Regional Joint Development Assessment Panel Agenda

Meeting Date and Time: Wednesday, 2 August 2023; 9.30am
Meeting Number: RJDAP/109
Meeting Venue: Electronic Means

To connect to the meeting via your computer -
https://us06web.zoom.us/j/86761205211

To connect to the meeting via teleconference dial the following phone number -
+ 61 8 6119 3900 Australia
Insert Meeting ID followed by the hash (#) key when prompted - 867 6120 5211

This DAP meeting will be conducted by electronic means (Zoom) open to the public rather than requiring attendance in person.

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Attendance

DAP Members

Tony Arias (Presiding Member)
Lindsay Baxter (A/Deputy Presiding Member)
John Syme (A/Third Specialist Member)
Cr Kaara Andrew (Local Government Member, Shire of Capel)
Cr Sebastian Schiano (Local Government Member, Shire of Capel)

Officers in attendance

Bob Wallin (Shire of Capel)
Scott Price (Shire of Capel)

Minute Secretary

Tenielle Brownfield (DAP Secretariat)

Applicants and Submitters

Daniel Lewis (Element Advisory Pty Ltd)
Alyssa Shanks (Element Advisory Pty Ltd)
Kyle Jackson (BCP Materials)
Ewen Nettleton
Campbell Nettleton
Robert Horsfall
Penny David
Donna Brown
Michael Tichbon

Members of the Public / Media

Nil.

1. Opening of Meeting, Welcome and Acknowledgement

The Presiding Member declares the meeting open and acknowledges the traditional owners and pay respects to Elders past and present of the land on which the meeting is being held.

This meeting is being conducted by electronic means (Zoom) open to the public. Members are reminded to announce their name and title prior to speaking.

2. Apologies

Kanella Hope (Deputy Presiding Member)
Justin Page (Third Specialist Member)
Cr Peter McCleery (Local Government Member, Shire of Capel)
Cr Christine Terrantroy (Local Government Member, Shire of Capel)

3. Members on Leave of Absence

Nil.

4. Noting of Minutes

Signed minutes of previous meetings are available on the DAP website.

5. Declarations of Due Consideration

The Presiding Member notes an addendum to the agenda was published to include details of a DAP request for further information and responsible authority response in relation to Item 8.1, received on 21 July 2023.

Any member who is not familiar with the substance of any report or other information provided for consideration at the DAP meeting must declare that fact before the meeting considers the matter.

6. Disclosure of Interests

Member	Item	Nature of Interest
Kanella Hope	8.1	Indirect Pecuniary Interest – Ms Hope is familiar with one of the landowners, Campbell Nettleton, and represents his parents in separate planning matters.
Justin Page	8.1	Impartiality Interest – Mr Page works for Element, who is the applicant in this matter.
Cr Peter McCleery	8.1	Impartiality Interest – Cr McCleery has received several emails from the community objecting to the application. Cr McCleery has not responded to these emails and the contents of these emails has been included in the RAR.
Cr Sebastian Schiano	8.1	Impartiality Interest – Cr Schiano has received several emails from the community objecting to the application. Cr Schiano has not responded to these emails. Cr Schiano also responded to questions during public question time at the May Ordinary Council Meeting, these responses were prepared by the Shire of Capel staff.

7. Deputations and Presentations

7.1 Robert Horsfall presenting against the recommendation for the application at Item 8.1. The presentation will address impacts on neighbouring residents.

7.2 Penny David presenting against the recommendation for the application at Item 8.1. The presentation will address impacts on neighbouring residents.

7.3 Donna Brown presenting against the recommendation for the application at Item 8.1. The presentation will address impacts on neighbouring residents.

7.4 Michael Tichbon provided a written submission against the recommendation for the application at Item 8.1.

7.5 Daniel Lewis (Element Advisory Pty Ltd) presenting in support of the recommendation for the application at Item 8.1. The presentation will address support for the RAR, subject to minor condition changes.

The Shire of Capel may be provided with the opportunity to respond to questions of the panel, as invited by the Presiding Member.

8. Form 1 – Responsible Authority Reports – DAP Applications

8.1 Lot 148 (No.168) Skippings Road, Boyanup

Development Description:	Extractive Industry Development Proposal
Applicant:	Element Advisory Pty Ltd
Owner:	Mr Campbell & Ewen Nettleton
Responsible Authority:	Shire of Capel
DAP File No:	DAP/23/02479

**Please note the address was updated on 19th July 2023 to reflect the correct application address*

9. Form 2 – Responsible Authority Reports – DAP Amendment or Cancellation of Approval

Nil.

10. State Administrative Tribunal Applications and Supreme Court Appeals

Current SAT Applications				
File No. & SAT DR No.	**LG Name**	**Property Location**	**Application Description**	**Date Lodged**
DP/14/00039 DR 65/2020	Shire of York	Lots 4869 (2256), 5931, 9926 (2948) and 26934 Great Southern Highway, St Ronans	Construction and Use of Allawuna Farm for the purposes of a Class II Landfill	28 July 2020
DAP/21/02063 DR241/2021	Shire of Dardanup	Lot 2 Banksia Road, Crooked Brook	Cleanaway Dardanup Landfill Facility	5 November 2021
DAP/22/02403 DR51/2023	City of Bunbury	No.6 (Lot 10) Mossop Street and No.83 (Lot 40) Mangles Street, South Bunbury	Proposed Child Care Premises	23 March 2023
DAP/22/02256 PA80/2022	Shire of Capel	79 (Lot 100) Bussell Highway, Gelorup	Proposed Service Station and Motor Vehicle Wash	30 May 2023

11. General Business

In accordance with Section 7.3 of the DAP Standing Orders 2020 only the Presiding Member may publicly comment on the operations or determinations of a DAP and other DAP members should not be approached to make comment.

12. Meeting Closure

Direction for Further Services from the Responsible Authority

Regulation 13(1) and DAP Standing Orders 2020 cl. 3.3

Guidelines

A DAP Member who wishes to request further services (e.g. technical information or alternate recommendations) from the Responsible Authority must complete this form and submit to daps@dplh.wa.gov.au.

The request will be considered by the Presiding Member and if approved, the Responsible Authority will be directed to provide a response to DAP Secretariat within the form.

It is important to note that **the completed form containing the query, response and any accompanying documentation will be published on the DAP website** as an addendum to the meeting agenda.

DAP Application Details

DAP Name	Regional JDAP
DAP Application Number	DAP/23/02479
Responsible Authority	Shire of Capel
Property Location	Lot 148 (No. 168) Skippings Road, Boyanup

Presiding Member Authorisation

Presiding Member Name	Tony Arias
Signature	*Tony Arias*
Date	20 July 2023
Response Due	**21 July 2023; 3pm**

Nature of technical advice or information required*

1	**DAP query**	Many of the submissions by neighbouring residents refers to the sand proposed to be extracted as silica sand. The comments by the Responsible Authority are somewhat vague in response to this, referring to a Department of Health submission regarding the impacts of silica dust. Further, the lithological logs are also not as detailed as I would like. All sand contains some traces of silica. My question is, what are the Si02 and iron oxide levels of the sand proposed to be extracted. Sand that contains more than 95% Si02 and less than 0.6% iron oxide is considered a silica sand and it's extraction would need to be subject to a mining tenement application rather than a EIL.

* Any alternate recommendation sought does not infer a pre-determined position of the panel.

	Response	Advice received from the applicant is the material onsite has not been tested for it's silica content. However, initial test pit and permeability testing shows the material to be consistent with clean fill sand and is not consistent with material which contains a high silica content. It is acknowledged all sand will contain a portion of silica.

Government of **Western Australia**
Development Assessment Panels

Presentation Request Form

Regulation 40(3) and DAP Standing Orders 2020 cl. 3.5

Must be submitted at least 72 hours (3 ordinary days) before the meeting

Presentation Request Guidelines

Persons interested in presenting to a DAP must first consider whether their concern has been adequately addressed in the responsible authority report or other submissions. Your request will be determined by the Presiding Member based on individual merit and likely contribution to assist the DAP's consideration and determination of the application.

Presentations are not to exceed **5 minutes**. It is important to note that the presentation content will be **published on the DAP website** as part of the meeting agenda.

Please complete a separate form for each presenter and submit to daps@dplh.wa.gov.au

Presenter Details

Name	Robrt David Horsfall
Company (if applicable)	Click or tap here to enter text.
Please identify if you have any special requirements:	**YES ☐** **NO ✓** If yes, please state any accessibility or special requirements: Click or tap here to enter text.

Meeting Details

DAP Name	Regional JDAP
Meeting Date	26/07/2023
DAP Application Number	DAP/23/02479
Property Location	Lot 148 (168) Skippings road Boyanup
Agenda Item Number	RJDAP/108

Presentation Details

I have read the contents of the report contained in the Agenda and note that my presentation content will be published as part of the Agenda:	**YES ✓**
Is the presentation in support of or against the report recommendation)? *(contained within the Agenda)*	**SUPPORT ☐** **AGAINST ✓**
Is the presentation in support of or against the proposed development?	**SUPPORT ☐** **AGAINST ✓**
Will the presentation require power-point facilities?	**YES ☐** **NO ✓** **If yes, please attach**

Government of **Western Australia**
Development Assessment Panels

Presentation Content*

These details may be circulated to the local government and applicant if deemed necessary by the Presiding Member. Handouts or power points will not be accepted on the day.

Brief sentence summary for inclusion on the Agenda	*The presentation will address:* Buffer zone to residents, Unknown soil analysis, Alteration to drainage, Contamination to air & water, Loss of use of property, Noise levels.

In accordance with Clause 3.5.2 of the *DAP Standing Orders*, your presentation request must also be accompanied with a written document detailing the content of your presentation.

Please attach detailed content of presentation or provide below:

BUFFER ZONE: Currently 106 meters from my house (insufficient buffer zone)

REQUEST INDEPENDENT SOIL ANALYSIS: To ascertain Silica content in proposed extraction.

DRAINAGE: Alteration to drainage from proposed site currently draining through my property

CONTAMINATION: Of Air & Water quality due to possible high Silica content which has NOT been advised after several requests from the residents.

LOSS OF USE OF MY PROPERTY: Property was purchased for use as a horse property, due to this development our property will no longer be suitable or safe for the purpose of purchase.

NOISE LEVELS: Machinery & trucks operating 12 hours per day will significantly impact our enjoyment of our property (loss of lifestyle)

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Presenter Details

Name	Penny David
Company (if applicable)	Click or tap here to enter text.
Please identify if you have any special requirements:	**YES** ☐ **NO** ☒ If yes, please state any accessibility or special requirements: Click or tap here to enter text.

Meeting Details

DAP Name	Regional JDAP
Meeting Date	26th July 2023
DAP Application Number	RJDAP/108
Property Location	Lot 148 (No. 168) Skippings Road, Boyanup
Agenda Item Number	7

Presentation Details

I have read the contents of the report contained in the Agenda and note that my presentation content will be published as part of the Agenda:	**YES** ☒
Is the presentation in support of or against the report recommendation)? *(contained within the Agenda)*	**SUPPORT** ☐ **AGAINST** ☒
Is the presentation in support of or against the proposed development?	**SUPPORT** ☐ **AGAINST** ☒
Will the presentation require power-point facilities?	**YES** ☐ **NO** ☒ **If yes, please attach**

Government of **Western Australia**
Development Assessment Panels

Presentation Content*

These details may be circulated to the local government and applicant if deemed necessary by the Presiding Member. Handouts or power points will not be accepted on the day.

Brief sentence summary for inclusion on the Agenda	*The presentation will address:* Proximity to Residence/Resident Amenity, Dusst, Airborn Particles and Sand Matrix (How much Silica is present?)

In accordance with Clause 3.5.2 of the *DAP Standing Orders*, your presentation request must also be accompanied with a written document detailing the content of your presentation.

Please attach detailed content of presentation or provide below:

Please see Attached.

Thankyou to the Presiding members and other members for allowing me to present today.

I am speaking against **EXTRACTIVE INDUSTRY DEVELOPMENT PROPOSAL LOT 148 (No.168) SKIPPINGS ROAD, BOYANUP,** DAP File Number /23/02479.

I am a resident of Brookdale Road, the road running next to this development proposal.

While I understand the importance of economic development, it is crucial to acknowledge the adverse impacts on the neighbouring properties, particularly the horse breeding property whose residence is located only 106 meters from the proposed site. That is, 106m to the house, but in actual fact is only a 20m setback to the horses kept at this farm. It has previously been advised also that this property is a registered School.

Horses are flight response creatures, highly sensitive to environmental disturbances that can cause undue stress and discomfort. Here are some of the key issues that require serious consideration:

Dust Exposure: The proposed extractive industry could generate significant amounts of dust, which poses a considerable risk to the health of the horses. The accumulation of dust in their feed and nostrils can lead to respiratory issues and other health problems, jeopardizing their overall well-being.

Noise Pollution: Extractive activities often involve loud machinery and transportation, leading to increased noise levels in the vicinity. Horses are known to be highly reactive to sudden and loud sounds, which can cause anxiety and distress, impacting their breeding and general behaviour.

Vibration Impacts: Industrial operations can produce ground vibrations that may be unsettling for the horses. The constant exposure to such vibrations can be detrimental to their physical health, potentially leading to musculoskeletal issues and behavioural changes.

Security and Safety: The presence of an extractive industry in close proximity to the horse breeding property raises concerns about the safety and security of the animals. Increased heavy machinery traffic and unfamiliar activity in the area could startle the horses and pose risks to their welfare and that of their handlers.

Considering these issues, I urge the DAP to thoroughly review and assess the potential impacts on the neighbouring horse breeding property and its residents before granting approval for the development proposal. It is crucial to prioritize the welfare of humans and animals and ensure that their needs and safety are not compromised for the sake of economic development.

This project, with its proposal to set back 20m from the boundary is unconscionable. Whether the setback is 20m, or 100m it is still within the 300m that the EPA uses as a guideline. The bund is proposed to be constructed using topsoil, which is ridiculous as it will just blow away and add to the dust issue.

I am not the resident at that location but I am taking the time, as you should also, to stand in their shoes. I cannot begin to imagine how it is soul destroying the proposal is for them.

I strongly recommend conducting a comprehensive Environmental Impact Assessment (EIA) that takes into account the specific sensitivities of horses to dust, noise, and vibrations.

Additionally, engaging with the owners of the horse breeding property to gather their input and concerns should be essential in making an informed decision.

Secondly, it appears that all involved parties concur with the notion that the Extractive Industry License (EIL) applicant will be primarily responsible for "self-monitoring" the dust. This approach relies on residents lodging complaints, after which the Shire would be notified. There are no explicitly prescribed documented control measures mandated to be implemented, nor is there any provision for independent monitoring.

The dust management proposal presented by the applicant appears to be a makeshift and rudimentary attempt to merely fulfill the minimum requirements set forth by various departments, lacking a genuine commitment to adopting responsible and conscientious practices.

In light of this, it is imperative to highlight the need for a more robust and proactive approach to dust management. A comprehensive and transparent system of monitoring and control measures should be established, aimed at pre-emptively addressing potential dust emissions and their impacts on surrounding properties and, in particular, the horse breeding property in close proximity to the site.

It is incumbent upon DAP to insist on a more rigorous and thorough dust management plan that adheres to established industry standards and environmental best practices.

Independent monitoring by qualified experts can provide an unbiased assessment of the actual dust levels and facilitate the identification of areas where improvements are required.

A commitment to diligently adhere to dust mitigation strategies not only demonstrates a desire to comply with regulatory obligations but also reflects a genuine dedication to the well-being of the local community and its unique environment.

As responsible stewards of our shared surroundings, it is vital for all parties involved to collaborate in the pursuit of sustainable and environmentally sound practices.

I urge DAP to demand a more comprehensive and accountable dust management approach that fosters transparency and accountability.

The absence of any testing for the silica content onsite is of significant concern and warrants careful consideration. The Department of Health's advice regarding the control of dust from sand extraction is based on a presumption that the material is sand, but without knowing its actual composition, their comments are baseless. It is disconcerting that despite months of residents' requests, the required testing has not been provided.

Considering the abundant presence of mineral sands deposits in the Shire of Capel, some of which may be radioactive, it is perplexing as to why there is reluctance in conducting this relatively small and crucial testing. The implications of the material being deemed silica sand (with more than 95% SiO_2 and less than 0.6% iron oxide) may necessitate a mining tenement application under the Mining Act 1978.

The Department of Mines, Industry Regulation and Safety (DMIRS), responsible for risk management and hazards associated with silica levels, were consulted for comment and had no remarks, but due to the lack of data regarding silica content, their response might be incomplete.

If the material is classified as silica sand, a mining tenement application would be required, effectively making the proposed development application redundant for mining purposes.

The presence of respirable crystalline silica (RCS) in mining sites has had a lot of press coverage recently but it is an issue that has been around for decades.

RCS particles, being less than four microns in size, can penetrate deep into the lungs, leading to serious health effects like silicosis and cancer. Considering this potential massive health risk and its implications for the well-being of residents near the site, it is essential for the DAP to reject the application until proper testing is carried out, and the responsible authorities can make informed decisions based on actual sand matrix data.

Proceeding with this project without conducting the necessary testing would be unethical and immoral, putting lives and well-being at risk. As responsible stewards of public health and environmental integrity, it is incumbent upon the relevant authorities to prioritize safety, transparency, and accountability in the decision-making process.

In conclusion, I earnestly urge the DAP to prioritize the health and safety of the community and reject the application until comprehensive testing is completed, and the potential risks associated with silica content are appropriately addressed.

Government of **Western Australia**
Development Assessment Panels

Presentation Request Form

Regulation 40(3) and DAP Standing Orders 2020 cl. 3.5

Must be submitted at least 72 hours (3 ordinary days) before the meeting

Presentation Request Guidelines

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Please complete a separate form for each presenter and submit to daps@dplh.wa.gov.au

Presenter Details

Name	Donna Brown
Company (if applicable)	N/A
Please identify if you have any special requirements:	**YES** ☐ **NO** ☒ If yes, please state any accessibility or special requirements: Click or tap here to enter text.

Meeting Details

DAP Name	Regional JDAP
Meeting Date	Wednesday, 2nd August 2023
DAP Application Number	RJDAP/109, electronic means
Property Location	Lot 148 (No. 168) Skippings Road, Boyanup
Agenda Item Number	8.1

Presentation Details

I have read the contents of the report contained in the Agenda and note that my presentation content will be published as part of the Agenda:	**YES** ☒
Is the presentation in support of or against the report recommendation)? *(contained within the Agenda)*	**SUPPORT** ☐ **AGAINST** ☒
Is the presentation in support of or against the proposed development?	**SUPPORT** ☐ **AGAINST** ☒
Will the presentation require power-point facilities? **I have requested a large file transfer for consideration of a 25 second video showing dust from an EIL site.*	**YES** ☐ **NO** ☐ **Short video requested** **If yes, please attach**

Presentation Content*

These details may be circulated to the local government and applicant if deemed necessary by the Presiding Member. Handouts or power points will not be accepted on the day.

Brief sentence summary for inclusion on the Agenda	*The presentation will address:* This EIL will contravene the Shire's extractive industry laws and is a relatively low sand hill. The extraction of sand at this location does not warrant the disturbance to this area which will most likely have a severe impact on people's health, the environment and it poses a significant loss of amenities to those residing nearby.

In accordance with Clause 3.5.2 of the *DAP Standing Orders*, your presentation request must also be accompanied with a written document detailing the content of your presentation.

Please attach detailed content of presentation or provide below:

Thank you for the opportunity to provide comments to the RJDAP Panel in relation to the proposed Extractive Industry Licence application for Lot 148 (168) Skippings Road, Boyanup.

Sand – a finite resource

I am concerned about the large number of Extractive Industry Licence (EIL) applications which have been submitted – and allowed – in the Shire of Capel, especially over recent years. I understand that there is an extreme shortage of sand generally for projects, and also the sand deposits in surrounding LGAs are severely depleted. This is placing increased pressure on remaining areas in our Shire which have sand deposits.

If there is a shortage now, what is going to happen over the coming decades when future generations also need sand?

Under Explanatory Note, State Planning Policy 2.4, Planning for Basic Raw Materials, it states, copy attached:

> **"Basic Raw Materials (BRM) are a finite resource and their efficient use is required to ensure an ongoing supply".**

Will the RJDAP carefully consider the number of EIL's currently being applied for in our Shire and question why the current new applications, many of which have marginal sand hills, are being considered with conditions which do not meet our own Shire's Extractive Industries Local Law 2016? copy attached.

More than ever, the influx of EIL applications requires careful assessment with strong rigour and analysis applied to assess the value of these EILs and the impact extraction will have on the amenity of the area and in this case the impact on adjoining neighbours who are in very close proximity of the proposed operation.

This EIL can be assessed on its economics, but in doing so the impact on people, the environment and our future must also be taken into consideration and in my opinion, be refused.

Distance to nearby homeowners

I am deeply concerned about some of the wording in this application, in particular *Item 3.8 Separation Distances between Industrial and Sensitive Land Uses*, electronic page 20.

> "The proposed development is located 106m from the nearest sensitive land use, separated and screened by existing vegetation and a proposed topsoil bund. Management of Noise and Dust impacts on this sensitive land use are appropriately outlined within this report to ensure no adverse impacts are posed by this development.".

I cannot imagine how the family who reside in their home only 106 metres from the proposed development must be feeling. Their home is very close to the proposed extraction, but so too is the remainder of their property.

How will people be able to work safely outside across their whole property with the EIL proposal so close?

How will the applicant "ensure no adverse impacts"?

I find this statement to be broad reaching and simply quite impossible when one home is only a short distance from the proposed activities.

The Department of Planning, Lands and Heritage's Guidelines for Basic Raw Materials, 2018 states:

> *Section 4.6 Separation Distances and Buffers*
>
> Separation distances and buffers apply to land use and development on land in proximity to BRM activities. Separation distances inform the development of buffers to separate potential impacts from activities **that may affect human health and amenity.**
> Buffers to sensitive land uses are influenced by: site characteristics, the proposed location of infrastructure, access routes, pits and stockpiles, and the extraction method…….
>
> The following is a general guide to buffer distance measured from quarrying operations to the likely area affected within a sensitive land use:
>
> - 300 – 500 meter buffer of sand and limestone quarries (with buffer distances determined by proposed activities, on an individual basis).

The 300 - 500 metre buffer reference is a "general guide" in a "Guideline" to measuring buffer distances. This EIL application must be assessed on an "individual basis" considering the proximity to homes, the adjoining landowners' loss of amenities, the impact on waterways, its unsuitable location on a multi-use wetland and the unsustainable request to extract below two metres above the ground water.

The applicant states on electronic page 47/246:

3.8 Separation Distances between Industrial and Sensitive Land Uses

The Environmental Protection Authority (EPA) has prepared a guiding document for assessment of environmental factors associated with the separation distances between sensitive land uses and Industrial land uses.

The proposed extractive industry is of a nature which reflects the 'Extractive Industry- Sand and Limestone' industry listed within Appendix 1. The relevant buffer distance is recommended to be 300-500m to sensitive land uses, depending on the size and nature of operations, with key impacts associated with operations being noise and dust.

The proposed development is located 106m from the nearest sensitive land use, separated and screened by existing vegetation and a proposed topsoil bund. Management of Noise and Dust impacts on this sensitive land use are appropriately outlined within this report to ensure no adverse impacts are posed by this development.

"relevant buffer distance is recommended to be 300-500 m to sensitive land uses, depending on the size and nature of operations, *with key impacts associated with operations being noise and dust*".

Electronic page 47/246

Key impacts in this application are not only noise and dust. I very strongly dispute the applicant's assessment of the key impacts as only being these.

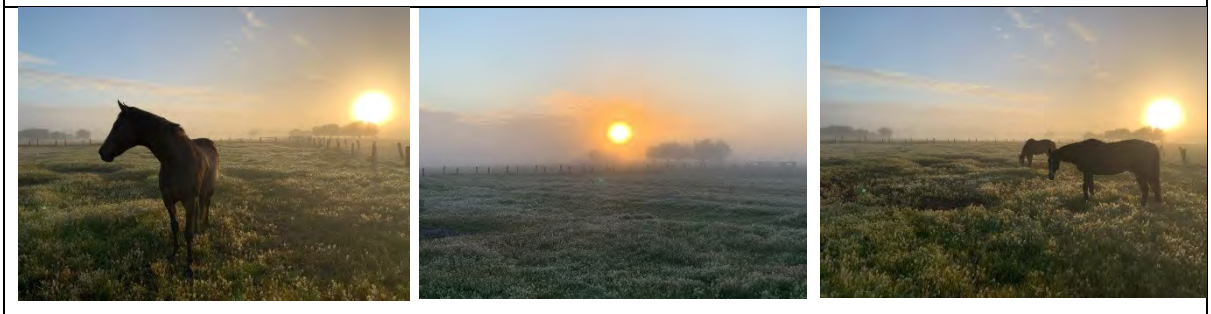
There are at least a further two key impacts for adjoining landowners which need to be raised, discussed, and assessed by the RJDAP panel being:

- **the loss of amenities;**
  and more importantly, but not limited to –
- **the impact on human health.**

Loss of amenities

Adjoining landowners will suffer the permanent and stressful loss of their rightful enjoyment of their rural properties. If this application was to be approved, it will result in significant adverse impacts and will diminish the current and future enjoyment of the nearby landowners' rural amenities, to which they are entitled. The proposed EIL is simply too close to nearby homes and rural properties and this EIL will be adversely impactful on the day-to-day enjoyment and commercial operation of their rural pursuits.

The impact on livestock also needs to be considered. For example, there are many horse owners in the vicinity. How will this impact animals in the paddocks who will be subject to the dust and would get no relief? They too have the right to enjoy the amenities of their surroundings.



Impact on human health

I was unable to see a detailed description and analysis in the application of what material is proposed to be extracted. There have already been queries raised about this matter with Shire staff who attended concerned residents' meetings. Queries were also raised by residents at a recent Council meeting.

Have those queries, concerns and subsequent requests been adequately addressed and answered?

It is our understanding that this EIL application to extract sand is likely to contain very high levels of silica dust and particles, which is well known and scientifically documented to be a carcinogen. Shire staff know that several residences are within the 300-500 metre buffer zone with the area being in an open windswept plain with homes, livestock and watercourses which will be affected by silica dust if excavated.

There are many published papers with evidence based data about silica dust and cancer.

Please refer to the three extracts below highlighting the health hazards and dangers of inhaling silica particles.

From the Cancer Council:

> Silica dust and cancer
> Silica dust is harmful when inhaled into your lungs. As it is 100 times smaller than a grain of sand, you can be breathing it in without knowing.
> Exposure to silica dust can lead to the development of lung cancer, silicosis (an irreversible scarring and stiffening of the lungs), kidney disease and chronic obstructive pulmonary disease. It is estimated that 230 people develop lung cancer each year as a result of past exposure to silica dust at work.

Extract form CDC (Centers for Disease Control & Prevention)

> Silica dust particles become trapped in lung tissue causing inflammation and scarring. The particles also reduce the lungs' ability to take in oxygen. This condition is called silicosis. Silicosis results in permanent lung damage and is a progressive, debilitating, and sometimes fatal disease.

From the Wisconsin Health Department:

> Air Quality: Respirable Crystalline Silica from Sand Mining -
> Sand mining in Wisconsin ….
> The sand is desirable for fracking and some other uses due to its size, shape, and crystalline silica properties and because the deposits are usually close to the surface and easy to mine.
>
> An increase in the number of new requests for mining and processing plant permits has led several communities to raise questions about the possibility for respirable crystalline silica (RCS) to be generated at mine sites, and how RCS might impact the health of nearby residents.
>
> What is respirable crystalline silica (RCS)?

Dust can be made up of visible (larger) and microscopic (smaller) particles. Particulate matter is defined as airborne material (solid or liquid) that is smaller than 100 microns (millionths of a meter) in size. For comparison, human hair is typically between 70 to 100 microns in diameter.

The size of the particulate matter affects how long the particles can stay airborne and how far particles can travel before settling out onto surfaces.

Smaller particles stay airborne longer and thus can travel further than larger particles.

Respirable crystalline silica (RCS) refers to particles of crystalline silica less than four microns in size, or particulate matter 4 (PM4). PM4-sized particles can penetrate deep into the lungs, where the most critical effects of RCS– silicosis and cancer – are thought to occur.

I am aware the Shire of Capel has had numerous requests to urgently seek independent core samples to show the content of what is proposed to be extracted and what the percentage of silica is across the proposed site – and make public those results – before progressing with this application.

Does the RJDAP panel intend to request samples from across the applicant's site to be undertaken and made public?

What percentage of silica particles are less than four microns in size?

Does this site, if excavated, pose a health risk to those living nearby?

I am requesting the RJDAP panel to seek answers to these important questions as part of their governance and to ensure that all parties are fairly represented.

For all future EIL applications, will the RJDAP panel please consider requesting the Shire of Capel to request independent testing of what material is proposed to be extracted, and make the results available to the public, before an EIL application is considered?

Our health is our most precious asset.

This single significant issue cannot be swept aside or ignored by the people assessing this EIL application. In my opinion, this potential health risk cannot be mitigated, and the application should be <u>refused</u>.

<u>Ground water levels / monitoring / contamination of drinking water</u>

When speaking with residents, they have advised that the water table comes to the surface in winter. Many of the local residents draw their water from the shallow water table.

Alternative water sources would be from installed rainwater tanks, but the runoff will be contaminated by silica dust if this site is excavated. Silica dust will contaminate roof tops and the water collected for drinking water and household use.

Blunt but heartfelt questions to all people reviewing and assessing this application follows.

Question 1

If this EIL application were to be passed, extraction permitted down to 0.5 metres (or the suggested 0.8 metres) from the water table and independent testing of the content of the material to be mined was ignored and not undertaken - would the assessors of this application be comfortable drinking the extracted ground water and water collected from the nearby rainwater tanks as their main source of hydration for the next ten years? Would they be comfortable for their families, children, grandchildren, friends and pets to consume only this water?

I am respectfully asking the assessment panel to think very carefully about what the residents are facing and what they are requesting, which is a thorough assessment of all the risks posed by this proposed extraction, including an analysis of what is to be extracted.

Question 2
If this EIL application were to be passed and it was later found that the silica dust particles did indeed pose a serious health risk, will the Shire, assessors and operator take full responsibility for granting this application and pay full compensation to those affected?

<u>Government policies and guidelines used to assess this application -
How has this application been assessed for sensitive receptors?</u>

I refer again to Item 3.8, extracts below:

3.8 Separation Distances between Industrial and Sensitive Land Uses

The Environmental Protection Authority (EPA) has prepared a guiding document for assessment of environmental factors associated with the separation distances between sensitive land uses and Industrial land uses.

The proposed extractive industry is of a nature which reflects the 'Extractive Industry- Sand and Limestone' industry listed within Appendix 1. The relevant buffer distance is recommended to be 300-500m to sensitive land uses, depending on the size and nature of operations, with key impacts associated with operations being noise and dust.

The proposed development is located 106m from the nearest sensitive land use, separated and screened by existing vegetation and a proposed topsoil bund. Management of Noise and Dust impacts on this sensitive land use are appropriately outlined within this report to ensure no adverse impacts are posed by this development.

"The Environmental Protection Authority (EPA) has prepared a guiding document for assessment of environmental factors associated with the separation distances between sensitive land uses and Industrial land uses".
"The relevant buffer distance is recommended to be 300-500m to sensitive land uses…."
Electronic page 47/246

The applicant states that the relevant buffer distance is recommended to be 300-500, which is set out below in the EPA Guidance document dated June 2005. When searching on the word "sand", there are only references to this material in the Industry schedule and there is no comprehensive detail regarding the size.

EPA – Guidance for the Assessment of Environmental Factors – Separation Distances between Industrial and Sensitive Land Uses No. 3 - **Date: June 2005**

Industry	Description of industry	DoE Licence or Registration category (*)	Key Government agencies for advice or approvals	Code of Practice (CoP) / environmental requirements	Impacts					Buffer distance in metres and qualifying notes
					Gaseous	Noise	Dust	Odour	Risk	
– no blasting conducted	grinding and milling works – material processed by grinding, milling or separated by sieving, aeration etc	√ (5, 12, 70)	DoIR, WRC	CoP - 1990, revised in 1995		√	√			case by case
– sand and limestone extraction	no grinding or milling works		WRC, local gov't			√	√			300-500, depending on size

Refer electronic page 30 for the reference to "sand" 300-500 metres.

Link: https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/GS3-Separation-distances-270605.pdf

However, under the WA government website, the State Planning Policy website shows three documents for consideration, with the website page setting out the objectives of the main policy. I have highlighted objectives which in my opinion have not been met in this application, underlined below:

> "State Planning Policy 2.4 - Basic raw materials
>
> Policy
>
> This policy sets out the planning considerations used by the Western Australian Planning Commission (WAPC) for extractive industries and the responsible use of basic raw material resources.
>
> Last updated: 13 June 2023
>
> The objectives of this policy are to:
>
> - ensure BRM and its regional importance is considered at the earliest stages of the planning process;
> - protect BRM in SGS areas and ES **by avoiding encroachment from incompatible land uses**;
> - ensure BRM resources are used efficiently in land use planning and development;
> - identify BRM extraction opportunities through sequential land use without compromising the final intended land use; and
> - **ensure the extraction of BRM avoids, minimises or mitigates any adverse impacts on the community, water resources and biodiversity values**."

This website then goes on to show a summary and links to three State Planning Policy documents for Basic Raw Materials (BRM):

Link to overview page of the three State Planning Policy documents: https://www.wa.gov.au/government/publications/state-planning-policy-24-basic-raw-materials

State Planning Policy 2.4 - Basic raw materials (www.wa.gov.au)

Documents

SPP 2.4 Planning for Basic Raw Materials (PDF, 618.24KB) >

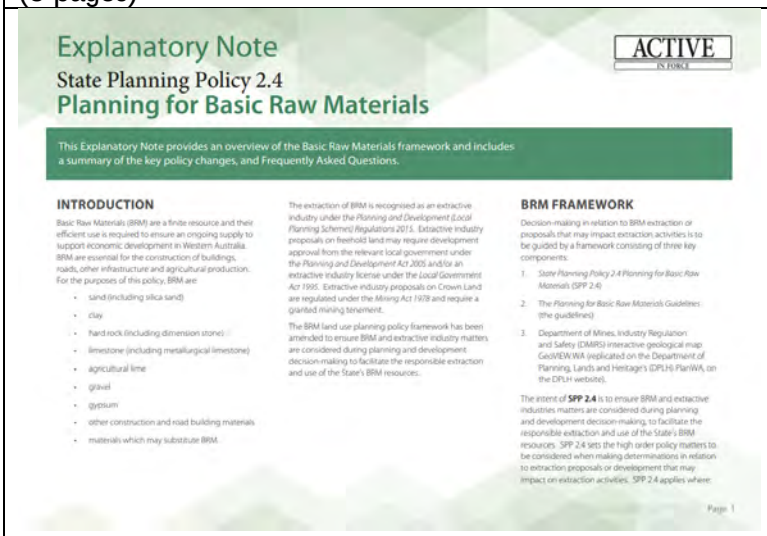
Explanatory note: SPP 2.4 Planning for Basic Raw Materials (PDF, 593.35KB) >

Planning for Basic Raw Materials Guidelines (PDF, 1.32MB) >

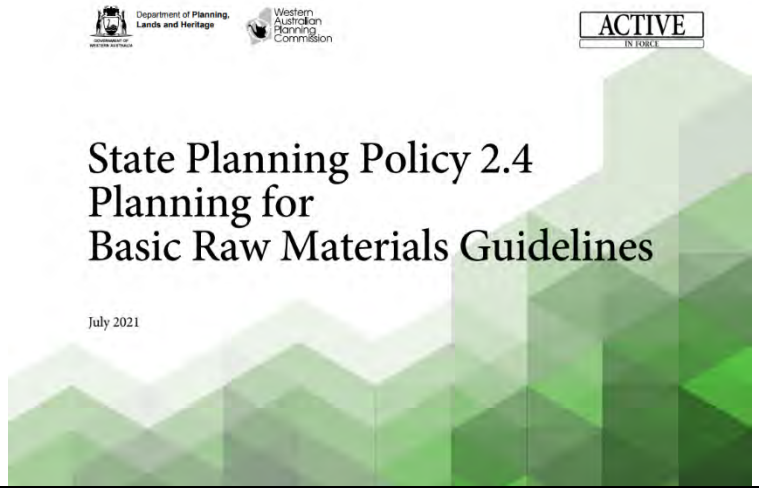
State Planning Policy 2.4 Planning for basic raw materials (www.wa.gov.au)
(8 pages)



State planning policy 2.4 Planning for basic raw materials explanatory note (www.wa.gov.au)
(3 pages)



State planning policy 2.4 Planning for basic raw materials guidelines (www.wa.gov.au)
(21 pages)



Site location considerations	Tick
• The proposed activity is compatible with surrounding land uses.	
• The site does not contain any heritage significance, Aboriginal or otherwise.	
• The proposed activity will not cause disturbance to the amenity of the area.	
• 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.	
• The site is not in a visually significant location, such as on a ridge, or visible from major roads and will not have a negative visual impact on major roads, scenic areas or adjoining properties.	
• The site provides an adequate separation distance to sensitive land uses such as (but not limited to) residential or special rural area, existing dwellings in a rural area, schools or hospitals. Depending on the nature of the BRM operation, separation distances should be anywhere between 300 and 1000 metres.	
• The site requires scheme water availability and/or may require a ground or surface water license under the *Rights in Water and Irrigation Act 1914*.	
• The site is located on karst risk areas and require specific geotechnical investigation.	
• 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.	
• Other relevant State and local planning policies and strategies, including but not limited to the following have been addressed: – relevant State planning policies – extractive industry local laws – local planning scheme provisions – region scheme planning provisions.	

Extract from Page 13, electronic page 15

I refer to this State Planning Policy 2.4, Planning for Basic Raw Materials Guidelines, a 21 page document approved in July 2021 and is noted in the top right hand corner as "ACTIVE and IN FORCE".

From Checklist 1 above, in my opinion the application does not meet the following criteria, and possibly others in the list –

- **"The proposed activity is compatible with surrounding land uses**
- **The proposed activity will not cause disturbance to the amenity of the area.**

- **The site provides an adequate separation distance to sensitive land uses such as (but not limited to) residential or special rural area, existing dwellings in a rural area, schools or hospitals. Depending on the nature of the BRM operation, separation distances should be anywhere between 300 and 1,000 metres.**

- **Other relevant State and local planning strategies, including but not limited to the following have been addressed:**
  - **Relevant State Planning Policies**
  - **Extractive industry local laws**
  - Local planning scheme provisions
  - Region scheme planning provisions"

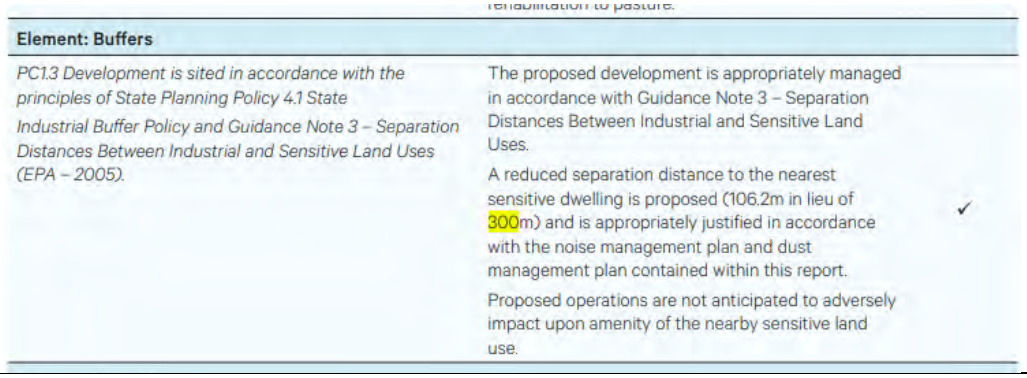
These items above do not appear to meet the following criteria in this application:

1. the proposed activity is not compatible with surrounding land uses;
2. it will cause disturbance to the amenity of the area,
3. this application does not provide adequate separation distance to various sensitive land uses; and
4. it does not meet relevant State Planning Policies or Extractive Industry Local Laws:

Is the RJDAP panel able to clarify how the separation distances have been assessed and under what Government guidelines?

Does this application meet criteria if assessed against the State Planning Policy 2.4, Planning for Basic Raw Materials Guidelines?

The applicant is assuming that a reduced separation distance to a dwelling is acceptable.



Element: Buffers		
PC1.3 Development is sited in accordance with the principles of State Planning Policy 4.1 State Industrial Buffer Policy and Guidance Note 3 – Separation Distances Between Industrial and Sensitive Land Uses (EPA – 2005).	The proposed development is appropriately managed in accordance with Guidance Note 3 – Separation Distances Between Industrial and Sensitive Land Uses. A reduced separation distance to the nearest sensitive dwelling is proposed (106.2m in lieu of 300m) and is appropriately justified in accordance with the noise management plan and dust management plan contained within this report. Proposed operations are not anticipated to adversely impact upon amenity of the nearby sensitive land use.	✓

The right-hand column has been ticked "compliant".
From electronic page 42/246 of RJDAP agenda.

With the words

"appropriately justified in accordance with……" and

"proposed operations are not anticipated to adversely impact upon amenity of the nearby sensitive land use",

I strongly disagree with the explanation provided in the application.

How can an operation within 106 metres of a person's home not impact, when the minimum buffer is set at three times this distance?

May I ask how the "tick" is able to be applied to this section of the application?

In addition to the Government guidelines and policies, whilst it is not compulsory to swear on the Bible in court, many would uphold the majority of the Ten Commandments. I refer to Commandments No. 10, which is:

> **10. You shall not covet your neighbor's goods.**

The Tenth Commandment - what does it mean to covet someone's property?

> "To desire wrongfully, inordinately, or without due regard for the rights of others: to covet another's property. to wish for, especially eagerly.
>
> *'You shall not covet your neighbor's goods'*, teaches that we have a responsibility to respect the rights of others and forbids us from unjustly desiring, taking, keeping or damaging the property of others.

The applicant is unjustly desiring to conduct an activity on their own land which will directly and knowingly impact on the properties owned by others – it is that simple.

Extraction depth

The applicant is requesting to extract down to the low level of only 0.5 metres (with recommendation of 0.8 metres) above the water table. Many of us are aware that the Shire of Capel Extractive Industry Gazetted local law, Clause 6.1 states that excavation in our Shire should not be permitted below two metres (set out in Application, Item 3.6, on electronic page 18).

The beginning of the applicant's report provides an overview of Lot 148 under Item 2.2 advising that it is:

> "gently undulating, with a sandy ridge from east to west within the extraction area. The site levels range from 31m AHD on the western boundary to 30m AHD on the eastern boundary, gently sloping to 26m AHD on the northern and southern boundary of the extraction area".

Why has this site not been mined in previous years? Because this block does not have a significant sand hill for extraction. This development would most likely not be economically viable if it was to be extracted down to two metres above the water table, as per our Shire's Extractive Industry Local Laws.

To make it economically viable, the applicant wants to break our Shire's Extractive Industry Local Laws, which are there to protect the environment and future generations, and extract down to only 0.5 metres above the water table. With the suggestion of only being allowed to extract down to 0.8 metres above the water table, this is even less sand and further reason for this to be refused.

To protect the water table, how is a project monitored adequately to ensure that machine operators are not excavating below a determined level – right across the site – and at all times?

> In the monitoring period, groundwater levels across the site declined from September 2021 to a minimum in mid-May 2022 before rising to a peak in mid-August 2022 and thereafter declining to the end of the monitoring period (31 October 2022), Figures 6 and 7.

Extract from electronic page 130/246:

When reviewing the ground water monitoring records, it appears that the monitoring was concluded at the end of October.

Were records kept for a full 12 months?

If not, why was this the case?

> Peak groundwater levels recorded in 2021 were generally at the commencement of monitoring on 09 September 2021. Groundwater levels were highest in bores furthest from the drainage channels within the Study Area, 27.24 mAHD at BOY4 on the southern sand ridge and 27.13 mAHD at BOY1 on the north sand mound, Tables 2 and 3 and Figures 6 and 7. Groundwater likely peaked in 2021 in August, prior to the commencement of monitoring.

Extract from electronic page 131/246:

I am not able to get a clear picture from this wording exactly what water monitoring was undertaken for and for how long.

> "Peak groundwater levels recorded in 2021 <u>were generally</u> at the commencement of monitoring on 9 September 2021……..
> Groundwater <u>likely peaked</u> in 2021 in August, <u>prior to the commencement of monitoring</u>".

Again, has there been a full 12 month record of the water monitoring?

If not, I am respectfully asking that RJDAP request a full calendar year of water monitoring.

