-effective, as well as relevant and proportionate to the significance of the environmental value being impacted.	The proposed offset is considered suitable as: <ul style="list-style-type: none"> • The offset area contains the same floristic communities as the application area; • The offset area's vegetation is in better condition than that of the application area; • The offset area contains black cockatoo habitat; and • The offset will result in a net environmental benefit.
4	Environmental offsets will be based on sound environmental information and knowledge.	A flora and vegetation survey of the offset area has been undertaken and this offset proposal has been prepared by a suitably qualified consultant.

5	Environmental offsets will be applied within a framework of adaptive management.	The proposed offset consists of the protection and management of an existing unsecure remnant of vegetation. As such, there is essentially no risk that the proposed ecological outcomes will not be achieved because they are pre-existing.
6	Environmental offsets will be focussed on longer term strategic outcomes.	The proposal involves protection in perpetuity of the offset site and the enhancement of previously degraded area which will provide significant environmental values in the medium to long term.

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FIGURES



PROJECT Lot 3 Buller Road, Waroona
 DRAWING TITLE FIGURE 1 - Locality Plan
 CLIENT AMG (WA) Pty Ltd.

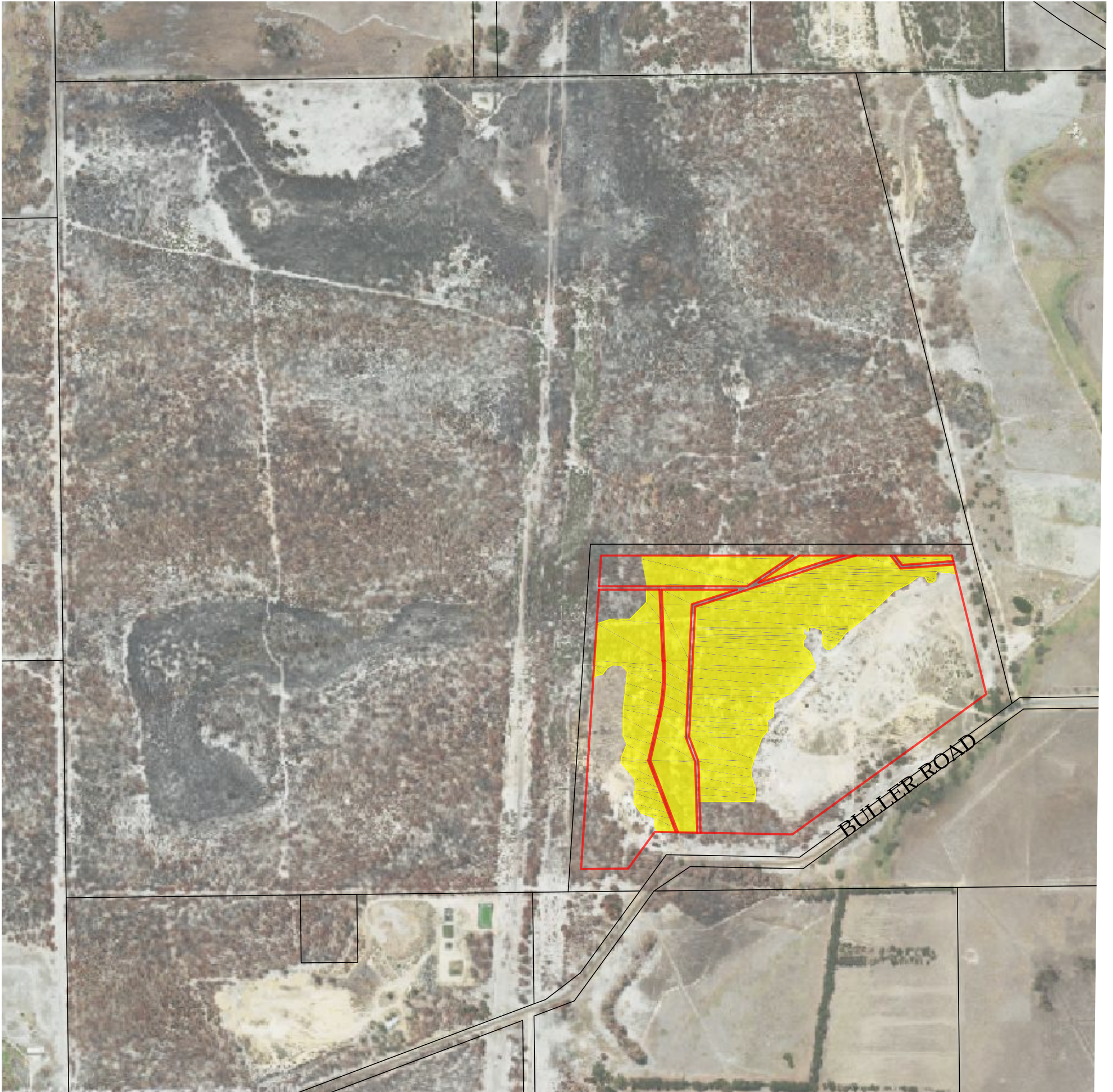
Scale
 Diagrammatic




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Project Number	Drawing Number	Revision	Original
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Designed KMT	Checked	Date 07-03-17	
Drawn DTF	Approved	Sheet 1 of 1	
Local Authority Shire of Waroona			

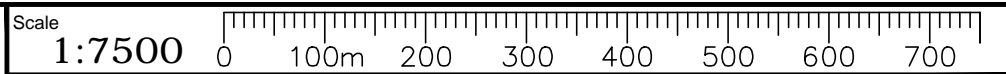
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Legend

 Application area

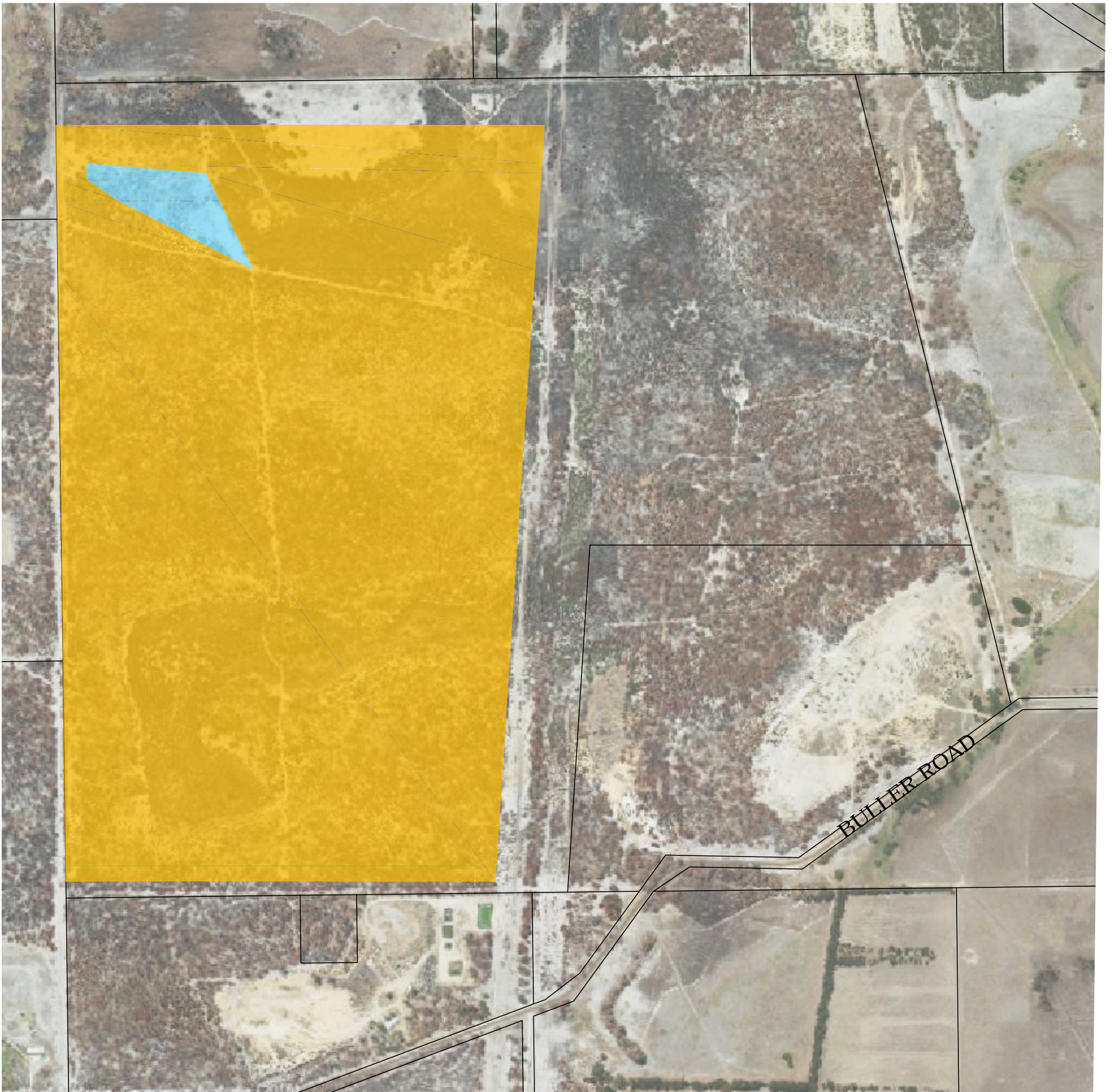
PROJECT Lot 3 Buller Road, Waroona
DRAWING TITLE FIGURE 2 - Application Area
CLIENT AMG (WA) Pty Ltd.



