



NATIVE VEGETATION CLEARING PERMIT APPLICATION SUPPORTING DOCUMENTATION



Seismic Road Sand Mine

M 70/1329

Urban Resources Pty Ltd
33 Cocos Drive, Bibra Lake, WA 6163
Ph: 9368 1299

ABN: 47 121 043 034



VERSION NUMBER 1 – JULY 2024

TABLE OF CONTENTS

1	Background.....	4
2	Proposed Native Vegetation Clearing	5
2.1	Assessment of Vegetation	6
2.2	Avoidance and Mitigation Measures	6
3	Assessment of Clearing Principles and Other Matters.....	6
4	Conclusions and Recommendations	11
5	References	12

LIST OF TABLES IN TEXT

Table 3.1 Assessment of Clearing Principles and Other Matters

LIST OF PLATES

Plate 1 Location of Tenement M 70/1329

Plate 2 Location of Proposed Clearing Area (in blue)

LIST OF FIGURES

Figure 1 Aerial Photo showing Clearing Area

APPENDICES

Appendix A Vegetation Assessment – PGV Environmental

Appendix B Grant of Mining Lease Document

1 Background

Urban Resources operates the Seismic Road Sand Mine located on Mining Tenement M 70/1329 in the Gngangara-Moore River State Forest approximately 8 kilometres northeast of Wanneroo in the locality of Mariginiup. The sand mine falls within the Gngangara Pine Plantation, which has been progressively harvested from 2003 until 2023. The sand mining project was approved by the former Department of Mines and Petroleum (now DEMIRS) via a Mining Proposal in August 2017. The approved mining operation involves extraction of approximately 1,000,000 tonnes of sand annually over a 24-year mine life (EnviroWorks Consulting, 2017).

The location of the mining tenement is shown in **Plate 1** and the co-ordinates for the proposed clearing area are provided below (centre of area):

M 70/1329	115 degrees, 87 minutes, 34.8 seconds EAST
	31 degrees, 70 minutes, 75.4 seconds SOUTH

Plate 1: Location of Tenement M 70/1329



Urban Resources currently holds native vegetation clearing permit CPS 10283/1 over part of Mining tenement M 70/1329 authorising the clearing of up to 19,542 hectares of native vegetation for the purpose of mineral production. Permit 10283/1 is due to expire on 13 October 2028.

This clearing permit application is required to ensure Urban Resources future sand mining operation on Mining tenement M 70/1329 remain compliant with the native vegetation clearing provisions of the *Environmental Protection Act* 1986 and associated Regulations.

The application area has been subject to significant disturbance events over the years. The area was cleared for a pine plantation between 1965 and 1970 and then the subsequent pine trees harvested between 1989 and 1995. The vegetation, which is primarily pine wilding regeneration has regrown since the pines were harvested.

An assessment carried out on the proposed clearing area by PGV Environmental in May 2024 to assess the condition of the regenerating pine trees and to identify any native species, found that the vegetation on the site is nearly all regrowth pine trees and the understorey is mostly devoid of any native species with only some scarce native Woolly Bush and a few smaller native

species present within the subject area. The report documenting the assessment by PGV Environmental personnel is included in **Appendix A**.

Due to the completely degraded condition (ie., minimal native vegetation regrowth and several weed species), the area is of negligible significance for flora, fauna or ecological communities. In addition, the proposed clearing will not adversely affect surface water or groundwater resources and/or adversely impact conservation values.

This permit application has been made as some of the limited re-growth vegetation present in the proposed sand mining areas technically constitutes 'native vegetation' as defined in the *Environmental Protection Act 1986* and no known clearing exemptions apply.

2 Proposed Native Vegetation Clearing

Review of historical aerial imagery indicates the original native vegetation in the application area was cleared in the late 1960's to establish part of the Gnangara Pine Plantation. The pine trees were harvested between 1989 and 1995 and any vegetation present is the result of re-growth.

This clearing permit application seeks authorisation to clear an area of approximately 21.8 hectares and the proposed clearing area is shown below in the aerial photo, which also includes the dimensions of the area and an arrow showing due north.



Plate 2: Location of Proposed Clearing Area (in blue)

The application area abuts the existing approved sand extraction areas on the tenement and existing clearing permit 10283/1 and Urban Resources wishes to extend the existing sand mine. Spatial data in Esri Shapefile format will accompany this clearing application.

2.1 Assessment of Vegetation

PGV Environmental carried out an assessment of the vegetation on the site in May 2024 and stated that the subject area is nearly all regrowth of pine trees. The pine trees are up to 15 m in height with diameters of 10 to 20 cm. The understorey is either devoid of any native species or contains a few Woolley Bush (*Adenanthos cygnorum*) and *Xanthorrhoea preissii* shrubs.

The vegetation is not representative of a Threatened or Priority Ecological Community (PGV Environmental, 2024). They also stated that even if the pines were harvested, the native vegetation would not regrow to a Banksia Woodland TEC as there were only two Banksia trees recorded in the 21.8 hectares and hence there would not be any seed bank of Banksias in the soil. A more detailed description of the species found and the vegetation condition of the subject area is provided in the PGV Environmental report, which is included in **Appendix A**.

2.2 Avoidance and Mitigation Measures

The mining areas on tenement M 70/1329 were purposely designed to be limited to previously cleared pine plantation and avoid disturbance of nearby remnant vegetation in Bush forever sites and geomorphic wetlands with buffer distances of 50 metres and 100 metres maintained, respectively. Urban Resources also removed sections of the application area that intersected Wellhead Protection Zones per request of the Department of Water and Environmental Regulation (DWER). The proposed clearing area continues to meet Urban Resources commitments to protect the surrounding environmental values.