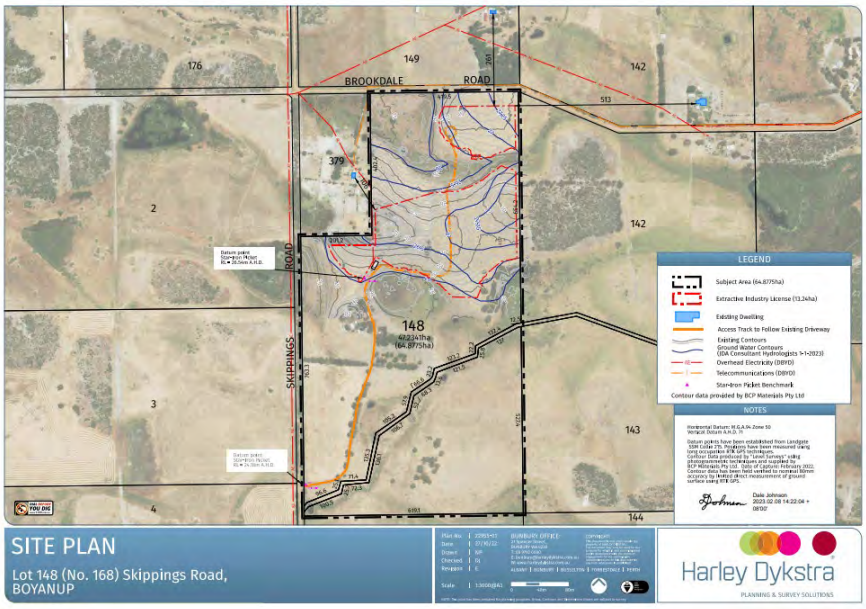
Further, as one recorded year may be drier than other years, it would be a better practise if the Shire was to request surface water testing over a two-year period, as a minimum for future EIL applications. From the time of interest in an EIL until it comes to the table for a decision, I would suggest that there would be time for two years of monthly water recordings to be taken which would give a more accurate picture of the true water levels. In addition to requesting a more comprehensive set of ground water testing, results should be made public on a quarterly basis, with monthly results being recorded.

<u>Multi Use Wetland / Drain</u>

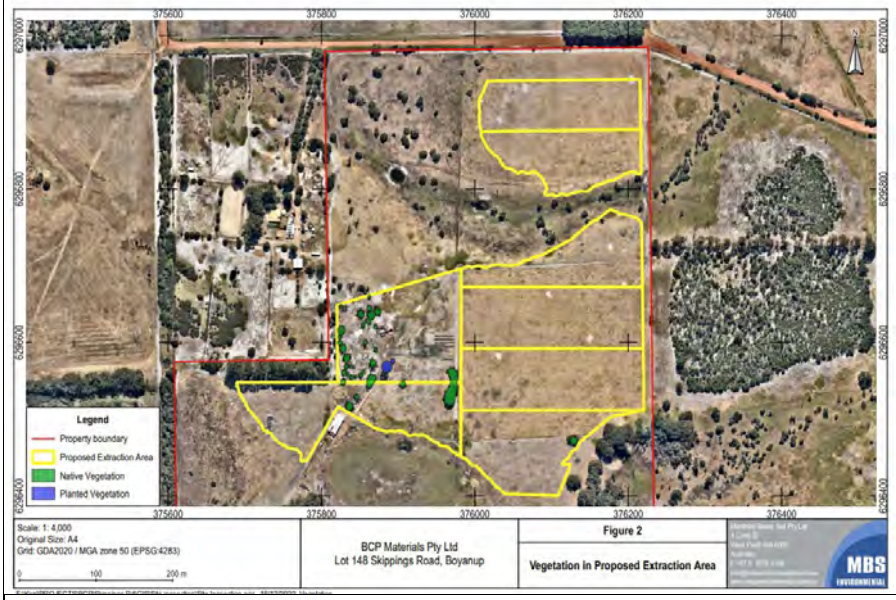
There is a government drain which is highly visible on maps, drain no. 10613/340 directs water flow to the permanent Lake Waneragup. This drain indicates that Lot 148 must be a very wet block. Any excavation or earthmoving in this vicinity will impact on the lake and should not be allowed as it will also impact on the quality of water flow along this drain.

Any excavation at Lot 148 will very likely contaminate the surface water which feeds into Lake Waneragup. This is a hot spot for water birds and is an important wetland in this area. People, livestock, birds, and fauna rely on clean surface water and any excavation at Lot 148 will impact on humans and animals.

Calculation and assessment of sensitive receptors



Site Plan – electronic page 72/246 – showing proximity to Lot 379, only 106 metres from the proposed excavation site and is in fact affected on two sides of the property.



Proposed extraction area - electronic page 73/246



My screen shot from Google map showing distance from Lot 379 – if a buffer distance of 1,000 metres was imposed – the distance traverses right through the applicant's extraction site.



My screen shot from Google map showing distance from Lot 379 – if a buffer distance of 500 metres was imposed – the distance still traverses right through the applicant's extraction site.

Has the Shire of Capel assessed this application with the sensitive receptor distances applied as set out in the State Planning Policies referred to above?

Will the RJDAP panel please consider reviewing this application with the sensitive receptor distances set out in the State Planning Policies referred to above?

Reduced setbacks

Every EIL application wants to maximise extraction for best economic gain. The applicant states on page 47/246 that:

> "a reduced setback to the side boundary provides a great volume of material for extraction".

Whilst this would provide more material for extraction, this should not mean this EIL should be approved, nor that the strong EIL conditions which have stood this Shire in good stead for many decades be eroded, yet again.

4. A reduced setback does not impact upon the amenity of the dwelling within Lot 379, as the topsoil bund will provide sufficient screening to operations during works within stage 2. There are no sensitive land uses within Lot 143 (east) to which a reduced setback may cause any adverse impact during operations.

A topsoil bund will not provide sufficient screening with the strong winds experienced in this area of our Shire. The home is only 106 metres from the operations.



A snapshot of a video taken in February 2020 of an EIL, in a more protected area than the Boyanup Plains. A bund will not stop the sand from blowing across people's properties.

(Short video available to show sand blowing from an EIL site.)

Conclusion

Simply because there is a shortage of sand (as mentioned earlier, a finite resource), and it may provide economic benefit for a few, it should not mean that EIL's should be approved, nor allow for our gazetted local laws to be ignored and conditions put aside for a developer. I am requesting the RJDAP panel to review decisions which have been made over previous decades and to preserve the unique bushland and remaining low sand ridges across our Shire for now and for future generations.

I am very strongly opposed to approval of any extraction on Lot 148 as the low undulating sand hills in this multi-purpose wetland needs to be preserved and the amenities of the nearby affected landowners need to be retained.

We live in in the Shire of Capel for its unique environment and many of us have chosen to live in this locality so that we can enjoy the peaceful rural lifestyle. If this application were to be allowed, the rural lifestyle, environment, our health and the simple enjoyment which we all chose, will be taken away because of the wishes of one developer.

For the reasons detailed above, I am strongly opposed to the approval of this extractive industry application at Lot 148 Skippings Road, Boyanup.

I am urging the RJDAP assessment panel to reject this application.

Thank you for considering my concerns.

Kind regards
(via email)

Donna Brown

Attachment:

Local Government Act 1995 - Shire of Capel - Extractive Industries Local Laws 2016

PDF
Shire of Capel - Gazetted Law - EIL 20

Please click link below for video - https://youtu.be/CTdlG1zEols

VIDEO - sand pit on windy day - 2020 02 28	28/02/2020 6:58 AM	MOV File	65,454 KB

Government of **Western Australia**
Development Assessment Panels

Presentation Request Form

Regulation 40(3) and DAP Standing Orders 2020 cl. 3.5

Must be submitted at least 72 hours (3 ordinary days) before the meeting

Presentation Request Guidelines

Persons interested in presenting to a DAP must first consider whether their concern has been adequately addressed in the responsible authority report or other submissions. Your request will be determined by the Presiding Member based on individual merit and likely contribution to assist the DAP's consideration and determination of the application.
Presentations are not to exceed **5 minutes**. It is important to note that the presentation content will be **published on the DAP website** as part of the meeting agenda.

Please complete a separate form for each presenter and submit to daps@dplh.wa.gov.au

Presenter Details

Name	Michael Tichbon
Company (if applicable)	**Capel Land Conservation District Committee (LCDC)**, a statutory committee appointed by the Commissioner of Soil and Land Conservation in Western Australia
Please identify if you have any special requirements:	**YES** ☐ **NO** ☒ If yes, please state any accessibility or special requirements: Click or tap here to enter text.

Meeting Details

DAP Name	Regional JDAP
Meeting Date	Wednesday, 2nd August 2023
DAP Application Number	RJDAP/109, electronic means
Property Location	Lot 148 (No. 168) Skippings Road, Boyanup
Agenda Item Number	8.1

Presentation Details

I have read the contents of the report contained in the Agenda and note that my presentation content will be published as part of the Agenda:	**YES** ☒
Is the presentation in support of or against the report recommendation)? *(contained within the Agenda)*	**SUPPORT** ☐ **AGAINST** ☒
Is the presentation in support of or against the proposed development?	**SUPPORT** ☐ **AGAINST** ☒
Will the presentation require power-point facilities?	**YES** ☐ **NO** ☒ **If yes, please attach**

Presentation Content*

These details may be circulated to the local government and applicant if deemed necessary by the Presiding Member. Handouts or power points will not be accepted on the day.

Brief sentence summary for inclusion on the Agenda	*The presentation will address:* The Capel LCDC considers the impact of this EIL on the environment, and specifically the seasonal waterways in this low lying wet area of Boyanup, would be significant. Importantly, the proximity of the proposed sand excavation activities is very close to several homes with potential to pose serious health concerns, as the sand may have a high content of silica. The separation distance to sensitive land uses, in our opinion, should be assessed using the State Planning Policy 2.4 – Planning for Basic Raw Materials Guidelines, July 2021, which now sets out that separation distances should be anywhere up to 1,000 metres, depending on the nature of the BRM operation. The depth of excavation is too close to the water table and directly contravenes the Shire of Capel, Extractive Industries Local Law 2016 and the State Planning Policy 2.4 mentioned above. For these reasons, and as detailed below, the Capel LCDC believes this extractive industry licence for Lot 148 Skippings Road, Boyanup should be refused.

In accordance with Clause 3.5.2 of the *DAP Standing Orders*, your presentation request must also be accompanied with a written document detailing the content of your presentation.

Please attach detailed content of presentation or provide below:

Thank you for the opportunity to comment at the RJDAP #109 hearing in relation the proposed sand extraction from Lot 148 Skippings Road, Boyanup.

The Capel Land Conservation District Committee (LCDC) was founded in 1992 and is a statutory committee appointed by the Commissioner of Soil and Land Conservation in Western Australia, to administer land conservation districts in accordance with an Order proclaimed by the Governor.

LCDCs main functions are to promote sustainable land management and undertake projects. LCDCs are statutory bodies formed under section 23 of the Soil and Land Conservation Act 1945. LCDCs operate within land conservation districts defined by an Order of the Governor in Council on the advice of the Minister for Agriculture and Food. The Commissioner of Soil and Land Conservation manages the land conservation district system and supports LCDCs. The Commissioner operates from within the Department of Primary Industries and Regional Development (DPIRD).

Members of the LCDC have lived in the area for many years, are very familiar with this site and how low lying and wet it is in winter months. We feel confident to comment on this proposed Extractive Industry Licence (EIL) to extract a relatively small amount of sand by skimming the top off the land profile.

We feel it necessary to comment to RJDAP because we believe that the shire of Capel's Responsible Authorities Report (RAR) is in adequate in some areas, but in particular in relation to Dust Management.

Value of the Project

The Capel LCDC is of the opinion that if this application was to be assessed within the parameters of the Shire of Capel, Extractive Industries Local Law 2016, where excavation is not permitted below 2 metres of the estimated maximum groundwater level, it would not reach the $2 million dollar value to justify a RJDAP hearing.

Have accurate calculations been made of the value of this project if the excavation depth is now reduced to 0.8 metres above the water table instead of 0.5 metres?

Sand – a finite resource

Sand is a substance that has become in short supply due to the large projects such as the Bunbury Outer Ring Road (BORR), where it is estimated that 9 million cubic metres are required. Once available sand resources are exhausted, where will the future needs be secured from? Sand is finite and as such this resource needs careful management. The Capel LCDC is requesting there be closer scrutiny where this finite resource is used, otherwise, the Shire may find it will be short of this important essential resource in the future.

Many applicants for EILs live outside the Shire of Capel, such as the City of Busselton and the City of Bunbury, where what sand did exist, has now already been exhausted. Again, there has to be much more careful use of how this finite resource is managed, as we will find ourselves short for any essential future projects.

Regarding the application for an EIL at Lot 148 Skippings Road, two important issues stand out.

Issue 1 - Shallowness of water table in the area

I refer to the bore monitoring results, under the following (RJDAP agenda electronic page 130/246):

> "5. Monitoring Results and Analysis
> Table 3: Peak Recorded Groundwater Levels – 2021 and 2022"

Out of the nine records, two bores have failed and of the remainder, three bore recordings show the maximum groundwater levels to the surface are less than one metre in 2022 and only marginally better in 2021, see below:

	2021			**2022**	
Bore #	Date	Separation to Natural Surface (m)		Date	Separation to Natural Surface (m)
BOY1	9/09/2021	1.06		19/08/2022	0.89
BOY3	10/09/2021	1.14		14/08/2022	0.95
BOY5	15/09/2021	0.93		18/08/2022	0.91

Table 3: Peak recorded groundwater levels – 2021 and 2022
Extract from RJDAP Agenda electronic page 130/246.

As three of the measured water levels are less than one metre from the water table, by the time the top soil is removed, there would be only a few centimetres of sand between the top of the soil and the water table, so there is virtually no sand in those particular areas.

This would be especially applicable if the recommended 0.8 metre above the water table was adopted. No depth of sand could be moved within these particular areas. We do not know how extensive the revised 0.8 metre recommendation above the water table is over the property.

Has a new map been drawn up and made available to show which areas across the site can meet the suggested 0.8 metre requirement?

Of the other bore sites, only one bore, No. 8 shows a difference of 3.38 metres, which would be the only area where a small quantity of sand could be extracted and still comply with the Shire's EIL gazetted law.

The three remaining bore sites range between 1.27 metres and 1.93 metres above the water table, which would not meet the Shire's EIL gazetted law for extraction of above 2 metres and leave very little for extraction down to the now recommended 0.8 of a metre.

The bore locations can be reviewed on "Figure 10: Estimated Maximum Groundwater Level (MGL) Contours", refer electronic page on RJDAP agenda 144/246.

The applicant is proposing to excavate down to only a mere 0.5 metres above the water table, but when allowing for the top soil removal, there would be very little sand to remove. This also needs to be taken into consideration with the suggested 0.8 metre, which would leave even less sand available for extraction.

Most importantly, this lower extraction of 0.5 metres (and the now recommended 0.8 metres) greatly conflicts with what is clearly set out in conditions in the Western Australian Government Gazette "Shire of Capel, Extractive Industries Local Law 2016 Shire of Capel, Extractive Industries Local Law 2016", extract below. A full copy is attached at the base of this submission for further review.

The Shire's limitations, obligations of the Licensee and prohibitions "shall not excavate within 2 metres of the estimated maximum groundwater level".

PART 6—LIMITATIONS, OBLIGATIONS OF THE LICENSEE AND PROHIBITIONS

6.1 Limits on excavation near boundary

Subject to any licence conditions imposed by the local government, a person shall not, without the written approval of the local government, excavate within—

(a) 20 metres of the boundary of any land on which the excavation site is located;

(b) 20 metres of any land affected by a registered grant of easement;

(c) 40 metres of any thoroughfare;

(d) 50 metres of any bore, watercourse, wetland, swamp or other water reserve; or

(e) 2 metres of the estimated maximum groundwater level as determined from time to time by the Department of Water or otherwise as adopted by the local government.

WA Government Gazette: Shire of Capel, Extractive Industries Local Law 2016

I believe this application would be thrown out by the Shire of Capel Councillors at their monthly meeting without any hesitation should this application have come before them.

I now refer to the State Planning Policy 2.4 – Planning for Basic Raw Materials Guidelines, July 2021.

Item 8 on Page 15 of these Guidelines set out the Extractive Industries Local Law, which states exactly the same guidelines which are supported by our own Shire's gazetted law above.
A full copy of these Guidelines is attached at the base of this submission for further review.

Limitations on excavation may be restricted to: (a) 20 metres from the boundary of any land on which the excavation site is located; (b) 20 metres from any land affected by a registered grant of easement; (c) 50 metres from any road or thoroughfare; (d) 50 metres of any bore, watercourse, wetland, swamp or other water reserve; or (e) two metres to the DWER-determined maximum groundwater level and three meters in water resource protection areas or otherwise as adopted by the local government.
Item 8 - State Planning Policy 2.4 – Planning for Basic Raw Materials Guidelines, July 2021, page 15.

The further problem with skimming the sand from the surface close to the water table is if the applicant is to rehabilitate with pasture, a significant amount of fertiliser will have to be applied to make any pasture growth worthwhile. As a result, much of this fertiliser, will leak into the shallow water table and as several of the local landowners draw water for their personal use from shallow aquifers, there is a risk of fertiliser contamination and poisoning to humans and livestock.

Additionally, the roots of the pasture are likely to be waterlogged in areas and if there is a poor result, the site will be left as a sterile area. There will be very limited opportunity of revegetating any of the area with native vegetation.

Rehabilitation with pasture will increase the risk of weed invasion.

If the State's Planning Policy and the Shire's EIL gazetted law of remaining two metres above the water table rule was to be enforced, then this application would simply be rejected and thereby eliminate the risk of contamination of the water table with fertiliser.

Issue 2 - Potential health risks to local residents from silica dust particles

There are three residences in close proximity to the proposed EIL. Sensitive receptors are on the following locations, refer to Site Plan on RJDAP agenda, electronic page 72/246 and Sensitive Receptor Table 1 on RJDAP agenda, electronic page 84/246.

- Lot 379* which is located 106 metres to the west,
- Lot 149, which is located 261 metres north; and
- Lot 142 which is located 513 metres to the east.

*Of note, the resident at Lot 379 is within 300 metres of most of the extraction areas, putting their home and property in extreme danger of contamination with silica dust particles.

The applicant states under 3.8 that "the relevant buffer distance is recommended to be 300-500m to sensitive land uses". See extract below.

3.8 Separation Distances between Industrial and Sensitive Land Uses

The Environmental Protection Authority (EPA) has prepared a guiding document for assessment of environmental factors associated with the separation distances between sensitive land uses and Industrial land uses.

The proposed extractive industry is of a nature which reflects the 'Extractive Industry- Sand and Limestone' industry listed within Appendix 1. The relevant buffer distance is recommended to be 300-500m to sensitive land uses, depending on the size and nature of operations, with key impacts associated with operations being noise and dust.

The proposed development is located 106m from the nearest sensitive land use, separated and screened by existing vegetation and a proposed topsoil bund. Management of Noise and Dust impacts on this sensitive land use are appropriately outlined within this report to ensure no adverse impacts are posed by this development.

State Planning Policy 2.4, Planning for Basic Raw Materials Guidelines, July 2021
3.8 – Separation Distances between Industrial Site and Sensitive Land Uses
Extract from RDJAP agenda – refer electronic page 47/246.

Furthermore, there are other serious impacts and matters for concern with this operation other than only "noise and dust".

In the State Planning Policy 2.4, Planning for Basic Raw Materials Guidelines, July 2021 the separation distance "should be anywhere between 300 and **1000 metres**" – not 500 metres.

- The site provides an adequate separation distance to sensitive land uses such as (but not limited to) residential or special rural area, existing dwellings in a rural area, schools or hospitals. Depending on the nature of the BRM operation, separation distances should be anywhere between 300 and 1000 metres.

Extract from the **State Planning Policy 2.4**
– Planning for Basic Raw Materials Guidelines, July 2021
Page 13 – Checklist 1 – Site Location Considerations.
Basic Raw Materials (BRM)

The State Planning Policy from July 2021 now sets out that separation distances should be anywhere up to 1,000 metres, depending on the nature of the BRM operation.

Clearly, two of these Sensitive Receptors are less than 300 metres (with one being only 106 metres away) from the EIL site and on the open bare windswept plains of the area, they are very prone to be exposed to the extraction dust, which is highly likely to have a high silica dust particle content.

Installing a buffer or indeed increasing the height of a buffer will do little to protect the nearby homes from dust and noise, especially on a windy day.

Dust issues and photos from a previous excavation site – new information

Examples of how bad dust issues can be on an excavation site, Gwindinup, 13 March 2008







These photos were taken near the intersection of Lowrie Road and Morris Road where Tronox (formerly Cristal Mining) had partially filled in their excavation site.
Dust can be easily seen which is higher than any bund and would not be contained by a bund.







These photos were taken on the same day, but further west on Lowrie Road. At the time, active excavation was taking place some 200 metres to the south. No amount of water truck activity could contain this amount of dust.

A melon crop on the north side of Lowrie Road was severely affected and damaged by the impact from the heavy dust.

The wind lifts the dust up and deposits it further downwind.

This is the reason that a buffer of 300 to 1,000 metres is required as per the State Planning Policy below and mentioned earlier:

> *State Planning Policy 2.4, Planning for Basic Raw Materials Guidelines, July 2021*
> Item 3.8 – Separation Distances between Industrial Site and Sensitive Land Uses

The close proximity of this operation poses a significant health hazard. Severe health issues from silica dust have been well documented and are increasingly being raised in news items.

The NSW Government has published a Fact Sheet on Silica, highlighting what a significant health risk silica dust particles are, with various quotes noted below:

"Silica is frequently found as a dust during mining, construction and excavation."
"Repeated and prolonged exposure to low to high concentrations of respirable crystalline silica, however, can cause permanent injury and lead to serious lung disease such as silicosis."
"Silicosis can result from breathing respirable crystalline silica over a period of years, or following short-term exposure to extremely high concentrations."
"Silicosis occurs when crystalline silica is deposited in the air sacs of the lungs. This causes inflammation, which can result in scarring and calcification, and eventually reduced lung capacity."
"Silicosis may be linked to heart failure, since the heart has to work harder to pump blood through the scarred lung tissue."
"Another common complication is increased susceptibility to lung infections, particularly tuberculosis."
https://www.neca.asn.au/sites/default/files/media/state_nsw/Events/Electrical%20Safety%20Workshop/Toxic%20Tour/Silica-fact-sheet-8538.pdf

Below is further information with research from the USA Environmental Working Group (EWG) showing that airborne silica dust particles are a health hazard.

"Research has shown that these particles can degrade air quality as far as 750 meters away, leading to a variety of serious health problems, particularly in children and other vulnerable populations."
"In the absence of definitive evidence on the potential risk from airborne silica at **1,500 meters**, EWG recommends that air monitoring be conducted to determine whether there is a danger to public health at that distance as well."
EWG was founded in 1993, backed by a group of experts leading the environmental health movement. It is a USA community 30 million strong, working to protect our environmental health by changing industry standards. EWG website: https://www.ewg.org/research/danger-air#

It is noted above that air monitoring is to be conducted at 1,500 metres, however in this application, one home is only 106 metres away from the proposed excavation site.

In my opinion, the very close proximity to homes and farms is a significant reason in itself to refuse this project.

Hydrology report data

Water monitoring records do not appear to be complete and do not show a full 12 month period even though there appear to be records listed under 2021 and 2022.

The Capel LCDC respectfully requested in our previous submission that the assessing Shire staff clarify the hydrology report and the length of time bore data has been recorded for and advise this to the RJDAP assessing panel and this information also be made available to the submitters.

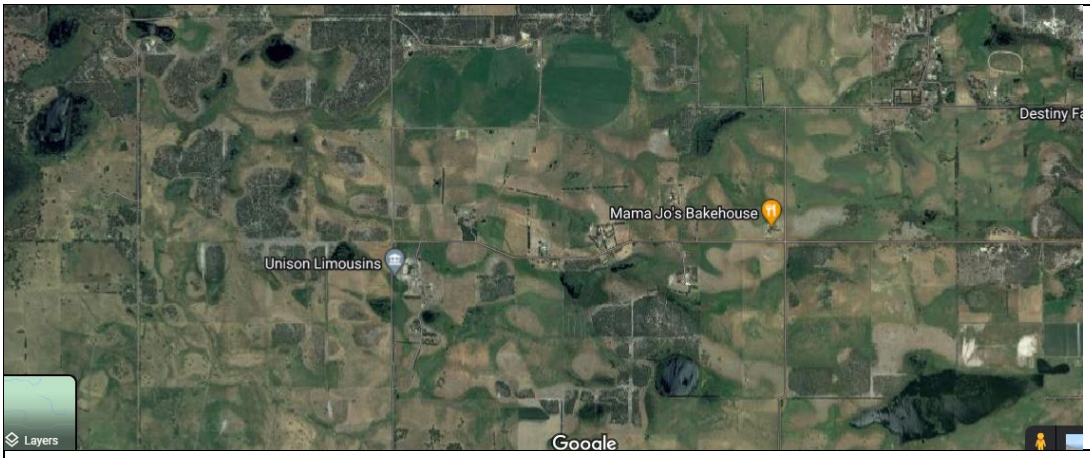
When there is an application for an EIL, the Capel LCDC is further respectfully asking the Shire to request, as a minimum, a full 12 month record of water level monitoring and where possible a record over a full two year period.

DWER therefore advises the following: • the maximum groundwater level (MGL) is likely to be higher than that claimed in the Groundwater Monitoring Report given some of the levels established using the 2021 data were reached or exceeded in 2022, even though there was less annual rainfall in 2022 than 2021
It appears that the Groundwater Monitoring Report is inconclusive, and as stated earlier has had several failed bore recordings.
• in view of the uncertainty of the MGL, to ensure the 0.5 m vertical buffer to the MGL is achieved, an additional 0.3m should be added to the current maximum groundwater levels estimated in the Groundwater Monitoring Report (i.e. 0.8m to the current MGL) (see recommended Condition 3a)
The Capel LCDC remains firm that the Shire's gazetted EIL law "shall not excavate within 2 metres of the estimated maximum groundwater level" be applied.
• a method be provided by the proponent to the satisfaction of the Shire to ensure the proposed pit depths are accurately adhered to across the site.
What method does the Shire of Capel use to ensure correct depts are accurately adhered to in any EIL?
Extract from RJDAP Agenda – DWER's Hydrology comments are from electronic pages 221-228/246. DWER's summary above is on electronic page 228/246.

Multi-use Wetland

A major portion of Lot 148 Skippings Road is located in a Multi-Use Wetland indicating a very high water table and that this block is very wet. There is a Government drain through this site, reference No. 10613/340 which directs water flow to the permanent Lake Waneragup.

An EIL operation at this location will have a significant impact on the quality of the water on this property (and surrounding properties), and in particular on the water flowing along this drain. It is highly likely that excavated dust particles will poison the surface water and that which flows into Lake Waneragup.



Google map screenshot to show how wet the area is generally. Multiple watercourses evident.



Google map screenshot showing a close up of Waneragup Lake, with the incoming drain clearly visible. When full, Waneragup Lake covers an area of around 12 hectares.



Google map screenshot showing close up of the seasonal wetlands nearby and on the applicant's block.

The Capel LCDC remains firm that this application should be rejected, as the EIL is in close proximity to watercourses and it is simply too low lying and wet to be considered for excavation.

Dust monitoring and mitigation

The applicant states on the RJDAP agenda, electronic page 89/246 that dust monitoring will be undertaken. However, if this application were to go ahead, how will the dust particles be managed on days where the EIL is not operational? Even if the activities were to cease, dust will continue to be blown off site and pose a significant risk, especially on the windswept Boyanup Plains. Extract below.

5.2 DUST MONITORING AND MITIGATION

The Site operator will implement the following measures to monitor and mitigate dust generation from site activities:

- Visual monitoring of dust generation from the operations will be undertaken on an ongoing basis.
- Should excessive dust generation be observed onsite and there is a risk of dust being blown off site, additional watering of dust sources with the water cart will be organised. Alternative dust controls, such as chemical dust suppressants or dust fencing may also be considered for more persistent sources of dust.
- When weather conditions negate the effectiveness of dust prevention and mitigation measures and dust continues to be blown off site, the dust generating activities will cease until conditions improve and compliance with this DMP can be achieved.
- In order to mitigate potential impacts on the residential dwelling located 106 m to the west of the project, chemical dust suppressants on the topsoil bund and the installation of dust fencing may be required. The most appropriate option for mitigation will be explored when works commence in Stage 2 as impacts are less likely during the other stages. Discussions with the owner regarding future sand extraction will occur prior to formalising suitable management strategies.

Extract from application, RJDAP agenda, electronic page 89/246

Weather data collection

The application refers to weather data from both Bunbury and Donnybrook. On the RJDAP agenda, electronic page 128/246 the applicant has referred to the wind data from Bunbury:

> "Long-term wind roses for Bunbury (Bureau of Meteorology 2022) indicate prevailing winds comprise morning easterlies and afternoon westerlies (Appendix 1)".

The Capel LCDC has recommended on several previous occasions that applicants install an anemometer on the site being assessed, to accurately measure weather conditions.

> "Anemometers continuously measure wind speed by the amount of wind pressure against a surface, such as a cup or a propeller, or by using sonic pulses. A mechanical anemometer contains a wheel with cups or a propeller at the end of the spokes of the wheel. One of them contains a magnet. Each time the magnet passes a switch, it makes a recording.
> This can give an extremely accurate reading of the wind speed."
> Reference: https://www.davisinstruments.com/pages/what-is-an-anemometer

On recent communications with the Bureau of Meteorology, we were advised the following in relation to onsite weather monitoring:

> "The height at which the anemometer sits is important.
> And its siting / where it is installed (it must represent its surroundings).
> Prices will obviously vary with quality." (from BOM)

The climate weather data included in the applicant's submission has been referred to from both Bunbury and Donnybrook weather stations and gives a serious shortfall of what true readings would be like at 148 Skippings Road, Boyanup.

Further, the weather data provided for assessment in this application does not give a continuous recording which would be provided by a strategically placed anemometer on the applicant's property. This would provide an accurate assessment and I believe a very different result.

The weather records in both Bunbury and Donnybrook are significantly different to what is experienced on the open windy Boyanup Plains and therefore the weather data contained in this EIL application is not satisfactory and the Shire staff and the RJDAP panel members should not accept the readings.

EIL Monitoring – Outdoor Dust Monitoring Equipment

With the significant number of EIL's in the Shire of Capel, we believe the Shire should invest in a machine that measures the outdoor dust levels in the air to ensure a safe and healthy environment for those living and working within close proximity of EILs, but also for those working at operating sites.

These monitoring devices are designed to measure Particle Matter (PM) such as PM1, PM2.5, PM4 and PM10 levels, as well as temperature, humidity and wind speed. PM refers to the particles of crystalline silica less than four microns in size, or Particulate Matter 4 (PM4).

It is the PM4-sized particles which can penetrate deep into the lungs, where the most critical effects of Respirable Crystalline Silica (RCS) – silicosis and cancer – are thought to occur.

Conclusion

To my knowledge, other active sites of sand EILs in the Shire have usually been a long distance from any residences. This application location has homes in very close proximity which makes it very different and it poses a serious health hazard to those living nearby.

Therefore, knowing this, if this project is approved, those making the application and also those giving authority for the operation to go ahead must take responsibility if a health hazard develops related to silica in any of the population living in such close proximity.

Historically, this site has not been mined because there is not a significant amount of sand to extract if the Shire's Extractive Industry Local Laws are upheld. We are totally opposed to excavation down to the applied for 0.5 metres and the proposed 0.8 metres, as both excavation depths are too close to the water table.

With all the potential risks raised above, the Capel LCDC remains strongly opposed to any approval of this Extractive Industry Licence at Lot 148 Skippings Road, Boyanup.

Thank you for considering the Capel LCDC's submission.

Yours faithfully
(Submitted via email)

Michael Tichbon OAM
Member & Former Chairman
Capel Land Conservation District Committee (LCDC)
Email: falcata@bigpond.com

Approved by:

Bill Dear, Chairman & Member
Capel Land Conservation District Committee (LCDC)
Email: orcwd@bigpond.com

Attachments:

Capel Gazetted Law – EIL 2016

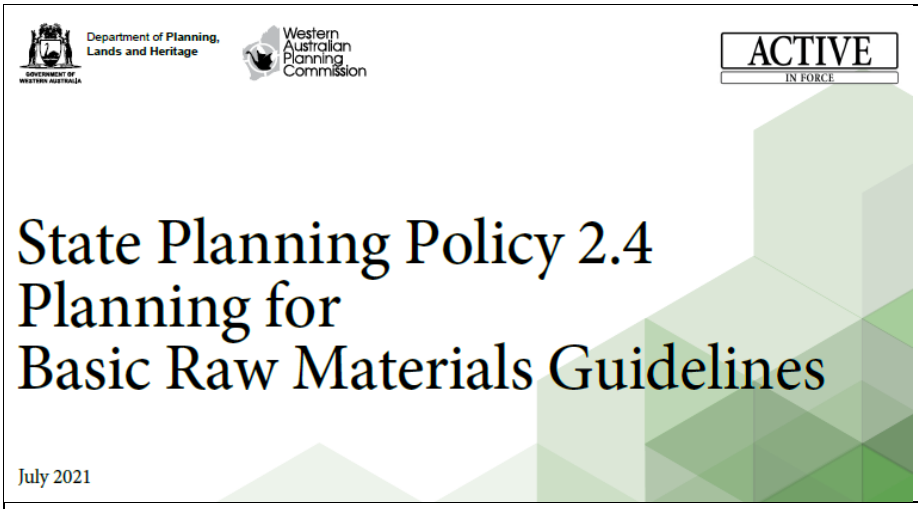
Shire of Capel - Gazetted Law - EIL 20

State Planning Policy 2.4 - Planning for Basic Raw Materials Guidelines, July 2021

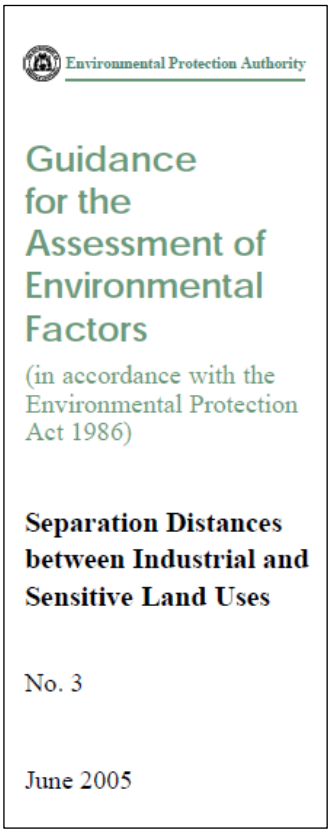
SPP_2.4_Planning for Basic Raw Materi

NSW Government – SafeWork NSW - Silica Fact Sheet 8538

Silica-fact-sheet-8538.pdf



State Planning Policy 2.4 – Planning for Basic Raw Materials Guidelines
Link: https://www.wa.gov.au/system/files/2022-02/SPP-2.4-Planning-for-Basic-Raw-Materials.pdf



Environmental Protection Authority

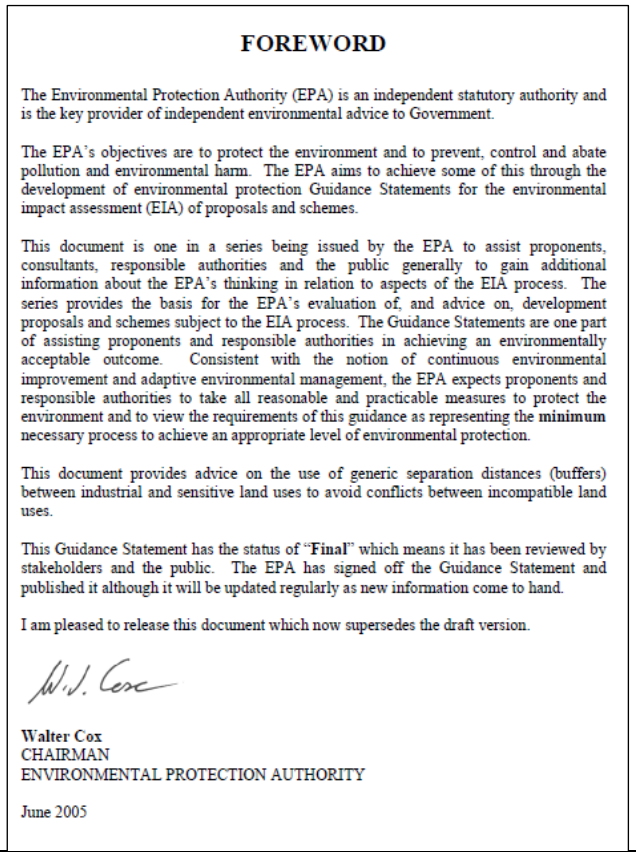
Guidance for the Assessment of Environmental Factors

(in accordance with the Environmental Protection Act 1986)

Separation Distances between Industrial and Sensitive Land Uses

No. 3

June 2005



FOREWORD

The Environmental Protection Authority (EPA) is an independent statutory authority and is the key provider of independent environmental advice to Government.

The EPA's objectives are to protect the environment and to prevent, control and abate pollution and environmental harm. The EPA aims to achieve some of this through the development of environmental protection Guidance Statements for the environmental impact assessment (EIA) of proposals and schemes.

This document is one in a series being issued by the EPA to assist proponents, consultants, responsible authorities and the public generally to gain additional information about the EPA's thinking in relation to aspects of the EIA process. The series provides the basis for the EPA's evaluation of, and advice on, development proposals and schemes subject to the EIA process. The Guidance Statements are one part of assisting proponents and responsible authorities in achieving an environmentally acceptable outcome. Consistent with the notion of continuous environmental improvement and adaptive environmental management, the EPA expects proponents and responsible authorities to take all reasonable and practicable measures to protect the environment and to view the requirements of this guidance as representing the **minimum** necessary process to achieve an appropriate level of environmental protection.

This document provides advice on the use of generic separation distances (buffers) between industrial and sensitive land uses to avoid conflicts between incompatible land uses.

This Guidance Statement has the status of "**Final**" which means it has been reviewed by stakeholders and the public. The EPA has signed off the Guidance Statement and published it although it will be updated regularly as new information come to hand.

I am pleased to release this document which now supersedes the draft version.

Walter Cox
CHAIRMAN
ENVIRONMENTAL PROTECTION AUTHORITY

June 2005

EPA – Guidance for the Assessment of Environmental Factors – Separation Distances between Industrial and Sensitive Land Uses No. 3, June 2005
Link: https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/GS3-Separation-distances-270605.pdf

Government of **Western Australia**
Development Assessment Panels

Presentation Request Form

Regulation 40(3) and DAP Standing Orders 2020 cl. 3.5

Must be submitted at least 72 hours (3 ordinary days) before the meeting

Presentation Request Guidelines

Persons interested in presenting to a DAP must first consider whether their concern has been adequately addressed in the responsible authority report or other submissions. Your request will be determined by the Presiding Member based on individual merit and likely contribution to assist the DAP's consideration and determination of the application.

Presentations are not to exceed **5 minutes**. It is important to note that the presentation content will be **published on the DAP website** as part of the meeting agenda.

Please complete a separate form for each presenter and submit to daps@dplh.wa.gov.au

Presenter Details

Name	Daniel Lewis
Company (if applicable)	Element Advisory Pty Ltd
Please identify if you have any special requirements:	**YES** ☐ **NO** ☒ If yes, please state any accessibility or special requirements: Click or tap here to enter text.

Meeting Details

DAP Name	Regional Joint Development Assessment Panel
Meeting Date	2 August, 2023
DAP Application Number	DAP/2302479
Property Location	Lot 148 (No. 168) Skippings Road, Boyanup
Agenda Item Number	8.1

Presentation Details

I have read the contents of the report contained in the Agenda and note that my presentation content will be published as part of the Agenda:	**YES** ☒
Is the presentation in support of or against the report recommendation)? *(contained within the Agenda)*	**SUPPORT** ☒ **AGAINST** ☐
Is the presentation in support of or against the proposed development?	**SUPPORT** ☒ **AGAINST** ☐
Will the presentation require power-point facilities?	**YES** ☐ **NO** ☒ **If yes, please attach**

Government of **Western Australia**
Development Assessment Panels

Presentation Content*

These details may be circulated to the local government and applicant if deemed necessary by the Presiding Member. Handouts or power points will not be accepted on the day.

Brief sentence summary for inclusion on the Agenda	*The presentation will address:* Support for the RAR, subject to minor condition changes

In accordance with Clause 3.5.2 of the *DAP Standing Orders*, your presentation request must also be accompanied with a written document detailing the content of your presentation.

Please attach detailed content of presentation or provide below:

Our Ref: 22-337

28 July 2023

Mr Tony Arias

Presiding Member - Regional Joint Development Assessment Panel

Via Email: daps@dplh.wa.gov.au

Dear Mr Arias,

REQUEST FOR DEPUTATION – RJDAP/109 I DAP/23/02479

ITEM 8.1 – LOT 148 (NO. 168) SKIPPINGS ROAD, BOYANUP

element is engaged by BCP Materials, the future operator of the Extractive Industry at of Lot 148 (168) Skippings Road, Boyanup (the subject site). **element** supports the Responsible Authority Report (RAR) recommendation for approval, but seeks the Regional Joint Development Assessment Panel (RJDAP) amendment conditions 1,2,4,5,6,7,9,10,15,16 and 17, as set out below.

We note the following:

1. The subject site is currently used for agricultural grazing purposes by the landowner.

2. The subject site has been extensively cleared historically, with the proposal limiting the clearing of native vegetation onsite.

3. The Shire of Capel planning officers have presented a recommendation for approval, clearly demonstrating an acknowledgement that through appropriate management of operations onsite, the proposal can meet the:
    a. Objectives of the Rural zone under LPS8;
    b. Strategic guidance and intent of SPP 2.4 – Basic Raw Materials; and
    c. Shire of Capel LPP 6.2 Extractive Industries.

4. **Separation to Groundwater:** Advice received from DWER recommends a separation to groundwater of 0.8m. The applicant accepts this advice.

5. **Dust:** The applicant acknowledges the various submissions by the community relating to Dust Management onsite. We note however, that the most effective method to manage dust is proposed by the Dust Management Plan (DM) via water suppression during dry periods. The operator has already met with the affected neighbour (west) prior to lodgement to discuss the proposal and will provide relevant contact details for a direct line of communication and ensure Dust from operations are managed and any complains may be actioned immediately.

    We specifically note DWER comments regarding the dust controls within the DMP:

    > *The proposed dust controls in Section 5 of the DMP are consistent with commonly used dust controls for similar operations such as those described in the DEC 2011 dust guideline.*

    > *Given that the site is located in a rural area, with a small number of residences in the vicinity, DWER recommends that if the development proceeds, then early and ongoing engagement with the adjacent residents is included in the DMP. This should include*

Whadjuk Country, Level 18,191 St Georges Terrace, Perth WA 6000
PO Box 7375 Cloisters Square, Perth WA 6850
T. (08) 9289 8300 E. hello@elementwa.com.au W. elementwa.com.au

opening communication pathways for residents to notify the proponent of air quality concerns throughout the life of the project.

Should dust impacts become evident, DWER recommends that the proponent reviews dust management practices to ensure additional dust controls (and potentially dust monitoring) as per the DEC 2011 dust guideline.

The DMP incorporates management actions which include the ongoing review of the DMP based on progress and staging of operations and includes consultation with the neighbour. Therefore, we consider the DMP prepared appropriate for this site and request condition 17 be removed, which requires continued ongoing digital monitoring.

6. **Noise:** Noise modelled by Herring Storer confirm operations are to be compliant, pursuant to the Environmental Protection (Noise) Regulations 1997.

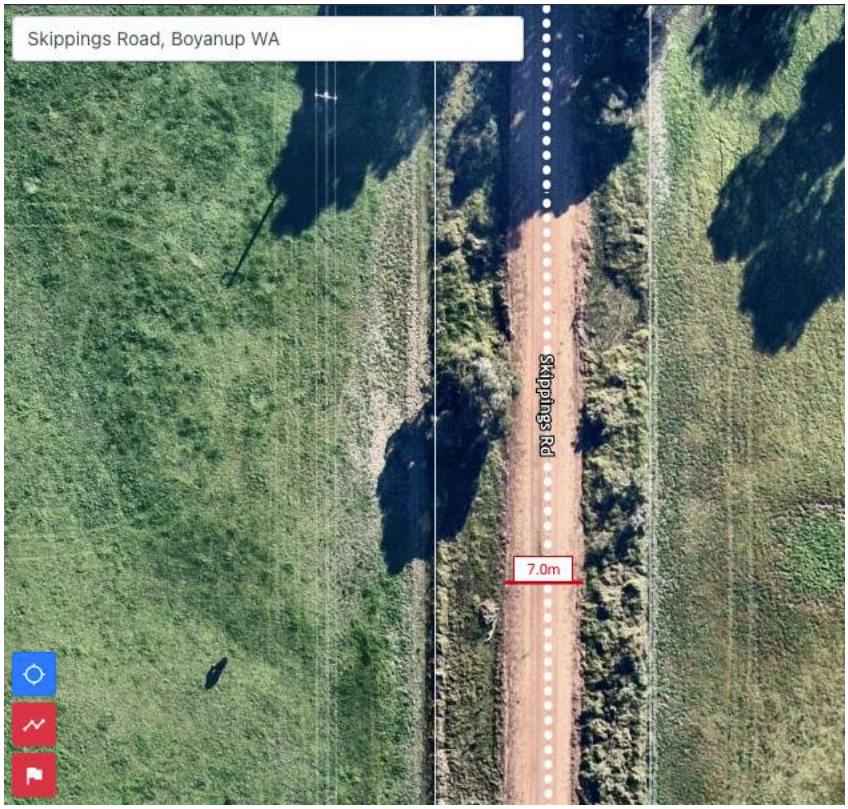
7. **Haulage Route:** Haulage is restricted to use Skippings Road to Boyanup Road West classified as a RAV route. Road maintenance is the responsibility of the operator as set out within condition 21 and accepted to ensure no damage to the road due to haulage.