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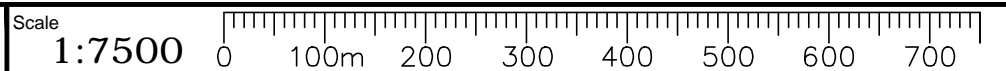
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1710	FIG 2	A	A3
Designed KMT	Checked	Date 07-03-17	
Drawn DTF	Approved	Sheet 1 of 1	
Local Authority Shire of Waroona			

This drawing has been prepared by, and remains the property of, Accendo Australia Pty Ltd. This drawing shall not be used without permission. The drawing shall be preliminary only and/or not for construction until signed approved.



Legend	
	Direct Offset 1 - (106 ha)
	Direct Offset 2 - (2 ha)

PROJECT Lot 3 Buller Road, Waroona
DRAWING TITLE FIGURE 3 - Proposed Offsets
CLIENT AMG (WA) Pty Ltd.



This drawing has been prepared by, and remains the property of, Accendo Australia Pty Ltd. This drawing shall not be used without permission. The drawing shall be preliminary only and/or not for construction until signed approved.



PO Box 5178
West Busselton
Western Australia 6280
Telephone (08) 9755 7217
Mobile 0418 950 852

Project Number	Drawing Number	Revision	Original
1710	FIG 3	A	A3
Designed KMT	Checked	Date 07-03-17	
Drawn DTF	Approved	Sheet 1 of 1	
Local Authority Shire of Waroona			

APPENDIX A – JOINT VENTURE LETTER

PANDANUS PARK



ABORIGINAL CORPORATION

Pandanus Park Aboriginal Community

69 Great Northern Highway

PMB 308, Derby WA 6728

Phone: (08) 9191 7522

Fax: (08) 9191 7034

E-mail: yurmulunaboriginalcorp@gmail.com

29th February 2017

To: whom it may concern,

We at Pandanus Park Aboriginal Community together are in joint venture with AMG (WA) PTY LTD. We have a joint sand operation on our community with AMG WA and is not operational as yet. We have all required approvals to be operational but our people have no experience in this field.

We are looking at learning the full training in the sand operation in the AMG WA Waroona site. This operation will be a training ground for selected persons in our community to operate our own sand operation. Our people need our operation to be successful for the financial future of our community. Our people have much to learn in this field and we require these opportunities for the future of our people. We have a very trusting and long term relationship with Aaron Grainger who is involved with our people and community. He has family Aboriginal ties to our community and is always obliging to help and speak on behalf of our community.