3 Assessment of Clearing Principles and Other Matters

An assessment of the Clearing Principles and other matters is provided below in **Table 3.1**. The assessment was able to be undertaken following the review of the vegetation assessment undertaken by PGV Environmental in May 2024, the mining proposal detailing past flora and fauna surveys of the site and the previous clearing permit decision report.

Table 3.1. Assessment of Clearing Principles and other Matters

Clearing Principle	Assessment	Level of Variance
a) Native vegetation should not be cleared if it comprises a high level of biodiversity	<p>The proposed clearing area is not comprised of a high level of biological diversity. The original native vegetation was cleared in the late 1960's for the establishment of the Gngangara pine plantation. Pine trees (<i>Pinus pinaster</i>) were harvested from the proposed clearing area between 1989 and 1995. An assessment of the subject area by PGV Environmental found that the vegetation is nearly all regrowth of pine trees and the understorey is either devoid of any native species or contains a few Woolley Bush (<i>Adenanthos cygnorum</i>) and <i>Xanthorrhoea preissii</i> shrubs.</p> <p>Based on the Keighery 1994 scale for assessing vegetation condition, the proposed clearing area is completely degraded. Only two Banksia trees were observed within the 21.8 hectare area and none of the native species present were of conservation significance.</p> <p>PGV Environmental found a total of 26 native plant species on the proposed clearing area, but many of the species had only a few individuals such as the <i>Banksia menziesii</i>, which had two trees only within 21.8 hectares. Native vegetation regrowth species observed on the proposed clearing area included the following: <i>Acacia pulchella</i> <i>Hibbertia subvaginata</i> <i>Adenanthos cygnorum</i></p>	Not likely to be at variance to this principle.

Table 3.1. Assessment of Clearing Principles and other Matters – continued:

Clearing Principle	Assessment	Level of Variance
	<p><i>Hypocalymma robustum</i> <i>Banksia menziesii</i> <i>Lechenaultia floribunda</i> <i>Bossiaea eriocarpa</i> <i>Lyginia barbata</i> <i>Calytrix flavescens</i> <i>Macrozamia riedlei</i> <i>Conostephium pendulum</i> <i>Melaleuca systema</i> <i>Dampiera linearis</i> <i>Nuytsia floribunda</i> <i>Daviesia triflora</i> <i>Patersonia occidentalis</i> <i>Desmocladius flexuosus</i> <i>Persoonia saccata</i> <i>Eremaea pauciflora</i> <i>Petrophile linearis</i> <i>Eriochilus dilatatus</i> <i>Scholtzia involucrata</i> <i>Eucalyptus todtiana</i> <i>Stirlingia latifolia</i> <i>Gonocarpus pithyoides</i> <i>Xanthorrhoea preissii</i></p> <p>According to the mining proposal, a number of conservation significant flora species have been previously recorded within a 10 km radius of the proposed clearing area. However, it is unlikely that conservation flora would be present in the application area or that the area would represent significant habitat for such flora given the long history of disturbance and completely Degraded vegetation condition.</p> <p>The minimal vegetation present is not representative of any Priority Ecological Community (PEC) or Threatened Ecological Community (PEC) (PGV Environmental, 2024).</p> <p>The sparse native vegetation is unlikely to provide any significant habitat for fauna, lacking shelter and refuge areas, but would provide a food source for Black Cockatoo foraging species. However, the removal of the pine trees allows the area to be revegetated back to Banksia woodland once the mining operations have ceased, which would then provide both a habitat and foraging area for the cockatoo. There are also several other pine tree plantations surrounding the subject area, which can continue to provide the Black Cockatoo with a food source and therefore the temporary loss of this area would not significantly impact the Black Cockatoos.</p>	
<p>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.</p>	<p>According to a search of government databases conducted by JBS&G in July 2023, there are 11 Priority fauna taxa, 17 Threatened fauna taxa and a further 18 Migratory bird species occurring within 10 km of the proposed clearing area. And three of these species were considered likely to occur in the proposed clearing area based on proximity of recent nearby records:</p> <ul style="list-style-type: none"> ▪ Carnaby’s Black Cockatoo – Endangered – recorded 145 m north. ▪ Quenda – Priority 4 – recorded 2.2km east. ▪ Woollybush Bee – Priority 3 – recorded 2.2 km north east. 	<p>Not likely to be at variance to this principle.</p>

Table 3.1. Assessment of Clearing Principles and other Matters – continued:

Clearing Principle	Assessment	Level of Variance
	<p>The proposed clearing area also falls within the known range of the Forest Red-tailed Black Cockatoo, which is classed as Vulnerable. However it is known that this particular Cockatoo species prefers Eucalypt woodland containing Marri and Jarrah (DAWE, 2022, Groom, 2011 and Johnstone and Kirkby, 2011).</p> <p>Carnaby’s Black Cockatoo prefer to forage upon Banksia woodland and Pine Plantation and they tend to roost in tall Eucalypts near water (DAWE, 2022, Groom, 2011 and Johnstone and Kirkby, 2011). However, there are also several other pine tree plantations surrounding the subject area, which can continue to provide the Black Cockatoo with a food source and therefore the temporary loss of this area would not significantly impact the Black Cockatoos. In addition, the subject area does not have any trees species that would provide an adequate roosting habitat.</p> <p>Quenda prefer dense, scrubby, often swampy vegetation (DWER, 2012) and Woollybush Bees prefer Banksia woodlands containing <i>Adenanthos</i> species (Houston, 2018).</p> <p>The vegetation assessment done by PGV Environmental on the proposed clearing area observed that the preferred habitat for Quenda and the Bees was not present. Although, Quenda may potentially nocturnally forage in the proposed clearing area it does not contain adequate vegetation cover for Quenda to be considered significant habitat.</p> <p>The completely degraded nature of the application area including lack of structural species and limited shelter means the area is very unlikely to provide a significant habitat for any other fauna species.</p>	
<p>c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.</p>	<p>PGV Environmental stated that there were no species of conservation significance within the proposed clearing area. And that it was highly unlikely that any conservation significant species would be recorded in a detailed spring survey. This is based on the limited native species found in the area and also based on historical disturbance of this area. The native vegetation was removed in the 1960’s and planted with pine trees and then the pine trees were cleared between 1989 and 1995. Nearly all regrowth observed was pine trees and there was only sparse native vegetation. In addition, the vegetation observed was not representative of a threatened or Priority Ecological Community (PGV Environmental, 2024).</p>	<p>Not likely to be at variance to this principle.</p>
<p>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.</p>	<p>The entire site has been previously cleared of native vegetation and then planted with pine trees and then cleared again. The area comprises predominantly regrowth of pine trees with some sparse native vegetation present.</p> <p>The mining tenement (M 70/1329) intersects the buffer for nearby <i>Banksia Woodlands of the Swan Coastal Plain Ecological Community</i>. However, PGV Environmental only observed two Banksia trees within the 21.8 hectare area and the regrowth vegetation present can be described as mainly pine trees with some sparse scattered native vegetation. The condition of the vegetation was completely degraded and the area was almost completely without native species. The vegetation was not representative of the <i>Banksia Woodlands of the Swan Coastal Plain Ecological Community</i> or any other TEC.</p>	<p>Not at variance to this Principle.</p>

Table 3.1. Assessment of Clearing Principles and other Matters – continued:

Clearing Principle	Assessment	Level of Variance
<p>e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.</p>	<p>According to Geoscience Australia (2004), the proposed clearing area occurs entirely within the Bassendean 949 pre-European Vegetation Association. This vegetation association has greater than 30% remaining at the state, Interim Biogeographic Regionalisation for Australia (IBRA) region, IBRA subregion and Local Government Area (LGA) scales (Government of Western Australia, 2018).</p> <p>It is noted that the original native vegetation in the area was cleared in the late 1960's for the establishment of part of the Gngangara Pine Plantation. Since the pine trees were harvested between 1989 and 1995, some weeds and very limited native regrowth has occurred with mainly pine trees with the understorey either devoid of native vegetation or only sparse native vegetation is present. What is present is not representative of any pre-European vegetation association or community and has no value as a remnant or ecological corridor.</p>	<p>Not at Variance to this Principle.</p>
<p>f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.</p>	<p>The proposed clearing area does not contain any watercourse or wetlands, or any vegetation growing in an environment associated with a watercourse or wetland. The western boundary of the proposed clearing area is located at least 300 m from the nearest wetland.</p> <p>Some geomorphic wetlands occur throughout the Gngangara pine plantation. However, the approved sand mining operations have purposely been located to avoid impacts to these areas and this is adequately conditioned through existing, approved mining proposal commitments and tenement conditions.</p>	<p>Not at variance to this Principle.</p>
<p>g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.</p>	<p>Mapping shows the application area is associated with subdued dune-swale terrain with limestone at depth with mainly white sandy soils (Northcote et al, 1968). Generally, these soils have a high risk of wind erosion and a low risk of water erosion due to the high infiltration rates associated with sands.</p> <p>It is noted that the application area was cleared of its original native vegetation long ago and has been subject to subsequent further soil disturbance through the pine harvesting process.</p> <p>The application area intercepts areas categorised as 'low' to 'moderate' Acid Sulphate Soil (ASS) risk (Strategen, 2018). ASS are likely to occur at depths of three metres or greater. The soil exposed from clearing native vegetation is not likely to form acid on exposure to air.</p> <p>Prior to progressive sand mining, Urban Resources will push up and stockpile the minimal native vegetation regrowth, strip and then either stockpile or respread the underlying topsoil. Use of the topsoil is problematic as it is weed infested, therefore Urban Resources is currently trialling cultivation and spraying before replanting vegetation.</p> <p>The proposed clearing activities are very minimal and are unlikely to result in appreciable land degradation of soils that have already been highly disturbed by past land use practices.</p>	<p>Not likely to be at variance to this Principle.</p>
<p>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.</p>	<p>The application area is located within the Gngangara-Moore River State Forest Reserve No. 65, which is managed by the Department of Biodiversity, Conservation and Attractions (DBCAs). The Gngangara-Moore River State Forest covers an area in excess of 70,000 hectares, but a large portion is covered by pine plantations (DEMIRS, 2018). The application area is a cleared Pine (<i>Pinus pinaster</i>) plantation with regrowth of mainly pine trees, where the original native vegetation was cleared in the late 1960's to establish the plantation. Therefore, the</p>	<p>Not likely to be at a variance to this Principle.</p>

Table 3.1. Assessment of Clearing Principles and other Matters – continued:

Clearing Principle	Assessment	Level of Variance
	proposed clearing area is not likely to provide a significant ecological linkage and the proposal is not likely to impact the environmental values of the conservation area (DEMIRS, 2018).	
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.	<p>No surface water features are present in the application area and hence the clearing of this area is unlikely to have any affect on surface water.</p> <p>The proposed site is located in the Gngangara Public Drinking Water Source Area. Clearing the pine tree regrowth is likely to have minimal impact on the groundwater levels or quality. The water levels in the area have historically decreased due to the pine plantation and hence a temporary increase would not cause any significant issues to the water quality and may help the surrounding wetlands, which are quite dry due to the long hot and dry summer and the decreased water level due to the pine trees.</p>	Not likely to be at variance to this principle.
j) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.	<p>There are no watercourses or wetlands within the application area.</p> <p>The mainly pine tree regrowth is not growing in a low-lying area, which may be prone to seasonal inundation.</p> <p>The application area is predominantly comprised of deep leached Bassendean sands, which have high infiltration rates and therefore a low risk of water logging.</p> <p>Given the soils are well drained and that average annual evaporation rate (1,800 to 2,000 mm) is well above the annual rate of rainfall (732.8 mm), the risk of flooding is very low.</p>	Not likely to be at variance to this Principle.
Planning instrument, Native Title, previous EPA decision or other matters.	<p>The proposed clearing area is highly disturbed and was first cleared of its original native vegetation in the late 1960's for the establishment of part of the Gngangara Pine Plantation. The pine trees were present in the application area until they were harvested sometime between 1989 and 1995 by the Forest Products Commission.</p> <p>No aboriginal heritage sites are known in the area and it is very unlikely that there are any present given the extensive history of site disturbance.</p> <p>As part of assessing and approving Mining Proposal Reg ID: 52507, DEMIRS concluded that the project did not require referral to the Environmental Protection Authority (EPA). Any areas of sensitivity in the local area, including Bush Forever sites and Geomorphic Wetlands have been retained and are adequately managed via existing approvals.</p> <p>The clearing permit application area is the source of an important basic raw material for the Perth Metropolitan Area.</p>	Not applicable

4 Conclusions and Recommendations

This clearing permit application has been submitted to ensure future sand mining operations (which have already been assessed and approved under the *Mining Act 1978*) remain compliant with the native vegetation clearing provisions of the *Environmental Protection Act 1986* and associated *Environmental Protection (Clearing of Native Vegetation) Regulations, 2004*.

The original native vegetation in the proposed clearing area was removed in the late 1960's for the establishment of part of the Gngangara Pine Plantation. The pine trees were harvested sometime between 1989 and 1965 and now the area has regrowth of mainly pine trees with some sparse native vegetation. The native vegetation and pine trees will require removal to facilitate future sand mining. Observations made by PGV Environmental during their site walkover and assessment was that the vegetation does not resemble a vegetation community and there was very limited native vegetation. Similarly, the vegetation provides negligible habitat values for fauna other than a food source for the Black Cockatoo. However, there are also several other pine tree plantations surrounding the subject area, which can continue to provide the Black Cockatoo with a food source and therefore the temporary loss of this area would not significantly impact the Black Cockatoos. In addition, the subject area does not have any trees species that would provide an adequate roosting habitat. There are no other values or sensitivities associated with the subject area that would prevent the issuing of a native vegetation clearing permit.

5 References

- DAWE. (2022). Referral guideline for 3 WA threatened black cockatoo species: Carnaby's Cockatoo, Baudin's Cockatoo and the Forest Red-tailed Black- cockatoo. Canberra: Department of Agriculture, Water and the Environment (DAWE).
- DEC. (2008). Grand Spider Orchid (*Caladenia huegelii*) Recovery Plan. Kensington: Department of Environment and Conservation (DEC).
- DEC. (2012). Fauna profiles - Quenda *Isoodon obesulus* (Shaw, 1797). Western Australia Department of Environment and Conservation (DEC).
- DMIRS. (2018). Clearing Permit Decision Report - Permit application No. 8070/1: Urban Resources Pty Ltd, Boundary Road Sand Mine. 19 July 2018. Western Australia: Department of Mines, Industry Regulation and Safety (DMIRS).
- EnviroWorks Consulting. (2017). Revised Mining Proposal Reg ID 52507: Boundary Road Sand Mine - Tenement M70/1329 (Version 3). Prepared for Urban Resources Pty Ltd. August 2017.
- Geoscience Australia. (2004). Vegetation - Pre-European Settlement (1788). (3rd). Canberra: Geoscience Australia, Department of Industry, Tourism and Resources. Retrieved 2018, from <https://data.gov.au>
- Government of Western Australia. (2018). 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Perth: WA Department of Biodiversity, Conservation and Attractions (DBCA). Retrieved 2020, from <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- Groom, C. (2011). Plants Used by Carnaby's Black Cockatoo. Department of Environment and Conservation.
- Houston, T. (2018). *A Guide to Native Bees of Australia*. Clayton South: CSIRO Publishing.
- JBS&G Australia (2023). Native Vegetation Clearing Permit Application Supporting Documentation – Boundary Road Sand Mine – Mining Lease 70/1329. Prepared for Urban Resources.
- Johnstone, R., & Kirkby, T. (2011). Black Cockatoos on the Swan Coastal Plain. Perth: Report prepared for the Department of Planning.
- Keighery, B. (1994). Bushland plant survey. A guide to plant community survey for the community. Nedlands: Wildflower Society of Western Australia (Inc.).
- Northcote, K. H., Beckmann G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68) 'Atlas of Australian Soils, Sheets to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- PGV Environmental (2024). Mining Lease 70/1329 Boundary Road, Mariginiup – Vegetation Assessment. Prepared for Urban Resources.
- Strategen (2018) Native Vegetation Clearing Permit Application – Supporting Documentation, Boundary Road Sand Mine. Prepared for Urban Resources, By Strategen Environmental Consultants Pty Ltd, April 2018.