   The operator however does not accept responsibility for the upgrading of Skippings Road, with the existing gravel pavement demonstrating a width greater than 6.1m (refer to images below). Please refer to the desktop images provided below (From Boyanup Road West to the site Entry):




Skippings Road, Boyanup WA
6.1m


Skippings Road, Boyanup WA
Skippings Rd
Penn St
Penn St
6.6m
Skippings Rd





Upgrading the road therefore is not considered necessary.

8. **Rehabilitation:** The applicant is to rehabilitate the entire extraction boundary to pasture, with a rehabilitation plan to be prepared and submitted to the Shire of Capel for approval prior to the issuing of an Extractive Industry License.

APPLICANT RECOMMENDATION

element, on behalf of BCP Materials Pty Ltd supports the Shire officer's recommendation for approval subject to conditions as contained within the RAR. We however request the DAP modify the following conditions for the reasons set out below.

Condition 1:

> *This decision constitutes planning approval only and is valid for a period of ~~8~~ 10 years from the date of approval. If the subject development is not substantially commenced within ~~2~~ 4 years of the licence being issued, the approval shall lapse and be of no further effect.*

Reason: Pursuant to Cl 16A (2)(A) of the DAP Regulations, applications determined by the DAP are to be substantially commenced within a period of 4 years. This amendment is proposed for consistency with the DAP Regulations.

A 10-year approval is requested pursuant to the Shire's recently endorsed LPP 6.2 – Extractive Industries (28 June, 2023).

Condition 2:

> *Resource extraction is only permitted for a maximum of ~~5~~ 7 years after the issue of the Extractive Industry Licence.*

Reason: The Shire of Capel's recently endorsed LPP 6.2 Extractive Industries sets out the time permitted for extraction. This proposed amendment for requested for consistency with the new LPP6.2 endorsed by Council at the OCM on the 28th June, 2023.

Condition 4:

> ~~Extraction must be undertaken in accordance with the agreed staging plan, as approved by the local government. Commencement of the subsequent extraction stage shall be subject to the previous extraction site having substantially commenced rehabilitation.~~

Reason: Condition 4 is requested to be removed in its entirety as the content of the condition (first part) duplicates the wording of condition 5.

Specific reference to the requirement for staged rehabilitation (second part) being substantially commenced is requested to also be removed. This condition wording is vague and is most appropriately managed within condition 8 following the preparation of a rehabilitation plan to the Shire's satisfaction. Typically, operators will bond multiple stages and progress rehabilitation at the appropriate season for seeding/planting which often doesn't align with extraction timeframes. In these instances where there is a delay between seeding and continued extraction in the next stage, the Shire has accepted the bonding of the next stage to enable extraction of sand, while maintaining the previous stage bond to ensure the operator completes the rehabilitation at the appropriate season.

Condition 5:

> *Unless otherwise approved in writing by the Shire, the development may only proceed generally in accordance with the attached approved plans, as dated, marked and stamped by the Shire, subject to any amendments required as a consequence of the conditions of this approval ~~or any subsequent Extractive Industry Licence issued by the Shire.~~*

Reason: Determination by the DAP must not be subject to a secondary approval which may alter the DAP determination. Matters pertaining to amenity are to be determined by conditions of Development Approval.

Condition 6:

> ~~*The maximum pit floor depth shall be a minimum 0.8m above the current maximum groundwater level (MGL) and no dewatering works are to be undertaken without prior Department of Water and Environmental Regulation consultation. The Local Government is to be notified within 24 hours if the water table is intercepted.*~~
>
> ~~*Such exposure or interception of the groundwater shall be remedied to the satisfaction of the Shire in consultation with the Department of Water and Environmental Regulation*~~

Reason: The applicant considers this condition to duplicate condition 28, under General Conditions of Operations and advice Note 2. We consider this condition to be most appropriately located at condition 28 and advice note 2 and therefore we request condition 6 be removed entirely.

Condition 7:

> ~~*All works associated with the extractive industry be setback at least 20m from any boundary, include the location of bunds.*~~

Reason: Two boundary setbacks on the Western and Eastern boundary of the extraction area are proposed at 10m while a 40m setback is maintained to Brookdale Road. Existing technical justification is provided for this reduced setback, with potential impacts such as dust, noise and traffic appropriately justified within the DA report.

For this reason, and acknowledging the recent RJDAP decision for an 8m side boundary setback at Ducane Road, North Boyanup (RJDAP 93) we recommend the DAP remove this condition and the plans be approved as submitted.

The topsoil bund may be appropriately accommodated within each respective extraction stage. For this reason, the condition may be amended as follows:

> *All works associated with the extractive industry are to be located within the extraction boundary.*

Condition 9 & Advice Note 4

> ~~*Prior to commencement of development, the condition of Skippings Road shall be upgraded to the satisfaction of the Shire of Capel.*~~
>
> ~~*In relation to Condition 9, the upgrading of Skippings Road will require:*~~
> ~~*a) Widening the pavement to 6.1m; and*~~
> ~~*b) A re-seal of 100mm gravel.*~~

Reason: The applicant requests condition 9 and the associated advice note 4 be removed. The operator is required to maintain Skippings Road to the Shire's satisfaction pursuant to condition 21. The Shire's recommendation for upgrading of Skippings Road is not considered appropriate as the operator is directly responsible for maintenance from operations demonstrating a clear need and nexus to the development.

We therefore request this condition be removed, acknowledging no costs associated with road maintenance are to impact the Shire.

Condition 10:

> ~~*Prior to the commencement of development, suitable arrangements being made with the Shire of Capel for the payment of a road reinstatement co contribution for road deterioration purposes associated with Restricted Access Vehicle(s) in accordance with the WALGA co-contribution rates specified within the User Guide, estimating the incremental cost impact on sealed roads from additional freight tasks. Road Deterioration Co contribution is to be made in arrears on the submission of the annual compliance report as required by the Extractive Industry License in accordance with the Shire of Capel Extractive Industry Local Law 2016.*~~

Reason: The operator requests the DAP remove this condition for a road maintenance co-contribution, so that it may be appropriately applied by the Shire as a condition of an Extractive Industry License.

The applicant also requests that the Shire apply this contribution only in the case where the applicant has not contributed to the maintenance of the road (Skippings Road). The application of this contribution as either a cash contribution or a credit on the delivery of maintenance by the operator has successfully worked within the Shire of Harvey. We request the opportunity to discuss this with the Shire's technical team following the DAP application.

Condition 15:

> *Prior to issue of an Extractive Industry Licence, a Stormwater Management Plan is to be prepared and approved to the satisfaction of the Shire, consistent with WQPN 15, ~~such as but not limited~~ to detail~~s on~~ how sediment mobilisation can be mitigated from activities crossing the drainage line to Stages 7 and 8.*

Reason: Minor wording change to ensure the scope for the Stormwater Management Plan relates to the advice received from DWER and is to appropriately manage sediment mobilisation across the drainage line to stages 7 and 8.

Condition 16:

> ~~*Prior to issue of an Extractive Industry License, a 20m long asphalt cement seal apron be constructed at the intersection of Skippings Road and Boyanup West Road.*~~

Reason: The applicant recommends this condition be removed completely, as maintenance of the road is to be completed at the operator's cost as per condition 21. No upgrades to Skippings Road are consider necessary to enable haulage operations with no demonstrated need for nexus for this pavement upgrade has been provided by the Shire officers.

Condition 17:

> ~~*Prior to issue of an Extractive Industry License, a Dust Management Plan which shall include but is not limited to:*~~
>
> ~~*1. Incorporating baseline and ongoing monitoring;*~~
> ~~*2. Details management measures to minimise dust;*~~
> ~~*3. Demonstrates best practice and details the methods to be used for all air borne particulate attenuation;*~~
> ~~*4. Incorporates monitoring to determine the size and composition of particulates;*~~
> ~~*5. Provides for continuous improvements in dust management; and*~~
> ~~*6. Details complaint response procedures; to the satisfaction of the Shire of Capel.*~~

Reason: The applicant requests this condition be removed entirely. The Dust Management Plan provided as part of the application incorporates the measures to minimise dust and is supported by the Department of Health and DWER. Onsite monitoring is not proposed by the Dust Management Plan as a method to manage dust emissions as horses are known to kick up dust when moving along the boundary fence and have previously setoff monitors on other extraction sites.

It is for this reason that we recommend the DAP approve the measures contained within the Dust Management Plan.

We therefore request this condition be removed.

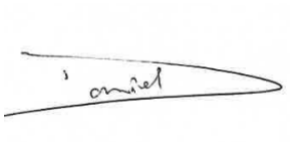
CONCLUSION

We request the RJDAP support the planning officers recommendation for conditional approval (subject to modifications contained herein) and the application be assessed on its planning merits.

Support for conditional approval of the Development Application is respectfully sought.

Yours sincerely,

element.



Daniel Lewis
Senior Consultant – Planning

EXTRACTIVE INDUSTRY DEVELOPMENT PROPOSAL
LOT 148 (No.168) SKIPPINGS ROAD, BOYANUP

Form 1 – Responsible Authority Report
(Regulation 12)

DAP Name:	Regional JDAP	
Local Government Area:	Shire of Capel	
Applicant:	Element Advisory Pty Ltd	
Owner:	Campbell Nettleton & Ewen Nettleton	
Value of Development:	$3,552,053.00 ☐ Mandatory (Regulation 5) ☒ Opt In (Regulation 6)	
Responsible Authority:	Shire of Capel	
Authorising Officer:	Bob Wallin, Senior Planning Officer	
LG Reference:	PA48/2023	
DAP File No:	DAP/23/02479	
Application Received Date:	21 March 2023	
Report Due Date:	17 July 2023	
Application Statutory Process Timeframe:	90 Days	
Attachment(s):	1. Development Application and accompanying material (Environmental, Dust, Noise, Groundwater reports). 2. Schedule of submissions (public). 3. Schedule of submissions (agencies). 4. Shire of Capel Local Planning Policy LPP6.2 Extractive Industries.	
Is the Responsible Authority Recommendation the same as the Officer Recommendation?	☐ Yes ☒ N/A	Complete Responsible Authority Recommendation section
	☐ No	Complete Responsible Authority and Officer Recommendation sections

Responsible Authority Recommendation

It is recommended that the Regional Joint Development Assessment Panel resolves to:

Accept that the DAP Application reference DAP/23/02479 is appropriate for consideration as the "Industry-Extractive" land use is compatible with the objectives of the Rural zone in accordance with Clause 16 (2) of the Shire of Capel Local Planning Scheme No. 8.

Approve DAP Application reference RJDAP/23/02448 and accompanying plans in accordance with Clause 68 of Schedule 2 (Deemed Provisions) of the *Planning and Development (Local Planning Schemes) Regulations 2015*, and the provisions of the Shire of Capel Local Planning Scheme No. 8, subject to the following conditions:

Conditions

1. This decision constitutes planning approval only and is valid for a period of 8 years from the date of approval. If the subject development is not substantially commenced within 2 years of the licence being issued, the approval shall lapse and be of no further effect.

2. Resource extraction is only permitted for a maximum of 5 years after the issue of the Extractive Industry Licence.

3. Rehabilitation of the land may occur at any time within the term of this approval.

4. Extraction must be undertaken in accordance with the agreed staging plan, as approved by the local government. Commencement of the subsequent extraction stage shall be subject to the previous extraction site having substantially commenced rehabilitation.

5. Unless otherwise approved in writing by the Shire, the development may only proceed generally in accordance with the attached approved plans, as dated, marked and stamped by the Shire, subject to any amendments required as a consequence of the conditions of this approval or any subsequent Extractive Industry Licence issued by the Shire.

6. The maximum pit floor depth shall be a minimum 0.8m above the current maximum groundwater level (MGL) and no dewatering works are to be undertaken without prior Department of Water and Environmental Regulation consultation. The Local Government is to be notified within 24 hours if the water table is intercepted.

   Such exposure or interception of the groundwater shall be remedied to the satisfaction of the Shire in consultation with the Department of Water and Environmental Regulation.

7. All works associated with the extractive industry be setback at least 20m from any boundary, include the location of bunds.

Prior to the commencement of development/issuing of an Extractive Industry Licence

8. Prior to the commencement of development, a Rehabilitation Management and Monitoring Plan shall be submitted for approval by the Shire. The Rehabilitation Management and Monitoring Plan shall be consistent with Water Quality Protection Note 15 (WQPN 15) and the Guidelines for Preparing Mine Closure Plans[1], and covering the intended staging, final landform (including separation to groundwater), proposed post extraction land use and successful rehabilitation criteria and include a finished rehabilitated level at least 0.8m above the highest groundwater level.

9. Prior to commencement of development, the condition of Skippings Road shall be upgraded to the satisfaction of the Shire of Capel.

10. Prior to the commencement of development, suitable arrangements being made with the Shire of Capel for the payment of a road reinstatement co-contribution for road deterioration purposes associated with Restricted Access Vehicle(s) in accordance with the WALGA co-contribution rates specified within the User Guide, estimating the incremental cost impact on sealed roads from additional freight tasks. Road Deterioration Co-contribution is to be made in arrears on the submission of the annual

compliance report as required by the Extractive Industry License in accordance with the Shire of Capel Extractive Industry Local Law 2016.

11. Prior to the issue of an Extractive Industry Licence, the following Management Plans shall be submitted for approval by the Shire:
    a) Weed Management Plan; and
    b) Dieback Management Plan.

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12. Prior to the issue of an Extractive Industry Licence, the approved pit boundaries shall be surveyed by a suitably qualified surveyor, with the location of such pegs being to the satisfaction of the Shire.

13. Prior to the issue of an Extractive Industry Licence, the assigned rehabilitation bond for Stages 1 and 2 shall be provided to the Shire in the form of a bond or bank guarantee in pursuant the Shire's Schedule of Fees and Charges.

14. Prior to issue of an Extractive Industry Licence, suitable arrangement shall be undertaken to quantify water requirements for all aspects of the proposed extraction and provide evidence of a secure water source, to the satisfaction of the Shire.

15. Prior to issue of an Extractive Industry Licence, a Stormwater Management Plan is to be prepared and approved to the satisfaction of the Shire, consistent with WQPN 15, such as but not limited to details on how sediment mobilisation can be mitigated from activities crossing the drainage line to Stages 7 and 8.

16. Prior to issue of an Extractive Industry License, a 20m long asphalt cement seal apron be constructed at the intersection of Skippings Road and Boyanup West Road.

17. Prior to issue of an Extractive Industry License, a Dust Management Plan which shall include but is not limited to:

    1. Incorporating baseline and ongoing monitoring;
    2. Details management measures to minimise dust;
    3. Demonstrates best practice and details the methods to be used for all air borne particulate attenuation;
    4. Incorporates monitoring to determine the size and composition of particulates;
    5. Provides for continuous improvements in dust management; and
    6. Details complaint response procedures; to the satisfaction of the Shire of Capel.

General Conditions of Operations:

18. An Annual Audit of Compliance shall be prepared by a suitably qualified independent expert and submitted to the Shire annually. The Annual Audit of Compliance shall include:
    a) Details to demonstrate compliance with the conditions of this Development Approval;
    b) Tonnage of sand removed from the site and the period within which the sand was removed;
    c) Progress report on the approved Rehabilitation Management and Monitoring Plan including:
        i. Details of completed, ongoing and future rehabilitation areas
        ii. Photos of rehabilitated areas
        iii. Monitoring and reporting details, if available

iv. Start and completion dates, and expected start dates, if applicable, and
v. A map depicting the rehabilitation areas and their completion progress.

19. The maximum number to truck movements to and from the site per hour is limited to 8 movements (to and from site). Consideration by the Shire will be given for granting additional numbers to the stated hourly movements per day, with any variation to be approved in writing by the Shire's Chief Executive Officer.

20. Haulage of material is to be restricted to Skippings Road for access/entry.

21. The Extractive Industry license holder is to maintain (eg. Grading and watering) the section of Skippings Road that extends south from the existing cross over to the sealed portion of Boyanup West Road, to the satisfaction of the Shire and at the licence holder's expense.

22. There shall be no storage of hydrocarbons on-site. On-site refuelling of equipment will be from a mobile service vehicle carrying appropriate spill prevention and clean-up equipment. No major repairs or maintenance shall take place on site.

23. The hours of operation shall be from 7.00am to 7.00pm Monday to Friday, and 7:00am to 12:00pm Saturday. No operations shall be permitted on Sundays or Public Holidays.

24. Maximum batter slopes of 1:6 shall be applied to all rehabilitation slopes.

25. The pit boundary survey pegs shall remain in place for the duration of the operation to the satisfaction of the Shire.

26. The maximum volume of material to be stockpiled on site at any one time is 5,000m³.

27. All stockpiles shall be removed prior to the expiry of this approval.

28. A minimum 0.8-metre separation distance to the groundwater shall be maintained for the life of the extraction activities.

Advice Notes

1. Any proposed clearing of native vegetation is prohibited unless done under a clearing permit issued in accordance with the Environmental Protection Act 1986, or the clearing is exempt from the need for a clearing permit.

2. Groundwater shall not be exposed, extracted or dewatered during the operation of the extraction activities unless the appropriate approval has been obtained from the Department of Water and Environmental Regulation.

3. The proponent is advised of their obligations under the *Environmental Protection (Noise) Regulations 1997.*

4. In relation to Condition 9, the upgrading of Skippings Road will require:

    a) Widening the pavement to 6.1m; and
    b) A re-seal of 100mm gravel.

5. In relation to Condition 13, the calculation of bonds will be in accordance with the Shire's Local Planning Policy 6.2 – Extractive Industries.

6. The applicant is advised to liaise with the Department of Water and Environmental Regulation regarding approvals required for any proposed screening related to extraction activity. Further information is available regarding Industry Regulation Guide to Licensing at http://www.der.wa.gov.au/our-work/licences-and-works-approvals or by contacting DWER regarding works approvals and licenses at info@dwer.wa.gov.au or 6364 7000

7. The applicant is advised to liaise with the Department of Water and Environmental Regulation prior to clearing vegetation. For further information and applying, please use the following link https://www.der.wa.gov.au/our-work/clearing-permits/46-clearing-permit-application-forms For further information please contact DWER by email at admin.nvp@dwer.wa.gov.au or by telephone (6364 7098)

8. The applicant is advised that if it is intended to use licensed groundwater to support the proposed extraction, they contact DWER's Bunbury water licensing branch on 97264111 to amend their existing licence under the *Rights in Water and Irrigation Act 1914.* It is further advised that if additional water is required over and above their current licensed allocation, the proponent should note that no additional water is available other than via a trade/agreement with another licensee.

9. In relation to Condition 11, a Dieback Management Plan is to be prepared, approved, and implemented to the satisfaction of the Shire, in consultation with DBCA, consistent with the *Best Practice Guidelines for Management of Phytophthora Dieback in the Basic Raw Materials Industries*

10. The applicant is advised that "Acid sulfate soils (ASS) risk mapping indicates that a portion of the site is located within an area identified as representing a moderate to low risk of ASS occurring within 3 metres of the natural soil surface. Please refer to Department of Water and Environmental Regulation's (DWER) acid sulfate soil guidelines for information to assist with the management of ground and/or groundwater disturbing works: https://www.der.wa.gov.au/your-environment/acid-sulfate-soils/69-acidsulfatesoils-guidelines."

11. In respect of Condition 15, the applicant is advised that proposed extraction is to be implemented in accordance with DWER's Water quality protection note (WQPN) no. 15 '*Basic raw materials extraction*' (July 2019) where appropriate to the site situation to ensure environmental risks are appropriately mitigated.

12. In respect to Condition 28, the applicant is advised that pit level and groundwater monitoring will be required to ensure separation distances to groundwater are maintained.

Details: outline of development application

Region Scheme	Greater Bunbury Region Scheme
Region Scheme - Zone/Reserve	Rural

Local Planning Scheme	Shire of Capel Local Planning Scheme No.8 (LPS8)
Local Planning Scheme - Zone/Reserve	LPS8: Rural
Structure Plan/Precinct Plan	N/A
Structure Plan/Precinct Plan - Land Use Designation	N/A
Use Class and permissibility:	LPS8: Industry – Extractive - A
Lot Size:	47.23407ha
Existing Land Use:	Single House / Rural Pursuits
State Heritage Register	No
Local Heritage	☒ N/A ☐ Heritage List ☐ Heritage Area
Design Review	☒ N/A ☐ Local Design Review Panel ☐ State Design Review Panel ☐ Other
Bushfire Prone Area	Yes
Swan River Trust Area	No

Proposal:

The applicant is seeking development approval for the extraction of sand on the subject lot (Lot 148) Skippings Road, Boyanup (Attachment 1 – application report).

The proposed extraction area relates to 13.23ha of the site (28%) of the subject land. The proposed extraction area is mainly contained within historically cleared land except for small clusters of native trees, predominantly along the western boundary totalling an area of 0.2ha.

The proposed extraction is expected to yield 234, 254 tonnes of sand, with daily operations not anticipated to exceed 1,200 tonnes per day with a total maximum estimated 50 trips per day. Noting that heavier haulage may occur depending on campaigns to be interspersed with longer period of lower movement volumes.

Haulage is proposed to use an existing crossover onto Skippings Road. It then proposes to travel approximately 1.6km south along Skippings Road (gravel constructed), to Boyanup Road West.

The proposed project life is five years with an additional year for rehabilitation. Extraction is proposed to occur over 8 stages ranging in size from 1.28ha to 2ha, gradually moving northward. The last two stages will require traversing over a multiple use wetland.

Several setback variations are proposed. The following table provides a summary of setbacks proposed and required setbacks.

Location	**Proposed Setback**	**Required**
Western boundary (stage 2)	10m (with bund proposed within 10m setback)	20m

Eastern Boundary (stages 1, 4, 5 and 6)	10m	20m
Eastern Boundary (stages 7 and 8)	10m (with bund proposed within 10 setback)	20m
Northern boundary (stage 8)	40m (with bund proposed within 40m setback)	40m (Local Law) 20m (LPS8)
Interface with Multiple Use Wetlands	nil	50m (local Law)

Following extraction, the site is to be re-contoured to allow rehabilitation to pasture for grazing.

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Background:

03/05/1981 – "Piggery" approved on the subject land.

07/07/1981 – single dwelling approved.

21/03/2023 – Development application (PA48/2023; DAP/23/02479) for sand extraction submitted to the Shire by current owner of subject land.

1/05/2023 – received payment of application fees and updated information requested (PA48/2023: DAP/23/02479).

12/05/2023 – Development application (PA48/2023; DAP/23/02479) for sand extraction advertised for a period of 28 days, until 9 June 2023.

Legislation and Policy:

Legislation

- *Planning and Development Act 2005* (P&D Act);
- *Planning and Development (Local Planning Schemes) Regulations 2015* (LPS Regulations);
- *Planning and Development (Development Assessment Panels) Regulations 2011* (DAP Regulations);
- Greater Bunbury Region Scheme (GBRS);
- Shire of Capel Local Planning Scheme No. 8 (LPS8).

State Government Policies

- State Planning Policy 2.4 – Basic Raw Materials

Local Policies

- Shire of Capel Local Planning Policy 6.2 – Extractive Industries

Consultation:

Public Consultation

The application was advertised through a notice in the South Western Times and on the Shire's website, as well as being referred to surrounding landowners for a period of 28 days. Sixteen (16) submissions from community members were received raising objections (see Attachment 2).

A number of key concerns raised are summarised as follows:

Suitability of Skippings Road for haulage

- The development proposes a haulage route that is to use an existing crossover access onto Skippings Road (southern portion of lot) and head south (1.6km) to Boyanup West Road.

- Skippings Road is a gravel constructed road with a surface width ranging from 5.8m to 4.6m (at culvert points) with no shoulder. To be suitable, this road is required to be upgraded include a 6.1m trafficable surface with a 100mm re-sheet to ensure the road is suitable for all weather conditions.

Authenticity of figures supplied for cost of development

- The estimated development cost provided equals approximately $15 per cubic metre (excluding haulage) and costs associated with obtaining landowner permission. Haulage is estimated to be 0.59c per kilometre (based on Rawlinsons 2023 Perth rates). Depending on retail product prices, this would be a marginal site if the figures supplied have been calculated in good faith.

Proximity to sensitive land uses (dwellings – closest being 106m and home schooling);

- Impacts on amenity for sand extraction fall under two main elements: noise and dust.

- Another element relates to a proposed reduced side setbacks along sections of the western and eastern boundaries. A 20m setback is required. A nil setback is proposed when including the bund structure. No planning justification has been provided for the reduced setback. Rationale provided relates to access to material.

For a comprehensive summary of concerns raised, please refer to Attachment 2.

The Land Conservation District Committee raised objections to the proposal. These points are summarised in the table below.

Land Conservation District Committee (LCDC)	Does not support the proposal on the grounds that: o Insufficient separation distances from groundwater and inconsistencies with Local Law that requires a 2m separation. o Lack of data and limited timeframes for monitoring groundwater conditions. o Lack of relevant local weather data that supports Dust Management. o Proximity to nearby dwellings. o Impacts on multiple use wetlands. o Health concerns from dust. Concerns were also raised regarding:

	○ How costs of the development were calculated; ○ Lack of local accountability and local knowledge in the decision making process.

These issues have been addressed in the points above, except for comments regarding accountability of the decision-making process. The decision making process is consistent with the established legislative framework.

For a comprehensive summary of concerns raised, please refer to Attachment 2

Referrals/consultation with Government/Service Agencies

The proposal was also referred to relevant local and state government agencies for a period of 42 days. In total, six (6) submissions were provided by agencies (see Attachment 3). The following provides a summary of submissions.

Main Roads WA (MRWA), DPLH Aboriginal Heritage and Department Biodiversity Conservation and Attractions (DBCA), Department of Mines Industry Regulation and Safety (DMIRS) and the Department of Health all provided the following advice:

Agency	Summary of issues
Department of Primary Industries and Regional Development	does not support the proposal on the grounds that: ○ Separation distances to sensitive land uses are below that recommended by Guidance Statement No.3 (EPA 2005). ○ The proposed reduced boundary setback (20m recommended). ○ Groundwater separation of 0.5 metres (after rehabilitation) will not provide suitable separation during extraction. ○ No weed management plan has been provided.
Department of Biodiversity, Conservation and Attractions	Advises that: ○ Need for a clearing permit with DWER to be established. ○ Surface water runoff impacts on the multiple use wetlands need to be considered. ○ Consider that DWER will consider wetland buffer requirements as part of clearing permit process.
Department of Health	Advises that: ○ Dust from sand extraction can be controlled and health risks from extraction is generally low. ○ Need to ensure proposal does not generate additional mosquito breeding habitat. ○ Need to comply with water supply and wastewater disposal.

	○ Need to ensure all drinking water provided on-site meets health related requirements.
Department of Water and Environment Regulations (DWER)	The Department advises that the proposal will impact on the environment and water resource values and these matters require addressing. Key issues and requirements are: ○ The proposal may be categorised as Prescribed Premises under the Environmental Protection Regulations 1987 ○ Clearing of vegetation will require a clearing permit. ○ Require a 0.8m separation to groundwater. ○ Need to demonstrate water requirements for the extraction operation and how they will secure water supply. ○ Need to manage water quality. ○ Ensure a 0.8m separation to groundwater as an end landform (rehabilitation plan). ○ Need to comply with staging plan. ○ Need for a stormwater management plan. ○ Fuel and chemical management condition. ○ Need to prepare a dieback management plan. ○ Need to address Acid Sulfate Soils during site management. ○ Noise associated with Stages 2 and 8 to require additional measures (including location of stockpiles around plant). ○ Need to undertake additional dust treatment and monitoring measures associated with stages 2, 3 and 8 .

Please refer to Attachment 3 for further details on issues raised and recommended responses.

The Shire also requested independent third-party advice from an environmental consultant regarding:

- suitability of separation distances to wetlands and groundwater;
- sufficiency of groundwater data; and
- suitability of end landform and groundwater conditions for long term pasture.

Advice provided is summarised as follows:

- The data appears to be of a sufficient timeframe to capture seasonal fluctuations in groundwater levels;
- Pre-development groundwater and surface water quality has not been tested. On this basis, risk to nutrient enrichment (via fertilisation of pasture or grazing), acidification or salinization post extraction cannot be predicted;
- There are no details of current drainage and his development will impact the environment locally or downstream in terms of turbidity/sediment, nutrient loads or changes in water chemistry;
- There is no detail on managing perched water (evident on site) during stages of extraction;
- While the wetlands are degraded, they retain hydrological and water quality functions;

- Management and determining a wetlands edge should be determined by a robust method which includes soil analysis (when vegetation is not present);
- Note that a proposed 0.5m groundwater separation will not improve pasture (noting that pasture grasses have a roots between 10-30cm)
- Notes that if soils become waterlogged, a decline in root growth followed by a subsequent decline in shoot growth occurs as roots normally require oxygen for the optimal production of energy from sugars. This will result in an overall reduction in the quality of pasture with plants more suited to these conditions will take over (ie: sedges) which do not support livestock.
- Reducing the distance to groundwater enables entry of nutrients and possibly pesticides into the groundwater;
- Limited justification is provided for a 0.5m groundwater separation;
- The signoff completion of 12 months post seeding is too short to determine if the pasture is self-sustaining. A minimum two-year establishment period is recommended.

For additional detail on this submission, please refer to Attachment 3 – last submission).

The applicant has been provided an opportunity to review submissions and advises that they support:

a) DWER's recommendation to increase groundwater separation to 0.8m MGL;
b) a traffic management plan to be prepared to the Shire's satisfaction for the use of Skippings Road;
c) a stormwater management plan condition for sediment control;
d) a standard condition for haulage vehicles per hour;
e) advice regarding Acid Sulphate Soils, screening of material and clearing of native vegetation;
f) dust management arrangements recommended by Department of Health; and
g) DWER comments on noise modelling.

It is considered that all the concerns or issues raised by relevant external agencies, or the Shire's engaged consultant, can be adequately addressed through the imposition of planning conditions.

Planning Assessment:

Greater Bunbury Region Scheme (GBRS)

The GBRS identifies Lot 148 Skippings Road as Rural. The purpose of the Rural zone is: 'to provide for the sustainable use of land for agriculture, assist in the conservation and wise use of natural resources including water, flora, fauna and minerals, provide a distinctive rural landscape setting for the urban areas and accommodate carefully planned rural living developments.'

Clause 6 (h) of the GBRS Scheme identifies its purpose is to: '(h) protect strategic minerals and basic raw materials of State and regional importance and provide for the efficient and timely extraction of minerals and raw materials and subsequent rehabilitation of affected land.'

Shire of Capel Local Planning Scheme No.8 (Scheme 8)
The subject land is zoned "Rural" under Local Planning Scheme 8 – (gazetted 17 July 2023). The Rural zone has the following objectives:

- *To provide for the maintenance or enhancement of specific local rural character.*
- *To protect extensive agricultural activities such as cropping and grazing and intensive uses such as horticulture as primary uses, with other rural pursuits and rural industries as secondary uses in circumstances where they demonstrate compatibility with the primary use.*
- *To maintain and enhance the environmental qualities of the landscape, vegetation, soils and water bodies, in order to protect sensitive areas especially the natural valley and watercourse systems from damage.*
- *To provide for the operation and development of existing, future and potential rural land uses by limiting the introduction of sensitive land uses in the Rural zone.*
- *To provide for a range of non-rural land uses where they have demonstrated benefit and are compatible with surrounding rural uses.*

It is noted that the land falls outside proposed Special Control Area SCA6 – Strategic Minerals and Basic Raw Materials.

Land Use
Extractive Industry is listed as an 'A' use under LPS8 (discretionary following advertising). Therefore, the use is capable of approval, subject to consistency with other provisions within the Scheme.

To ensure consistency with LPS8, development of this land will need to demonstrate that extraction of basic raw materials protects the future agricultural and productive use of the land, as per the objectives of the zone.

End Land Use considerations
Based on independent advice provided by the Shire's environmental consultant, the original proposal did not provide sufficient certainty to ensure the long-term viability of the land for pasture, nor certainty that it avoids the potential for adverse impacts on the water environment.

It is noted that DWER have requested that the groundwater separation be increased to 0.8m (from 0.5m proposed). With the additional groundwater separation, the potential for water logged land is reduced and there is a reasonable prospect that the end landform will have long term utility for grazing.

As per the above, this recommendation was supported by the applicant and as such, a condition of planning approval has been imposed as part of the Officer's Recommendation.

Planning and Development (Local Planning Scheme) Regulations 2015 – Schedule 2 Part 7 (the Regulations)

Clause 67 - Matters to be considered by local government:

1. In considering an application for development approval the local government is to have due regard to the following matters to the extent that, in the opinion of the local government, those matters are relevant to the development the subject of the application

    a. The aims and provisions of this Scheme and any other local planning scheme operating within the Scheme area;
    b. The requirements of orderly and proper planning including any proposed local planning scheme or amendment to this Scheme that

has been advertised under the *Planning and Development (Local Planning Schemes) Regulations 2015* or any other proposed planning instrument that the local government is seriously considering adopting or approving;

c. Any approved State planning policy;
d. Any environmental protection policy approved under the Environmental Protection Act 1986 section 31(d);
e. Any policy of the Commission;
f. Any policy of the State;
g. Any local planning policy for the Scheme area;
h. Any structure plan, activity centre plan or local development plan that relates to the development;
i. Any report of the review of the local planning scheme that has been published under the *Planning and Development (Local Planning Schemes) Regulations 2015.*

Local Planning Policy 6.2 Extractive Industries (LPP6.2)

The intent of this policy is to provide guidance in assessing proposals for extractive industry and provide operators and the community more certainty around the outcomes of such proposals. The policy has undergone extensive consultation with the community and operators and was considered for final approval at the Shire's Ordinary Council Meeting in June 2023.

LPP6.2 sets out acceptable development and performance criteria for the assessment of development applications. In the event that a development application does not meet the 'Acceptable Development' provisions, a performance based assessment will be undertaken against the criteria listed in 'Performance Criteria' to determine the proposal's suitability.

An assessment of the proposal against the Acceptable Development / Performance Criteria of draft LPP6.2 is as follows:

Performance Criteria	Acceptable Development	Assessment of Proposal
Element: Amenity		
PC1.1.1 Development is to demonstrate a negligible impact on the amenity of residential areas by way of vehicular traffic, noise, dust, blasting and vibration.	AD1.1.1 Hours of operation are limited to 7am to 7pm Monday to Friday and 7am to 1pm on Saturday. No operation on Sundays or recognised public holiday days.	The proposed hours of operation will be in accordance with AD1.1.1 **CONSISTENT**
PC1.1.2. Development does not result in land degradation, or a landform that prejudices the productive end use of the site in accordance with the objectives of the zone.	AD 1.1.2 Development is located, designed and rehabilitated compatible with long-term planning and environmental protection.	Subject to modifying the groundwater separation to 0.8m, the proposal can be rehabilitated to ensure the long-term utility of the site for pasture. This is consistent with the advice provided by the Shire's environmental consultant that is engaged to review aspects of select proposals. **CONSISTENT (SUBJECT TO CONDITIONS)**
Element: Environmental		

PC1.2.1 With advice from relevant state government departments, development is located to minimise the impact upon native flora and fauna; groundwater quality, quantity and use; surface drainage and surface water quality including discharge of sediment and sites of cultural and/or historic significance on or near the land.	AD1.2.1 Development does not prejudicially affect native flora and fauna; groundwater quality, quantity and use; surface drainage and surface water quality including discharge of sediment and sites of cultural and/or historic significance on or near the land.	Subject to increasing the groundwater separation distance to 800mm and boundary setbacks to 20m the proposal will not adversely impact groundwater or native vegetation. **CONSISTENT (SUBJECT TO CONDITIONS)**
PC1.2.2 Development is located and managed to minimise the spread of Phytophthora (Dieback).	AD1.2.2 Dieback is managed in accordance with Best Practice Guidelines – Management of Phytophthora Dieback in Extractive Industries (2005 – Dieback Working Group) as detailed within an agreed Dieback Management Plan.	Dieback on the site cannot be confirmed due to lack of indicator species. A condition can be imposed to address dieback management. **CONSISTENT (SUBJECT TO CONDITIONS)**
PC1.2.3 Development is located and managed to achieve a high level of surface and groundwater resource protection to provide soil depth for rehabilitation, future land use and a buffer against groundwater contamination and exposing groundwater.	AD1.2.3 Excavation shall not occur within 2 metres of the estimated maximum ground water level.	Subject to increasing the groundwater separation distance to 800mm, the proposal will not impact groundwater resources. **CONSISTENT (SUBJECT TO CONDITIONS)**
PC1.2.4 Final excavation batters to achieve rehabilitated slopes compatible with future land use, existing soil structure, topography, and positive environmental outcomes.	AD1.2.4 Batter slopes with gradients up to 1:6 when rehabilitated to pasture for agricultural land uses and/or native revegetation.	Batter slopes will be at least 1:6. **CONSISTENT**
PC1.2.5 Development is located and managed to a achieve a high level of staged rehabilitation.	AD1.2.5 Sites to be rehabilitated in accordance with an agreed Environmental Management Plan and Rehabilitation Implementation Plan prepared and implemented in accordance with application and bonding requirements as specified in Appendix 1 of this Policy. For hard rock extraction sites, an end-of-life pit plan is to be provided and agreed upon between the Shire and applicant at least 5 years prior to the expiration of the approval's validity.	The increased separation distance for groundwater to 0.8m will assist in ensuring the long term suitability of the end land form being suitable for pasture. **CONSISTENT (SUBJECT TO CONDITIONS)**

Element: Buffers		
PC1.3 Development to demonstrate satisfactory mitigation and management measures in accordance with SPP4.1 Industrial Interface and Guidance Note 3 – Separation Distances Between Industrial and Sensitive Land Uses (EPA – 2005	AD1.3.1 Buffer distances to be in accordance with Guidance Note 3 – Separation Distances Between Industrial and Sensitive Land Uses (EPA – 2005).	The nearest sensitive land use is 106.2m from the extraction boundary. Impacts can be mitigated as demonstrated in supporting Environmental Acoustic Report (Appendix E) subject to restricting hours of operation and constructing noise barriers (bunds). **CONSISTENT**
Element: Visual Impact		
PC1.4 Through Development of an adopted Rehabilitation Plan, the final landform shall not have a significant detrimental impact on visual amenity of the landscape when viewed from surrounding sites.	AD1.4.1 Visual screening to be provided through retention of existing vegetation and /or provision of an appropriate landscaping screen/bund to the satisfaction of the Shire. No walls or solid fences will be considered.	Visual screening (bunds) will be provided to screen development from Brookdale Road and the neighbouring property to the west. **CONSISTENT**
Element: Transport		
PC1.5.1 The proposed haulage route is not to have a detrimental impact on safety and amenity of residents, and local road users.	AD1.5.1 Haulage is to be wholly contained to the 'Tandem Drive 4' Network route, as identified by Main Roads Western Australia.	The proposal seeks to use Skppings Road. Skippings Road will require upgrading, including widening, construction of a shoulder and additional 100mm of seal to ensure amenity of residential and safety of local road users is maintained. Conditions are required to ensure upgrading and maintenance of Skippings Road is undertaken. **CONSISTENT (SUBJECT TO CONDITIONS)**
PC1.5.2 The application is accompanied by a Traffic Management Plan to demonstrate that haulage periods that conflict with school pick and drop off times are acceptable in their impact to the safety of the road network.	AD1.5.2 Haulage traffic is to be proposed at times of the day which will minimise conflict with school pick up and drop off hours (7:30am-9am and 2:30pm-4pm Mondays to Fridays)	The proposed haulage routes do not pass local schools, and are planned to minimise such conflicts. Boyanup West Road is part of the RAV network. **CONSISTENT**

PC1.5.3 The applicant is to demonstrate that the haulage traffic will not have adverse impacts on the locality by virtue of noise, dust pollution, and safety, and that suitable arrangements be made by the developer to ensure the road is maintained to an appropriate standard.	AD1.5.3 Where available, haulage traffic is to utilise road networks which have a sealed surface, and appropriate designed to accommodate the proposed vehicle types.	Skippings Road is not a sealed road (gravel surface). Skippings Road will require upgrading and maintenance to ensure safety and amenity. Conditions on speed and movements will ensure dust, noise and safety standards are achieved. **CONSISTENT (SUBJECT TO CONDITIONS)**
PC1.5.4 Development does not create hazards to other road users, impact on sustainability of the transport network, nor negatively impact on the amenity of the residences along the route, in terms of: • Access points to the operation site. • Existence of any other extractive industry or heavy haulage in the vicinity and cumulative effects on the transport network.	AD1.5.4 Development application is accompanied by a Traffic Impact Assessment that demonstrates the local road network capacity is sufficient to accommodate the additional traffic and proposed truck volumes generated by the development.	Skippings Road can be upgraded to ensure safe access points and ensure that amenity impacts are minimised. **CONSISTENT (SUBJECT TO CONDITIONS)**

Conclusion:
The applicant seeks approval for the extraction of sand from the subject site. The assessment of the proposal recognises that the land use is discretionary.

The applicant has agreed to changes to the proposal to reflect advice from referral agencies in relation to key issues associated with dust, noise, and groundwater separation.

On this basis, approval is recommended subject to reflecting modifications to the minimum groundwater separation of 0.8m being achieved and conditions being incorporated to address traffic, drainage, setbacks, noise and dust management.

Alternatives

It is acknowledged that the land use can be supported under the Zoning Table of LPS8, and that a majority of the concerns raised in this report can be addressed through the imposition of conditions on a development approval. The Shire believes that the development in its proposed form is not considered acceptable due to the level of inconsistency with the State and Local Planning Framework.

However, the Panel may take the view that the development should be refused on the grounds that negative impacts of the development cannot be reasonably managed or mitigated appropriately.

As such, the Shire has provided an alternative recommendation for refusal is provided as follows, should the RJDAP be of the opinion that the development is not supportable:

It is recommended that the Regional Joint Development Assessment Panel resolves to:

Refuse DAP Application reference DAP/23/02479 and accompanying plans in accordance with Clause 68 of Schedule 2 (Deemed Provisions) of the *Planning and Development (Local Planning Schemes) Regulations 2015* and the provisions of the Shire of Capel Planning Scheme No.8, for the following reasons:

Reasons:

1. The proposed development does not meet clause 16 (2) for the Objectives of the Rural Zone in the Shire of Capel Local Planning Scheme No. 8.

2. The proposed development does not meet the policy provisions of the Shire of Capel Local Planning Policy 6.2 - Extractive Industries with respect to development criteria:

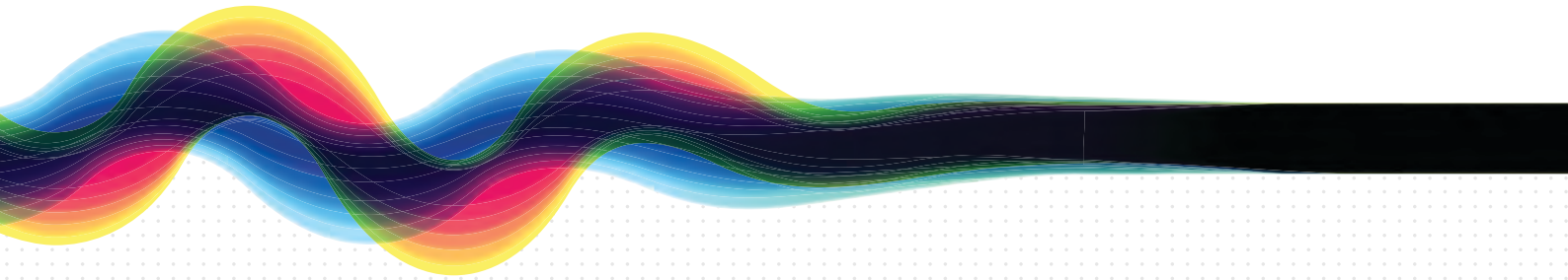
    - AD1.2.1
    - AD1.2.3
    - AD1.3.1
    - AD1.4.1

3. The proposed development does not satisfactorily address the requirements of the *Planning and Development (Local Planning Schemes) Regulations 2015* Clause 67(2) sub clauses (b), (c), (g), (n), (o), (p), (q), (y) and (za).