Regards

PANDANUS PARK BOARD OF DIRECTORS

Anna Cox

Mervyn Riley

Patricia Riley

Bronwyn Callaghan

Dudley Callaghan

Merlyn Johnson

John Edgar

David Ningella

Catherine Ningella

YURMULUN



ABORIGINAL CORPORATION

YURMULUN ABORIGINAL COMMUNITY
69 GREAT NORTHERN HIGHWAY
PMB 308, DERBY WA 6728
PHONE: (08) 9191 7522
FAX: (08) 9191 7611
MOBILE: 0457552393
EMAIL: YURMULUNABORIGINALCORP@GMAIL.COM

Date: Friday 28th August 2015

To whom it may concern,

The Yurmuluun Aboriginal Corporation (Pandanus Park),

hereby give Aaron Michael Grainger the authority to speak on our behalf.

The community is looking at a joint venture in commercial sense with AMG (WA) is Aaron Grainger.



CEO



DIRECTOR

APPENDIX B – DMP AND SHIRE CORRESPONDENCE



Government of **Western Australia**
Department of **Mines and Petroleum**

Our ref: D110498
Enquiries: Ian Tyler - Ph 9222 3172
Email: Ian.Tyler@dmp.wa.gov.au

Mr Aaron Grainger
AMGWA Pty Ltd
amgwa@westnet.com.au

Dear Mr Grainger

RESOURCE AT LOT 3 BULLER ROAD WAROONA

Thank you for your email dated 31 January 2017 seeking confirmation from the Hon Sean L'Estrange MLA, Minister for Mines and Petroleum, that the sand resource at the above location is a significant basic raw material.

Due to caretaker arrangements operating during the current election campaign, the Minister's office has requested a direct reply from the Department of Mines and Petroleum.

I confirm the advice that was provided to you earlier by Mr Warren Ormsby, from the Geological Survey — a division of the Department, that part of Lot 3 Buller Road, Waroona has been identified and mapped as containing a Regionally Significant Basic Raw Material (BRM) for sand.