FIGURES



Figure 1 – Location of Proposed Clearing Area

APPENDIX A

8 July 2024

Stephen Elliott

Urban Resources Pty Ltd
PO Box 1528
BIBRA LAKE DC WA 6952

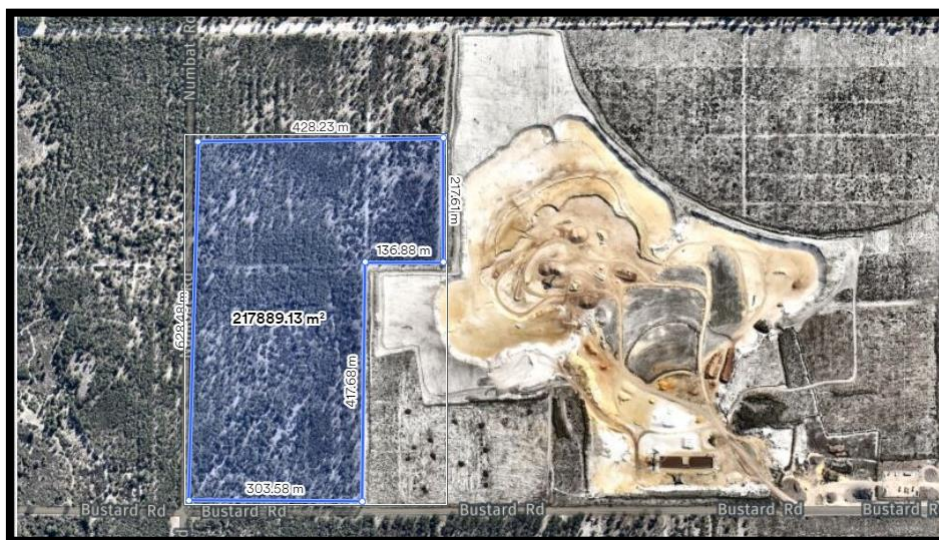
Dear Stephen,

RE: Mining Lease 70/1329 Boundary Road, Mariginiup - Vegetation Assessment

Following is our assessment of the vegetation in a portion of Mining Lease 70/1329 Boundary Road that Urban Resources would like to clear to enable the extension of the existing sand mine.

The area assessed is around 21.8ha and is shown in Plate 1.

Plate 1: Assessment Area



1 Site History

The site was initially cleared for a pine plantation between 1965 and 1970. The pines were harvested between 1989 and 1995 (Plate 2). The vegetation currently on the site has regrown since the pines were harvested.

Plate 2: Aerial Photograph 1995 (Landgate Map Viewer Plus)



2 Site Assessment

PGV Environmental undertook an assessment of the vegetation on the site on 14 May 2024. The assessment included walking through the area to assess the condition of the regenerating pine trees and to identify any native plant species.

The vegetation on the site is nearly all regrowth pine trees. The pine trees are up to 15m high with a diameter around 10-20cm and mostly at a high density (Plate 3). The understorey is either devoid of any native species as shown in Plate 3 or contains a few Woolly Bush (*Adenanthos cygnorum*) and *Xanthorrhoea preissii* shrubs (Plate 4).

Plate 3: Typical pine tree vegetation on the site



Plate 4: Pine Trees with *Xanthorrhoea preissii* shrubs



One small area was recorded with a low density of pine trees and a denser stand of native Woolly Bush to 2.5m high (Plate 5). Some smaller native shrubs also occur in these areas.

Plate 5: Woolly Bush and low density Pine trees



The vegetation is not representative of a Threatened or Priority Ecological Community. Even if the pines were harvested the native vegetation would not regrow to a Banksia Woodland TEC as there were only two Banksia trees recorded in the 21.8ha and there would not be any seed bank of Banksias in the soil.

A total of 26 native plant species were recorded on the site. Many of the species had only a few individuals such as the *Banksia menziesii*. None of the species is of conservation significance. It is highly unlikely that any conservation significant species would be recorded in a detailed spring survey.

Table 1: Native Plant Species Recorded on Site

Native Plant Species	
<i>Acacia pulchella</i>	<i>Hibbertia subvaginata</i>
<i>Adenanthos cygnorum</i>	<i>Hypocalymma robustum</i>
<i>Banksia menziesii</i>	<i>Lechenaultia floribunda</i>
<i>Bossiaea eriocarpa</i>	<i>Lyginia barbata</i>
<i>Calytrix flavescens</i>	<i>Macrozamia riedlei</i>
<i>Conostephium pendulum</i>	<i>Melaleuca systema</i>
<i>Dampiera linearis</i>	<i>Nuytsia floribunda</i>
<i>Daviesia triflora</i>	<i>Patersonia occidentalis</i>
<i>Desmocladius flexuosus</i>	<i>Persoonia saccata</i>
<i>Eremaea pauciflora</i>	<i>Petrophile linearis</i>
<i>Eriochilus dilatatus</i>	<i>Scholtzia involucrata</i>
<i>Eucalyptus todtiana</i>	<i>Stirlingia latifolia</i>
<i>Gonocarpus pithyoides</i>	<i>Xanthorrhoea preissii</i>

Please contact me if you require any clarification of this assessment.

Yours sincerely



Paul van der Moezel
Managing Director

APPENDIX B



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

URR

Your ref: M70/1329
Our ref: M70/1329
Enquiries: Virginia Wright
Telephone: (08) 9222 3114
Facsimile: (08) 9222 3452
Email: virginia.wright@dmp.wa.gov.au

Urban Resources Pty Ltd
C/- McMahon Mining Title Management Pty Ltd
PO Box 592
MAYLANDS WA 6931

Dear Sir/Madam,

APPLICATION FOR MINING LEASE 70/1329

I wish to advise that the above application was granted on 20 July 2017, subject to the endorsements/conditions detailed on the attached schedule.