Extractive Industry

Development Application & Licence

April 2023 | 22-337



element.

the art and science of place

We acknowledge the Whadjuk people of the Noongar nation as traditional owners of the land on which we live and work.

We acknowledge and respect their enduring culture, their contribution to the life of this city, and Elders, past and present.

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Issue	Date	Status	Prepared by	Approved by	Graphics	File
1	01.03.23	Draft	Campbell Green	Daniel Lewis	MS	D1
2	02.03.23	Final	Campbell Green	Daniel Lewis	MS	F
3	14.03.23	Final	Campbell Green	Daniel Lewis	SA	F
4	15.03.23	Final	Campbell Green	Daniel Lewis	SA	F2
5	28.04.23	Final	Campbell Green	Daniel Lewis	SA	F3

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1. Introduction

This Development Application has been prepared by **element** on behalf of BCP Materials Pty Ltd for the extraction of sand from Lot 148 (No.168) Skippings Road, Boyanup (the subject site). A copy of the Certificate of Title is attached at Appendix A and a copy of the proposed development plans are attached at Appendix B.

Lot 148 is 64.88Ha in size and used for Livestock grazing purposes. The lot has duel frontage to Brookdale Road (north) and Skippings Road (west). Regional access to Bussell Highway is provided via Skippings Road and then Boyanup Road West, a RAV 3 haulage route.

The application for an extractive industry relates to 13.23 Ha of the subject site and is predominantly cleared of native vegetation, having been heavily grazed by livestock.

Extraction operations are proposed to extract 234,255 tonnes of sand. Daily haulage operations are not anticipated to exceed 50 truck movements per day. Haulage is to utilise 19m trucks along Skippings Road to Bussell Highway and service the region with sand, a critical basic raw material.

Post extraction, each stage will be rehabilitated to pasture. We anticipate the pasture quality onsite to improve following extraction due to the reduced separation to groundwater. Ongoing use of the land for grazing will continue by the landowner.

The operator anticipates completing the extraction of material within the proposed five-year time limited development approval and staged rehabilitation to be completed following the removal of material from each stage.

This application was prepared by **element** in its capacity as the lead planning consultant, supported by the following specialist consultants:

MBS Environmental	Environmental Site Inspection	**Appendix C**
	Dust Management Plan	**Appendix D**
Herring Storer	Environmental Noise Assessment	**Appendix E**
JDA	Groundwater Monitoring Report	**Appendix F**
Level Surveys	Feature Survey	
Harley Dykstra	Post Extraction Contours & Volume Modelling	

2. Site Description & Surrounds

2.1 Property Description, Ownership and Locality

The subject site is situated approximately 13.6Km northeast of the Capel Townsite and 15km southeast of the Bunbury City Centre as outlined within the location plan within Figure 1.

Refer to Figure 1 – Regional context of the proposed development

The proposed staged extraction area totals 13.23Ha of the 64.88Ha property and is located within a cleared portion of existing farmland as outlined within Figure 2.

The property is currently used for grazing purposes, with limited clearing required to progress the proposed development.

The subject site is surrounded by similar rural farms used for livestock grazing purposes.

Refer to Figure 2 – Aerial Image of Lot 148 (No. 168) Skippings Road, Boyanup

The property details applicable to the property are provided within Table 1 below with a copy of the Certificate of Title attached at Appendix A.

Table 1 – Summary of Land Details

Lot No.	Landowner	Area	Vol.	Folio	Plan No.
148	Campbell Robert Nettleton Ewen James Nettleton	64.87HA	1332	151	P2332768

2.2 Existing Site Topography

The topography of Lot 148 is gently undulating, with a sandy ridge extending from east to west within the extraction area. The site levels range from 31m AHD on the western boundary to 30m AHD on the eastern boundary, gently sloping to 26m AHD on the northern and southern boundary of the extraction area.

2.3 Geology, Soils and Groundwater Hydrology

The surface geology of the subject site is generally mapped as within the Bassendean B2 Phase, characterised by flat to very gently undulating sandplain with well to moderately drained deep bleached grey sands with a pale yellow B horizon or a weak iron organic hardpan. Regional groundwater flows on the subject site generally run east to west, flowing towards the ocean.

Long term DWER groundwater monitoring in proximity to the subject site was reviewed by JDA determining the average annual maximum groundwater level (AAMGL) (1978 to 2022) at 20.52m AHD with the maximum groundwater level (MGL) of 22.43m AHD recorded in late 1980.

The MGL levels have declined across Western Australia since the late 1990s, in correlation with reduced rainfall. The long term groundwater monitoring bore located in close proximity to the subject site has recorded a MGL decline by approximately 1.5-2m since the late 1990s. A copy of the groundwater analysis collected for the subject is outlined within the groundwater monitoring report attached at Appendix F.

Water levels recorded within the extraction area during the 2021 and 2022 peak winter monitoring periods were recorded and extrapolated by JDA to produce the groundwater contours outlined on the development plans attached at Appendix B. The extrapolation of MGL levels by an additional 0.18m was applied to account for the difference in the peak 2021 MGL levels and the MGL levels for the entire recording period. A copy of the JDA groundwater analysis completed for the site is included within Figure 3.

Refer to Figure 3 – JDA Calculated Maximum Groundwater Level (MGL) Contours

Further detail on soil, geology and hydrology is included within the JDA Groundwater Monitoring report attached at Appendix F.

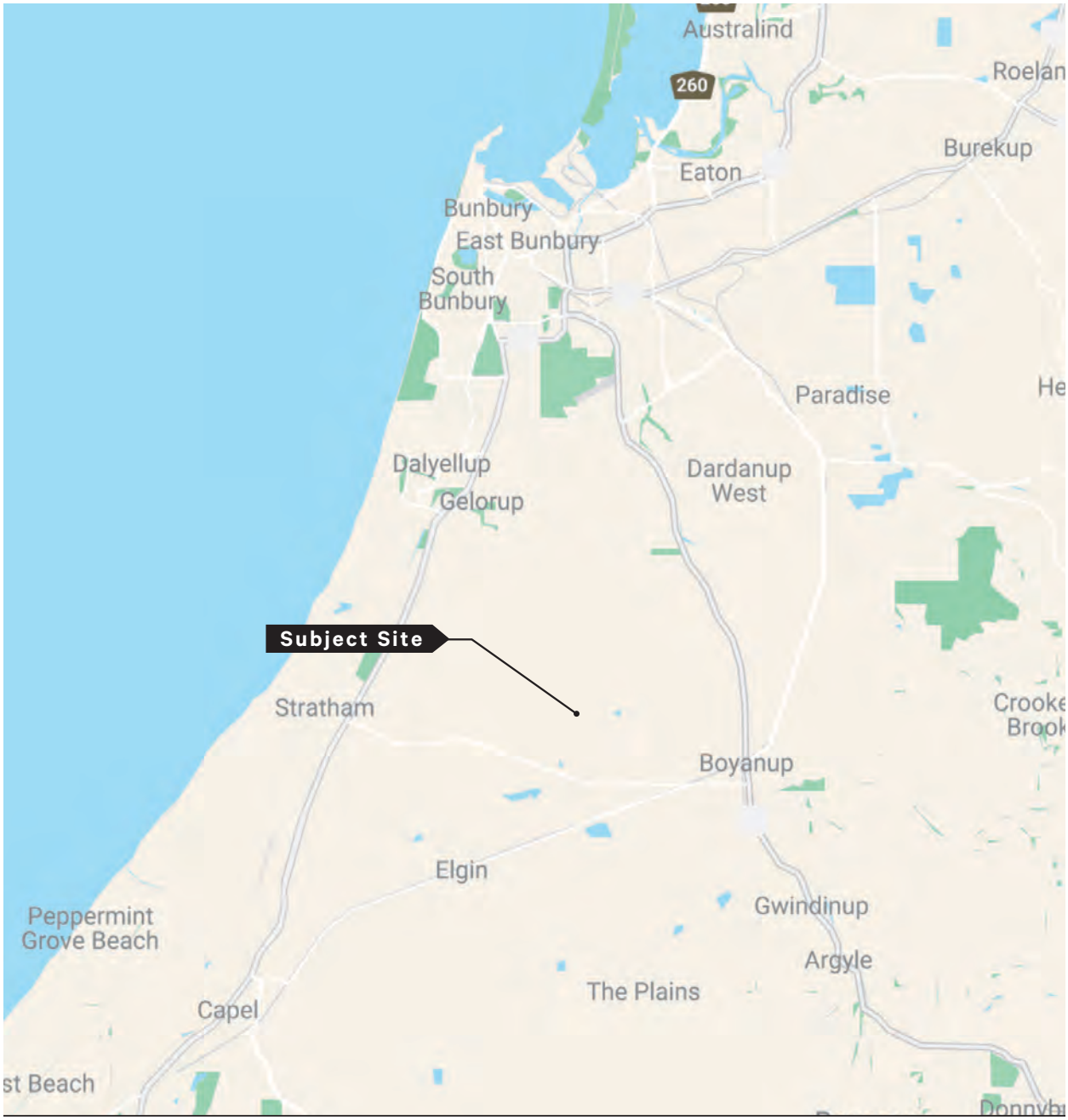


Figure 1. Regional context of the proposed development

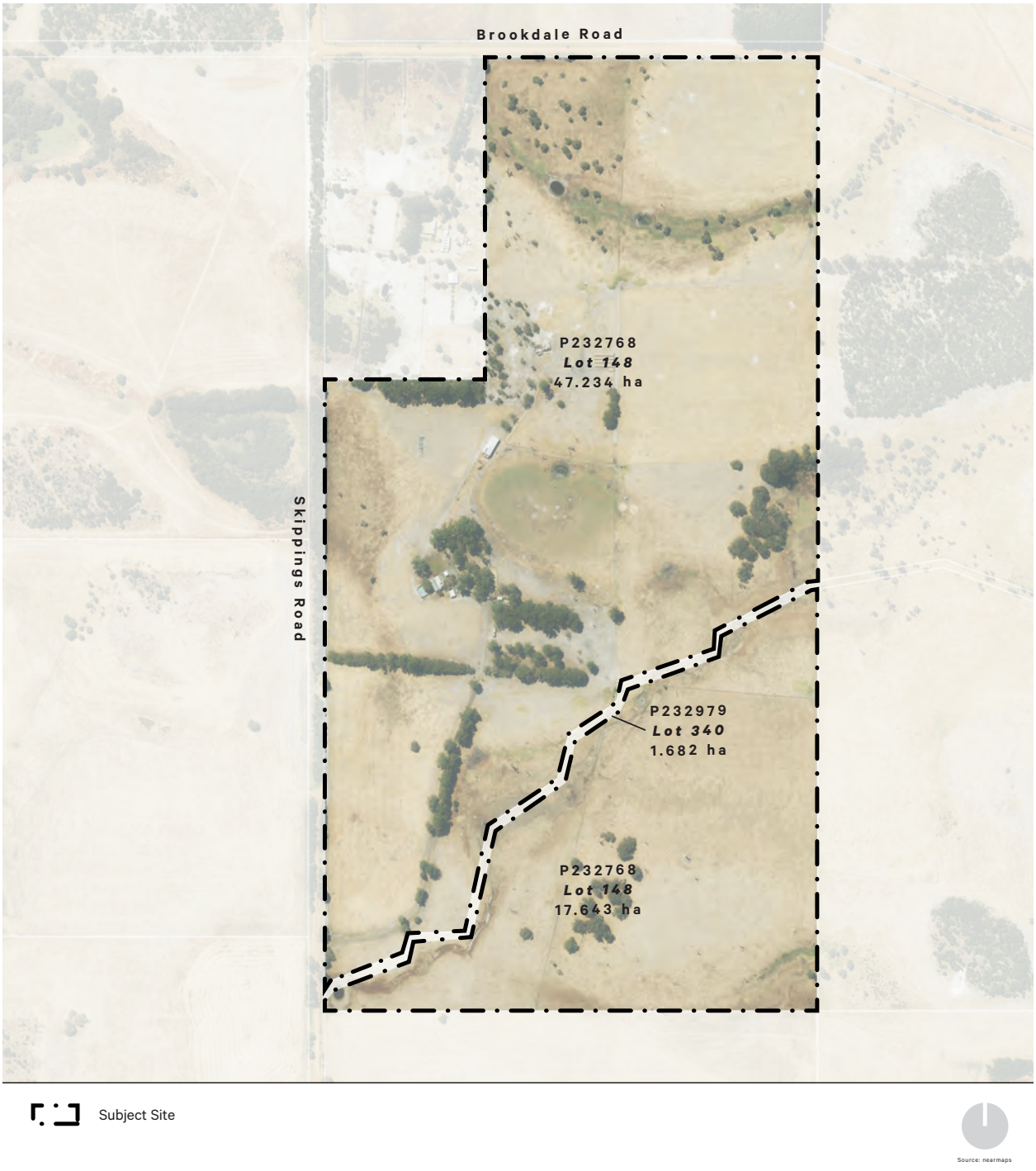


Figure 2. Aerial Image of Lot 148 (No. 168) Skippings Road, Boyanup

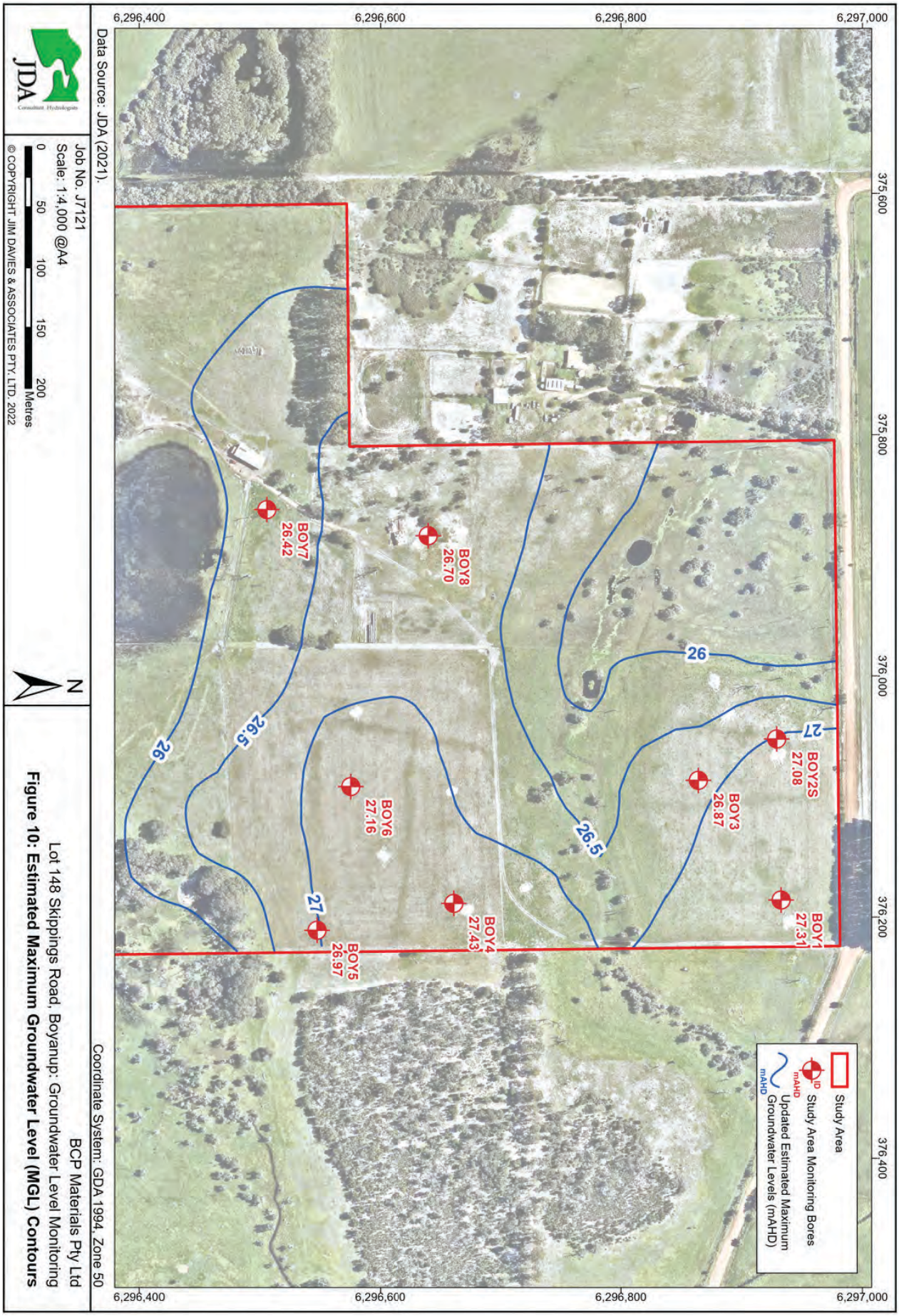


Figure 3. JDA Calculated Maximum Groundwater Level (MGL) Contours

2.4 Acid Sulphate Soils (ASS)

Department of Water and Environmental Regulation (DWER) Acid Sulphate Soil (ASS) risk mapping for the Swan Coastal Plain demonstrates that the subject site is at a moderate to low risk to contain ASS within 3m of the natural surface. However, due to no extraction of materials below the groundwater level the risk associated with disturbance of ASS is considered low for this proposal.

2.5 Surface Water

The extractive site can contain all surface water onsite through onsite infiltration given the highly permeable sandy soils located onsite and naturally occurring low depressions. No stormwater detention basins or shallow swales are required to support the proposed development.

The existing driveway is to be appropriately graded to ensure surface water run-off into adjoining pasture.

2.6 Wetlands

The subject site is partially identified within a multiple use wetland as outlined within Figure 4. Multiple Use wetlands are wetlands with few remaining important attributes and functions. Use, development, and management should be considered in the context of ecologically sustainable development and best management practice.

Setbacks to multiple use wetlands are not required as they contain few remaining attributes or functions of a wetland. It is for this reason no buffers have been considered as part of this application. The proposed development will not impact upon the environmental value of the multiple use wetland.

Refer to Figure 4 – Geomorphic Wetland Mapping of the Swan Coastal Plain (DWER)

2.7 Remnant Vegetation

An Environmental Site Inspection (ESI) was prepared by MBS Environmental to determine the environmental values present within the extractive industry proposal. A copy of the ESI included at Appendix C of this report.

The ESI notes the extraction area to be largely cleared of native vegetation. Native vegetation is limited to isolated trees and small clusters in a completely degraded condition. Totalling 0.2 Ha as outlined within Figure 5.

Refer to Figure 5 – Vegetation in Proposed Extraction Area

A native vegetation clearing permit may be required from the Department of Water and Environmental Regulation (DWER) and further advice is to be sought following the determination of the DA.

2.8 Servicing

The proposed extractive industry does not require a connection to any standard utility services during operations. Extraction is proposed under the aerial powerline which services the existing farm out building within stage 1, without the requirement for the relocation of this line. No impact on servicing is anticipated as part of this proposal.

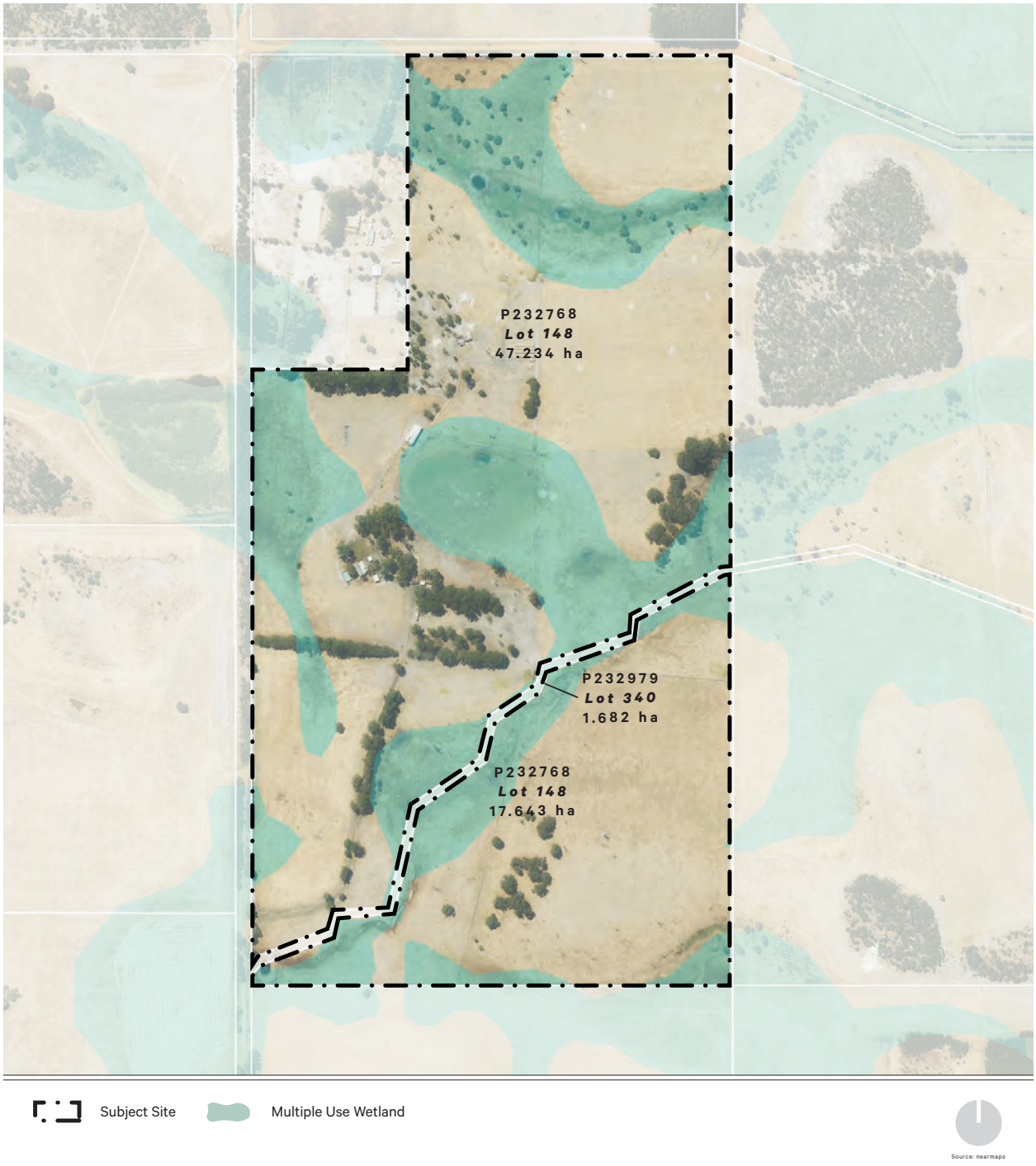


Figure 4. Geomorphic Wetland Mapping of the Swan Coastal Plain (DWER)

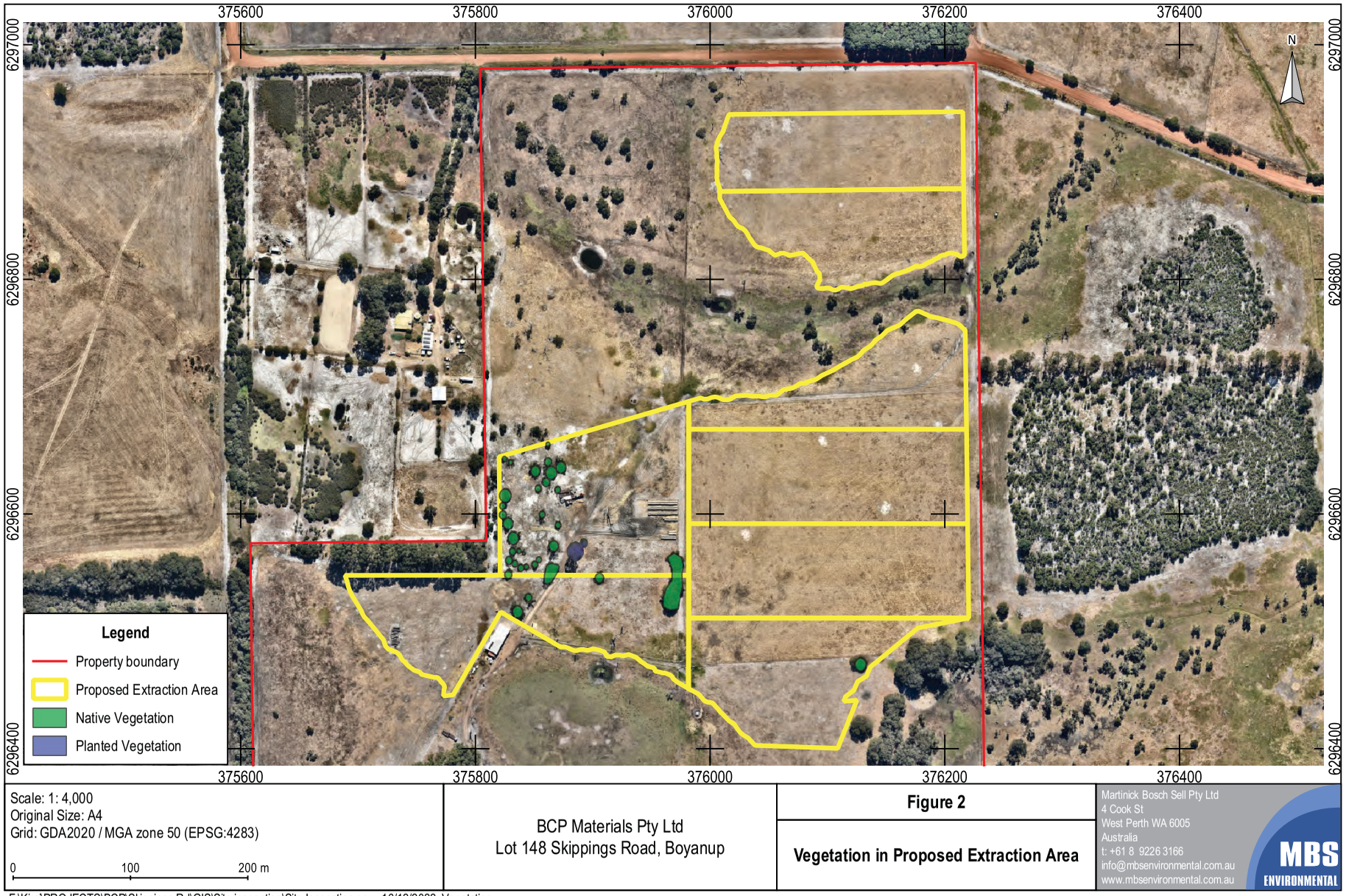


Figure 5. Vegetation in Proposed Extraction Area

3. Planning Framework

3.1 Greater Bunbury Region Scheme

The Greater Bunbury Region Scheme zones the subject site as 'Rural' as outlined within Figure 5.

Refer to Figure 5 – Greater Bunbury Region Scheme (GBRS)

The purpose of the 'Rural' zone is as follows:

> *"Rural – to provide for the sustainable use of land for agriculture, assist in the conservation and wise use of natural resources including water, flora, fauna and minerals, provide a distinctive rural landscape setting for the urban areas and accommodate carefully planned rural living developments."*

The aims of the GBRS relevant to this proposal as are as follows:

> *The aims of the Scheme are to —*
>
> *(A) Promote the sustainable development of land taking into account relevant environmental, social and economic factors;*
>
> *(H) Protect strategic minerals and basic raw materials of State and regional importance and provide for the efficient and timely extraction of minerals and raw materials and subsequent rehabilitation of affected land.*

The proposed development meets the aims of the scheme and purpose of the rural zone as it seeks to promote the sustainable development of the land through the progressive extraction of a basic raw material prior to rehabilitation of the site back to pasture for ongoing grazing purposes.

3.2 Shire of Capel Local Planning Scheme No. 7

The property is currently zoned "*Rural*" under the Shire of Capel's Local Planning Scheme No. 7 (LPS 7). An excerpt of the Shire of Capel's LPS 7 mapping is provided as Figure 6.

Refer to Figure 6 – Local Planning Scheme No. 7 Zoning

The objective for the Rural zone is outlined as follows:

> *5.7 Rural Zone:*
>
> *Council's objective in the assessment of subdivision referrals and management of land uses in the Rural Zone is to preserve the character of the rural area, discourage the removal of prime agricultural land from agricultural production and prevent adverse effects on the continuation of established or potential agricultural industries.*

The proposed development is in accordance with the objective of the Rural zone as the proposal seeks to use degraded grazing pasture and extract the sand resource prior to rehabilitating the site to pasture for ongoing agricultural use.

The proposal therefore meets the objectives of the Rural zone.

An 'Industry Extractive' land use is defined by LPS 7 as:

> *Means an industry which involves:*
>
> *(a) the extraction of sand, gravel, clay, turf, soil, rock, stone, minerals, or similar substance from the land, and the storage, treatment or manufacture of products from those materials when the storage, treatment or manufacture is carried out on the land from which any of the materials so used is extracted or on land adjacent thereto; or*
>
> *(b) the production of salt by the evaporation of sea water*

Within the Rural zone, an Industry Extractive land use is an "A" use and may be considered by council, subject to the application being made available for public comment in accordance with clause 64 of the deemed provisions. Therefore, the proposed development is capable of approval in accordance with the land use permissibility of the Rural zone within LPS 7.

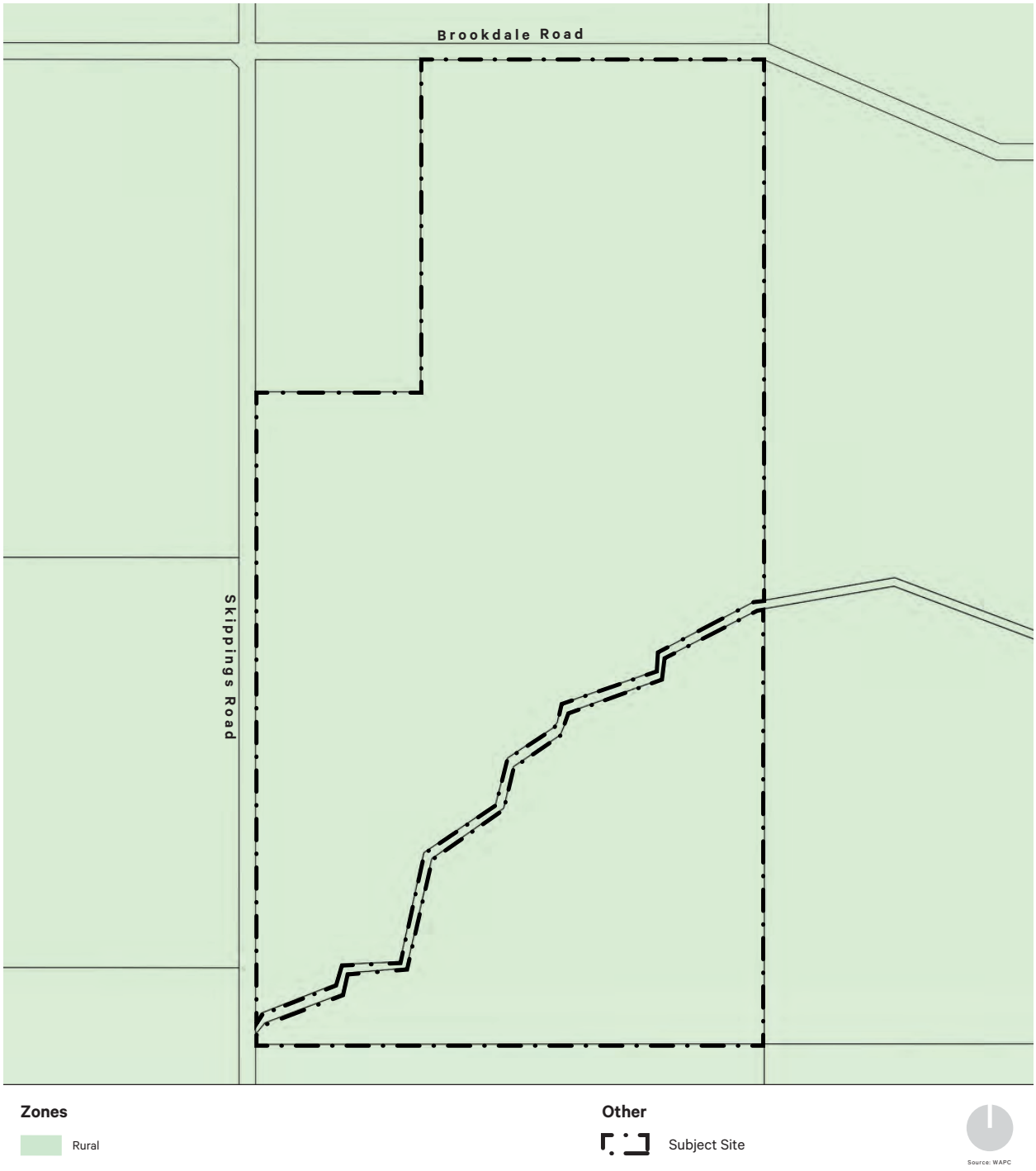


Figure 6. Greater Bunbury Region Scheme (GBRS)

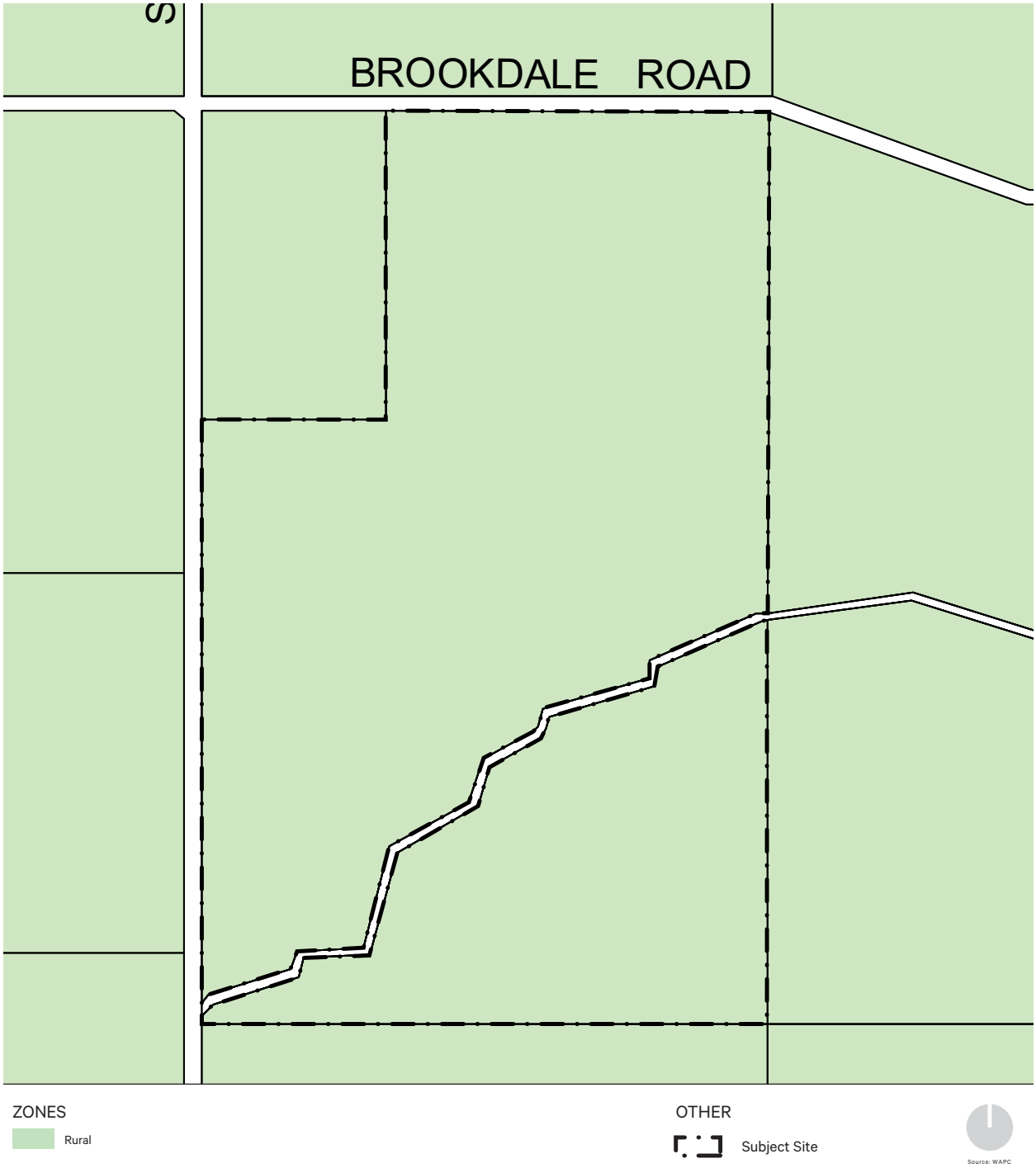


Figure 7. Local Planning Scheme No. 7 Zoning

3.3 Draft Shire of Capel Local Planning Scheme No. 8

The Shire's Draft Local Planning Scheme No. 8 (LPS 8) is awaiting final gazettal by the Minister for Planning and is to be given due regard.

The subject site is zoned "Rural", with an Industry Extractive considered an "A" use, capable of approval, subject to public advertising in accordance with clause 64 of the Deemed Provisions.

Schedule 3 of LPS 8 sets out the additional site and development requirements within the rural zone relevant to the proposal as follows:

> *5) Where appropriate, land uses which generate off-site impacts must demonstrate an appropriate separation distance from a sensitive land use or that potential impacts will be acceptable in order to preserve the rural character and amenity, in accordance with stage government guidance, to the satisfaction of the Local Government.*

Potential environmental impacts associated with Noise and Dust during operations are appropriately managed in accordance with the relevant management plans outlined within this report.

3.4 Draft Local Planning Policy 6.2 – Extractive Industries

The Shire has recently released draft Local Planning Policy 6.2 – Extractive Industries (LPP6.2) for public comment on the 14th of December 2022. Assessment of the proposed development against the Acceptable development criteria and where required, further justification is provided against the performance criteria is summarised below.

Draft LPP6.2 Acceptable Development and Performance Criteria Provisions	Applicant Comments	Compliant
Element: Amenity		
AD1.1.1 Development is located away from sensitive land uses unless appropriate measures can be taken to ameliorate adverse impacts.	The proposal is adequately separated from surrounding properties. The nearest sensitive land use is located 106.2m from the extraction boundary of Stage 2. Extraction within Stage 2 may appropriately manage noise impacts as outlined in the Noise Management Plan.	✓
AD1.1.2 Hours of operation are limited to 7am to 7pm Monday to Friday and 7am to 1pm on Saturday. No operation on recognised public holiday days.	Proposed hours of operation are in accordance with AD 1.1.2.	✓
AD1.1.3 Shire referral to Government agencies and surrounding property owners within 500m in accordance with Local Planning Policy LPP6.7 Community Engagement and Extractive Industry Local Law.	Pursuant to clause 64 of the deemed provisions, the application is to be made publicly available for comment.	✓
AD 1.1.4 Development is located, designed and rehabilitated compatible with long-term planning and environmental protection.	The proposed development seeks to maintain and enhance the long-term agricultural use of the land post extraction. The reduced separation to groundwater will enable enhanced growth of pasture.	✓
AD1.1.4.1 Extraction of material occurs from only one site per property at any one time.	The proposed extraction is to be completed sequentially as outlined within the development plans attached at Appendix B and is located within a single location.	✓
Element: Environmental		
AD1.2.1 Development does not prejudicially affect native flora and fauna; groundwater quality, quantity and use; surface drainage and surface water quality including discharge of sediment and sites of cultural and/or historic significance on or near the land.	The proposed extraction area includes 0.2Ha of scattered completely degraded vegetation which will not prejudicially impact native flora and fauna values onsite. Appropriate separation to the MGL onsite is to be maintained throughout operations to ensure the development does not impact on the groundwater table.	✓

Draft LPP6.2 Acceptable Development and Performance Criteria Provisions	Applicant Comments	Compliant
AD1.2.2 Dieback is managed in accordance with Best Practice Guidelines – Management of Phytophthora Dieback in Extractive Industries (2005 – Dieback Working Group) as detailed within an agreed Dieback Management Plan.	No dieback risk has been identified on the subject site.	✓
AD1.2.3 Excavation shall not occur within 2 metres of the estimated maximum ground water level.	The EIL proposes extraction to a maximum depth of +0.5m from the MGL.	
PC1.2.3 Development is located and managed to achieve a high level of surface and groundwater resource protection to provide soil depth for rehabilitation to native vegetation, future land use and a buffer against groundwater contamination and exposing groundwater.	Post-extraction MGL separation distances as proposed ensures pasture is afforded sufficient topsoil for germination and a reduced separation to groundwater to promote growth. Compliance with a conditional development approval will ensure no potential risk of groundwater exposure.	✓
AD1.2.4 Batter slopes with gradients of 1:10 to 1:6 when rehabilitated to pasture for agricultural land uses and/or native revegetation.	Batter slopes proposed are in accordance with the policy provision, providing slopes at 1:6 to support future pasture growth.	✓
AD1.2.5 Sites to be rehabilitated in accordance with an agreed Environmental Management Plan and Rehabilitation Implementation Plan prepared and implemented in accordance with application and bonding requirements as specified in Appendix 1 of this Policy.	Onsite rehabilitation is to be completed in accordance with the rehabilitation methodology provided within this report. A condition of Development Approval may be recommended by the Shire for the preparation of a Rehabilitation Implementation Plan for staged rehabilitation to pasture.	✓
Element: Buffers		
PC1.3 Development is sited in accordance with the principles of State Planning Policy 4.1 State Industrial Buffer Policy and Guidance Note 3 – Separation Distances Between Industrial and Sensitive Land Uses (EPA – 2005).	The proposed development is appropriately managed in accordance with Guidance Note 3 – Separation Distances Between Industrial and Sensitive Land Uses. A reduced separation distance to the nearest sensitive dwelling is proposed (106.2m in lieu of 300m) and is appropriately justified in accordance with the noise management plan and dust management plan contained within this report. Proposed operations are not anticipated to adversely impact upon amenity of the nearby sensitive land use.	✓
Element: Visual Impact		
AD1.4.1 Development is to be visually inevident in the landscape when viewed from major travel and tourist routes.	The proposed extraction area is not located along any major travel or tourist routes Additionally, screening of active stages with the use of topsoil bunds has been incorporated to further reduce visual impact from neighbouring properties.	✓
Element: Transport		
AD1.5.1 Development is located in proximity to heavy haulage routes.	The subject site has easy access to Boyanup Road West and by extension, Bussell Highway. Both roads are a registered RAV network capable of supporting the volume of haulage vehicles proposed. Skippings Road is a local road, with maintenance of this road to be managed by the operator during haulage campaigns.	✓
PC 1.5.2 Transport Route is to be suitable for the proposed development and truck volumes.	The proposed haulage route is suitable for the daily haulage of material from the subject site.	✓

Draft LPP6.2 Acceptable Development and Performance Criteria Provisions	Applicant Comments	Compliant
AD1.5.3 Development where a road maintenance agreement has been entered into with the Shire prior to operation and/or where financial contributions have been made to ensure the upgrading of roads where necessary to improve the standard of access.	It is anticipated that as a condition of development approval, a cost contribution is to be made to the Shire for the maintenance of local roads.	✓
AD1.5.4 Development is demonstrated to reduce impacts from traffic generation through mitigation strategies outlined in an accompanying Traffic Impact Assessment report to that of the application.	Pursuant to the Transport Impact Assessment Guidelines (2016), the proposed haulage operations will not exceed 10 vehicle trips within the development's peak hour and a Traffic Impact Assessment is not required to support this application.	✓
AD1.5.5 Development application contains a sufficient Dust Management Plan. The Dust Management Plan accompanying the application is to outline how appropriate levels of visibility on local roads are achieved and maintains traffic safety.	A Dust Management Plan (DMP) has been prepared in support of the proposed development. The DMP outlines the strategies incorporated to reduce dust from operations. Maintenance of Skippings Road is the responsibility of the operator, with a reduced haulage speed and regular watering by the water cart to ensure dust is appropriately managed.	✓

3.5 State Planning Policy 2.4 – Basic Raw Materials

State Planning Policy 2.4 seeks to enable the responsible extraction of Basic Raw Materials (BRM) while ensuring the protection of people and the environment. The application of this Policy provides the foundation for land use planning to address the sustainable management of BRM in Western Australia. Applicable to this proposal, the following objectives of the Policy are as follows:

> *a) Provide guidance to facilitate the planning of BRM extraction from sites, where such extraction is considered appropriate on planning and environmental grounds;*
>
> *(c) ensure considerations relating to the extraction of BRM and the regional importance of the materials are taken into account in the early stages of the planning process including scheme amendments, planning strategies and structure plans;*
>
> *(e) prioritise the extraction and availability of BRM through the identification of sequential use sites and planned extraction and remediation as appropriate for the final intended land use;*
>
> *(f) ensure that the use and development of land for extraction of BRM, during or after extraction, avoids, minimises and mitigates detrimental impacts on the community and environment, including water resources and biodiversity values, while allowing for future use, consistent with long term planning.*

In light of the above Policy objectives, the proposed EIL seeks to meet the objectives of the Policy as follows:

- The proposed extractive industry seeks to extract a basic raw material (sand) in a staged manner which considers planning and environmental constraints in the context of surrounding sensitive land uses;
- The ability of the subject site to meet market demand for BRM while ensuring the land is preserved for continued grazing use ensures the long term viability of the land; and
- The proposed rehabilitation onsite allows for the land to be rehabilitated to pasture with a reduced depth to groundwater ensuring improve quality as provided within the surrounding locality.