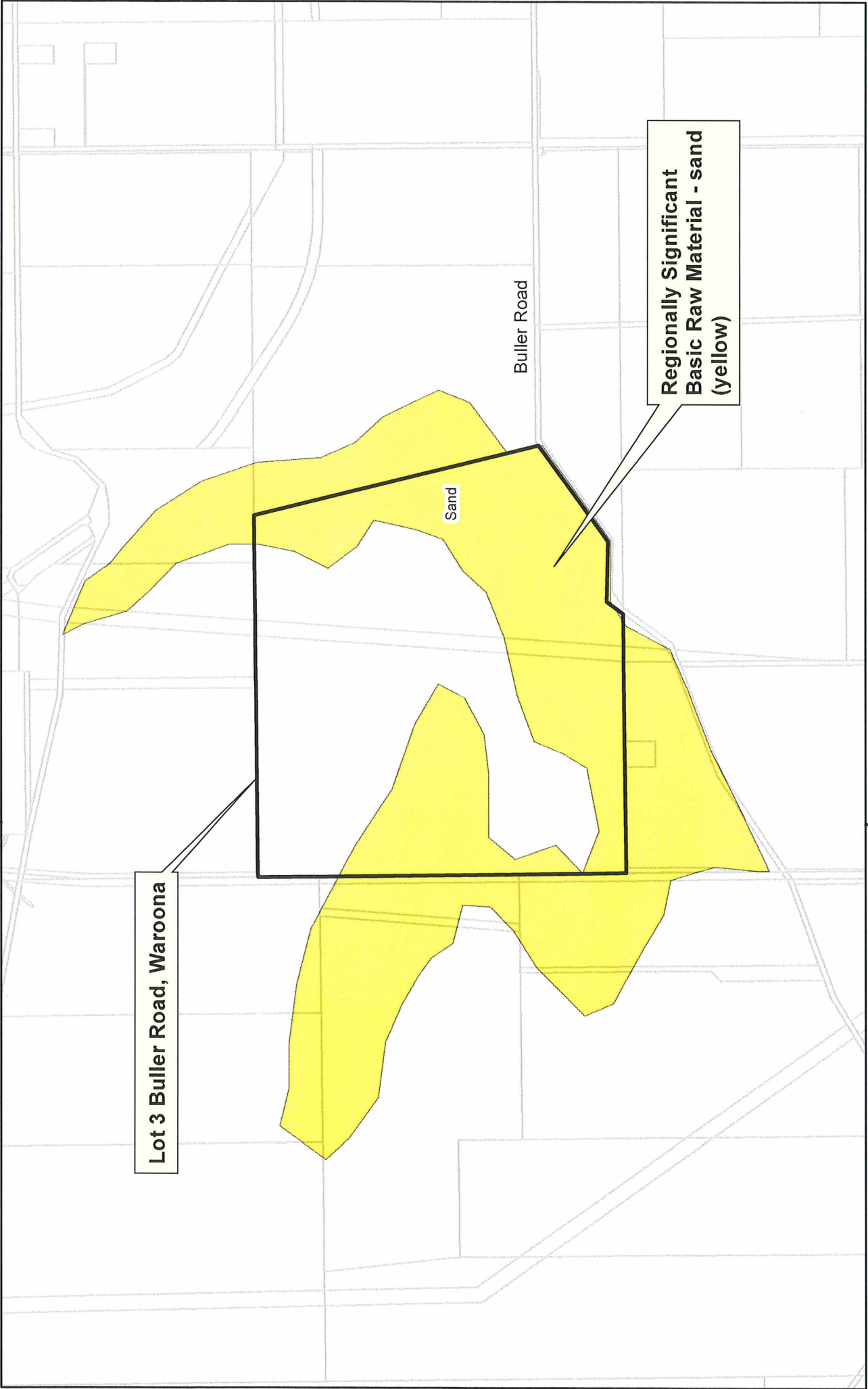
The Regionally Significant BRM mapping of the Swan Coastal Plain was carried out using a consistent rule set, designed to identify the larger and hence most significant sand deposits — taking into account surface area and thickness above the water table. Some high-level environmental and planning constraints were also taken into account. For example, National Parks and Nature Reserves were not included, nor were developed urban areas.

The mapping serves as a useful planning tool to identify the more significant BRM resources in a regional context, but as noted in the previous correspondence cannot be taken as government endorsement of approval for mining, which needs to consider other matters such as environmental and planning approvals.

Yours sincerely

Tim Griffin
Acting Director General

13 February 2017



Lot 3 Buller Road, Waroona

Buller Road

Sand

**Regionally Significant
Basic Raw Material - sand
(yellow)**

390000

0 0.5 1 2
Kilometers

Scale: 1:20 000 @ A4

From: Chris Dunlop <tp2@waroona.wa.gov.au>
Date: 10 February 2017 at 11:05:10 am AWST
To: Aaron Grainger <amgwa@westnet.com.au>
Cc: Leonard Long <mehbs@waroona.wa.gov.au>
Subject: RE: Re response

Hi Aaron,

The Draft South Metropolitan Peel Sub-Regional Planning Framework does identify Lot 3 as containing a regionally significant basic raw material. It should be noted that the Draft Framework is one of a number of considerations to be made in assessing land use proposals, including:

- Planning and Development Act 2005;
- Local Government Act 1995;
- Environmental Protection Act 1986;
- Environmental Protection (Noise) Regulations 1997;
- Shire of Waroona Town Planning Scheme No. 7 1996;
- Shire of Waroona Extractive Industries Local Law 1999;
- Environmental Protection Authority Guidance Statement 3 – Separation Distances Between Industrial and Sensitive Land Uses 2005;
- Peel Region Scheme 2003;
- Peel Region Scheme Strategic Minerals and Basic Raw Materials Policy 2002;
- Local Planning Strategy 2009;
- Local Planning Policy 1 – Community Consultation;
- Local Planning Policy 15 – Extractive Industry.