The term of the subject mining lease commences from the date of this notification. In addition to the abovementioned conditions, the lease is subject to the provision of Section 82(1) of the Mining Act, 1978.

This lease is situated within the Whadjuk People Indigenous Land Use Agreement and your attention is drawn to those conditions of grant which directly relate to activities within that area.

Please note that mining activities cannot commence until a mining proposal has been submitted and written approval given by the Department's Environmental Division.

Please note that all tenement-holders are required to participate in the Mining Rehabilitation Fund (MRF). The MRF requires information on disturbances to be reported for each tenement before 30 June each year, for the purpose of calculating an annual MRF levy. You will shortly receive a letter containing instructions and verification codes for on-line registration with the MRF and we encourage you to complete the registration process (and lodge your assessment information) as soon as possible. Further information on the MRF can be found at: <http://www.dmp.wa.gov.au/Environment/Mining-Rehabilitation-Fund-MRF-4906.aspx> or by contacting the MRF team at MRFEnquiry@dmp.wa.gov.au

Please utilise your previously issued pamphlet entitled "*Guidelines for Consultation With Indigenous People By Mineral Explorers*" to assist you in complying with the provisions of the Aboriginal Heritage Act 1972 – 1980.

Yours faithfully

For EXECUTIVE DIRECTOR
MINERAL TITLES

20 July 2017

Mineral House 100 Plain Street East Perth Western Australia 6004
Telephone +61 8 9222 3333 Facsimile +61 8 9222 3862

www.dmp.wa.gov.au
www.wa.gov.au

MINING LEASE 70/1329

SCHEDULE OF ENDORSEMENTS/CONDITIONS

ENDORSEMENTS

	Start Date	End Date
1 The lessee's attention is drawn to the provisions of the Aboriginal Heritage Act 1972 and any Regulations thereunder.	20/07/2017	
2 The grant of this lease is in respect of the area detailed at Document ID 5129820 (pages 4 and 5) retained on Department of Mines, Industry Regulation and Safety File No. M70/1329.	20/07/2017	
3 This mining lease authorises the mining of the land for all minerals as defined in Section 8 of the Mining Act 1978 with the exception of uranium ore.	20/07/2017	
4 The lessee's attention is drawn to the Environmental Protection Act 1986 and the Environmental Protection (Clearing of Native Vegetation) Regulations 2004, which provides for the protection of all native vegetation from damage unless prior permission is obtained.	20/07/2017	
5 The lessee's attention is drawn to the provisions of: <ul style="list-style-type: none"> • Commonwealth Defence (Areas Control) Regulations 1989. 	20/07/2017	
6 Persons claiming native title to the land the subject of this mining tenement entered into a deed under the Native Title Act 1993 with the State of Western Australia, the Minister responsible for the Mining Act 1978 and the tenement holder agreeing to the grant of the tenement. Copies of the deed were given to the National Native Title Tribunal pursuant to Section 34 of the Native Title Act and filed at the Department of Mines and Petroleum.	20/07/2017	
In respect to Water Resource Management Areas (WRMA) the following endorsements apply:	20/07/2017	
7 The lessee attention is drawn to the provisions of the: <ul style="list-style-type: none"> • Waterways Conservation Act, 1976 • Rights in Water and Irrigation Act, 1914 • Metropolitan Water Supply, Sewerage and Drainage Act, 1909 • Country Areas Water Supply Act, 1947 • Water Agencies (Powers) Act 1984 	20/07/2017	
8 The rights of ingress to and egress from, and to cross over and through, the mining tenement being at all reasonable times preserved to officers of Department of Water (DoW) for inspection and investigation purposes.	20/07/2017	
9 The storage and disposal of petroleum hydrocarbons, chemicals and potentially hazardous substances being in accordance with the current published version of the DoWs relevant Water Quality Protection Notes and Guidelines for mining and mineral processing.	20/07/2017	
10 The taking of groundwater from an artesian well and the construction, enlargement, deepening or altering of any artesian well is prohibited unless current licences for these activities have been issued by DoW.	20/07/2017	
11 Advice shall be sought from the DoW if proposing any mining/activity in respect to mining operations within a defined waterway and within a lateral distance of: <ul style="list-style-type: none"> • 50 metres from the outer-most water dependent vegetation of any perennial waterway, and • 30 metres from the outer-most water dependent vegetation of any seasonal waterway. 	20/07/2017	
12 Measures such as drainage controls and stormwater retention facilities are to be implemented to minimise erosion and sedimentation of adjacent areas, receiving catchments and waterways.	20/07/2017	
13 All activities to be undertaken so as to avoid or minimise damage, disturbance or contamination of waterways, including their beds and banks, and riparian and other water dependent vegetation.	20/07/2017	
In respect to Proclaimed Surface Water Areas, Irrigation District Areas and Rivers (RIWI Act) the following endorsements apply:	20/07/2017	
14 The taking of surface water from a watercourse or wetland is prohibited unless a current licence has been issued by DoW.	20/07/2017	
15 Advice shall be sought from DoW and the relevant water service provider if proposing mining activity in an existing or designated future irrigation area, or within 50 meters of a channel, drain or watercourse from which water is used for irrigation or any other purpose, and the proposed activity may impact water users.	20/07/2017	
16 No mining activity is to be carried out if: <ul style="list-style-type: none"> • it may obstruct or interfere with the waters, bed or banks of a watercourse or wetland • it relates to the taking or diversion of water, including diversion of the watercourse or wetland unless in accordance with a permit issued by the DoW. 	20/07/2017	
In respect to Proclaimed Ground Water Areas the following endorsement applies:	20/07/2017	
17 The taking of groundwater and the construction or altering of any well is prohibited without current licences for these activities issued by DoW, unless an exemption otherwise applies.	20/07/2017	
In respect to Public Drinking Water Source Areas (PDWSA) the following endorsements apply:	20/07/2017	