Demonstration of consistency with the assessment criteria detailed within SPP 2.4 is outlined within the following table:

SPP 2.4 Guidelines Part 4	Analysis of this Extractive Industry Application
(a) the avoidance or mitigation of conflicts and detrimental effects on existing and future sensitive land uses and agricultural land in the surrounding areas (that is, noise, dust, vibration, blasting and vehicular traffic);	The proposed extractive industry is to be appropriately separated from surrounding sensitive land uses. Appropriate management of the proposed works allow mitigation against impacts associated with noise, dust, vibration, and traffic.
(b) having an effective consultation process with appropriate stakeholder engagement, including advertising as required;	The development application is to be made available for public comment as part of the development application process with due regard given to any submissions made.
(c) prioritisation of proposals within SGS areas aligned with DMIRS geoVIEW.WA mapping in Perth and Peel;	Not applicable to this application.
(d) if the resources is identified as a SGS area and/or local basic raw material demand;	The site is not identified as an SGS for sand extraction.
(e) the quantity and quality of resource and scale and duration of extraction;	The proposed extractive industry is proposed to extract an estimated 234,255 tonnes of sand within a five-year period.
(f) management of finished ground levels for BRM extraction and site rehabilitation to: i. *Maintain appropriate horizontal separation between extraction, water supply infrastructure and any other engineering requirements;* ii. *Avoid the exposure of groundwater and maintain the required vertical separation distances to groundwater for sequential land use;* iii. *Protect ground water and surface water quality.*	The proposed extractive industry will be consistent with SPP 2.4 Guidelines Part 4(f). The proposed extractive industry is adequately separated from water supply and engineering infrastructure. Further commentary regarding surface water and ground water is provided within this report. A separation distance to groundwater of +0.5m from the MGL is proposed and is considered sufficient to protect against potential interception of groundwater.
(g) the site's potential for sequential land use and the ability to rehabilitate the land in a manner compatible with its long-term use identified by the Local Planning Scheme;	Following extraction, the site is to be rehabilitated to pasture to appropriately return the land to grazing pastoral land.
(h) the ability to stage the extraction operations to avoid conflicts with any adjacent land uses;	The proposed development is staged to ensure sequential extraction avoids any adverse impacts on adjoining sensitive land uses. Appropriate management measures are to be implemented to ensure compliance and preventing adverse amenity impacts.
(i) the effect of the proposed extractive industry on any adjacent agricultural land;	The proposed extractive industry is not considered to negatively impact any surrounding agricultural land uses within proximity of the site. Rehabilitation of the site will also allow for more effective agricultural land for pasture with a reduced separation to groundwater.
(j) the availability and suitability of road access;	Road access is available via Skippings Road to the south, connecting to Boyanup Road West and Bussell Highway. Further vehicle access details are outlined in this report.
(k) the effect of the proposed extractive industry on any native flora and fauna and general landscape values;	The subject site is currently used for grazing purposes, having been historically cleared and containing limited vegetation value. Post extraction, pasture is to be reinstated onsite for grazing of livestock.
(l) how all water resources will be protected during BRM extraction including a separation distance to the defined groundwater level plus other management measures to protect water resources during BRM extraction;	Further justification for the proposal is outlined within this report. No water resources are to be impacted by this proposal.
m) potential impacts on fragmentation and connectivity of remnant vegetation;	No fragmentation is anticipated as part of this application.

SPP 2.4 Guidelines Part 4	Analysis of this Extractive Industry Application
n) any requirements for an environmental offset;	The proposed extractive industry area is to be entirely revegetated to pasture. No environmental offsets are required.
o) sites of cultural and historic significance on and near the land, having regard to how they are likely to be integrated with subsequent land uses; and	Not applicable to this application.
p) location and stability of excavations, stockpiles and overburden dumps.	No stockpiling of material is to occur onsite.

Therefore, the proposed development is designed in accordance with the provisions of SPP 2.3 – Basic Raw Materials and is capable of approval.

3.6 State Planning Policy 3.7 – Planning in Bushfire Prone Areas

The subject site is designated to be bushfire prone as outlined within Figure 7.

Refer to Figure 7 – Bushfire Prone Mapping

The provisions of SPP 3.7 and associated guidelines for Planning in Bushfire Prone Areas (V1.4) apply to the proposed development.

Section 2.6 of the guildelines – Discretionary Decision-Making states the following:

> *Decision-makers can apply exemptions from the requirements of SPP 3.7 and these Guidelines where there is no intensification of land-use, and/or the proposal is not increasing the bushfire threat. Intensification of land use and/or development may include planning proposals that:*
>
> > *a) result in an increase of visitors, residents or employees; or*
> >
> > *b) involve the occupation of employees on site for more than three hours at a time for multiple periods during a week.*

An Extractive Industry is listed as a land use which may be considered exempt from compliance with the guidelines where no habitable buildings are proposed.

Since the proposal does not contain any habitable buildings, and employees are to be onsite for periods of haulage and loading only, the application is considered exempt from requiring a bushfire assessment at this stage.

3.7 Shire of Capel Extractive Industries Local Law (2016)

The Shire of Capel under the Local Government Act has prepared an Extractive Industry Local Law to outline the manage and guide the regulation of Extractive Industry applications made within the Shire.

This proposed application is designed in pursuant to the provisions of the Local Law to deliver basic raw materials within the southwest.

In particular, the application seeks to comply in part with clause *6.1 – Limits on excavation near boundary* as follows:

> *6.1 Limits on excavation*
>
> > *(a) 20 metres of the boundary of any land on which the excavation site is located;*
> >
> > *(b) 20 metres of any land affected by a registered grant of easement;*
> >
> > *(c) 40 metres of any thoroughfare;*
> >
> > *(d) 50 metres of any bore, watercourse, wetland, swamp, or other water reserve; or*
> >
> > *(e) 2 metres of the estimated maximum groundwater level as determined from time to time by the Department of Water or otherwise as adopted by the local government.*

The proposed extraction boundary is as outlined within the Excavation Works Plan attached at Appendix B.

The following concessions to clause 6.1 of the Shire's Extractive Industry Local law are proposed for consideration on a planning merits basis:

1. A 10m setback to a side boundary (20m required); and
2. Extraction to a depth no greater than 0.5m above the determined MGL (+0.5m MGL).

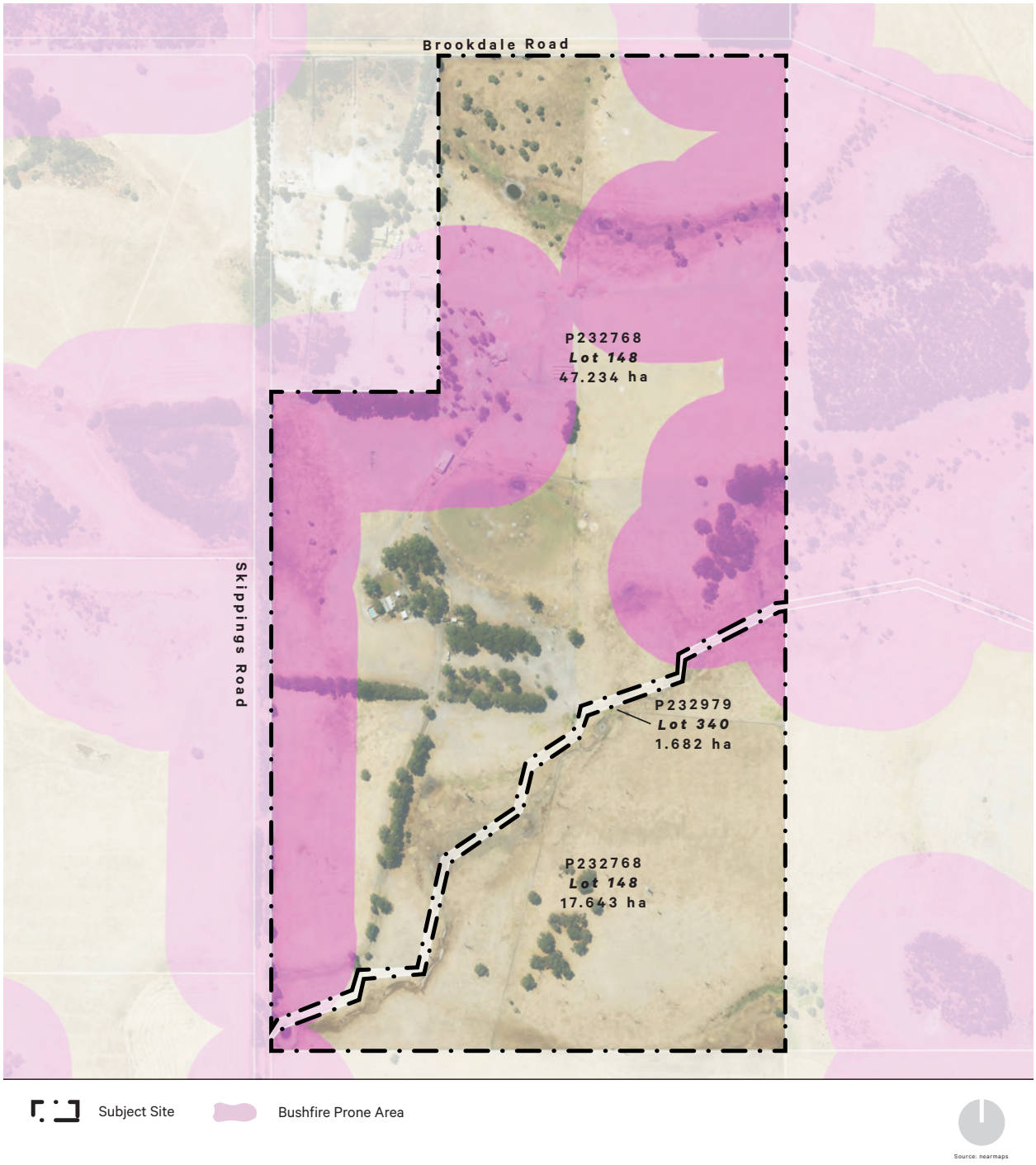


Figure 8. Bushfire Prone Mapping

Side Boundary Setback:

Concession to the side boundary setback is proposed to the eastern and western boundaries of Lot 148. The reduced setback is justified as follows:

1. The sand ridge is located east-west, with the highest volume of material located along the western boundary (Stage 2) and the eastern boundary (Stages 5 and 6). A reduced setback to the side boundary provides a greater volume of material for extraction.
2. The reduced setback to the side boundary allows for an increased post extraction area, while maintaining adequate width along the boundary to install a firebreak pursuant to the Shire's Firebreak notice.
3. An increased extraction area increases the area of agricultural land which is located within 0.5m of the MGL, providing a greater area of improved pasture as is demonstrated within surrounding agricultural land; and
4. A reduced setback does not impact upon the amenity of the dwelling within Lot 379, as the topsoil bund will provide sufficient screening to operations during works within stage 2. There are no sensitive land uses within Lot 143 (east) to which a reduced setback may cause any adverse impact during operations.

Extraction Depth:

Depth of extraction to the maximum groundwater level (MGL) must consider the following constraints:

1. The potential risk of intercepting groundwater; and
2. The post extraction use of the land.

1. Potential Risk of Intercepting the Groundwater Table

JDA Hydrologists have determined the MGL contours across the site based upon longitudinal data correlating peak winter monitoring data from bores onsite to the nearby DWER monitoring bore from two winter periods.

The risk associated with intercepting groundwater is not considered likely, as the MGL contours produced by JDA include a correlation to the average annual maximum groundwater level determined by DWER. The operator is required to maintain the required separation distance to groundwater during the period of highest groundwater in accordance with a condition of the extractive industry licence (July – November). Noncompliance with this condition is a breach of approval and may be appropriately prosecuted.

To provide further confidence to the Shire and prevent any interception of groundwater, a calibrated machine control system may be required as a condition of Development Approval, during the months of June – November, preventing any extraction below the post extraction contours identified on the development plans at Appendix B. Machine control systems are an industry standard to ensure extraction occurs to a specified model and height (AHD). This may be audited by the Shire at any given time pursuant to the Extractive Industry Local Law.

2. Post Extraction Land Use:

The post extraction land use proposed onsite consists of pasture. The reduced separation to the MGL will allow for higher quality pasture post extraction.

The proposed depth of extraction has also been historically supported from the Department of Primary Industries and Regional Development (DPIRD). Large areas within the Shire experience groundwater level increase during winter near or at the surface as characterised within the localities of Elgin, The Plains and North Boyanup. The propoed reduction in groundwater separation therefore will align with the current practices within the surrounding locality and ensure pasture may be established onsite for future grazing.

3.8 Separation Distances between Industrial and Sensitive Land Uses

The Environmental Protection Authority (EPA) has prepared a guiding document for assessment of environmental factors associated with the separation distances between sensitive land uses and Industrial land uses.

The proposed extractive industry is of a nature which reflects the 'Extractive Industry- Sand and Limestone' industry listed within Appendix 1. The relevant buffer distance is recommended to be 300-500m to sensitive land uses, depending on the size and nature of operations, with key impacts associated with operations being noise and dust.

The proposed development is located 106m from the nearest sensitive land use, separated and screened by existing vegetation and a proposed topsoil bund. Management of Noise and Dust impacts on this sensitive land use are appropriately outlined within this report to ensure no adverse impacts are posed by this development.

4. Development Proposal

4.1 Overview

The extractive industry is proposed within a portion of the lot historically cleared for agricultural purposes. Extraction is to occur in 8 stages as outlined within the development plans attached at Appendix B.

Prior to extraction, the disused hay shed located within stage 2 is to be demolished and removed from the extraction stage.

Extraction of sand is to be completed by BCP Group, with haulage proposed to use 19m trucks on Skippings Road to Boyanup Road West, before proceeding to the Bussell Highway.

Following extraction, the site is to be rehabilitated to allow for seeding of pasture grass. Rehabilitation proposed seeks to provide a greater standard of pasture than what is currently present on the subject site due to the reduced depth to groundwater.

4.2 Nature of Operations and Duration

The proposed daily operations onsite are outlined as follows.

Machinery located onsite during extraction works may include but are not limited to the following:

- A loader for the purpose of loading sand into haulage trucks;
- A bulldozer for the stripping and respreading of topsoil post extraction for each extraction stage;
- Haulage trucks for transporting material off-site;
- A grader for road maintenance if required along Skippings Road in consultation with the Shire; and
- A 15kl watercart for dust suppression.

The duration of works onsite are anticipated to occur over a five-year period in accordance with a time limited extractive industry licence granted under the Shire's Extractive Industry Local Law (2016). It is anticipated that all material may be extracted within this period.

Rehabilitation and ongoing monitoring and maintenance of the rehabilitation will require management over a period of 12 months following the completion of seeding onsite.

The following activities are expected as part of the on-going operation of the site:

- Clearing of Vegetation - scattered vegetation onsite is to be removed and stockpiled for processing onsite either to be mulched or burnt as required by the landowner.
- Removal of Topsoil - The top 100mm of topsoil from the active extraction stage is to be removed and stockpiled. Topsoil stockpiles are to be located adjacent to each stage and constructed with a batter no greater than 1:3 to ensure minimal erosion of the stockpile during winter rains. Topsoil bunds are temporary in nature and may be located within the site boundary setback. Each temporary topsoil bund is to be appropriately setback from any fence line or infrastructure to ensure access is maintained along the boundary (3m).;
- Sand excavation - This activity involves extraction of the resource from the working face within the stage and the loading of trucks by a front end loader for haulage offsite.
- Screening - Screening of excavated material may be required dependent upon the particle size of material and market demand to remove debris and rock found within the sand profile. Should screening be undertaken onsite, a mobile screen is to be transported onsite and operated in accordance with the environmental acoustic report attached at Appendix E. Material is to be loaded into the screen by front-end loader prior to loading haulage trucks.
- Final contouring and topsoil respread - A combination of equipment may be used to undertake spreading and earthworks and includes but not limited to a bulldozer and tracked bobcat. Final batters are to be no greater than 1:6 and certified by a feature survey prior to rehabilitation to pasture.
- Site rehabilitation – Rehabilitation is to be completed in stages following the extraction of material.

4.3 Stages of excavation

Extraction of sand is proposed to occur within 8 separate stages as outlined within the Excavation Works Plan attached at Appendix B. Sequential extraction per stage is to occur in an orderly manner (1-8).

The proposed staging plan for the development is as per the excavation works plan contained at Appendix B. Following approval a survey is to set out each approved extraction stage to ensure compliance with the approved extraction extent.

The total volume of material to be extracted is in the order of 234,255 tonnes.

4.4 Proposed depth of extraction

Depth of extraction is limited to a maximum of +0.5m MGL. Detailed post extraction contours are provided within the development plans provided at Appendix B.

It is the operator's responsibility to not exceed this depth of extraction to prevent any risk of intercepting groundwater within the site. Machine control guidance may be conditioned by the Shire for extraction at +0.5m MGL to maintain the appropriate separation to groundwater during peak periods in the months of July – November.

4.5 Proposed Site Access and Haulage

Access to the site is proposed via the existing crossover at Skippings Road to the property. Internal site access is to be generally in accordance with the existing driveway through the property as shown on the development plans attached at Appendix B.

The proposed haulage route for the development is identified within Figure 8.

During peak haulage campaigns, it is anticipated that 8 trucks are to enter and exit the site every hour with an anticipated extraction of 1,200 tonnes of sand per day. The total number of haulage movements is expected to be approximately 50 movements per day. Pursuant to the Traffic Impact Assessment Guidelines of the WAPC, a traffic impact assessment for the proposed development is not required as movements during each peak hour are less than 10 movements.

This is dependent upon the delivery destination and the number of haulage trucks operating on any given day. Heavy vehicle movements are to be largely reliant on market demand for material, with long periods of limited haulage activity, separated by short, intense haulage campaigns.

Skippings Road is an unsealed gravel local road, with a width of 7m capable of supporting the proposed haulage trucks. It is requested as a condition of development approval that BCP be made responsible for the ongoing maintenance of Skippings Road. This is deemed to be a more efficient solution than giving responsibility to the Shire as BCP will be able to maintain the gravel road during haulage campaigns.

It is also accepted as a condition of approval that a Traffic Management Plan (TMP) be prepared to the satisfaction of the Shire. The TMP will include provisions for mitigating conflicts of access on the Skippings Road portion of the proposed haulage route. The TMP will propose signage solutions to assist in efficient access for trucks concurrently entering and leaving along Skippings Road to prevent any significant road widening and associated clearing.

4.6 Proposed hours of operation

The proposed hours of operation are 7:00am to 7:00pm, Monday to Friday inclusive, and 7:00am to 1:00pm on Saturdays. No works are to occur on Sundays or Public Holidays.

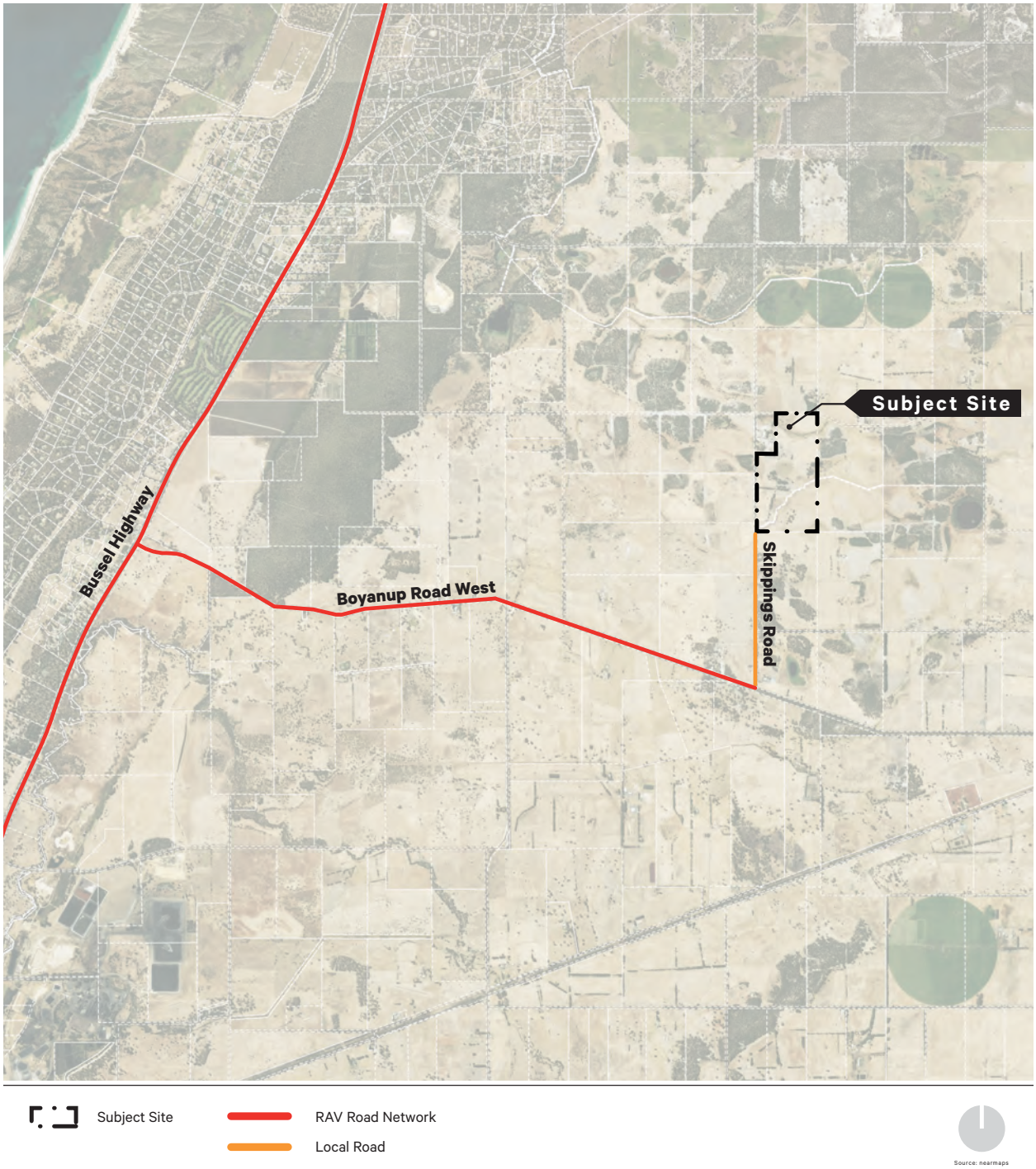


Figure 9. Proposed Material Haulage Route

5. Environmental Management

5.1 Proposed Stormwater Management

Surface water runoff associated with the proposed extraction operations is anticipated to be contained within each extractive stage, without any surface water runoff offsite.

Naturally occurring depressions within the lot will ensure all stormwater is contained onsite. No additional constructed detention basins or swales are required to facilitate the proposed development.

5.2 Proposed Noise Management

An Acoustic report was prepared by Herring Storer and included at Appendix E, providing further modelling of anticipated noise impacts on the nearest sensitive land use within proximity of the development as outlined within Figure 10.

Refer to Figure 10 - Modelled Acoustic Contours (Worst Case Scenario)

The acoustic report confirms that, due to the presence of noise-sensitive dwellings on neighbouring properties, the maximum acceptable noise level recorded at peak operation is to be 45dB(A). This noise level is exceeded when recorded from the nearest residential property with no noise controls implemented. Therefore, noise resulting from operations is proposed to be managed through the use of an earth bund during all stages of operations.

5.3 Proposed Groundwater Management

As outlined within the Groundwater Monitoring report prepared by JDA, eight monitoring bores are located within and surrounding the extraction boundary. During the months of June to November, the operator is to monthly monitor the groundwater level and ensure the +0.5m MGL separation distance to groundwater is maintained at all times.

5.4 Proposed Dust management

Dust generated onsite is to be managed in accordance with the Dust Management Plan (DMP) prepared by MBS Environmental with a copy of the plan attached at Appendix D.

As outlined within the DMP, dust will be managed onsite by:

- Visual monitoring of dust generation from the operations are to be undertaken onsite on an ongoing basis (windblown dust);
    - Should dust generation be observed and there is a risk of dust being blown out of the active extraction stage, additional watering of dust sources with the water cart will be organised;
    - Alternative dust controls, such as chemical dust suppressants (soil binding agents) and dust fencing will be implemented on an as needed basis for any persistent sources of dust such as stockpiles or open areas waiting for extraction;
    - When weather conditions negate the effectiveness of dust prevention and mitigation measures and dust continues to be blown offsite, all dust generating activities will cease until conditions improve and compliance with this DMP can be achieved; and
    - Additional chemical dust suppressants and dust fencing may be required on each topsoil bund to mitigate impacts on the existing dwelling located west of the extraction area as required.

No dust is to cross the Lot boundary at any time, with the measures listed above considered appropriate to manage the potential of dust generation onsite.

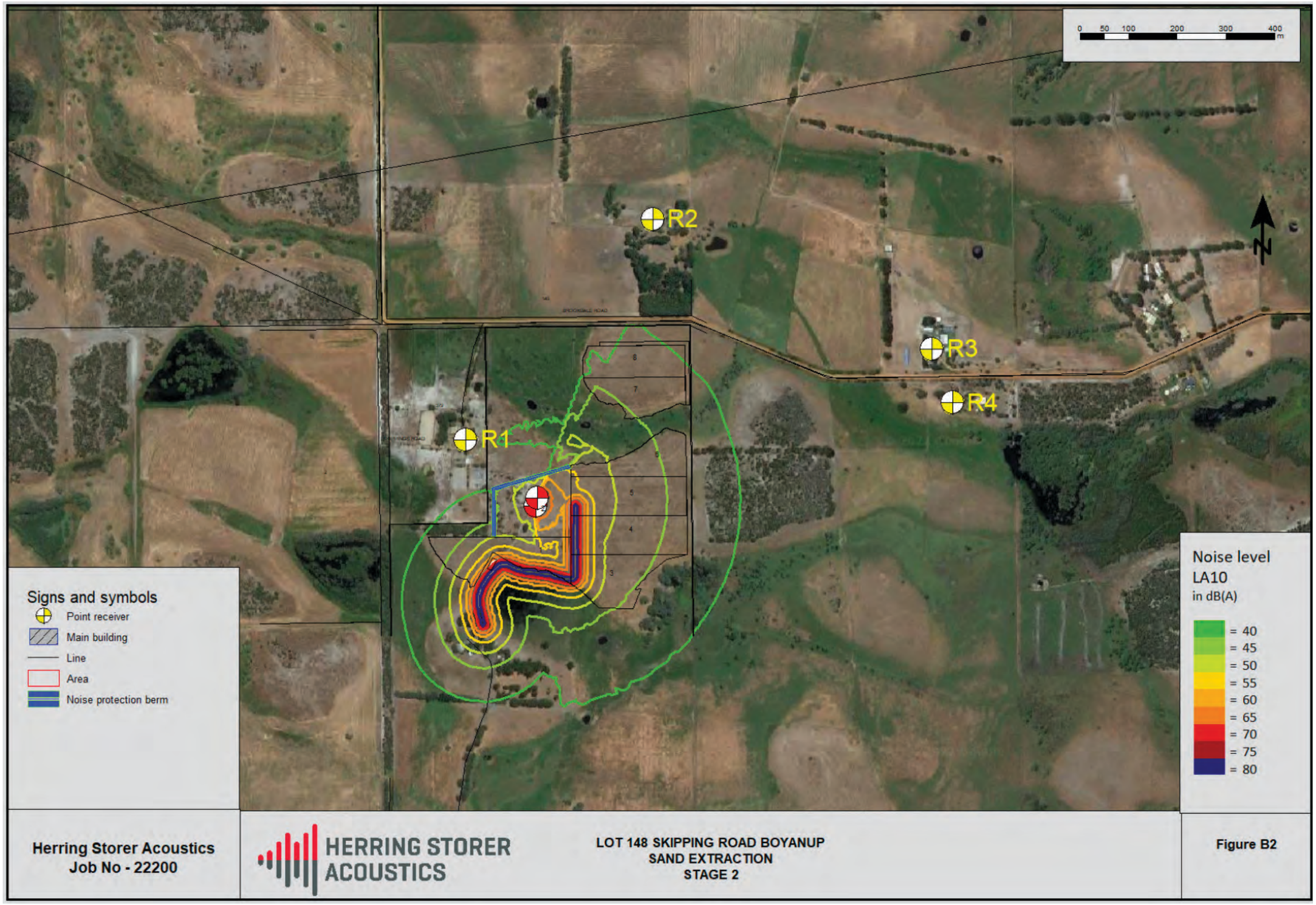


Figure 10. Modelled Acoustic Contours (Worst Case Scenario)

5.5 Proposed Vehicle Maintenance & Management

All machinery onsite are to be fuelled by an authorised service vehicle which is to arrive onsite when required and contain an industry standard hydrocarbon spill kit to prevent any potential contamination of the site. No hydrocarbons are to be stored onsite at any time, and servicing of machines to occur offsite if required.

5.6 Proposed Weed Management

Management of weeds within the extraction area is to be completed by the landowner in consultation with the operator as part of standard farming operations onsite. Straying of liquid herbicides are to be used when required to manage weeds onsite by the landowner.

5.7 Proposed Management of Visual Impacts

Screening is proposed on the western property boundary with Lot 379 by a 2m high temporary earth bund as shown on the Excavation Works Plan attached at Appendix B. This provides visual screening between the extraction area and the neighbouring dwelling, mitigating against visual amenity impacts where required.

These screening measures are to take place sequentially, following the staging of extraction. The topsoil of each stage will be used to create the respective temporary bund to screen the visual impacts of that stage of works. When each stage is completed, the bund will be removed and topsoil returned to the extraction stage in preparation rehabilitation of each stage. The bund surrounding stage 2 will remain during operations within stages 2-8 to protect the visual amenity of Lot 379.

5.8 Proposed Rehabilitation Management & Maintenance

Due to the nature of the proposed extractive industry simply requiring rehabilitation of the subject site to pasture, a detailed rehabilitation implementation plan has not been prepared at this stage. It is requested that the rehabilitation implementation plan be prepared as a condition of development approval to the satisfaction of the Shire of Capel.

Rehabilitation is to generally be completed in the following manner:

1. Topsoil is to be respread across each completed extraction stage using a tracked bobcat or bulldozer to the specified contours and levels on the post extraction plan;
2. During the months of April – May of each year, the completed stage is to be ploughed by a tractor and a pasture seed mix be broadcast to the completed stage to the satisfaction of the Shire of Capel;
3. As required, temporary fencing is to be installed surrounding the stage of rehabilitation to prevent livestock from grazing and damaging applied seed;
4. Weed management of the rehabilitated stages is to be completed in conjunction with existing week management practices onsite. Where separate management is to occur, a contractor is to be engaged to spray appropriate herbicides in the spring of each year to ensure weeds are appropriately managed onsite; and
5. Temporary fencing may be removed (if required) once pasture is established within each stage to a standard capable of supporting grazing by livestock.

Rehabilitation onsite is to be completed by the operator in consultation with the landowner and the Shire. Sequential rehabilitation is to occur following each completed stage in the manner set out above.

6. Conclusion

Development Approval and consent to issue an Extractive Industry License by the Shire of Capel is respectfully sought on behalf of BCP Materials for the development of an Extractive Industry at Lot 148 (No.168) Skippings Road, Boyanup.

The proposed Extractive Industry is justified as follows:

- This proposal seeks to extract a basic raw material (sand) from a degraded portion of the subject site requiring limited clearing of native vegetation;
- Post extraction, pasture grass may be established with a reduce distance to groundwater enhancing the quality of pasture for grazing purposes;
- Dust and Noise impacts associated with the development are considered to be appropriately managed to ensure no impacts on the landowner of Lot 379;
- Haulage on Skippings Road as proposed will ensure maintenance and grading during haulage is the responsibility of the operator with haulage from Skippings Road, utilising the RAV 3 network;
- The proposed development will assist in meeting market demand for basic raw materials, facilitating the delivery of projects within the South West.

On the basis of the description and justified planning rationale provided within this report, it is therefore respectfully requested that the Regional JDAP resolve to approve the proposed extractive industry at Lot 148 (No.168) Skippings Road, Boyanup.

Appendix A – Certificate of Title

WESTERN AUSTRALIA

REGISTER NUMBER	
148/DP232768	
DUPLICATE EDITION **2**	DATE DUPLICATE ISSUED **16/10/2020**

VOLUME **1332** FOLIO **151**

RECORD OF CERTIFICATE OF TITLE

UNDER THE TRANSFER OF LAND ACT 1893

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.

BGRoberts

REGISTRAR OF TITLES

REGISTRAR OF TITLES WESTERN AUSTRALIA

LAND DESCRIPTION:

LOT 148 ON DEPOSITED PLAN 232768

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

CAMPBELL ROBERT NETTLETON
EWEN JAMES NETTLETON
BOTH OF 168 SKIPPINGS ROAD BOYANUP WA 6237
AS JOINT TENANTS

(T O511047) REGISTERED 30/9/2020

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

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:	1332-151 (148/DP232768)
PREVIOUS TITLE:	984-139
PROPERTY STREET ADDRESS:	168 SKIPPINGS RD, BOYANUP.
LOCAL GOVERNMENT AUTHORITY:	SHIRE OF CAPEL

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VOL. 1332 FOL. 151

* Application A568636

Volume 984 Folio 139

WESTERN AUSTRALIA

CERTIFICATE OF TITLE

UNDER THE "TRANSFER OF LAND ACT, 1893" AS AMENDED

2439/72

Page 1 (of 2 pages) VOL. 1332 FOL. 151

I certify that the person described in the First Schedule hereto is the registered proprietor of the undermentioned estate in the undermentioned land subject to the easements and encumbrances shown in the Second Schedule hereto.

REGISTRAR OF TITLES

DATED 18th September, 1972

ESTATE AND LAND REFERRED TO

Estate in fee simple in Boyanup Agricultural Area Lot 148, delineated and coloured green on the map in the Third Schedule hereto, limited however to the natural surface and therefrom to a depth of 60.96 metres.

FIRST SCHEDULE (continued overleaf)

~~Ernest Edward Skippings of Boyanup, Farmer~~

SECOND SCHEDULE (continued overleaf)

~~1. MORTGAGE A284999 to Bank of New South Wales. Registered 4.5.70 at 9.24 o'~~

Discharged (A624148 7.2.73)

~~2. MORTGAGE A304686 to Commonwealth Development Bank of Australia. Registered 7.7.70 at 11.15 o'~~

Discharged (A624150 7.2.73)

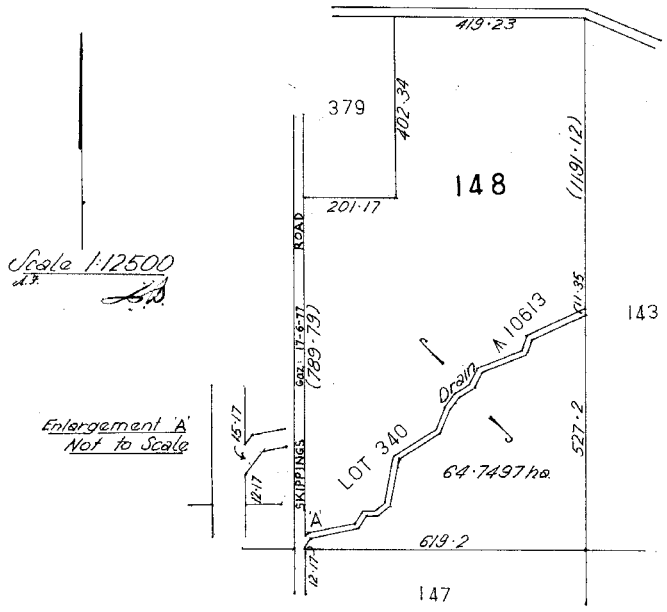
~~Savings Bank Limited~~ Asst. Registrar of Titles 15.12.72

~~3. MORTGAGE A565891 to Bank of New South Wales. Registered 18.9.72 at 9.37 o'~~

Discharged (A624149 7.2.73)

REGISTRAR OF TITLES

THIRD SCHEDULE



NOTE: RULING THROUGH AND SEALING WITH THE OFFICE SEAL INDICATES THAT AN ENTRY NO LONGER HAS EFFECT. ENTRIES NOT RULED THROUGH MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS.

9097 1/8/71–30M–O/SOL

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

Superseded - Copy for Sketch Only

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LT. 37

FIRST SCHEDULE (continued)

NOTE: RULING THROUGH AND SEALING WITH THE OFFICE SEAL INDICATES THAT AN ENTRY NO LONGER HAS EFFECT. ENTRIES NOT RULED THROUGH MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS.

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	REGISTERED	TIME	SEAL	INITIALS
~~Edgar Alfred Hicks Smith of 6 Picton Crescent, Bunbury, Farmer.~~	~~Transfer~~	~~A624151~~	~~7.2.73~~	~~10.04~~		
Kevin George Nettleton, School Teacher and Susan Elizabeth Nettleton, School Teacher both of Collins Road, Boyanup, as joint tenants.	Transfer	C46636	16.12.80	2.56		
The correct address of the registered proprietors is now Skippings Road, Boyanup.	By...	E669900	6.8.91	15.32		

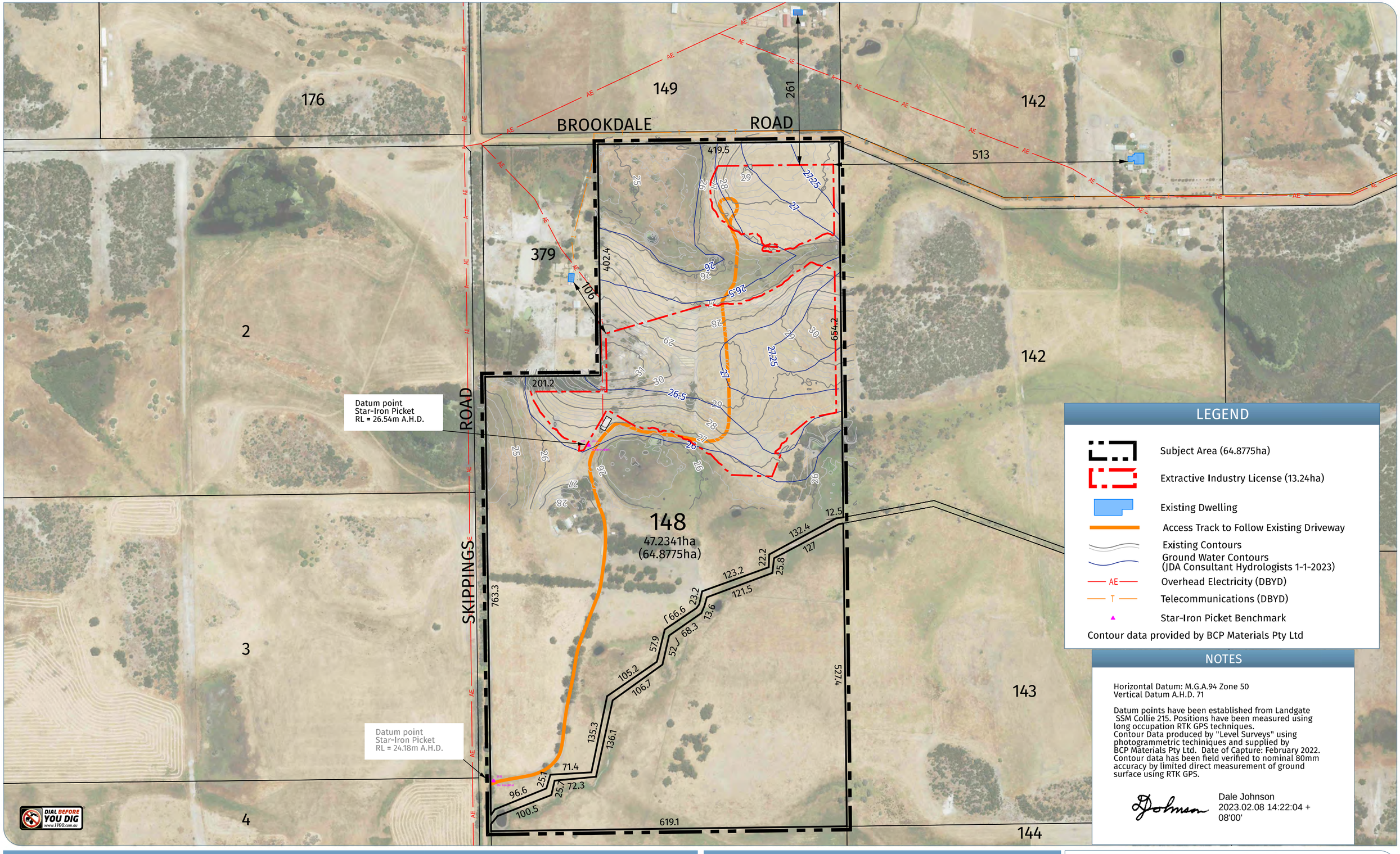
SECOND SCHEDULE (continued)

NOTE: RULING THROUGH AND SEALING WITH THE OFFICE SEAL INDICATES THAT AN ENTRY NO LONGER HAS EFFECT. ENTRIES NOT RULED THROUGH MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS.

INSTRUMENT NATURE	INSTRUMENT NUMBER	PARTICULARS	REGISTERED	TIME	SEAL	INITIALS	CANCELLATION	NUMBER	REGISTERED OR LODGED	SEAL	INITIALS
~~Mortgage~~	~~A624152~~	~~to Bank of New South Wales.~~	~~7.2.73~~	~~10.04~~			Discharged	B339904	20.5.77		
~~Mortgage~~	~~C46637~~	~~to The W.A. Teachers' Credit Society Limited.~~	16.12.80	2.56			Discharged	C760810	2.5.84		
~~Mortgage~~	~~C322661~~	~~to The National Bank of Australasia Limited.~~	~~17.3.82~~	~~9.18~~			Discharged	C760811	2.5.84		
Mortgage	C760812	to The W.A. Teachers' Credit Society Limited.	2.5.84	9.21			Discharged	D848047	18.8.88		
Mortgage	C760813	to National Commercial Banking Corporation of Australia Limited.	2.5.84	9.21			Discharged	E669899	6.8.91		
Application	D848046	Mortgage C760812 is vested in the Rural & Industries Bank of Western Australia pursuant to a direction by the Registrar of Co-operative & Financial Institutions dated 13th January 1988.	18.8.88	9.01			By Discharge	D848047	18.8.88		
Mortgage	E669900	to R. & I. Bank of Western Australia Ltd.	6.8.91	15.32							
Transfer	G867380	of Mortgage E669900 to Commonwealth Bank of Australia. ~~Dup C/T not prod.~~	4.8.98	9.14							
Mortgage	H183672	to Commonwealth Bank of Australia.	2.8.99	9.36							
Mortgage	H183673	to Commonwealth Bank of Australia.	2.8.99	9.36							

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Appendix B – Development Plans



LEGEND

- Subject Area (64.8775ha)
- Extractive Industry License (13.24ha)
- Existing Dwelling
- Access Track to Follow Existing Driveway
- Existing Contours
- Ground Water Contours (JDA Consultant Hydrologists 1-1-2023)
- AE — Overhead Electricity (DBYD)
- T — Telecommunications (DBYD)
- Star-Iron Picket Benchmark

Contour data provided by BCP Materials Pty Ltd

NOTES

Horizontal Datum: M.G.A.94 Zone 50
Vertical Datum A.H.D. 71

Datum points have been established from Landgate SSM Collie 215. Positions have been measured using long occupation RTK GPS techniques.
Contour Data produced by "Level Surveys" using photogrammetric techiniques and supplied by BCP Materials Pty Ltd. Date of Capture: February 2022. Contour data has been field verified to nominal 80mm accuracy by limited direct measurement of ground surface using RTK GPS.