Regards,

Chris Dunlop

Senior Town Planner

Shire of Waroona

Ph: 9733 7800

Fax: 9733 1883

Email: tp2@waroona.wa.gov.au



APPENDIX C – DoW CORRESPONDENCE



Your ref: TP1770
Our ref: RF9843
SRS 39748
Enquiries: Catherine Taylor

12 August 2015

Shire of Waroona
PO Box 20
WAROONA WA 6215

Attention: Chris Dunlop

Dear Chris

Re: Proposed Industry Extractive – Lot 3 Buller Road Waroona

Thank you for the referral received 31 July 2015 for the abovementioned site. The Department of Water (DoW) has reviewed the information and wishes to provide the following advice.

Extraction

A minimum of 2 m of undisturbed soil profile should be maintained as a vertical buffer between the base level of the excavated area and the Maximum Groundwater Level (MGL).

Water Quality Protection

In accordance with *Water Quality Protection Note 15 (WQPN15) Extractive industries near sensitive water resources (DoW, 2013)*, it is recommended that the following best management practices are adhered to:

- All stormwater run-off from disturbed land should be contained on-site initially to achieve effective removal of sediment and turbidity. Effective settling pits are recommended to minimise turbidity and should be designed and maintained to provide storage for a minimum of two hours run-off resulting from a 10-year average return interval storm event. Over-land stormwater flows from outside the quarry area should be diverted via bypass drains or earthen bunds around disturbed surfaces and any stockpiles.
- An environment response program should be in place for accidental chemical spills.
- All stockpiled materials (including topsoil overburden) awaiting transport or held for rehabilitation should be located upstream in the catchment of turbidity control facilities.

Groundwater

The subject area is located within the Murray Groundwater Area as proclaimed under the *Rights in Water and Irrigation Act 1914*. Any groundwater abstraction in this proclaimed area for purposes other than domestic and/or stock watering taken from the superficial aquifer, is subject to licensing by the Department of Water. The issuing of a groundwater licence is not guaranteed but if issued will contain a number of conditions that are binding upon the licensee.

Peel Harvey Coastal Plain Catchment

The proponent is advised that the proposal is located within the Peel-Harvey catchment and the provisions of the *Environmental Protection (Peel Inlet – Harvey Estuary) Policy 1992* (EPA 1992) and the *Statement of Planning Policy No 2.1 – the Peel-Harvey Coastal Plain Catchment* (SPP 2.1) (WAPC 2003) shall apply.

In accordance with Provision 6.2.1 of SPP 2.1, the use of conventional on-site effluent disposal systems will only supported where it can be demonstrated that there is at least a 2 metre vertical separation between the base of the leach drain and the highest known groundwater level and a 100 m horizontal separation between the disposal system and the nearest water body. It is recommended that any existing remnant vegetation is retained.

Future Operations

It is to be noted for future reference that if activities were to commence outside the proposed site boundary the proposal should be referred to Department of Parks and Wildlife due to the Conservation Category and Resource Enhancement Wetlands featured on the lot.

If you wish to discuss the above or require further information please contact Catherine Taylor on (08) 9550 4237.

Yours sincerely



Jane Sturgess
**Acting Program Manager – Urban Water Management
Peel Region**

APPENDIX D – DIEBACK MAP

10 Appendix – Phytophthora occurrence map



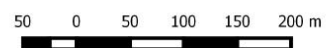
Legend	
	Boundary
	Uninfested
	Uninfested unprotectable
	Infested
	Temp UI unprotectable
	UI unprotectable

Area Statement (ha)
 Uninfested: 1.764
 Uninfested unprotectable: 2.560
 Temp UI unprotectable: 2.262
 UI unprotectable: 1.952
 Infested: 13.595
 Excluded: 14.664
 Total 36.797



MAP 1.1
Lot 3 Buller Rd - KD1
 Protectable Areas

Map Details
 Client: KD1
 Project: BRM Pit Extension
 Site: Lot 3 Buller Rd
 Interpretation: SR, 29-05-15
 Digitising: SR 02-06-15



Projection: Universal Transverse Mercator
 MGA Zone 50. Datum: GDA94