MINING LEASE 70/1329

SCHEDULE OF ENDORSEMENTS/CONDITIONS

	Start Date	End Date
18 All activity within proclaimed public drinking water source areas shall comply with the current published version of the DoWs [Water Quality Protection Note 25 Land Use Compatibility in Public Drinking Water Source Areas]. Key issues that need to be considered within the Water Quality Protection Note are: <ul style="list-style-type: none"> All mining/activity in respect to mining operations involving the handling, storage, transport and use of toxic and hazardous substances (including human wastes) within public drinking water source areas is prohibited unless approved in writing by the Department of Water. Seek written advice from the DoW if handling, storing and/or using hydrocarbons and potentially hazardous substances. 	20/07/2017	
19 All mining/activity in respect to mining operations to be conducted in accordance with the current published version of the DoWs Water Quality Protection Guidelines: [Mining and Mineral Processing] and relevant Water Quality Protection Notes including [Land use compatibility in public drinking water source areas]. Key issues derived from the various Water Quality Guidelines and Notes include: <ul style="list-style-type: none"> All mining/ activity in respect to mining operations within 3 metres of the maximum wet season water table are prohibited in public drinking water source areas unless approved in writing by the DoW. Disposal of domestic and industrial waste (other than approved tailings) is incompatible within public drinking water source areas, except for class 1 landfill (inert) materials which may be disposed of within P3 areas at designated sites if approved in writing by the DoW. Mineral processing, tailings storage, wastewater treatment plants and mechanical plant servicing are incompatible with P1 and P2 areas. Advice shall be sought from the DoW if proposing mineral processing, tailings storage, wastewater treatment plants and mechanical plant servicing within P3 areas. Underground petroleum hydrocarbon and other chemical storage tanks are incompatible within P1 and P2 areas. Underground petroleum hydrocarbon and other chemical storage tanks are prohibited within P3 areas, unless approved in writing by the DoW. Above ground petroleum hydrocarbon and other chemical storage tanks are incompatible with P1 areas. Advice shall be sought from the DoW if proposing above ground petroleum hydrocarbon and other chemical storage tanks within P2 and P3 areas. Advice shall be sought from the DoW if proposing mining or construction camps in public drinking water source areas. 	20/07/2017	

CONDITIONS

	Start Date	End Date
1 All disturbances to the surface of the land made as a result of exploration, including costeans, drill pads, grid lines and access tracks, being backfilled and rehabilitated to the satisfaction of the Environmental Officer, Department of Mines and Petroleum (DMP). Backfilling and rehabilitation being required no later than 6 months after excavation unless otherwise approved in writing by the Environmental Officer, DMP.	20/07/2017	
2 All waste materials, rubbish, plastic sample bags, abandoned equipment and temporary buildings being removed from the mining tenement prior to or at the termination of exploration program.	20/07/2017	
3 Unless the written approval of the Environmental Officer, DMP is first obtained, the use of drilling rigs, scrapers, graders, bulldozers, backhoes or other mechanised equipment for surface disturbance or the excavation of costeans is prohibited. Following approval, all topsoil being removed ahead of mining operations and separately stockpiled for replacement after backfilling and/or completion of operations.	20/07/2017	
4 Mining on any road, road verge or road reserve being confined to below a depth of 15 metres from the natural surface.	20/07/2017	
5 No interference with the transmission line or the installations in connection therewith, and the rights of ingress to and egress from the facility being at all times preserved to the owners thereof.	20/07/2017	
Consent to mine on Gngangara Underground Water Pollution Control Area GPC/1 granted subject to:	20/07/2017	
6 No mining on any Wellhead Protection Zones WPZ/831, WPZ/844 and WPZ/849 located within the subject mining tenement boundaries without first obtaining the written consent of the Minister responsible for Mining Act 1978.	20/07/2017	
Consent to mine on State Forest 65 granted subject to:	20/07/2017	
7 The construction and operation of the project and measures to protect the environment be limited to and carried out in accordance with the document titled: <ul style="list-style-type: none"> Revised Mining Proposal Document 525078 Boundary Road Sand Mine - tenement M70/1329 (Version 2) dated 29 January 2015 and signed by Stephen Elliot of Urban Resources Pty Ltd and retained on Department of Mines, Industry Regulation and Safety File No. EARS-MPMLA-52507. Further mining in State Forest 65 will require the consent of the Minister for Mines, Industry, Regulation and Safety, subject to the concurrence of the Minister responsible for State Forest. 	20/07/2017	