Dale Johnson
2023.02.08 14:22:04 + 08'00'

SITE PLAN

Lot 148 (No. 168) Skippings Road, BOYANUP

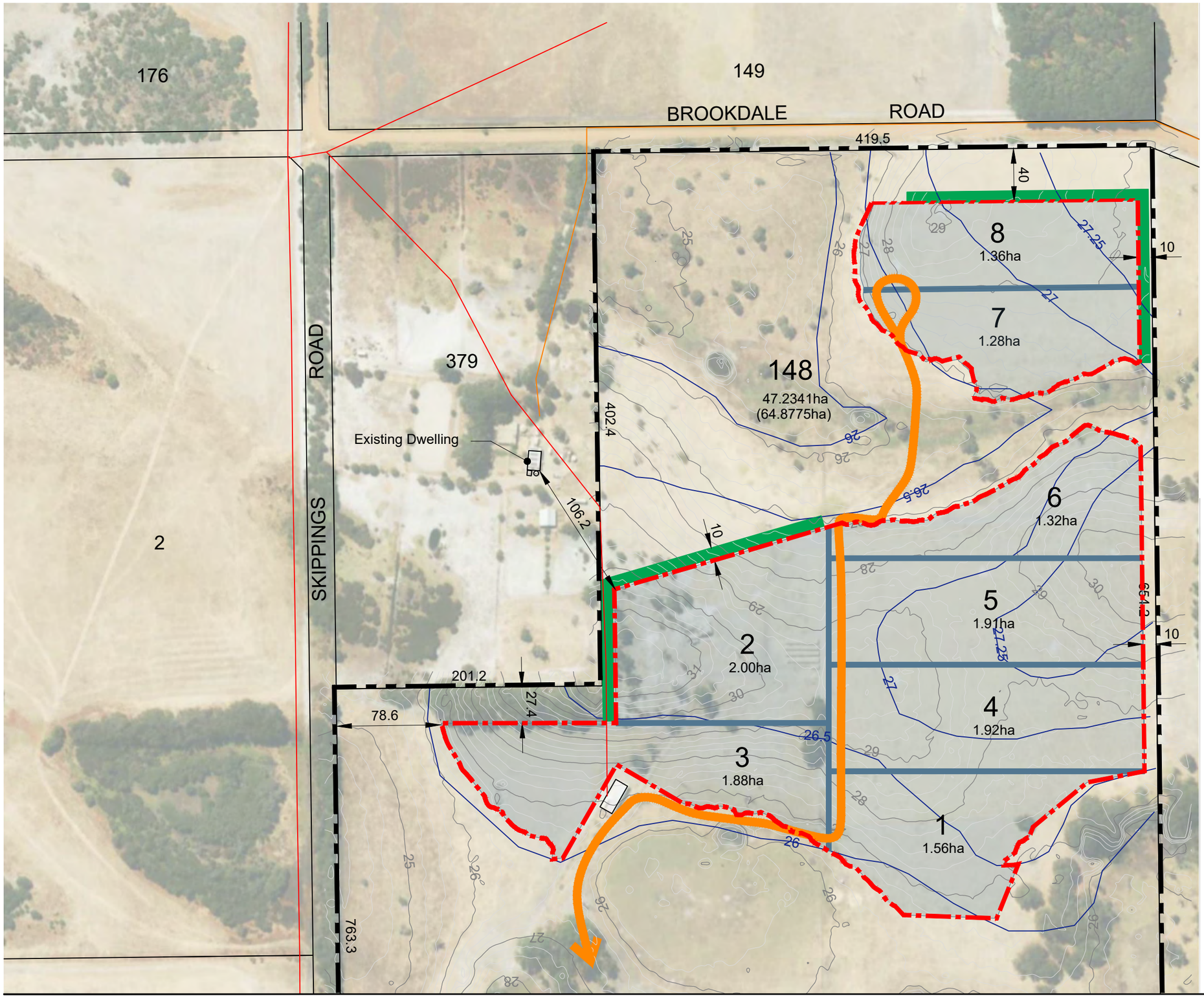
Plan No.	22955-01	
Date	27/10/22	
Drawn	NP	
Checked	DJ	
Revision	E	
Scale	1:3000@A3	0 40m 80m

NOTE: This plan has been prepared for planning purposes. Areas, Contours and Dimensions shown are subject to survey

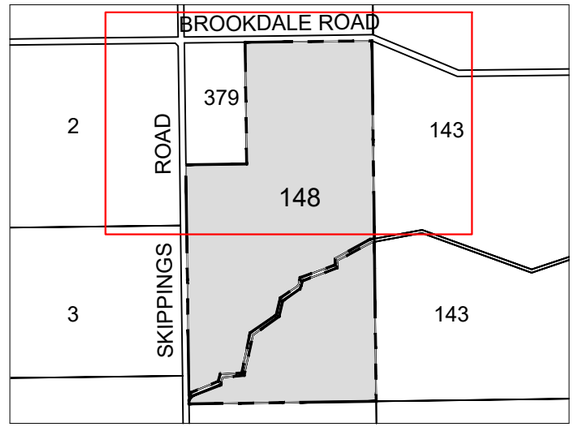
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LOCATION MAP



VOLUME SUMMARY

Pit	Volume (BCM)
Total	146,409.336

LEGEND

- Subject Area (64.8775ha)
- Extractive Industry License (13.23ha)
- Extraction Stages
- Internal Access (Unsealed)
- 2m High Temporary Bund (Topsoil)
- Existing Contours
- Ground Water Contours (JDA Consultant Hydrologists)
- Overhead Electricity (DBYD)
- Telecommunications (DBYD)

Contour data provided by BCP Materials Pty Ltd

Base data provided by Harley Dykstra Pty Ltd

Excavation Works Plan

Lot 148 (168) Skippings Road, Boyanup

0 60m

Date: 16 Feb 2023 Scale: 1:3000 @ A3 1:1500 @ A1 File: **22-335 SU01A** Staff: DL GW Checked: DL

element.

Level 18, 191 St Georges Terrace, Perth Western Australia 6000.
PO Box 7375 Cloisters Square, Perth Western Australia 6850.
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176

149

BROOKDALE ROAD

1:6 Batter

419.5

40

10

379

148
47.2341ha
(64.8775ha)

402.4

Existing Dwelling

106

1:6 Batter

10

201.2

763.3

2

SKIPPINGS ROAD

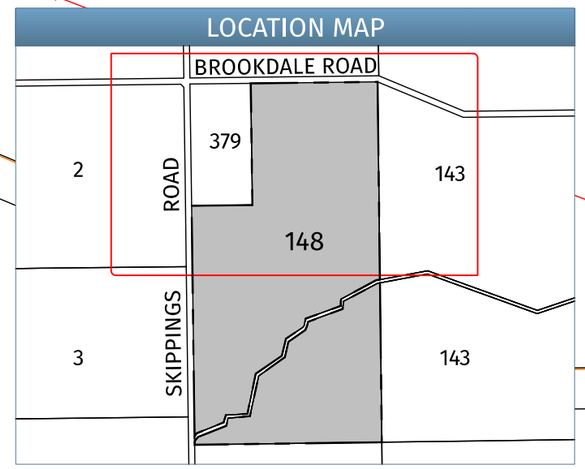
1:6 Batter

10

654.2

143

LOCATION MAP



LEGEND

- Subject Area (64.8775ha)
- Extractive Industry License (13.53ha)
- Toe Line (0.5m above MGL)
- Rehabilitated to Pasture
- Existing Contours
- Post Extraction Contours
- AE — Overhead Electricity (DBYD)
- T — Telecommunications (DBYD)

Contour data provided by BCP Materials Pty Ltd

DIAL BEFORE YOU DIG www.1100.com.au

POST EXTRACTION PLAN

Lot 148 (No. 168) Skippings Road, BOYANUP

Plan No.	22955-04	
Date	27/10/22	
Drawn	NP	
Checked	DJ	
Revision	C	
Scale	1:3000@A3	0 40m 80m

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Appendix C – Environmental Site Inspection

MARTINICK BOSCH SELL PTY LTD
ABN 60 102 614 479
MBS ENVIRONMENTAL
environmental and geoscience consultants

4 Cook Street
West Perth WA 6005
Australia

Telephone +61 8 9226 3166
Email: info@mbsenvironmental.com.au

16 December 2022

BCP Materials Pty Ltd
(submitted electronically to Kyle.Jackson@bcpgroup.com)

Attention: Kyle Jackson, Director

Dear Kyle,

Re: Lot 148 (No. 168) Skippings Road, Boyanup - Environmental Site Inspection

Martinick Bosch Sell Pty Ltd (MBS Environmental) was engaged by BCP Materials Pty Ltd (BCP) to undertake an environmental site inspection of the proposed sand extraction area on Lot 148 (No. 168) Skippings Road in Boyanup (Figure 1), within Shire of Capel. The site inspection was undertaken by Senior Environmental Scientist Dr Kirsi Kauhanen on 25 November 2022. The purpose of the inspection was the describe the environmental values and potential constraints of the site. This letter documents the findings of the site inspection. It is understood that BCP, on behalf of the landowners, will be submitting a Development Application and Extractive Industry Licence application to Shire of Capel and this document may be used to accompany such applications.

1. FLORA AND VEGETATION

In broadscale vegetation mapping, the proposed extraction area is mapped as:

- Bassendean vegetation system association (Bassendean_1000) (DPIRD-006), which is broadly described as a mosaic of Medium forest; jarrah-marri / Low woodland; banksia / Low forest; a Melaleuca species.
- Bassendean Complex-Central and South (DBCA-046) which is described as ranging from woodland of *Eucalyptus marginata* (Jarrah) - *Allocasuarina fraseriana* (Sheoak) - Banksia species to low woodland of Melaleuca species, and sedgelands on the moister sites.

The proposed extraction area has been largely cleared of native vegetation in the past for farming purposes (Figure 2, Figure 3) and has been grazed for several decades. There is no native vegetation in the two northern extraction stages and in the other stages native vegetation is limited to isolated trees and small clusters, in Completely Degraded condition (EPA 2016). Dominant species are *Agonis flexuosa* (Peppermint tree, Figure 4) and *Kunzea glabrescens* (Spearwood, Figure 5), with one *Eucalyptus marginata* (Jarrah) and two *Banksia attenuata* (Slender Banksia). Native vegetation remaining in the proposed extraction area totals approximately 0.2 ha. There are also a few individuals of planted non-native vegetation within the extraction area (Figure 6).

Native understorey has been completely removed and replaced with introduced pasture grasses and other weeds. No Threatened species listed at state or commonwealth level or Priority flora species listed by the Department of Biodiversity, Conservation and Attractions (DBCA) were observed and they would not be expected to occur considering the current status and disturbance history of the extraction area. No Declared Pest plants or other significant weed species were observed either.

The vegetation in the proposed extraction area does not comprise a Threatened Ecological Community listed at state or commonwealth level or a Priority Ecological Community listed by DBCA.

The native vegetation remaining within the proposed extraction area does not include wetland type flora species and is not riparian in nature. There are mapped Multiple-Use category wetlands on the property but these are located outside the proposed extraction area and have been largely cleared of native vegetation as well.

Due to the degree of previous clearing and disturbance and the general lack of indicator species, the presence or absence of *Phytophthora* dieback cannot be confirmed.

2. FAUNA

The remaining native vegetation in the proposed extraction area provides very limited habitat for native fauna species and lacks connectivity to larger patches of native vegetation. The trees within the proposed extraction area are less than 50 cm in diameter at breast height and contain no hollows suitable for Black cockatoo nesting. Black cockatoo foraging habitat is largely limited to one Jarrah and two Banksia trees. Western Ringtail Possum is unlikely to utilise the proposed extraction area due to the poor quality of the habitat remaining and the lack of canopy connectivity. Overall, no native fauna species is expected to depend on the vegetation within the proposed extraction area.

3. CONCLUSION

The approximately 0.2 ha of native vegetation remaining in the proposed extraction area is in Completely Degraded condition and limited to individual trees and small clusters. No Threatened or Priority flora or ecological communities are present and fauna habitat quality is poor, and therefore the overall environmental value is considered low.

Removal of the remaining native vegetation within the proposed extraction area will require either:

- A Native Vegetation Clearing Permit (NVCP) Part V of the *Environmental Protection Act 1986* from the Department of Water and Environmental Regulation (DWER) or,
- A referral of the proposed clearing under Part V of the *Environmental Protection Act 1986* to DWER to determine whether a clearing permit is required, and if necessary an application for a NVCP as per above.

In case of any questions, please do not hesitate to contact me on kkauhanen@mbsenvironmental.com.au or 0405 083 765.

Yours sincerely
MBS Environmental



Kirsi Kauhanen
Senior Environmental Scientist

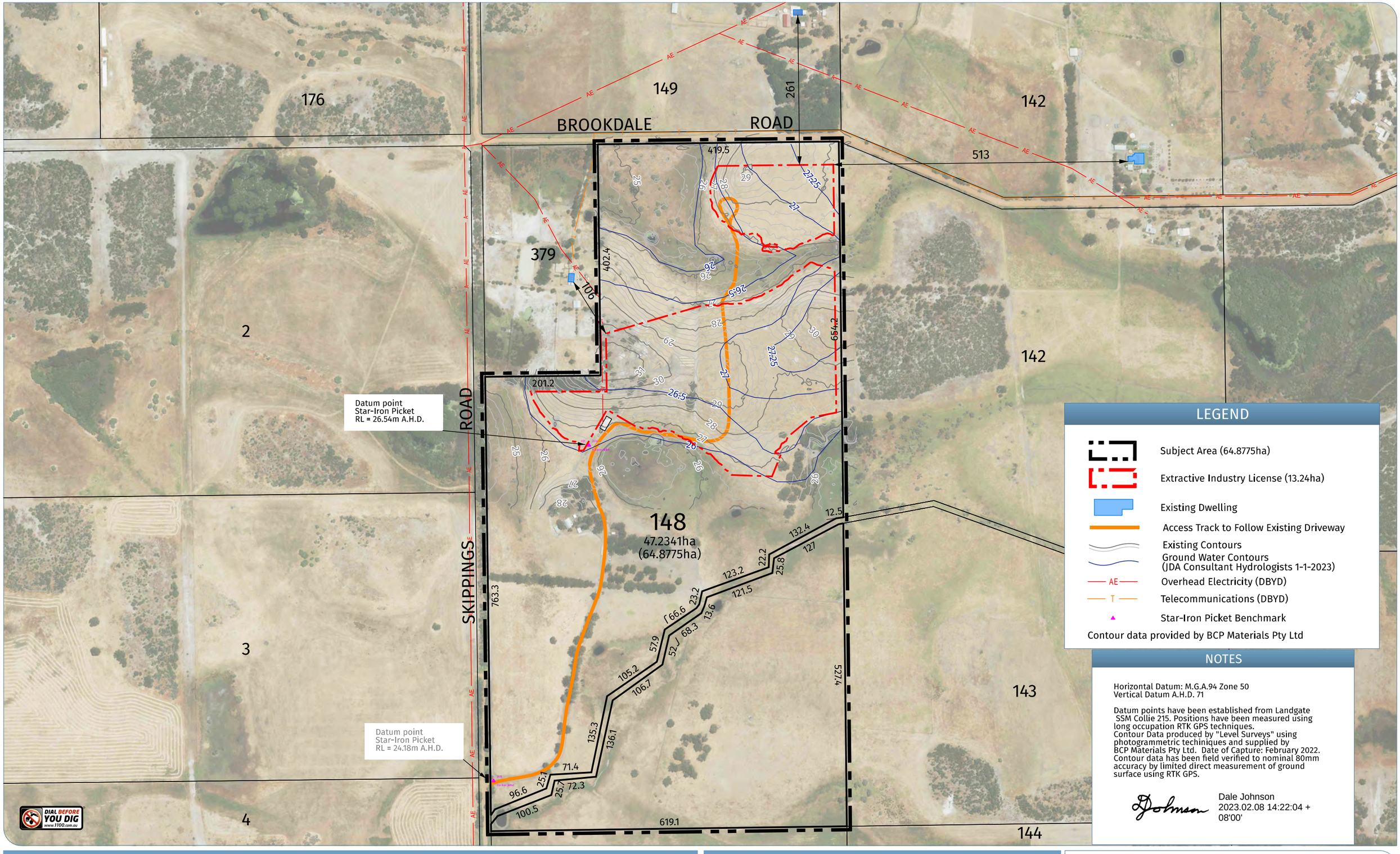
cc: BCP Materials Pty Ltd – Attention: Director Kyle Jackson

References:

Environmental Protection Authority of WA. 2016. Technical Guidance Flora and Vegetation Surveys for Environmental Impact. EPA, Perth, Western Australia. http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA/Technical/Guidance/FloraandVegetationsurvey_Dec13.pdf

Department of Biodiversity, Conservation and Attractions (DBCA). 2018. *Vegetation Complexes - Swan Coastal Plain (DBCA-046)*. https://catalogue.data.wa.gov.au/dataset/vegetation-complexes-swan-coastal-plain (accessed December 2022).

Department of Primary Industries and Regional Development (DPIRD). 2019. *Pre-European Vegetation (DPIRD-006)*. https://catalogue.data.wa.gov.au/dataset/pre-european-dpird-006 (accessed December 2022).



LEGEND

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Contour data provided by BCP Materials Pty Ltd

NOTES

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Vertical Datum A.H.D. 71

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Dale Johnson
2023.02.08 14:22:04 + 08'00'

SITE PLAN

Lot 148 (No. 168) Skippings Road, BOYANUP

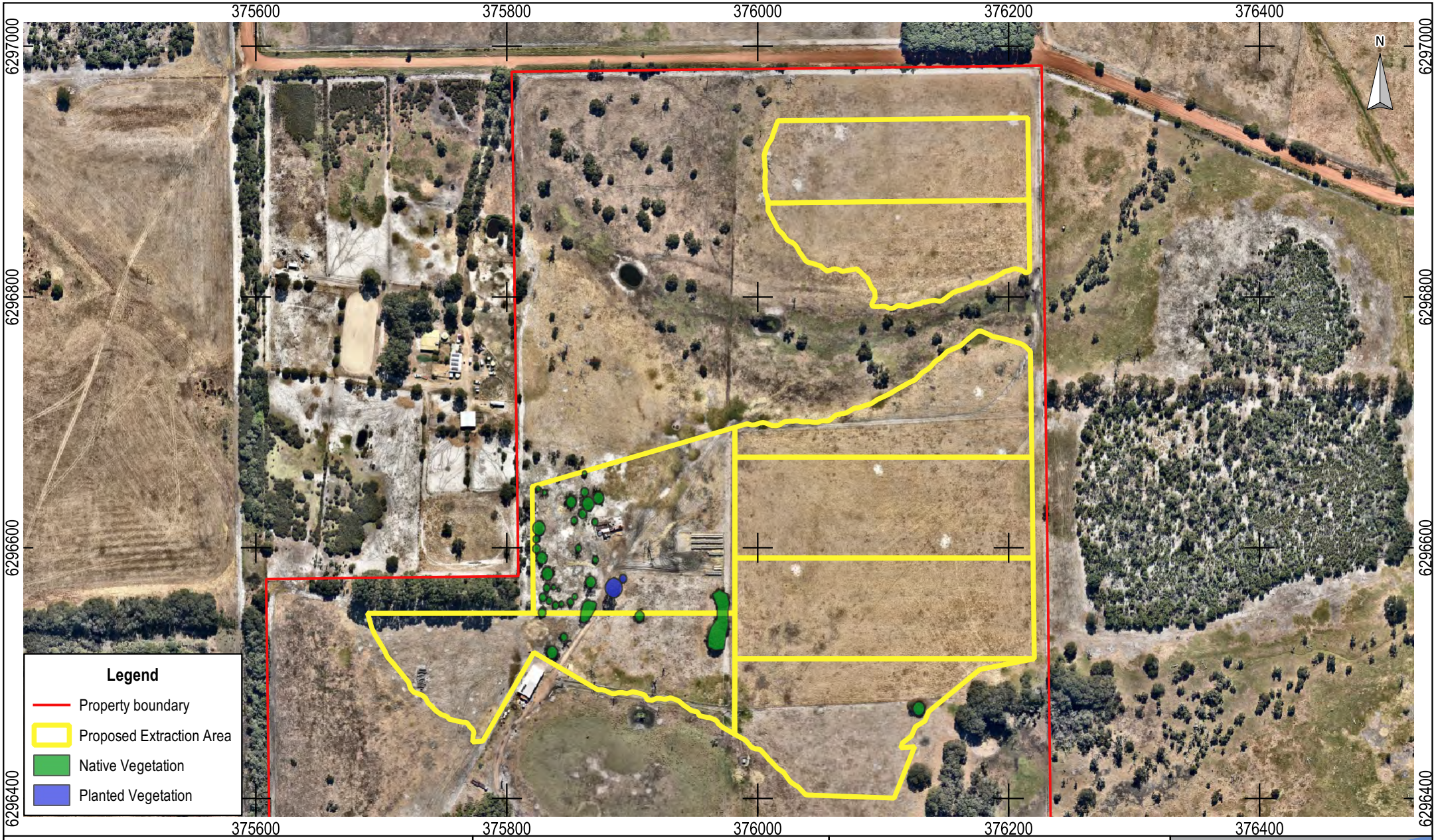
Plan No.	22955-01	
Date	27/10/22	
Drawn	NP	
Checked	DJ	
Revision	E	
Scale	1:3000@A3	0 40m 80m

NOTE: This plan has been prepared for planning purposes. Areas, Contours and Dimensions shown are subject to survey

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Scale: 1: 4,000
Original Size: A4
Grid: GDA2020 / MGA zone 50 (EPSG:4283)

0 100 200 m

BCP Materials Pty Ltd
Lot 148 Skippings Road, Boyanup

Figure 2

Vegetation in Proposed Extraction Area

Martinick Bosch Sell Pty Ltd
4 Cook St
West Perth WA 6005
Australia
t: +61 8 9226 3166
info@mbsenvironmental.com.au
www.mbsenvironmental.com.au

MBS ENVIRONMENTAL

F:\Kirsi\PROJECTS\BCP\Skippings Rd\GIS\Site inspection\Site Inspection.qgz 16/12/2022 Vegetation



Figure 3: Previously Cleared Areas with Proposed Extraction Area



Figure 4: Clusters of Native Vegetation (*Agonis flexuosa*)



Figure 5: Clusters of Native Vegetation (Kunzea glabrescens)



Figure 6: Planted Vegetation within Proposed Extraction Area

Appendix D – Dust Management Plan

LOT 148 (NO. 168) SKIPPINGS ROAD, BOYANUP

DUST MANAGEMENT PLAN

PREPARED FOR:

BCP MATERIALS PTY LTD

DECEMBER 2022

PREPARED BY:

Martinick Bosch Sell Pty Ltd
4 Cook Street
West Perth WA 6005
Ph: (08) 9226 3166
Email: info@mbsenvironmental.com.au
Web: www.mbsenvironmental.com.au

MBS ENVIRONMENTAL

MARTINICK BOSCH SELL PTY LTD
ABN 60 102 614 479
MBS ENVIRONMENTAL
environmental and geoscience consultants

LOT 148 (NO. 168) SKIPPINGS ROAD, BOYANUP
DUST MANAGEMENT PLAN

Distribution List:

Company	Contact name	Copies	Date
BCP Materials Pty Ltd	Kyle Jackson, Director	Electronic	15 December 2022
Element	Daniel Lewis, Planning Consultant	Electronic	15 December 2022

Document Control for Job Number: BCPBDMP

Document Status	Prepared By	Authorised By	Date
Draft Report	Darcey Shepherd Kirsi Kauhanen	Sue Brand	23 June 2022
Final Report	Kirsi Kauhanen	Sue Brand	15 December 2022

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APPENDICES

Appendix 1: Wind Roses
Appendix 2: Risk Assessment
Appendix 3: Dust Complaint Form

1. INTRODUCTION

1.1 PURPOSE

BCP Materials Pty Ltd on behalf of the landowners are applying for a Development Application (DA) and Extractive Industry Licence (EIL) for the extraction of sand on Lot 148 (No. 168) Skippings Road in Boyanup within the Shire of Capel (Figure 1). The Shire of Capel requires that a Dust Management Plan (DMP) is prepared as a part of the DA/EIL application.

This DMP was prepared in accordance with the Department of Environment and Conservation's (DEC) *"A guideline for managing the impacts of dust and associated contaminants from land development sites, contaminated sites remediation and other related activities"* (DEC 2011).

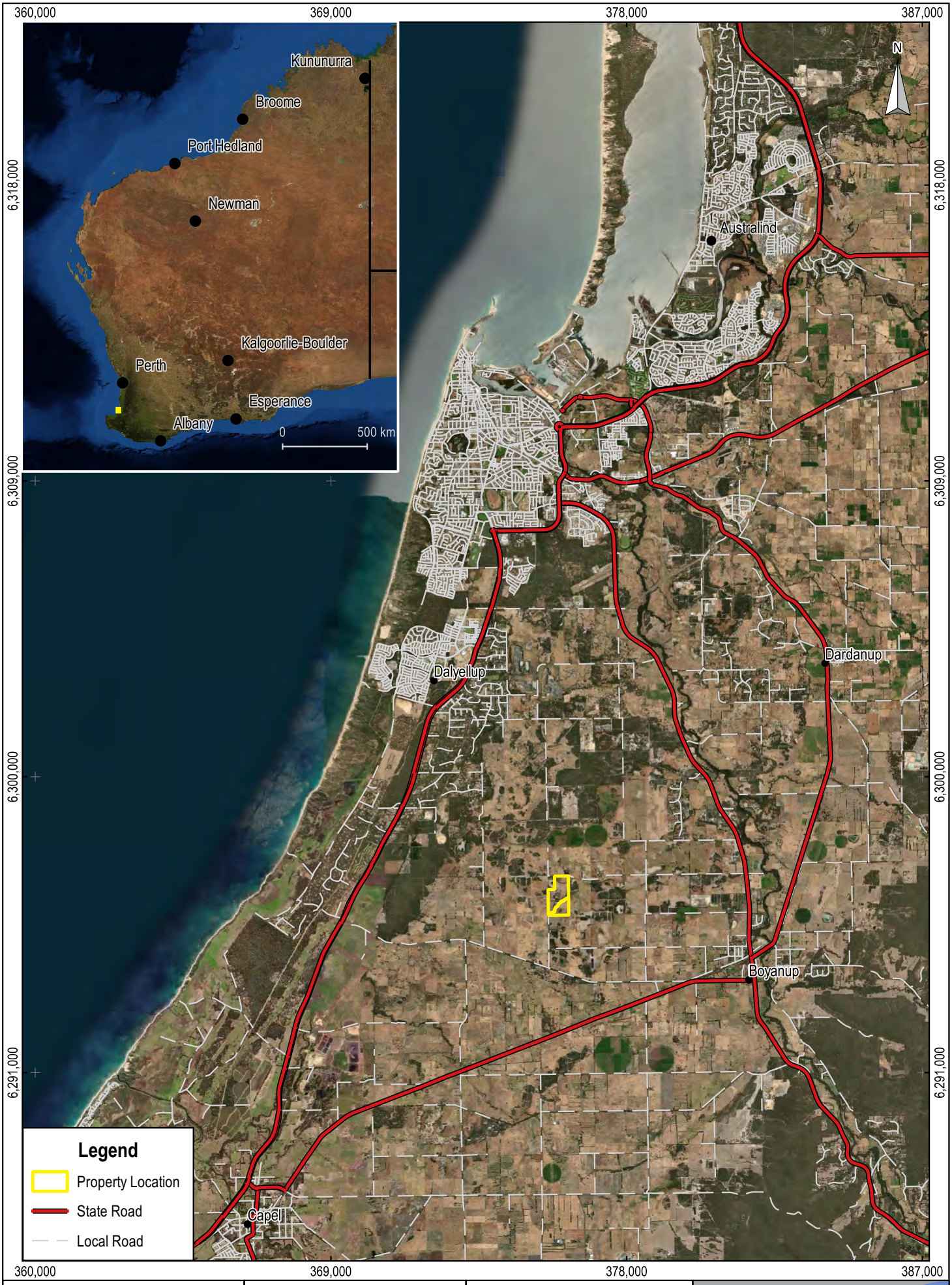
1.2 SCOPE

The scope of this DMP includes the following:

- Describe the existing environment and identify sensitive receptors.
- Identify potential sources of dust associated with the operations.
- Undertake a site risk assessment for dust.
- Describe appropriate dust prevention, monitoring, and mitigation measures.
- Describe the dust complaints process.
- Identify roles and responsibilities.

1.3 OBJECTIVE

The objective of this DMP is to minimise off-site dust emissions from the sand extraction operations.



Scale: 1: 150,000
Original Size: A4

Grid: GDA94 / MGA zone 50

0 2.5 5 km

BCP Materials Pty Ltd
Lot 148 (No. 168) Skippings Road, Boyanup

Figure 1

Project Location

Martinick Bosch Sell Pty Ltd
4 Cook St
West Perth WA 6005
Australia
t: +61 8 9226 3166
info@mbsenvironmental.com.au
www.mbsenvironmental.com.au

MBS ENVIRONMENTAL

W:\BCP\Skippings Rd\Dust MP\GIS\Common_BCP_SkippingsRd.qgz 15/06/2022 F1_Property_Location

2. EXISTING ENVIRONMENT

2.1 CLIMATE

The climate of the project area is Mediterranean, with cool wet winters and hot dry summers. Long-term average climate data for the closest meteorological station (Bunbury, 12 km north of project) is shown in Figure 2. The average annual rainfall is 728.6 mm, mean minimum temperatures between 7°C and 16°C and mean maximum temperatures between 17°C and 30°C (Bureau of Meteorology 2022).

Long-term wind roses for Bunbury (Bureau of Meteorology 2022) indicate prevailing winds comprise morning easterlies and afternoon westerlies (Appendix 1).

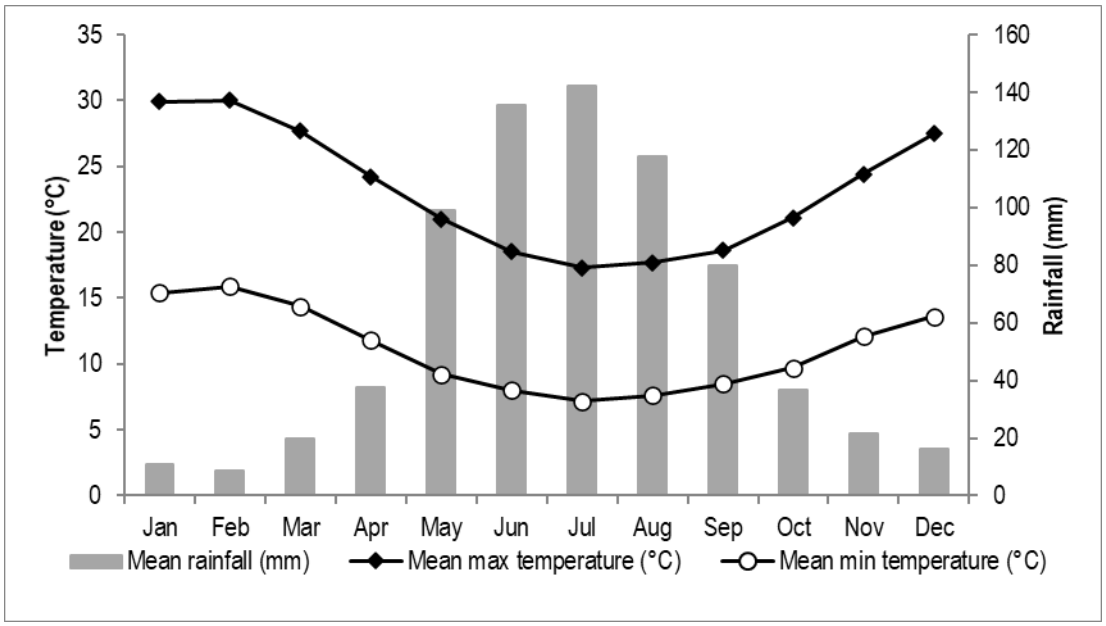


Figure 2: Long-term Rainfall and Temperature Data (1995-2022) for Bunbury Meteorological Station 9965 (Bureau of Meteorology 2022)

2.2 LAND USE

The Project is located on Lot 148 (No. 168) Skippings Road, in Boyanup, approximately 12 km south of Bunbury in the Shire of Capel (Figure 1, Figure 3, Figure 4). The property is zoned rural in the Shire of Capel Town Planning Scheme No. 7 and in the Greater Bunbury Region Scheme. The project envelope and EIL area (approximately 13.24 ha) covers only part of Lot 148 which has a total area of 64.88 ha. The majority of Lot 148 has been cleared. The property also includes a residential dwelling and associated farming outbuildings.

2.3 LANDFORM AND SOILS

The project area within Lot 148 is located predominantly across an east-west aligned raised landform (Figure 3, Figure 4). Ground surface levels peak at 31 m AHD at the west boundary, 30 m AHD at the east boundary and 29 m AHD at the north boundary of the project area and dip to approximately 26 m AHD.

Lot 148 Skippings Road is located in the Bassendean System (212Bs) (DPIRD-064) which has been described as a part of the Swan Coastal Plain which extends from Busselton to Jurien Bay. The Bassendean B3 Phase is characterised by closed depressions and poorly defined stream channels. It has moderately deep, and poorly

drained bleached sands and clay or iron-organic pan subsoil. The surface of the soil is comprised of dark grey sand or sandy loam (DPIRD-027). (Department of Primary Industries and Regional Development (DPIRD) 2021).

2.4 VEGETATION

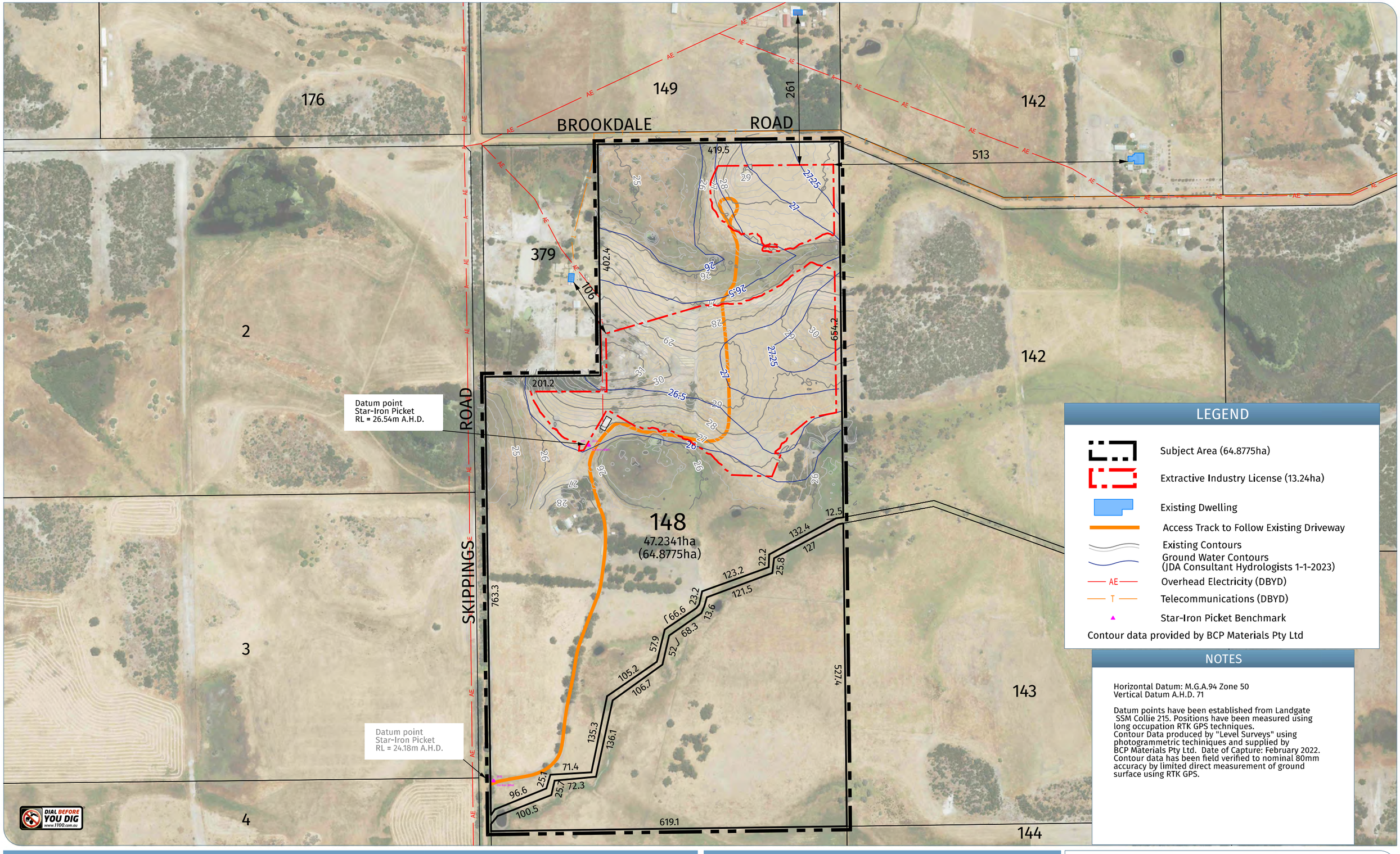
The majority of the property has been cleared in the past for rural purposes, mainly grazing. Remaining vegetation on the property is sporadic with some remnant clusters of native species present including *Eucalyptus marginata* (Jarrah) and *Corymbia calophylla* (Marri).

2.5 SENSITIVE RECEPTORS

Lot 148 and the surrounding properties are zoned rural and are mainly used for grazing. The primary sensitive receptors in the area are residential dwellings on rural properties within 1 km of the extraction area. The closest receptor is a residential dwelling on adjacent Lot 379 which is located 106 m to the west of the proposed operations. The sensitive receptions are summarised in Table 1 and shown in Figure 3.

Table 1: Sensitive Receptors within 1 km of Extractive Operations

Property Details	Distance and Direction from Operations	Type of Receptor
Lot 379 Plan 232768	106 m west	Residential dwelling
Lot 149 Plan 232768	261 m north	Residential dwelling
Lot 142 Plan 232768	513 m east	Residential dwelling



LEGEND

- Subject Area (64.8775ha)
- Extractive Industry License (13.24ha)
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- AE — Overhead Electricity (DBYD)
- T — Telecommunications (DBYD)
- Star-Iron Picket Benchmark

Contour data provided by BCP Materials Pty Ltd

NOTES

Horizontal Datum: M.G.A.94 Zone 50
Vertical Datum A.H.D. 71

Datum points have been established from Landgate SSM Collie 215. Positions have been measured using long occupation RTK GPS techniques.
Contour Data produced by "Level Surveys" using photogrammetric techiniques and supplied by BCP Materials Pty Ltd. Date of Capture: February 2022.
Contour data has been field verified to nominal 80mm accuracy by limited direct measurement of ground surface using RTK GPS.

SITE PLAN

Lot 148 (No. 168) Skippings Road, BOYANUP

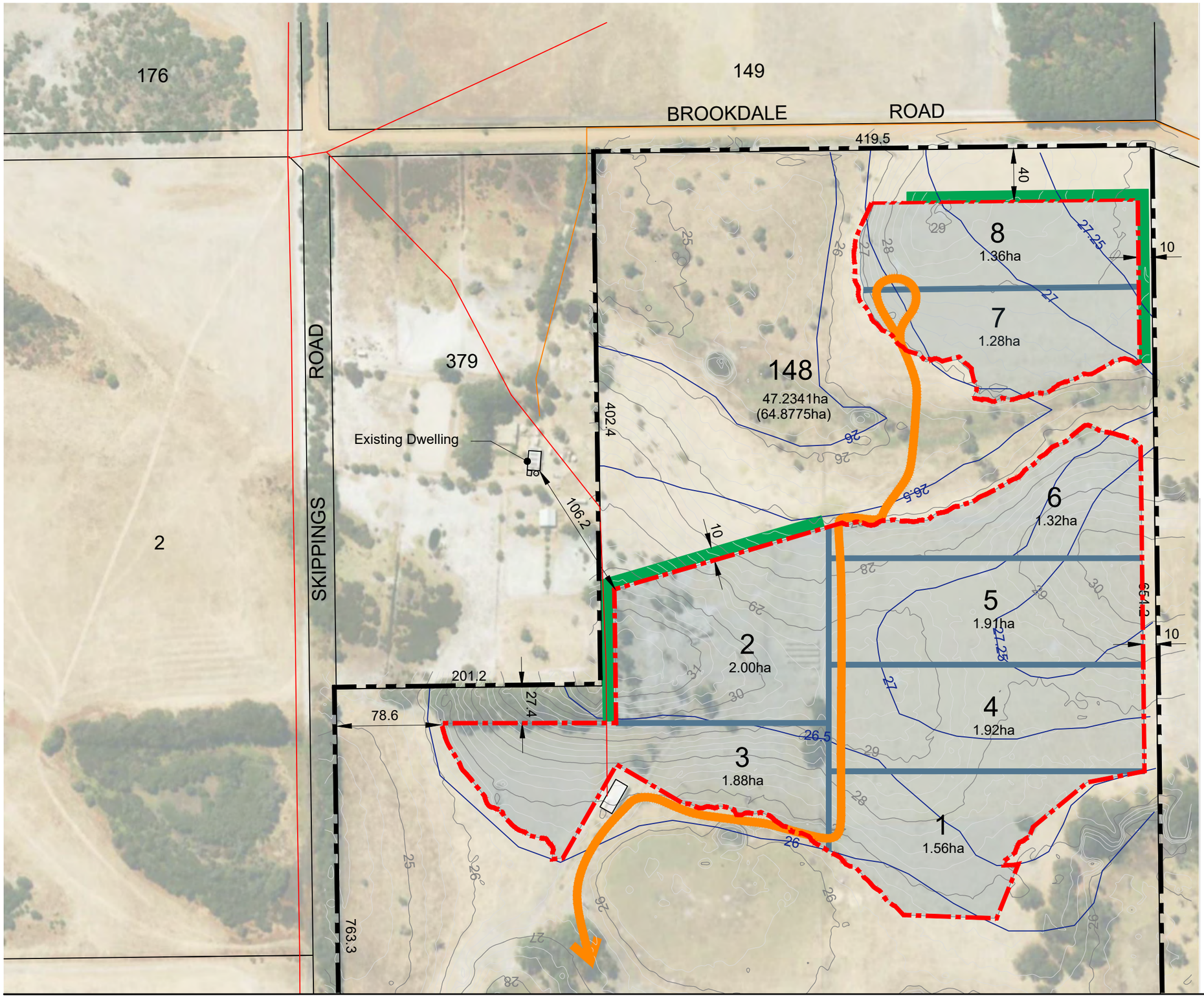
Plan No.	22955-01	
Date	27/10/22	
Drawn	NP	
Checked	DJ	
Revision	E	
Scale	1:3000@A3	0 40m 80m

BUNBURY OFFICE:
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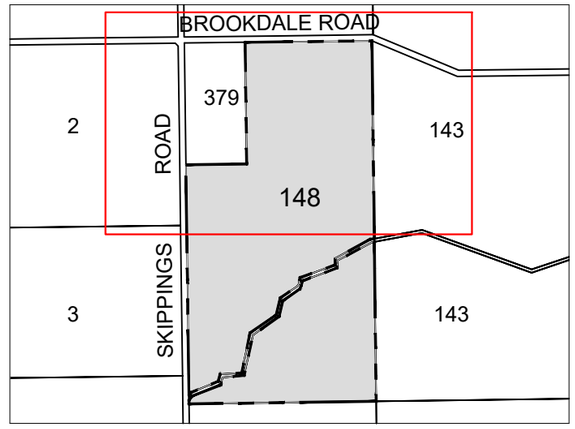
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NOTE: This plan has been prepared for planning purposes. Areas, Contours and Dimensions shown are subject to survey

Harley Dykstra
PLANNING & SURVEY SOLUTIONS



LOCATION MAP



VOLUME SUMMARY

Pit	Volume (BCM)
Total	146,409.336

LEGEND

- Subject Area (64.8775ha)
- Extractive Industry License (13.23ha)
- Extraction Stages
- Internal Access (Unsealed)
- 2m High Temporary Bund (Topsoil)
- Existing Contours
- Ground Water Contours (JDA Consultant Hydrologists)
- Overhead Electricity (DBYD)
- Telecommunications (DBYD)

Contour data provided by BCP Materials Pty Ltd

Base data provided by Harley Dykstra Pty Ltd

Excavation Works Plan

Lot 148 (168) Skippings Road, Boyanup

0 60m

Date: 16 Feb 2023 Scale: 1:3000 @ A3 1:1500 @ A1 File: **22-335 SU01A** Staff: DL GW Checked: DL

element.

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3. POTENTIAL SOURCES OF DUST

The proposed project layout is shown in Figure 4. Potential sources of dust associated with the sand extraction operations include the following:

- Vegetation clearing, topsoil stripping and stockpiling.
- Sand extraction, stockpiling and loading activities.
- Wind borne dust from exposed surfaces, including cleared land, topsoil and resource stockpiles and roads.
- Vehicle movements on internal unpaved roads.
- Loading of haulage trucks.
- Poorly contained truck loads.
- Rehabilitation works (final contouring, ripping, spreading of topsoil and other materials).