MINING LEASE 70/1329

SCHEDULE OF ENDORSEMENTS/CONDITIONS

	Start Date	End Date
8 Mine closure and rehabilitation being carried out in accordance with the Mine Closure Plan document titled: <ul style="list-style-type: none"> • Boundary Road Sand Mine Closure Plan - tenement M70/1329 dated 29 January 2015 and signed by Stephen Elliot of Urban Resources Pty Ltd and retained on Department of Mines, Industry Regulation and Safety File No. EARS-MPMLA-52507. 	20/07/2017	
In respect of the grant to the Lessee of this Lease, the Native Title Group's consent pursuant to clause 18 of Schedule 10 of the Whadjuk Indigenous Land Use Agreement(s) (relevant ILUA) to such grant is, as a condition precedent, subject to the Minister for Mines and Petroleum imposing the following condition:	20/07/2017	
9 As the Whadjuk ILUA (relevant ILUA) applies to this Mining Lease , the Lessee must before exercising any of the rights, powers or duties pursuant to this Mining Lease over that portion of the area of land the subject of the relevant ILUA: <p>(i) subject to paragraph (ii), execute and enter into in respect of this Mining Lease an Aboriginal Heritage Agreement (as defined in the relevant ILUA) with the Native Title Agreement Group or Regional Corporation (as the case requires) for the relevant ILUA on terms and conditions agreed by the Lessee and the Native Title Agreement Group or Regional Corporation (as the case may be) for the relevant ILUA (the Parties) or, failing such agreement being reached between the Parties within 20 Business Days of the commencement of negotiations, execute and enter into a NSHA subject only to any necessary modifications in terminology required for the tenure;</p> <p>(ii) where:</p> <p>A. the Parties have been unable to reach agreement on the terms and conditions of an Aboriginal Heritage Agreement under paragraph (i); and</p> <p>B. the Lessee executes a NSHA (subject only to any necessary modifications in terminology required for the tenure); and</p> <p>C. The Lessee provides a copy of the NSHA to the Native Title Agreement Group or Regional Corporation (as the case requires) for the relevant ILUA for execution;</p> <p>if the Native Title Agreement Group or Regional Corporation (as the case requires) does not execute the NSHA and provide a copy of the executed NSHA to the Lessee within 20 Business Days of receipt of the NSHA, the requirements of paragraph (i) do not apply; and</p> <p>(iii) provide to the Department of Mines and Petroleum a statutory declaration from the Lessee (or if the Lessee is a corporation, from a director of that corporation on its behalf) in the form contained in Annexure U to the Settlement Terms (as defined in the relevant ILUA), as evidence that the Lessee has complied with the requirements of paragraph (i) of this condition or that paragraph (ii) of this condition applies."</p>	20/07/2017	

Noongar Standard Heritage Agreement

What is the Noongar Standard Heritage Agreement?

- On 8 June 2015, six identical Indigenous Land Use Agreements (ILUAs) were executed across the South West by the Western Australian Government, Traditional owners and the South West Aboriginal Land and Sea Council (SWALSC).
- The ILUAs require WA Government agencies, and mining companies with a heritage condition on their title, to enter into a Noongar Standard Heritage Agreement (NSHA) with the relevant Noongar Regional Corporation* when conducting an Aboriginal Heritage Survey in an ILUA area, unless they have an existing heritage agreement.
- This creates an agreed process for heritage surveys that acknowledges and respects that Noongar people hold the primary heritage knowledge and need to be consulted.

A stronger involvement for Noongar people

Regional Corporations will choose Noongar survey participants, which allows the Regional Corporations to make sure the right people with the right knowledge are speaking for country.

Regional Corporations can also choose to be Aboriginal Heritage Service Providers – this provides Noongar people opportunities to manage the heritage survey process.

Making sure Noongar people are consulted

The NSHA encourages early exchange of information on proposed activities by Government agencies, and mining companies with a heritage condition on title. This provides opportunity for Noongar people to have input at the earliest stages of proposed development.

* Until the Regional Corporations are established and approved under the Settlement, SWALSC is responsible for entering into the NSHAs on behalf of the ILUAs groups



Knowing when sites might be at risk

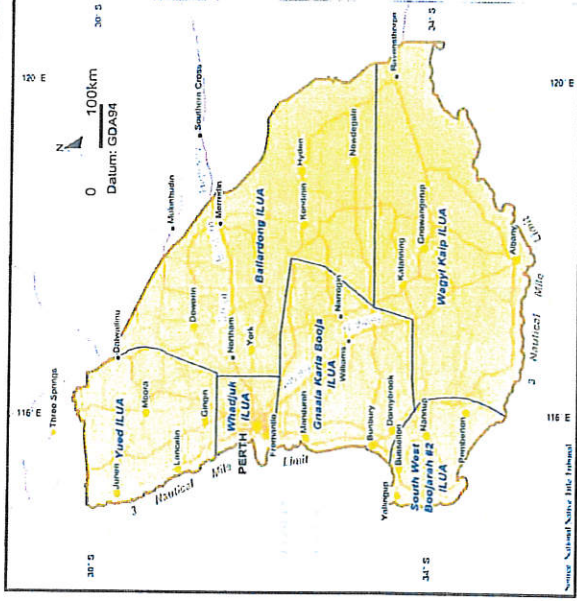
Under an NSHA an Activity Notice must be issued when there is potential risk of Aboriginal Site impact and a heritage survey may be required.

A better process for heritage surveys and decisions

- The NSHA provides for:
 - an agreed process for on how surveys are done and how heritage information is provided
 - improved site protection and information
 - culturally restricted information to be protected
 - consultation with the Regional Corporation of Section 16 or Section 18 application
 - notice to the APMC of consultations undertaken

This ensures that Noongar people have full opportunity to be involved in and inform and strengthen the heritage decision making process

Details of the NSHA can be found at <https://www.dpc.wa.gov.au/lantu/south-west-native-title-settlement/Noongar-Standard-Heritage-Agreement/Pages/default.aspx>



Government of Western Australia
Department of Aboriginal Affairs

Ground Floor, 151 Royal Street, East Perth WA 6004
PO Box 3153, East Perth 6892
Ph: 1300 651 077 Email: HeritageEnquiries@daa.wa.gov.au
www.daa.wa.gov.au