4. SITE RISK ASSESSMENT

Dust potentially generated as part of the sand extraction operations is expected to be free of contaminants and pollutants. The adverse effects of dust generation from the site would typically be 'nuisance dust'.

A risk assessment was prepared based on the DEC's *"A guideline for managing the impacts of dust and associated contaminants from land development sites, contaminated sites remediation and other related activities"* (DEC 2011). The risk assessment for the proposed extractive operations is provided in Appendix 2. It calculates the risk of dust impacts and the need for management controls based on the nature of the site and the proposed operations as well as the proximity of sensitive receptors and prevailing winds. Prevailing summer winds are morning easterlies and afternoon westerlies and these have been taken into consideration in the risk assessment.

A site classification score of 504 was calculated for the on-site works placing this development in a Classification 3 (Medium Risk) category (between 400 and 799 points). Based on the Medium Risk classification the following are required (DEC 2011):

- Contingency plan detailing activities to be undertaken should dust impacts occur.
- Monitoring requirements.

These are addressed in the Section 5.

The main sensitive receptor is the closest residence located 106 m to the west of the extraction area. The residence is poorly screened by vegetation, however is not downwind of the site under prevailing summer winds. The highest risk of impacts is from the closest extraction stage, Stage 2. The two other nearby residences are located further away (261 m and 513 m) from the extractive operations and screened by vegetation. Therefore, dust impacts to these residences are less likely.

5. DUST MANAGEMENT ACTIONS

5.1 DUST PREVENTION

The Site operator will implement the following measures to prevent dust generation from site activities:

- Vegetation clearing and topsoil removal will only be undertaken on days of conducive wind strength and conditions to ensure windblown dust is minimised.
- Vegetation clearing and ground disturbance will be gradual in nature and proceed in stages.
- Revegetation to pasture will also be gradual in nature and proceed in stages, closely following the completion of sand extraction.
- Topsoil stockpiles will be no greater than 2 m in height and other stockpiles will not exceed 4 m in height.
- A vehicle speed limit of 20 km/hr will be implemented across the site.
- A water cart with a capacity greater than 10,000 L will be available for the site when required and will undertake preventative watering of access tracks, working areas and stockpiles during dry periods.
- Trucks leaving the site will be required to have their load covered and tailgates and draw-bars clear of dust producing material prior to entering Skippings Road. Appropriate signage will be erected at the site exit advising truck drivers to cover loads and clean their vehicle as required prior to entering public roads.

5.2 DUST MONITORING AND MITIGATION

The Site operator will implement the following measures to monitor and mitigate dust generation from site activities:

- Visual monitoring of dust generation from the operations will be undertaken on an ongoing basis.
- Should excessive dust generation be observed onsite and there is a risk of dust being blown off site, additional watering of dust sources with the water cart will be organised. Alternative dust controls, such as chemical dust suppressants or dust fencing may also be considered for more persistent sources of dust.
- When weather conditions negate the effectiveness of dust prevention and mitigation measures and dust continues to be blown off site, the dust generating activities will cease until conditions improve and compliance with this DMP can be achieved.
- In order to mitigate potential impacts on the residential dwelling located 106 m to the west of the project, chemical dust suppressants on the topsoil bund and the installation of dust fencing may be required. The most appropriate option for mitigation will be explored when works commence in Stage 2 as impacts are less likely during the other stages. Discussions with the owner regarding future sand extraction will occur prior to formalising suitable management strategies.

5.3 DUST COMPLAINTS

The Dust complaints process is outlined as follows:

- A sign will be erected at the entrance to the extraction site to advise the public on the appropriate contact in the event of a complaint.
- In the event of receiving a complaint, the EIL licensee will complete a Dust Complaint Form (Appendix 3), investigate, and resolve complaint within four hours.
- A copy of the completed Dust Complaint Form will be forwarded to the Shire of Capel for their records.
- If required, a review of the DMP will be undertaken to refine dust prevention, monitoring, and mitigation measures.

6. ROLES AND RESPONSIBILITIES

Roles and responsibilities with respect to dust management are outlined in Table 2.

Table 2: Roles and Responsibilities

Role	Responsibilities
EIL Licensee	• Will have overall responsibility for the dust management of the operations. • Will provide information for site operators and truck drivers on dust management objectives, and dust management measures to be undertaken on site (prevention, monitoring, and mitigation). • Will be responsible for resolving any persistent dust management issues. • Will be responsible for administering the dust complaints process.
All personnel	• Will be familiar with potential sources of dust associated with own role and how to minimise dust generation. • Will implement the dust prevention, monitoring and mitigation measures as described in this plan and as advised by the EIL Licensee. • Will be responsible for reporting any persistent dust management issues to the EIL Licensee.

7. REFERENCES

Bureau of Meteorology. 2022. Climate Statistics for Australian Locations. http://www.bom.gov.au/climate/averages/tables/cw_009965.shtml. Accessed April 2022.

Department of Environment and Conservation 2011. A guideline for managing the impacts of dust and associated contaminants from land development sites, contaminated sites remediation and other related activities https://www.der.wa.gov.au/images/documents/your-environment/air/publications/Guideline_for_managing_impacts_of_dust.pdf

Department of Primary Industries and Regional Development (DPIRD). 2021. Soil Landscape Mapping - Systems (DPIRD-064).

Department of Primary Industries and Regional Development (DPIRD). 2021. Soil Landscape Mapping - Best Available (DPIRD-027).

Government of Western Australia. 2020. Government Published Data. https://data.wa.gov.au/. Accessed June 2020.

APPENDICES

APPENDIX 1: WIND ROSES

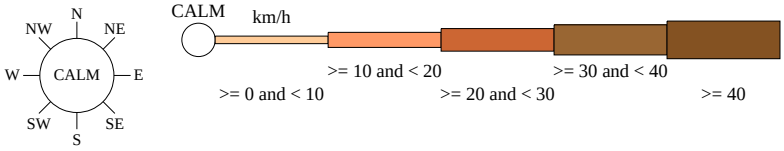
Rose of Wind direction versus Wind speed in km/h (22 Nov 1995 to 10 Aug 2021)

Custom times selected, refer to attached note for details

BUNBURY

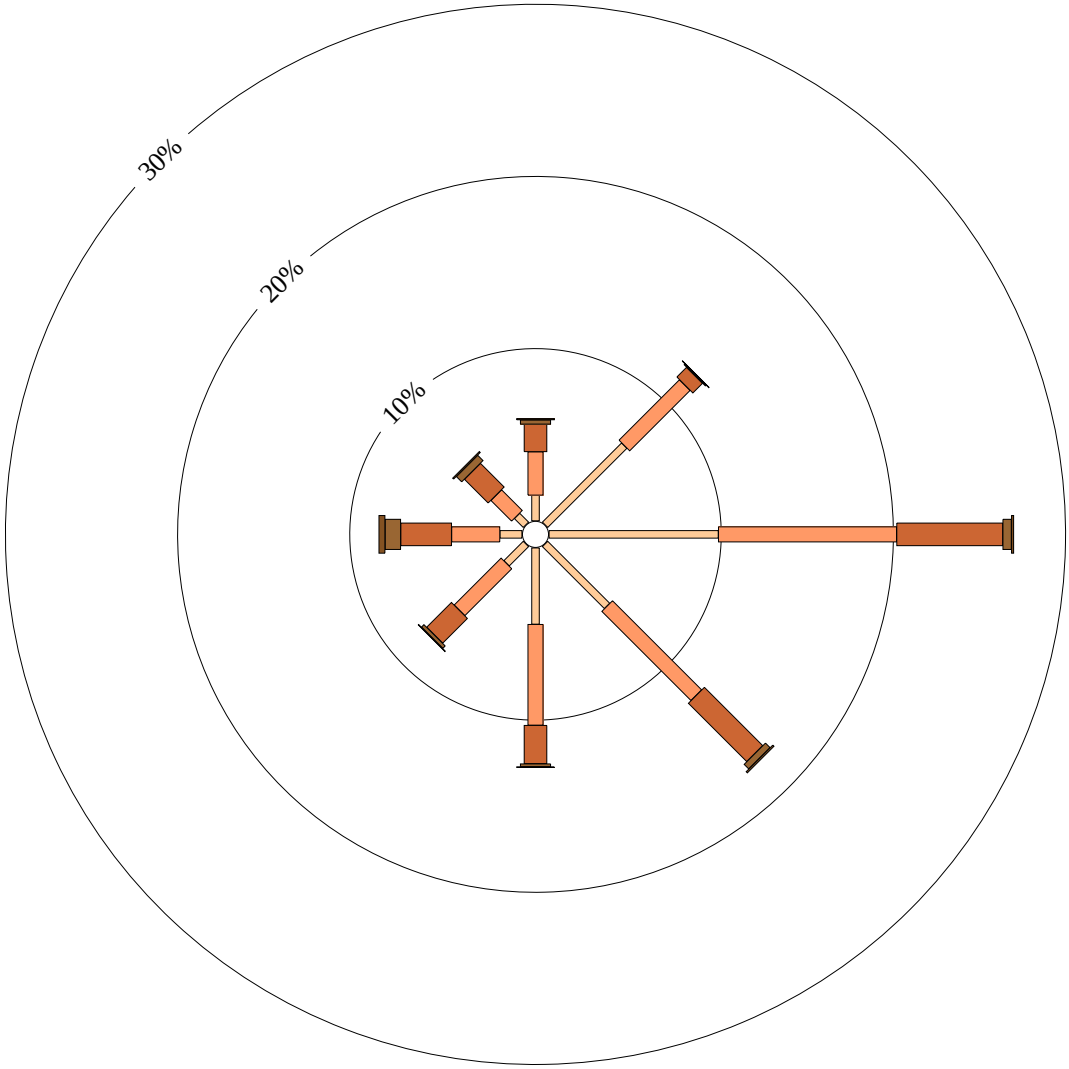
Site No: 009965 • Opened Nov 1995 • Still Open • Latitude: -33.3567° • Longitude: 115.6447° • Elevation 5.m

An asterisk (*) indicates that calm is less than 0.5%.
Other important info about this analysis is available in the accompanying notes.



9 am
9283 Total Observations

Calm 4%



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Bureau of Meteorology

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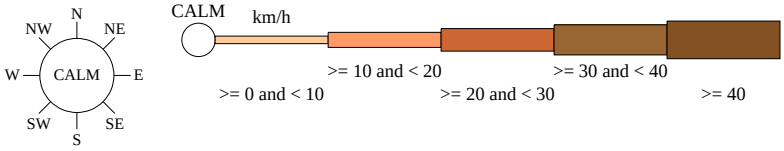
Rose of Wind direction versus Wind speed in km/h (22 Nov 1995 to 10 Aug 2021)

Custom times selected, refer to attached note for details

BUNBURY

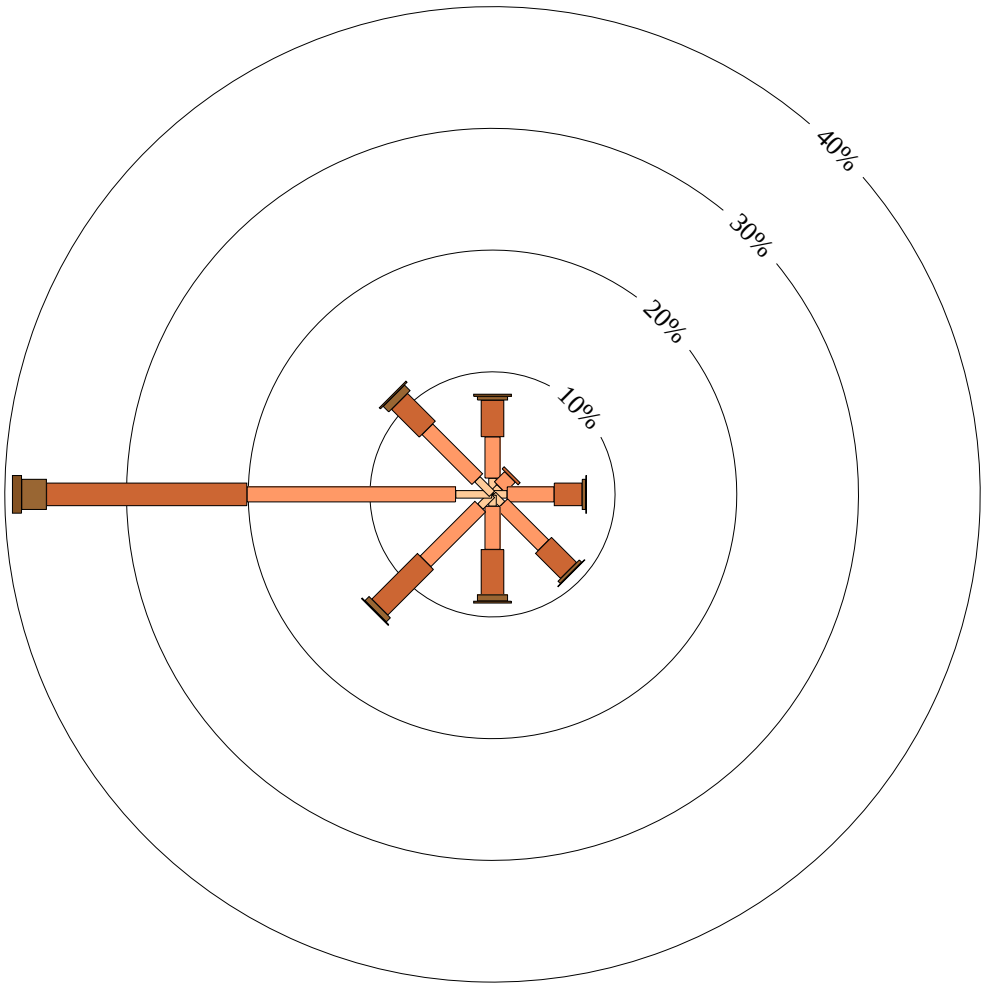
Site No: 009965 • Opened Nov 1995 • Still Open • Latitude: -33.3567° • Longitude: 115.6447° • Elevation 5.m

An asterisk (*) indicates that calm is less than 0.5%.
Other important info about this analysis is available in the accompanying notes.



3 pm
9266 Total Observations

Calm *



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APPENDIX 2: RISK ASSESSMENT

SITE RISK ASSESSMENT/CLASSIFICATION FOR ACTIVITIES GENERATING UNCONTAMINATED DUST

Sheet 1: Site classification assessment chart

Assessed Location: Proposed Sand Extraction on Lot 148 Skippings Road, Boyanup.

Part A. Nature of site

Item	Score Options								Allocated Score
1. Nuisance potential of soil, when disturbed	Very low	1	Low	2	Medium	4	High	6	4
2. Topography and protection provided by undisturbed vegetation	Sheltered and screened	1	Medium screening	6	Little screening	12	Exposed and wind prone	18	12
3. Area of site disturbed by the works	Less than 1ha	1	Between 1 ha and 5 ha	3	Between 5 ha and 10 ha	6	More than 10 ha	9	3
4. Type of work being done	Roads or shallow trenches	1	Roads, drains and medium depth sewers	3	Roads, drains, sewers and partial earthworks	6	Bulk earthworks and deep trenches	9	9
							Total Score for Part A		28

Part B. Proximity of site to other land uses

Item	Score Options								Allocated Score
1. Distance of other land uses from site	More than 1 km	1	Between 1 km and 500 m	6	Between 100 m and 500 m	12	Less than 100 m	18	12
2. Effect of prevailing wind direction (at time of construction) on other land uses	Not affected	1	Isolated land uses affected by one wind direction	6	Dense land uses affected by one wind direction	9	Dense/sensitive land uses highly affected by prevailing winds	12	6
							Total Score for Part B		18

Site Classification Score (A x B)	504

APPENDIX 3: DUST COMPLAINT FORM

LOT 148 (No. 168) Skippings Road, Boyanup
DUST COMPLAINT FORM

Complaint Date:

Complaint Time:

Received by:

Complainant's Details:

Name:

Address:

Tel:

Complaint Details:

Actions taken:

Actions recorded by:

Date:

Copy to Shire of Capel ☐ (tick)

Appendix E – Environmental Acoustic Report

BCP MATERIALS PTY LTD

EXTRACTIVE INDUSTRY
LOT 148 (No 168) SKIPPINGS ROAD, BOYANUP

ACOUSTIC ASSESSMENT

DECEMBER 2022

OUR REFERENCE: 30435-3-22200

Rochdale Holdings Pty Ltd A.B.N. 85 009 049 067 trading as:
HERRING STORER ACOUSTICS
P.O. Box 219, Como, W.A. 6952
(08) 9367 6200
hsa@hsacoustics.com.au

DOCUMENT CONTROL PAGE

ACOUSTIC ASSESSMENT
LOT 148 (No 168) SKIPPINGS ROAD, BOYANUP

Job No: 22200

Document Reference: 30435-3-22200

FOR

BCP MATERIALS PTY LTD

DOCUMENT INFORMATION			
Author:	Paul Daly	**Checked By:**	Tim Reynolds
Date of Issue:	16 December 2022		

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Revision	**Description**	**Date**	**Author**	**Checked**
1	Client Comments	16/01/2023	PLD	
2	Client Comments	24/02/2023	PLD	

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4.	PROPOSED OPERATIONS	4
5.	CALCULATED NOISE LEVELS	4
6.	RESULTS	7
7.	ASSESSMENT	7
8.	CONCLUSION	8

APPENDICIES

A Site Layout

B Noise Contours

1. INTRODUCTION

Herring Storer Acoustics have been commissioned by Element WA on behalf of BCP Materials Pty Ltd to undertake an acoustic assessment of noise emissions from the proposed sand extraction operations located at Lot 148 Skippings Road, Boyanup.

The proposed extraction operations will operate from 0700 – 1700 Monday to Friday and 0700 – 13:00 on Saturdays. No operations would occur on Sundays or Public Holidays. The nearest residential premises are located to the west and south of the proposed operations.

The main access road is via Skippings Road as shown in Figure 1.1, along with the proposed operations.

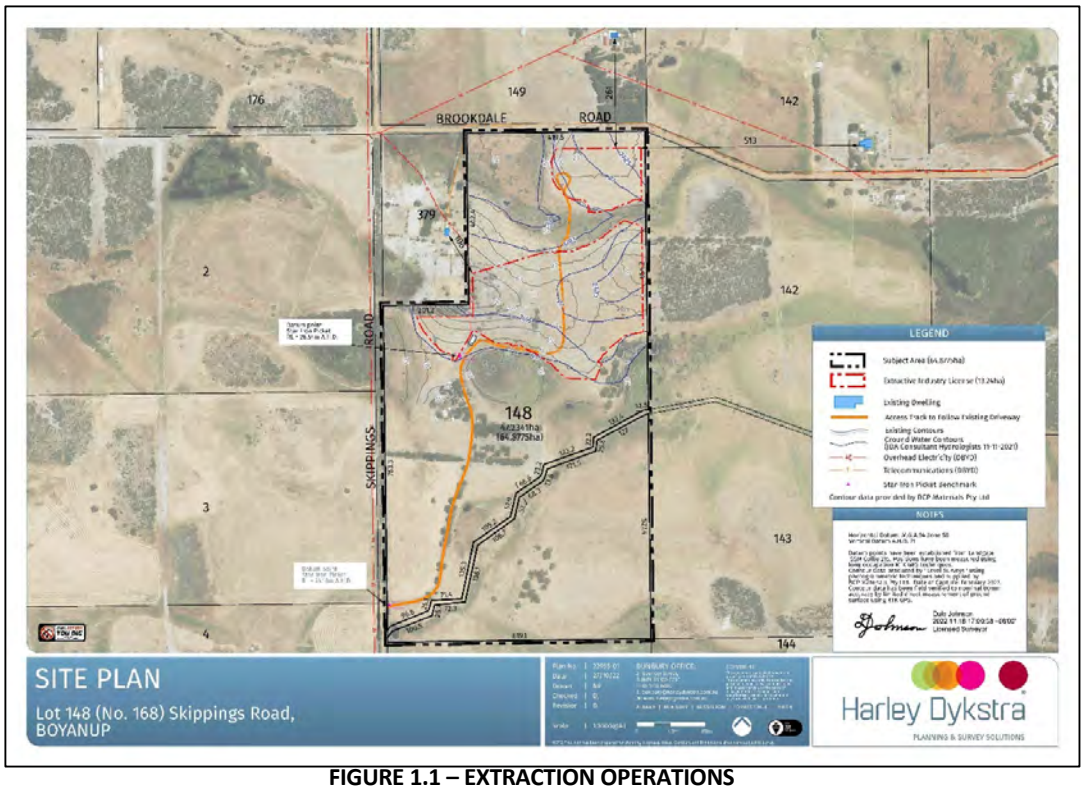


FIGURE 1.1 – EXTRACTION OPERATIONS

This assessment is provided to support the regulatory approvals processes and show that compliance with the requirements of the *Environmental Protection (Noise) Regulations 1997* can be achieved.

As part of the study, the following was carried out:

- Identification of individual operations and the associated noise levels.
- Assess the predicted noise levels at the nearest surrounding highly noise sensitive premises for compliance with the appropriate criteria.
- If exceedances are predicted, comment on possible noise amelioration options for compliance with the appropriate criteria.

For information, a locality plan is shown in Appendix A.

2. SUMMARY

Assessment has been conducted on the proposed sand extraction operations for Lot 148 Skippings Road, Boyanup.

The facility would only operate during the day period (being Monday to Friday 0700 to 1700 hours and 0700 to 1300 on Saturdays). Therefore, at the neighbouring residences, the applicable acoustic criteria for this assessment is the assigned L_{A10} day period noise level of 45 dB(A).

Noise received at the nearest residential premises has the potential to exceed the assigned noise level criteria without the implementation of noise control, such as an earthen bunding.

Therefore, to comply with the criteria, fixed plant need to be operated behind a barrier (earth bund) for Stage 2 operations. For other stages, compliance is achieved with open (ground level) operations.

Given these operating parameters, noise levels received at the nearest premises has been calculated to comply with the Environmental Protection (Noise) Regulations 1997 for the operating times as outlined in this assessment.

3. CRITERIA

The allowable noise level for noise sensitive premises in the vicinity of the proposed site is prescribed by the *Environmental Protection (Noise) Regulations 1997*. Regulations 7 and 8 stipulate maximum allowable external noise levels or assigned noise levels that can be received at a premise from another premises. For residential premises, this noise level is determined by the calculation of an influencing factor, which is then added to the base levels shown below. The influencing factor is calculated for the usage of land within two circles, having radii of 100m and 450m from the premises of concern. The base noise levels for residential premises are listed in Table 3.1.

TABLE 3.1 - BASELINE ASSIGNED OUTDOOR NOISE LEVEL

Premises Receiving Noise	Time of Day	Assigned Level (dB)		
		$L_{A\ 10}$	$L_{A\ 1}$	$L_{A\ max}$
Noise sensitive premises	0700 - 1900 hours Monday to Saturday (Day)	45 + IF	55 + IF	65 + IF
	0900 - 1900 hours Sunday and Public Holidays (Sunday / Public Holiday Day Period)	40 + IF	50 + IF	65 + IF
	1900 - 2200 hours all days (Evening)	40 + IF	50 + IF	55 + IF
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays (Night)	35 + IF	45 + IF	55 + IF

Note: L_{A10} is the noise level exceeded for 10% of the time.
L_{A1} is the noise level exceeded for 1% of the time.
L_{Amax} is the maximum noise level.
IF is the influencing factor.

It is a requirement that received noise be free of annoying characteristics (tonality, modulation and impulsiveness), defined below as per Regulation 9.

"impulsiveness" means a variation in the emission of a noise where the difference between L_{Apeak} and $L_{Amax\ Slow}$ is more than 15 dB when determined for a single representative event;

"modulation" means a variation in the emission of noise that –

(a) is more than 3dB $L_{A\ Fast}$ or is more than 3 dB $L_{A\ Fast}$ in any one-third octave band;
(b) is present for more at least 10% of the representative assessment period; and
(c) is regular, cyclic and audible;

"tonality" means the presence in the noise emission of tonal characteristics where the difference between –

(a) the A-weighted sound pressure level in any one-third octave band; and
(b) the arithmetic average of the A-weighted sound pressure levels in the 2 adjacent one-third octave bands,

is greater than 3 dB when the sound pressure levels are determined as $L_{Aeq,T}$ levels where the time period T is greater than 10% of the representative assessment period, or greater than 8 dB at any time when the sound pressure levels are determined as $L_{A\ Slow}$ levels.

The nearest potential noise sensitive premises to the proposed development have been identified using the area map in Figure 3.1.

The usage of the surrounding land use varies from intensive horticulture and residential land use. Therefore, the assigned noise levels for operational times are as noted in Table 3.2.

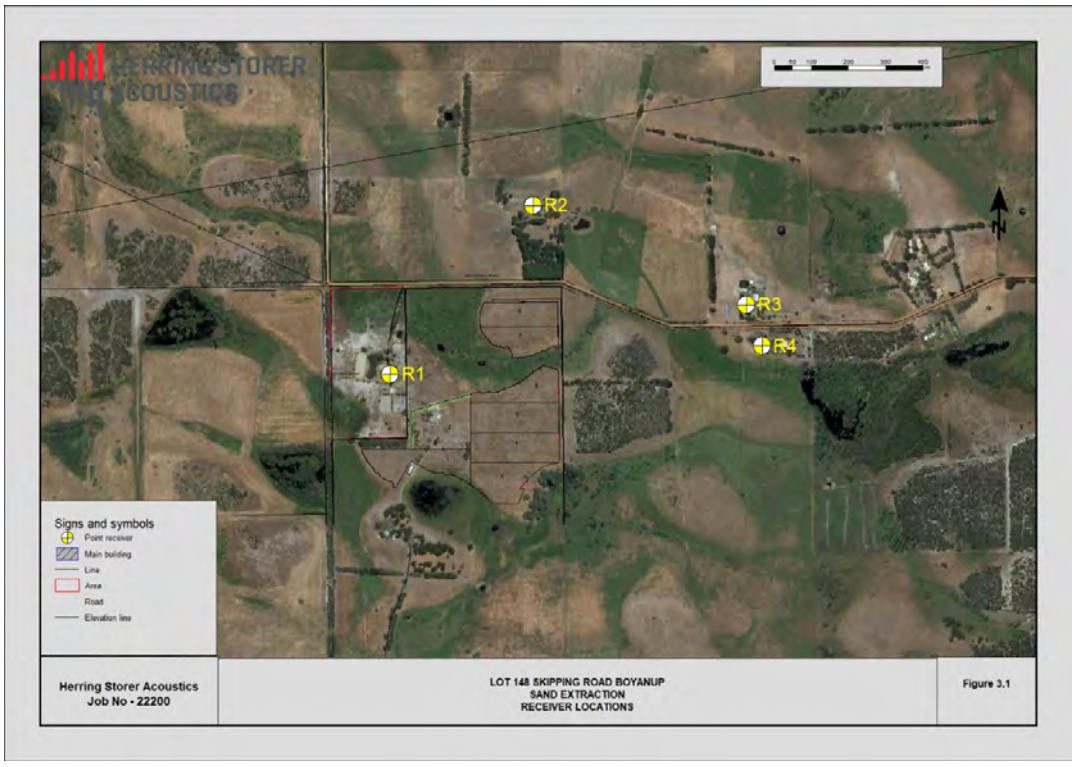


FIGURE 3.1 – RECEIVER LOCATION MAP

TABLE 3.2 – ASSIGNED NOISE LEVELS

Premises Receiving Noise	IF dB	Time of Day	Assigned Level (dB)		
			$L_{A\ 10}$	$L_{A\ 1}$	$L_{A\ max}$
Receiver R1 to R4	0	0700 - 1900 hours Monday to Saturday (Day)	45	55	65

4. PROPOSED OPERATIONS

The proposed extraction operations will operate from 0700 – 1700 Monday to Friday and 0700 – 13:00 on Saturdays. No operations would occur on Sundays or Public Holidays.

Site equipment is as per Table 4.1.

TABLE 4.1 – SITE ACTIVITIES

Activity	Equipment to be used	Comments
Screening and stockpiling of Sand	Finlay Screen CAT Loader	Screening plant will be surrounded by the product stockpiles, thereby, attenuating noise from the plant. Late model equipment will be utilised with reduced noise level outputs.
Loading of trucks from stockpiles.	Standard rigid truck (14 tonnes) CAT Loader	Loading area surrounded by stockpiles. Machine reverse alarms with lower frequency output units will be utilised.

5. CALCULATED NOISE LEVELS

Noise immissions[1] at the nearest neighbouring residential premises, due to noise associated with the proposed operations, were modelled with the computer programme SoundPlan. Sound power levels used for the calculations are based on measured sound pressure levels of similar equipment proposed for use on site.

The modelling of noise levels has been based on noise sources and sound power levels shown in Table 5.1.

TABLE 5.1 – SOUND POWER LEVEL - NOISE SOURCES dB(A)

Source Name	Quantity	SWL dB(A)
Loaders (Cat 980H or similar)	1	111
Screening Plant (McCloskey S190 Screener or Similar)	1	101
Semi – Tipper Truck	1	98

Note: The above equipment models have been used to provide an indication of the size. Other models may be used although these have been assumed to have a similar sound power level.

Based on noise emissions from the above equipment, an overall operating scenario has been developed. Figure 5.1 details the source locations assumed in the predictive modelling along with the proposed development of the pit.

1 Immissions – noise received at a source
2 Emissions – noise emanating from a source and / or location

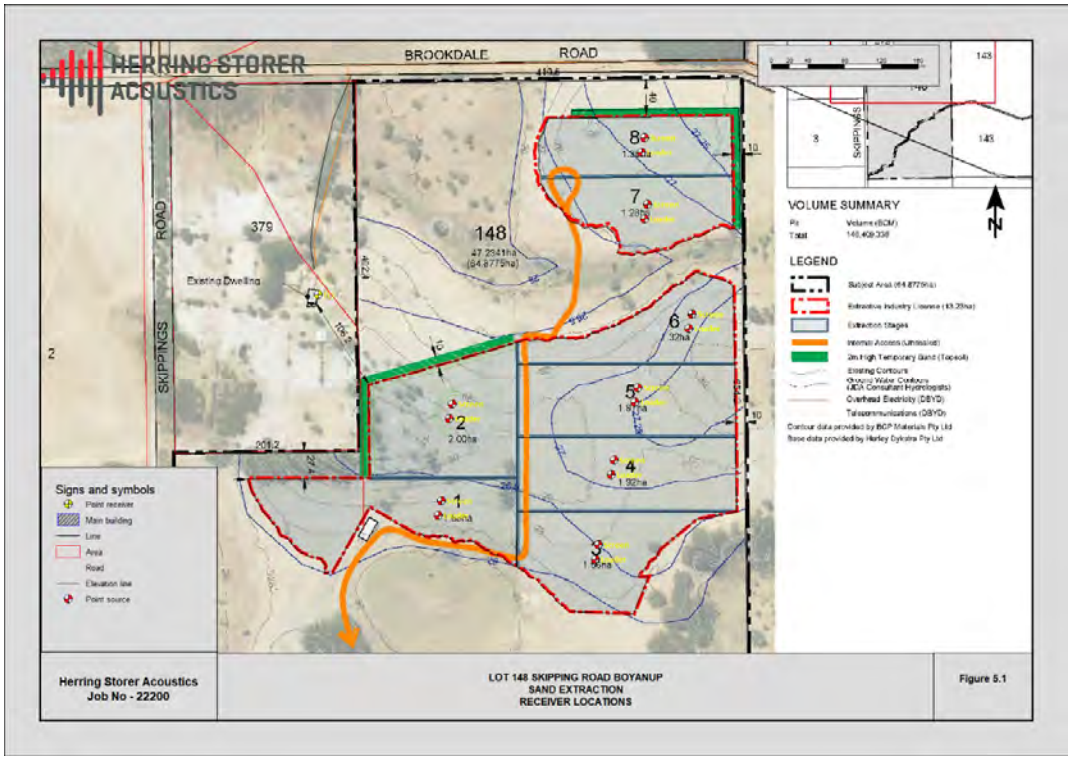


FIGURE 5.1 – SOURCE LOCATION AND PIT PROGRESSION

Based on the initial modelling scenario, the noise sources have been placed at the existing surface level. As the pit is open towards the north/west, additional protection is achieved to barrier noise emissions from the plant.

Initial noise modelling indicated that without any barriers, noise levels, with equipment operating at the surface ground level, could depending on the location, exceed the criteria within Stage 2. Therefore, a secondary scenario was developed with the inclusion of barriers. Generally, operations would be behind the face of a pit, or behind earth stockpiles, hence an allowance has been made for these sources. Given the location of the fixed plant (screen) earth barriers (bunds) would be required to ensure attention of noise in the directions of the receivers. Figure 5.2 details the bunding used in the noise model, however, this is an indication only with it providing the direction the equipment should be operating in regard to the pit face.

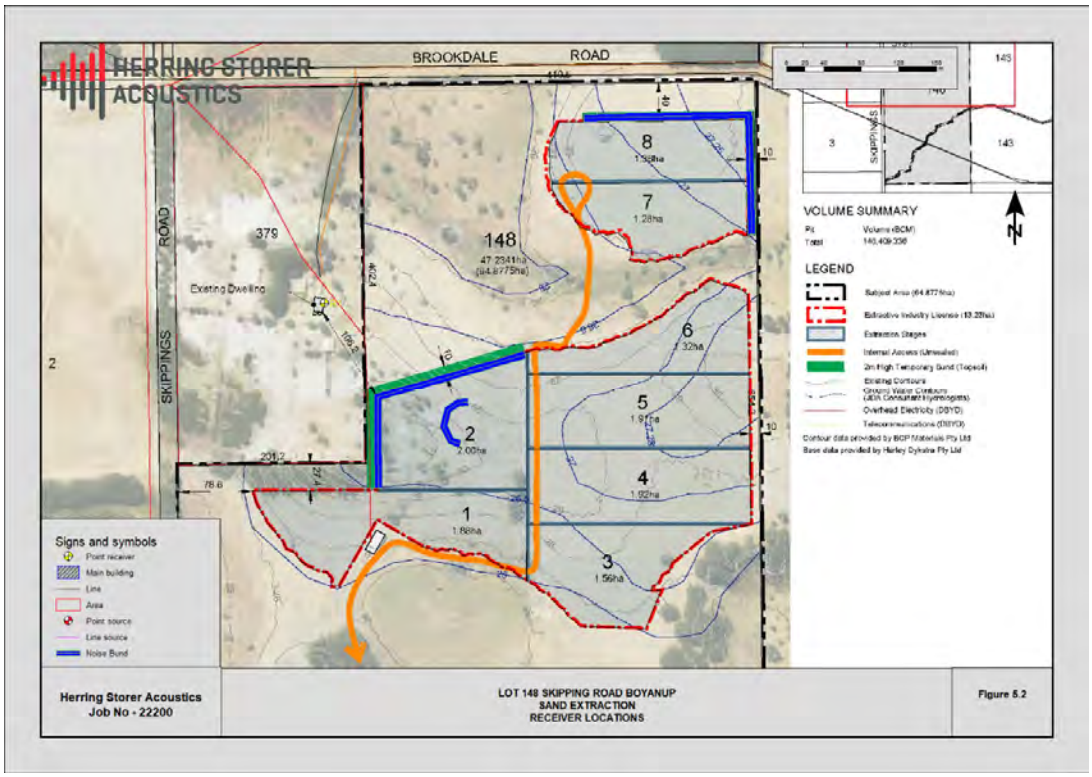


FIGURE 5.2 – NOISE BARRIERS – INDICATIVE LOCATIONS

Based on the above the following scenarios have been considered:

- S1 to S8 Fixed Plant noise source in worst case locations natural ground surface (each stage) including barriers in Stage 2.
- Truck movement on the internal haul route.

The following input data was used in the calculations:

a) Provided area plots.
b) Sound Power Levels listed in Table 4.1.
c) Ground contours and receiver point provided by client (Appendix A).

Weather conditions for modelling were as stipulated in the Environmental Protection Authority's "*Draft Guidelines on Environmental Noise for Prescribed Premises"* and for the day period are as listed in Table 5.2.

TABLE 5.2 – WEATHER CONDITIONS

Condition	Day
Temperature	20°C
Relative humidity	50%
Pasquill Stability Class	E
Wind speed	4 m/s*

* From sources, towards receivers.

6. RESULTS

Calculated noise levels associated with the noise emissions from the proposed operations for the assumed scenarios, are summarised below in Table 6.1. Appendix B contains the overall noise contour plots.

TABLE 6.1 – CALCULATED NOISE LEVEL – FIXED PLANT AND TRUCK

Stage	Receiver Noise Level dB(A)			
	R1	R2	R3	R4
S1	36	33	30	30
S2	37	33	31	31
S3	40	33	32	33
S4	40	35	33	33
S5	40	37	34	34
S6	40	39	36	36
S7	40	40	36	35
S8	40	38	36	35

7. ASSESSMENT

For the day time operations, based on calculated noise levels at the nearest premises, noise levels have been considered as being tonal in characteristics. Therefore, a +5dB penalty has been included to allow for a tonal component for the residence.

Based on the site information for the various activities (Section 4), the noise levels listed in Table 6.1 are the cumulative noise from all sources. Hence, to provide a level of conservatism, the truck movements have been included as a cumulative noise source in conjunction with the fixed plant operations.

Hence, Table 7.1 summarises the applicable Assigned Noise Levels, and assessable noise level emissions, for the scenarios considered.

For ease of assessment, the highest noise level at any of the stages has been used for the assessment.

TABLE 7.1 – ASSESSMENT OF NOISE LEVELS – FIXED PLANT AND TRUCK MOVEMENT

Receiver	Premises Receiving Noise Assessable Noise Level dB(A)	Time of Day	Assigned Level (dB)	Compliance
R1	40[45]	0700 - 1900 hours Monday to Saturday (Day)	45	Complies
R2	40[45]			Complies
R3	36[41]			Complies
R4	36[41]			Complies

[ ] Denotes inclusion of +5 dB penalty for annoying characteristics

8. CONCLUSION

Assessment has been conducted on the proposed sand extraction operations for Lot 148 Skippings Road, Boyanup.

The facility would only operate during the day period (being Monday to Friday 0700 to 1700 hours and 0700 to 1300 on Saturdays). Therefore, at the neighbouring residences, the applicable acoustic criteria for this assessment is the assigned L_{A10} day period noise level of 45 dB(A).

Noise received at the nearest residential premises has the potential to exceed the assigned noise level criteria if no noise control in the form of earthen bunding is implemented.

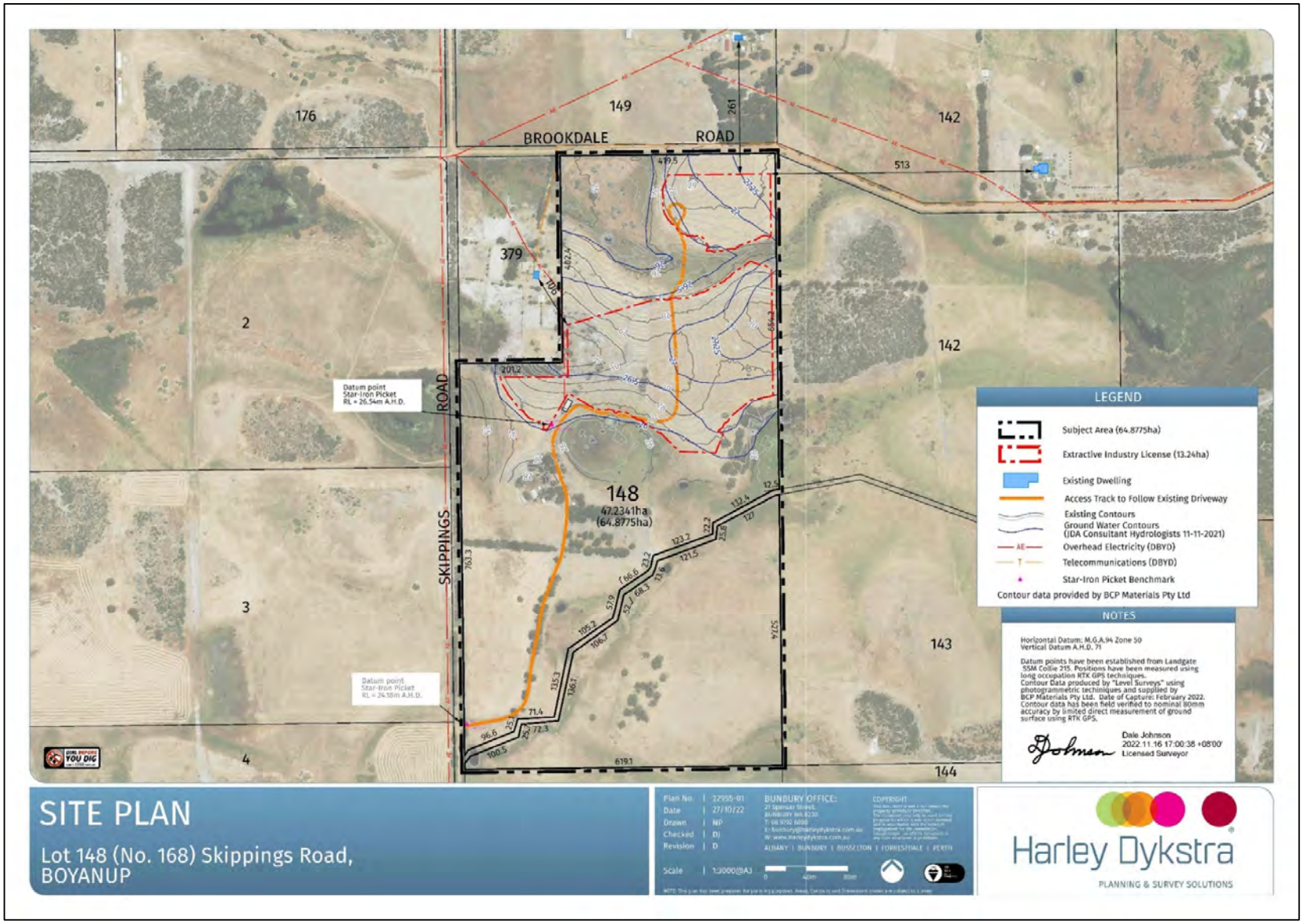
Therefore, to comply with the criteria, fixed plant noise levels require operations behind a barrier (earth bund) for Stage 2 operations. For other stages, compliance is achieved with open (ground level) operations.

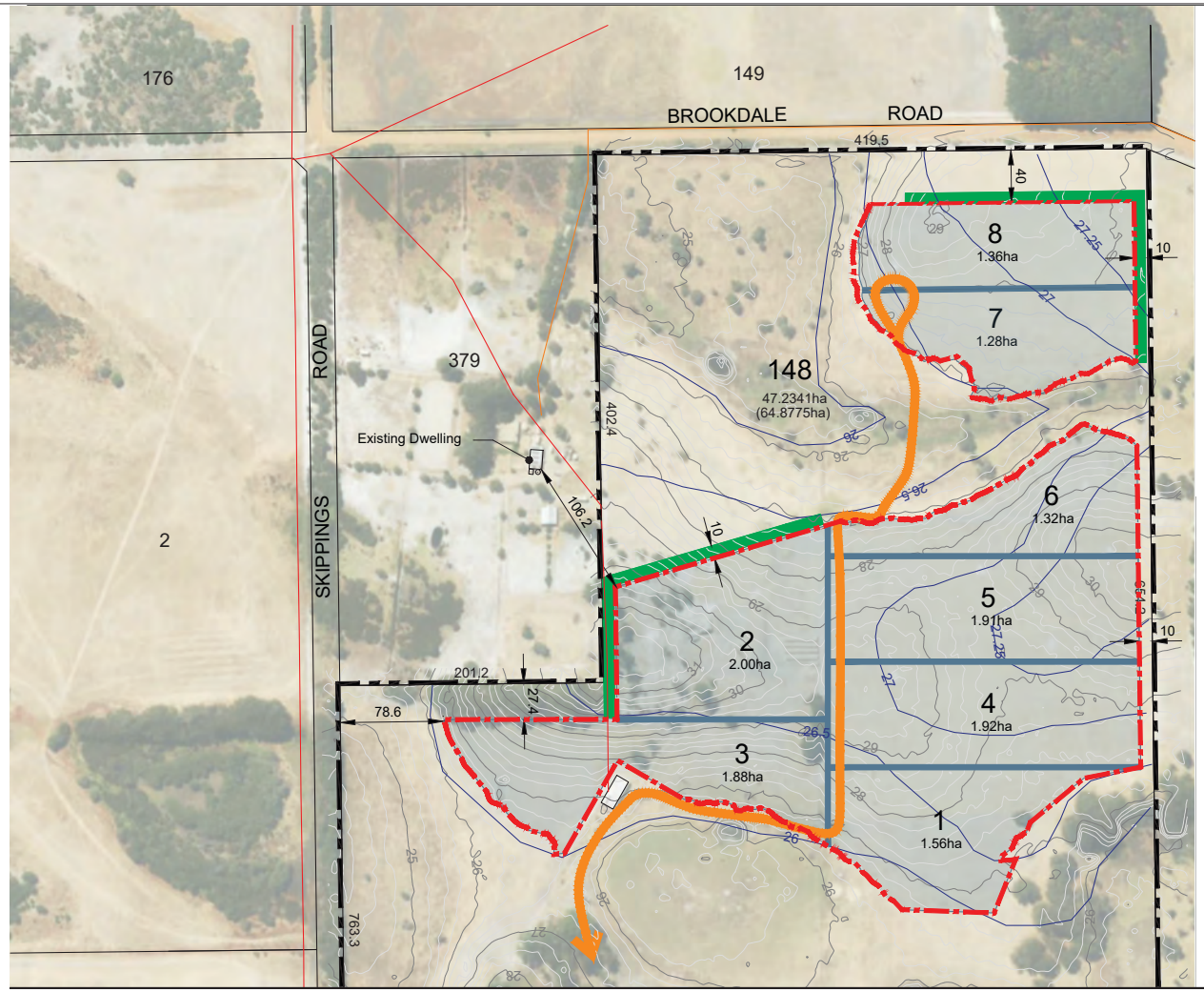
Given these operating parameters, noise levels received at the nearest premises has been calculated to comply with the Environmental Protection (Noise) Regulations 1997 for the operating times as outlined in this assessment.

APPENDIX A

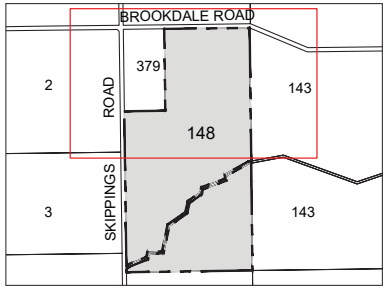
FIGURE A1 – LOCATION MAP

FIGURE A1 – SITE LAYOUT





LOCATION MAP



VOLUME SUMMARY

Pit	Volume (BCM)
Total	146,409.336

LEGEND

- Subject Area (64.8775ha)
- Extractive Industry License (13.23ha)
- Extraction Stages
- Internal Access (Unsealed)
- 2m High Temporary Bund (Topsoil)
- Existing Contours
- Ground Water Contours (JDA Consultant Hydrologists)
- Overhead Electricity (DBYD)
- Telecommunications (DBYD)

Contour data provided by BCP Materials Pty Ltd
Base data provided by Harley Dykstra Pty Ltd

Excavation Works Plan

Lot 148 (168) Skippings Road, Boyanup

Date: 16 Feb 2023 Scale: 1:3000 @ A3 1:1500 @ A1 File: **22-335 SU01A** Staff: DL GW Checked: DL

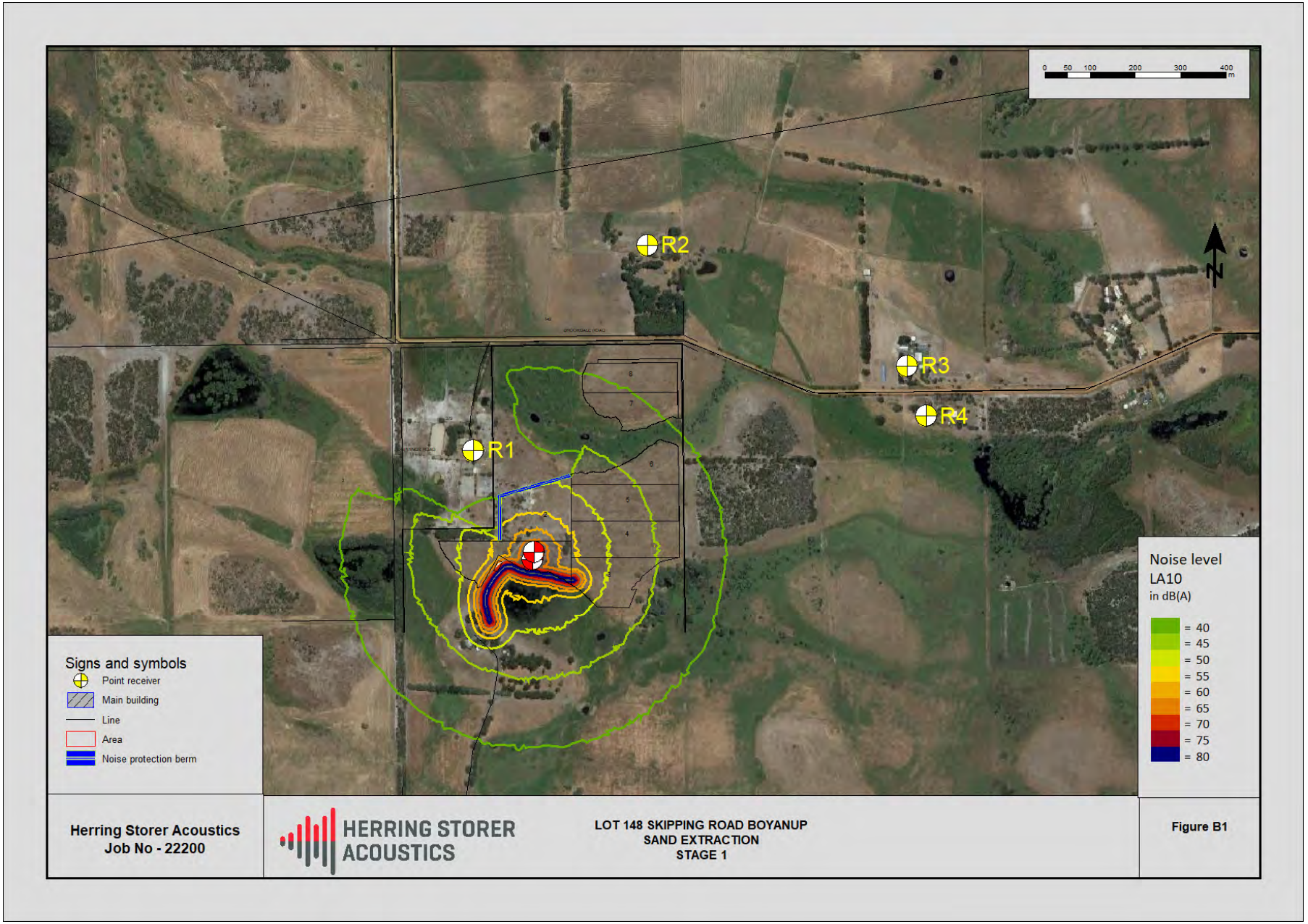
element.

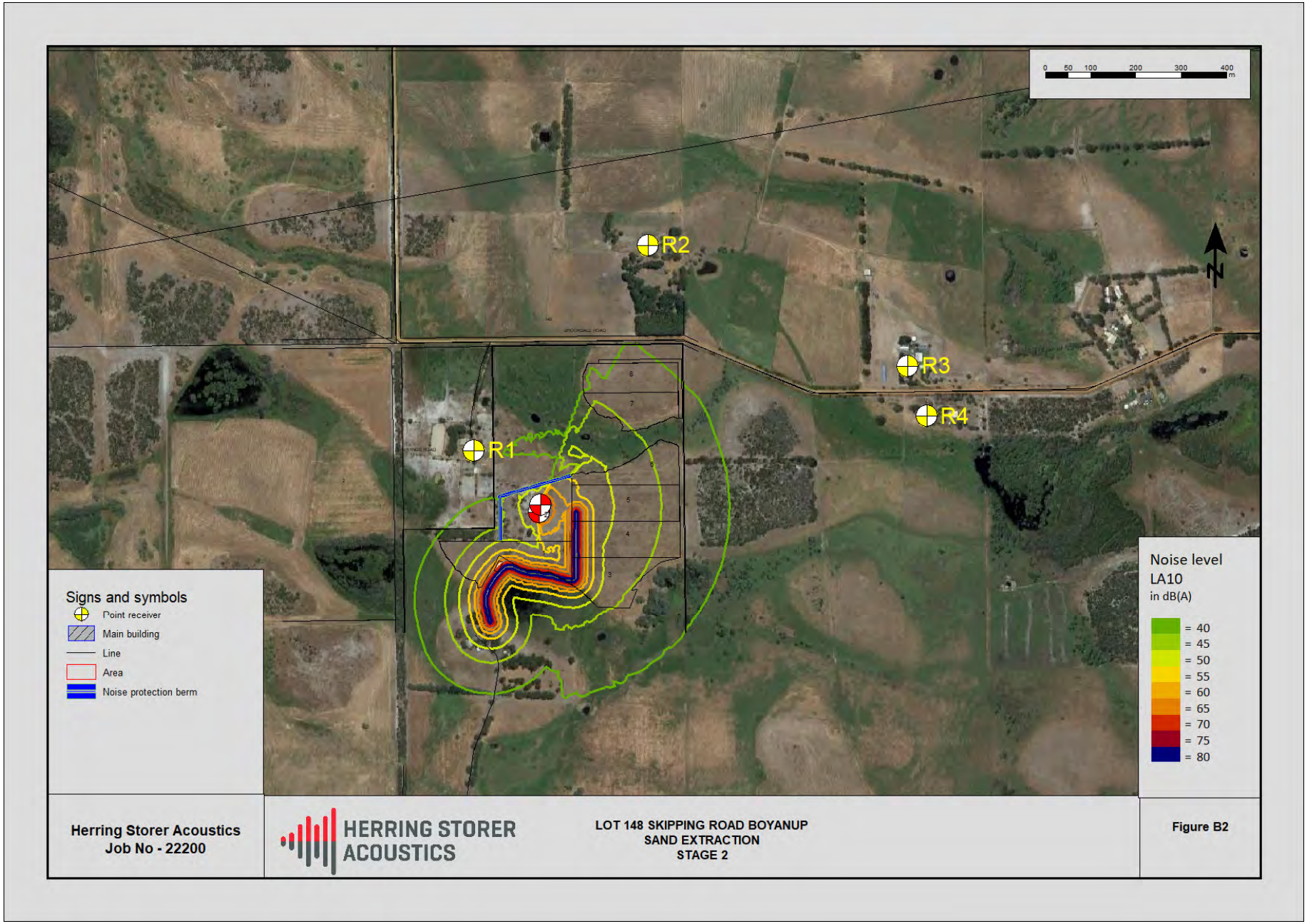
Level 18, 191 St Georges Terrace, Perth Western Australia 6000.
PO Box 7375 Cloisters Square, Perth Western Australia 6850.
T: +61 8 9289 8300 | E: hello@elementwa.com.au elementwa.com.au

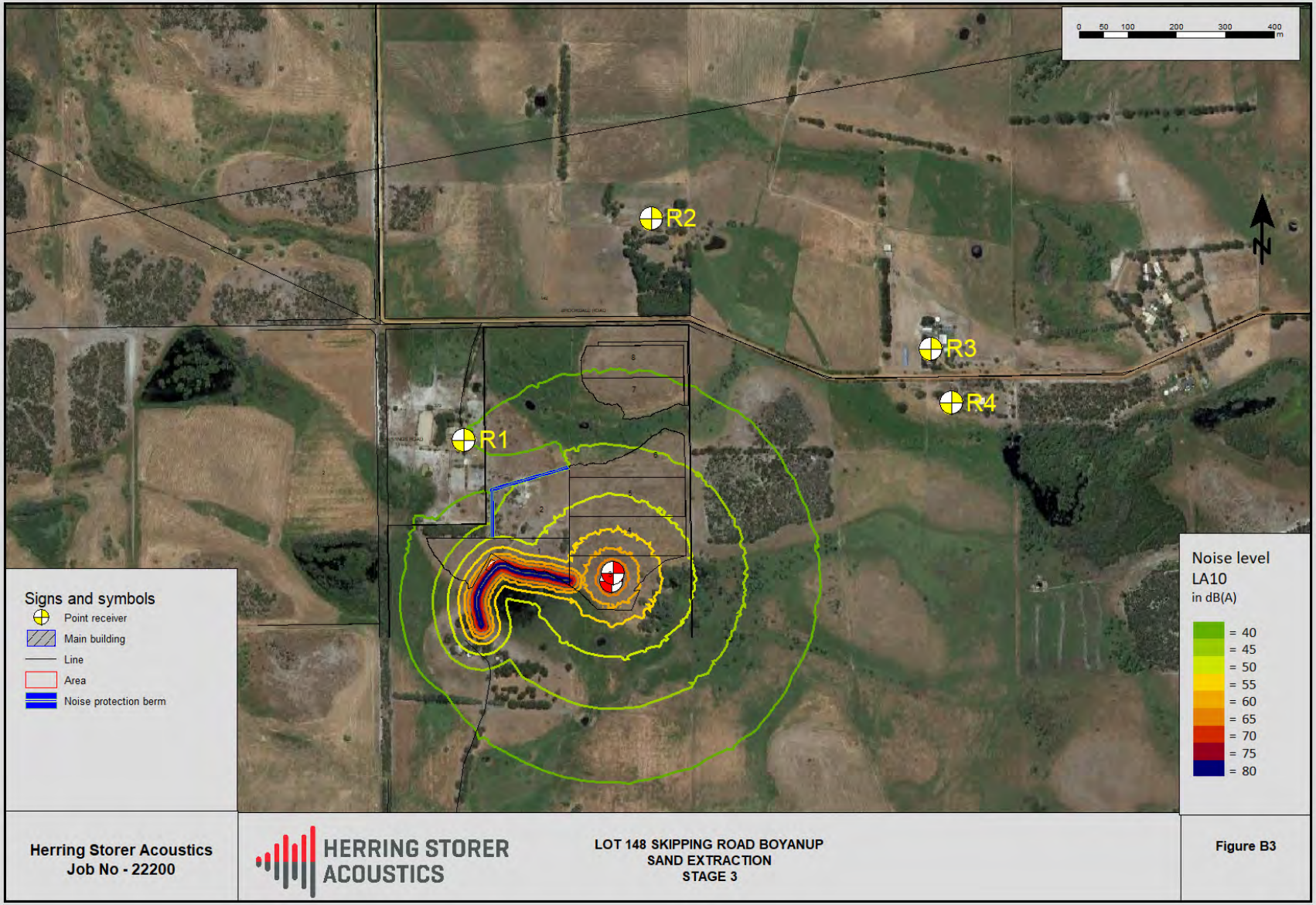
© Element Advisory WA Pty Ltd This concept has been prepared for the purpose of meeting client specifications. The drawing does not constitute an invitation, agreement or contract (or any part thereof) of any kind whatsoever. Although care has been taken in the compilation of this drawing by Element Advisory WA Pty Ltd, all parties associated with the proposed property development disclaim all responsibility for any errors or omissions. The right is reserved to change the plan at any time. Liability is expressly disclaimed by Element Advisory WA Pty Ltd for any loss or damage which may be sustained by any person acting on any visual impression gained from this drawing.

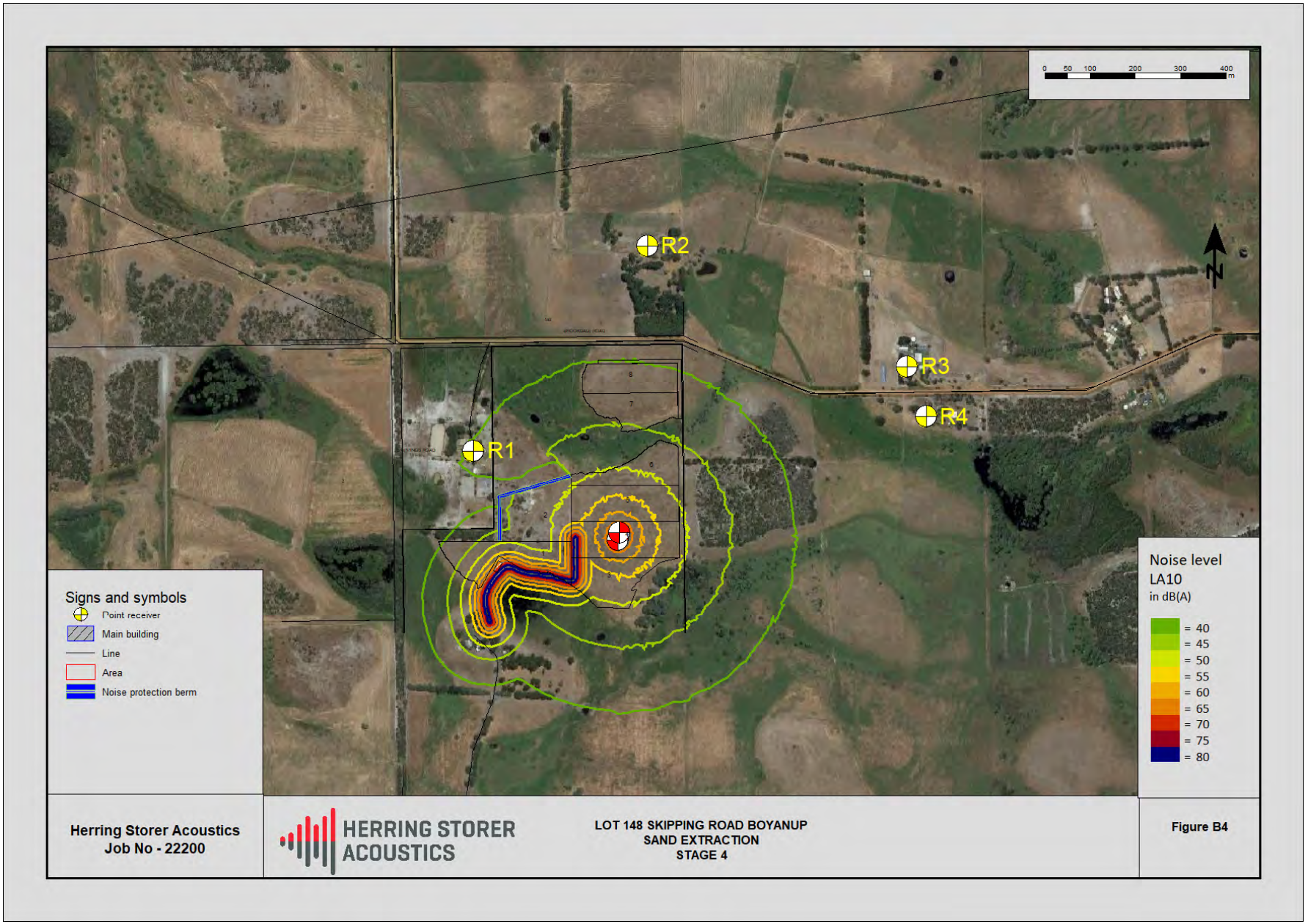
APPENDIX B

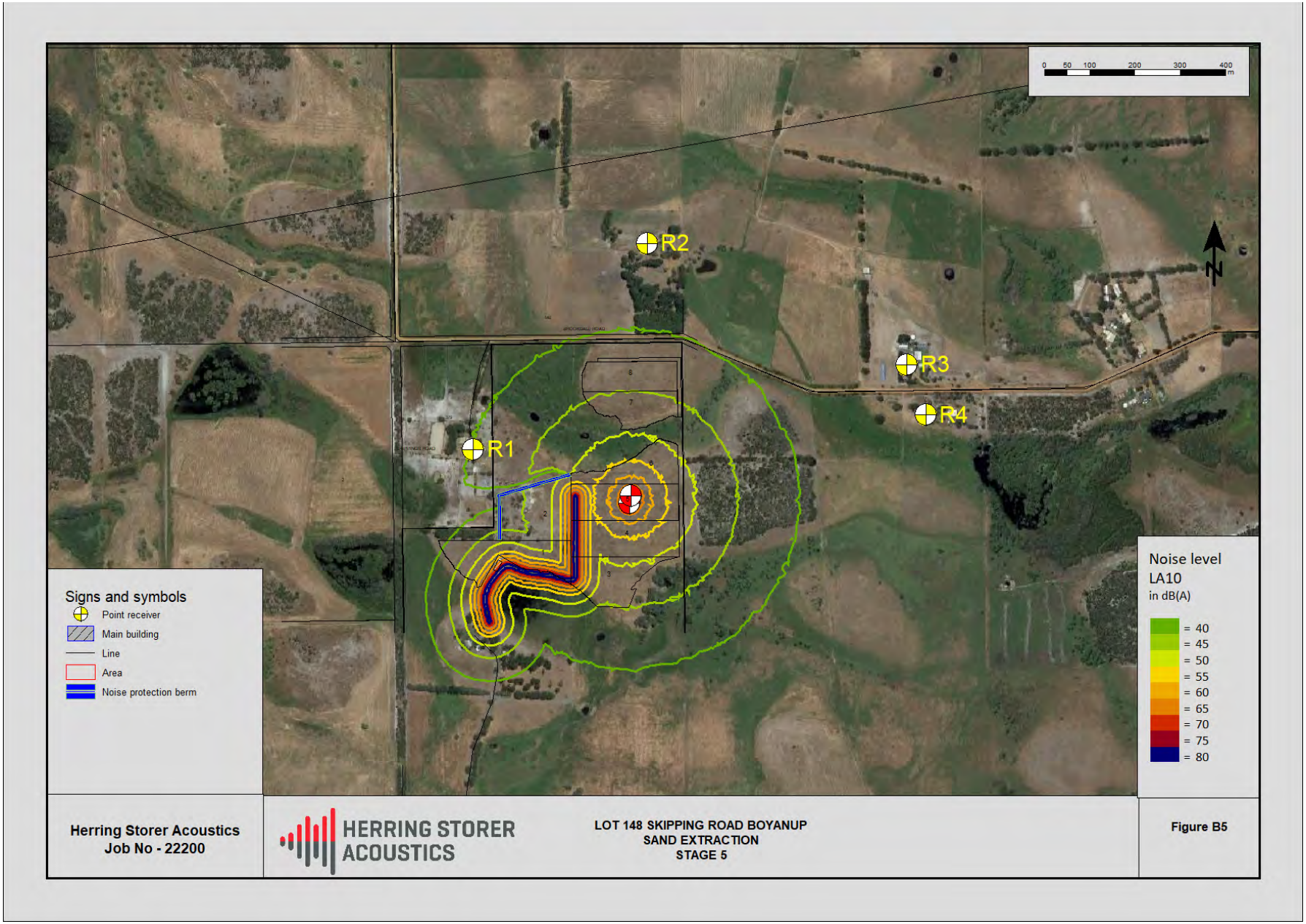
Noise Contours

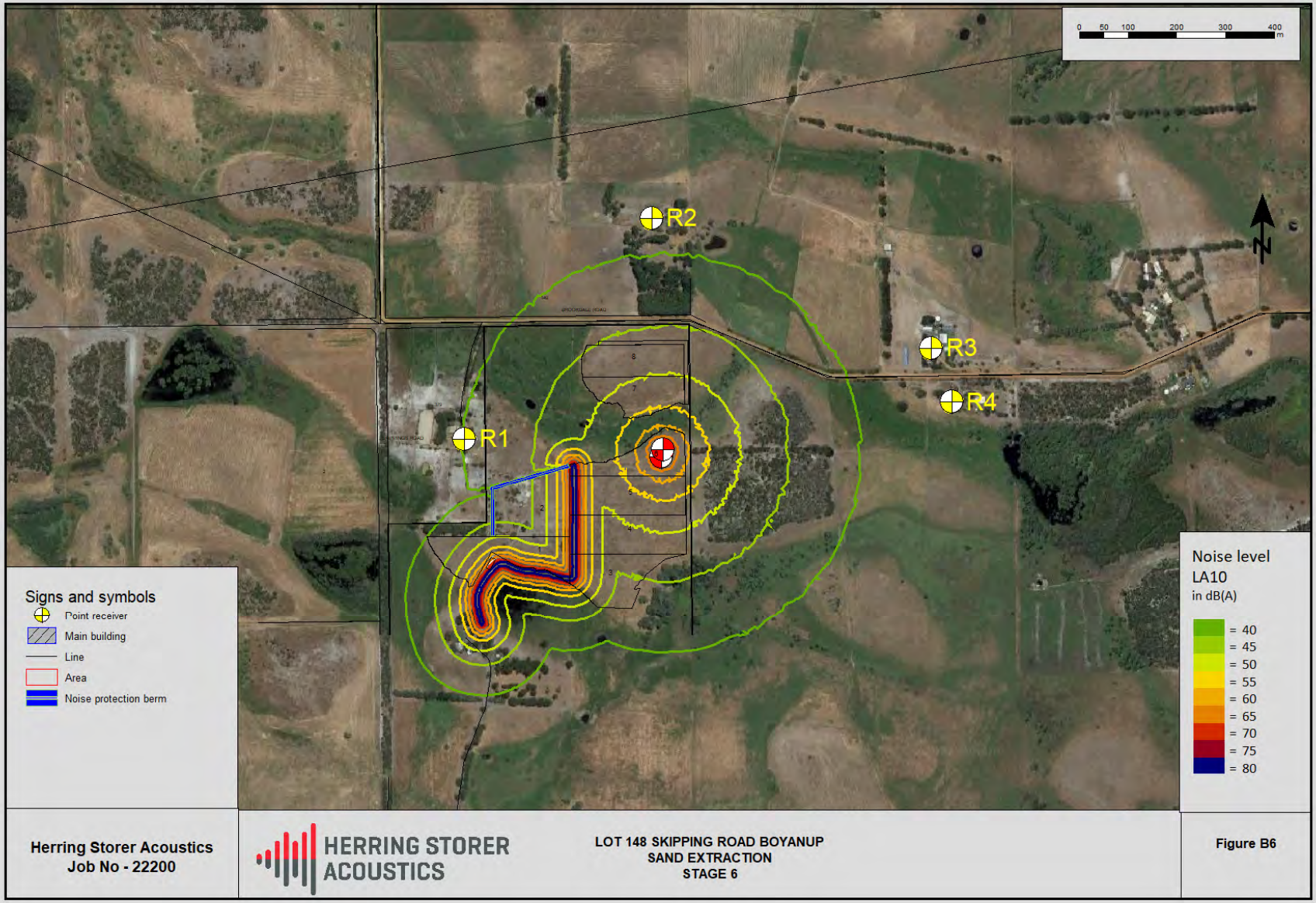

0 50 100 200 300 400 m
R1
R2
R3
R4
N
Noise level
LA10
in dB(A)
= 40
= 45
= 50
= 55
= 60
= 65
= 70
= 75
= 80
Signs and symbols
Point receiver
Main building
Line
Area
Noise protection berm
Herring Storer Acoustics
Job No - 22200
HERRING STORER ACOUSTICS
LOT 148 SKIPPING ROAD BOYANUP
SAND EXTRACTION
STAGE 1
Figure B1

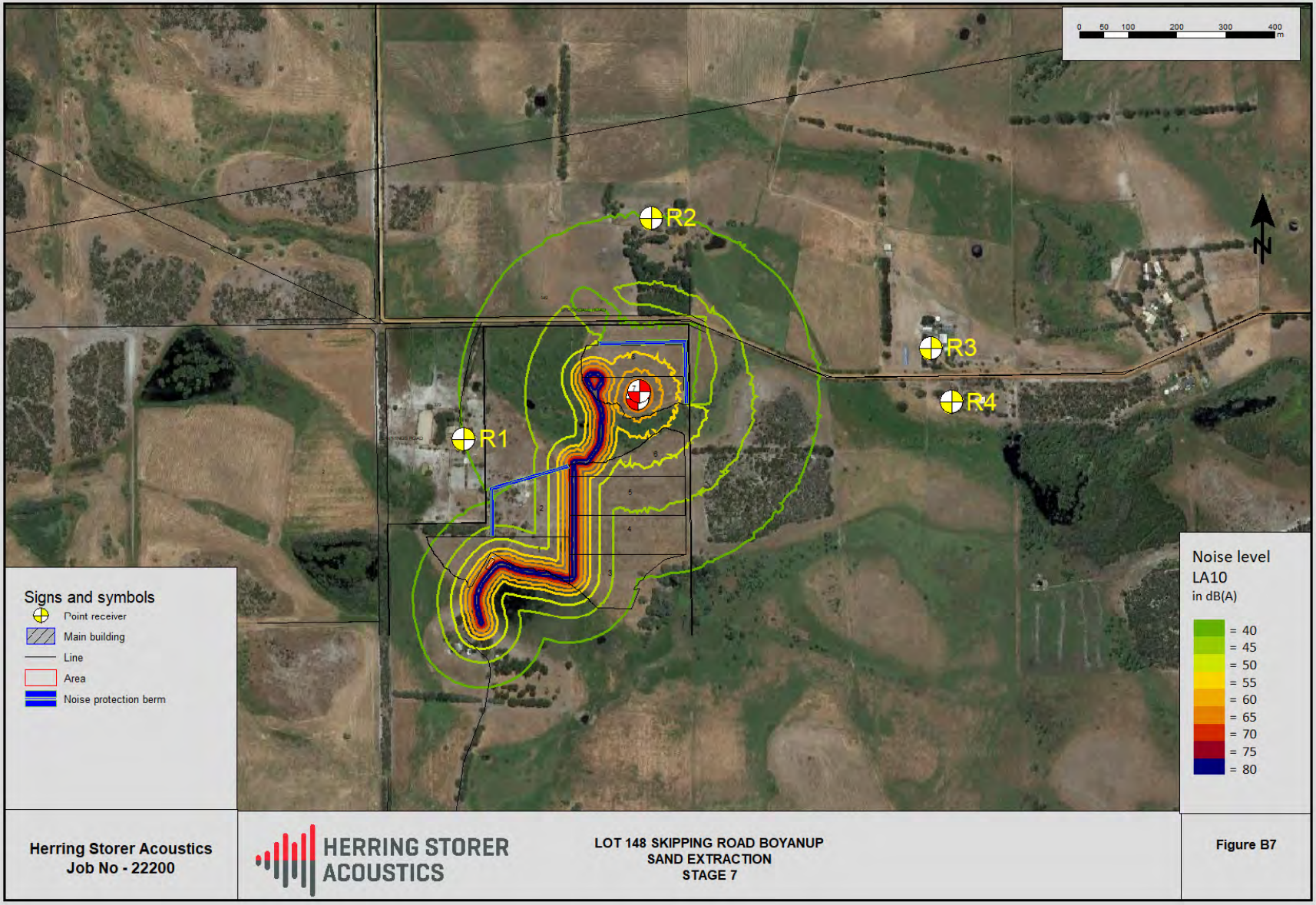

0 50 100 200 300 400 m
R1
R2
R3
R4
N
Signs and symbols
Point receiver
Main building
Line
Area
Noise protection berm
Noise level
LA10
in dB(A)
= 40
= 45
= 50
= 55
= 60
= 65
= 70
= 75
= 80
Herring Storer Acoustics
Job No - 22200
HERRING STORER ACOUSTICS
LOT 148 SKIPPING ROAD BOYANUP
SAND EXTRACTION
STAGE 2
Figure B2

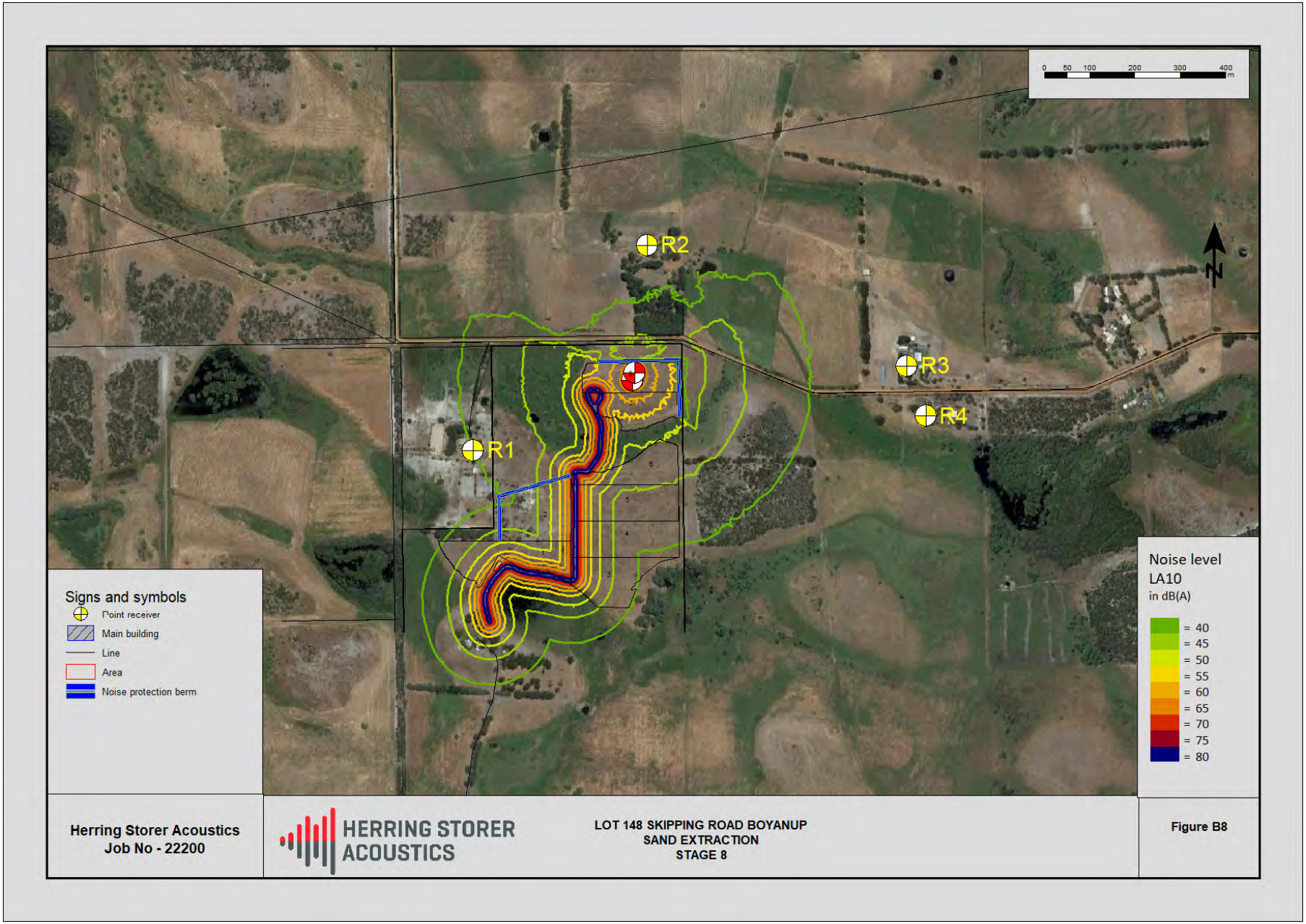

0 50 100 200 300 400 m
R1
R2
R3
R4
N
Signs and symbols
Point receiver
Main building
Line
Area
Noise protection berm
Noise level
LA10
in dB(A)
= 40
= 45
= 50
= 55
= 60
= 65
= 70
= 75
= 80
Herring Storer Acoustics
Job No - 22200
HERRING STORER ACOUSTICS
LOT 148 SKIPPING ROAD BOYANUP
SAND EXTRACTION
STAGE 3
Figure B3


0 50 100 200 300 400 m
R1
R2
R3
R4
N
Signs and symbols
Point receiver
Main building
Line
Area
Noise protection berm
Noise level
LA10
in dB(A)
= 40
= 45
= 50
= 55
= 60
= 65
= 70
= 75
= 80
Herring Storer Acoustics
Job No - 22200
HERRING STORER
ACOUSTICS
LOT 148 SKIPPING ROAD BOYANUP
SAND EXTRACTION
STAGE 4
Figure B4


0 50 100 200 300 400 m
R1
R2
R3
R4
N
Signs and symbols
Point receiver
Main building
Line
Area
Noise protection berm
Noise level
LA10
in dB(A)
= 40
= 45
= 50
= 55
= 60
= 65
= 70
= 75
= 80
Herring Storer Acoustics
Job No - 22200
HERRING STORER ACOUSTICS
LOT 148 SKIPPING ROAD BOYANUP
SAND EXTRACTION
STAGE 5
Figure B5


0 50 100 200 300 400 m
R1
R2
R3
R4
N
Signs and symbols
Point receiver
Main building
Line
Area
Noise protection berm
Noise level
LA10
in dB(A)
= 40
= 45
= 50
= 55
= 60
= 65
= 70
= 75
= 80
Herring Storer Acoustics
Job No - 22200
HERRING STORER
ACOUSTICS
LOT 148 SKIPPING ROAD BOYANUP
SAND EXTRACTION
STAGE 6
Figure B6


0 50 100 200 300 400 m
R1
R2
R3
R4
N
Signs and symbols
Point receiver
Main building
Line
Area
Noise protection berm
Noise level
LA10
in dB(A)
= 40
= 45
= 50
= 55
= 60
= 65
= 70
= 75
= 80
Herring Storer Acoustics
Job No - 22200
HERRING STORER
ACOUSTICS
LOT 148 SKIPPING ROAD BOYANUP
SAND EXTRACTION
STAGE 7
Figure B7


0 50 100 200 300 400 m
R1
R2
R3
R4
N
Signs and symbols
Point receiver
Main building
Line
Area
Noise protection berm
Noise level
LA10
in dB(A)
= 40
= 45
= 50
= 55
= 60
= 65
= 70
= 75
= 80
Herring Storer Acoustics
Job No - 22200
HERRING STORER ACOUSTICS
LOT 148 SKIPPING ROAD BOYANUP
SAND EXTRACTION
STAGE 8
Figure B8

Appendix F – Groundwater Monitoring Report

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www.jdahydro.com.au

To :	BCP Materials Pty Ltd (c/o – Element)	**Date :**	19 Dec 22
Attention :	Daniel Lewis (Element)	**Our Ref :**	J7121b
Email :	*daniel.lewis@elementwa.com.au*	**Pages :**	29

LOT 148 SKIPPINGS ROAD, BOYANUP
GROUNDWATER LEVEL MONITORING – SEPTEMBER 2021 TO OCTOBER 2022

Dear Daniel,

Please find below summary of JDA groundwater level monitoring performed at Lot 148 Skippings Road, Boyanup from September 2021 to October 2022. This report is presented in the following sections:

1. *Introduction*
2. *Study Area Characteristics*
3. *Climate*
4. *Monitoring Layout*
5. *Monitoring Results and Analysis*
6. *Maximum Groundwater Level*
7. *Conclusions*

1. INTRODUCTION

Lot 148 Skippings Road, Boyanup, Figure 1 and herein referenced as the Study Area, is proposed as a potential site for sand extraction and a future application for an Extractive Industries Licence (EIL). The EIL area would potentially cover the northern extent of the Study Area which comprises a prominent sand ridge (Section 2 and Figure 2). Groundwater level monitoring is required to determine the maximum groundwater levels across the potential EIL area.

JDA was appointed by BCP Materials Pty Ltd to supervise the installation of monitoring bores, conduct groundwater level monitoring in September and October 2021 and determine maximum groundwater levels across the potential EIL area. This is summarised in JDA (2021).

JDA has continued monitoring groundwater levels in bores to October 2022. Presented below is a summary of JDA's groundwater level monitoring and analysis for the potential EIL area across the September 2021 to October 2022 monitoring period.

2. STUDY AREA CHARACTERISTICS

The topography of the Study Area is generally characterised by an east-west sand ridge across the northern portion of the Study Area at approximately 30 mAHD which is the potential EIL area for the sand quarry, Figure 2. Lower lying areas are generally around 24 to 26 mAHD. These lower lying areas are generally mapped as wetland (Figure 2) and suggests regional groundwater is either at surface or there is localised perching. Regional groundwater flow direction is generally east to west towards the Ocean (Commander, 1984). Region-scale groundwater contours in Commander (1984) suggest a groundwater level of 22 to 23 mAHD across the Study Area.

The surface geology of the Study Area is generally mapped as clays from the Guildford Formation (Qpa) in the lower lying areas, Figure 2, with the elevated areas comprised of Bassendean Sand (Qpb) defined as "Thin Bassendean Sand over Guildford Formation" (Qpb/Qpa). The Bassendean Sand in the Greater Bunbury area interfingers with the Guildford Formation (Qpa) and underlies small dunes derived from Bassendean Sand (Baddock et al., 2014).

The Study Area is within the Five Mile Brook catchment which discharges north-west of the Study Area. Mapped surface water channels by DWER are shown on Figure 2 *right*. Unmapped local drainage channels, labelled on Figure 1 *right*, may locally influence groundwater levels. The northern Study Area drain flows north-westward whilst the southern drain is located within a Crown land easement and flows south-west.

3. CLIMATE

The Boyanup area is characterised by a Mediterranean climate with warm dry summers and cool wet winters.

Rainfall data is provided by two Bureau of Meteorology (BoM) rainfall gauging stations, namely *Boyanup WA* (009503, 1889-2003); and *Boyanup North* (009990, 2004-2022), Figure 3. The Boyanup rain gauges are located 6 to 7 km south-east of the Study Area. The Thirlmere rain gauge (Site ID. 009648), Figure 3, is located closest to the Study Area, 5.5 km south-west, but is not regularly monitored with few complete rainfall years since 1997. In general, the Thirlmere annual rainfall totals are lower than recorded at Boyanup.

The average annual rainfall, 1889 to 2020, for Boyanup is 935 mm, with 30-year and 10-year averages of 811 mm and 800 mm, respectively. This represents a 13% (30-year average) and 14% (10-year average) decrease from the long-term average annual rainfall. There has been a noticeable decline in annual rainfall since the 1970s which is consistent with the trend across south-west Western Australia (DoW, 2015). The seasonal rainfall distribution has also altered with a reduction of average monthly totals in the winter months, but no reduction in summer months.

Rainfall recorded in 2021 was 1,019 mm at Boyanup North (Site ID. 009990), 84 mm above the long-term average (1889-2020) of 935 mm. Rainfall recorded in 2022 to end-November was 787.8 mm, 147 mm lower than the long-term average and 23 mm lower than the 30-year (1991-2020) average.

Pan evaporation is provided by the Department of Primary Industries and Regional Development (DPIRD) Donnybrook weather station where annual pan evaporation generally ranged between 1,300 and 1,7000 mm for the 2008 to 2020 period with an average around 1,460 mm. This is slightly higher than the estimated pan evaporation in Luke (1987) of 1,550 mm but within the range of recently recorded pan evaporation (2008 to 2020). Pan evaporation in 2021 at the Donnybrook weather station was 1,605 mm and within the range of the 2008 to 2020 data.

4. MONITORING LAYOUT

4.1 Study Area Groundwater Monitoring Bores

0n 08 September 2021, nine groundwater monitoring bores, BOY1 to BOY8 on Figure 4, were installed across the potential EIL area by Edrill Environmental and supervised by JDA. Drilling continued until an impermeable layer was reached or to a maximum of 6 m depth. A nested bore (shallow and deep) was installed at BOY2 (BOY2S and BOY2D) as a hard caprock layer was encountered approximately 3 m below surface. Bores BOY2S and BOY2D were screened above or below the caprock layer respectively with a bentonite seal placed above the caprock layer for BOY2D.

The bores were constructed with 50 mm Class 18 threaded PVC, screened in the lowest 1.5 to 3 m and finished with a gravel pack and bentonite seal.

Bore details are provided in Table 1 and locations shown on Figure 4.

Odyssey capacitance water level loggers were installed in all 9 bores on 09 September 2021. Static groundwater levels were recorded at 1 hour (winter/spring) and 3 hour intervals (summer/autumn) intervals by the water

level loggers and verified on-site via manual still water level measurements using an electrical depth probe. Loggers were downloaded on 22 September and 26 October 2021 and 01 June and 31 October 2022. Bore BOY4 was found destroyed on 26 October 2021, presumably by cattle.

The HYDSTRA data management system was used to store, process and analyse water level data recorded by the Odyssey capacitance loggers.

4.2 DWER Long-Term Monitoring Bores

DWER monitoring bore BY22B is located within the Study Area and drilled as part of the Bunbury Shallow-Drilling Groundwater Investigation (1975-1980) (Commander, 1984).

BY22B is located 650 m south-west of the potential EIL area, Figure 4. The bore was drilled in sand with some clay bands to 15 m depth, gravel packed and screened in the lowest 6 m (9 to 15 m) (Commander, 1993). Although described as a superficial aquifer bore in Commander (1984), the bore is screened between 9 m and 15 m and which the bore log describes as the Yarragadee Formation (Commander, 1993). The *Water Information Reporting* (WIR) entry presents conflicting information from Commander (1984 & 1993).

Nearby long-term DWER bores, generally drilled as part of the Bunbury or Busselton shallow-drilling groundwater investigations, are screened within either the Leederville or Yarragadee aquifers. The next closest continuously monitored bore is EW03B, location shown on Figure 5. The Study Area bores and EW03B are approximately 9.2 to 10 km from the ocean. The 'EW' series of bores were installed as part of an ecological water requirements study of wetland vegetation in the south-west. This bore is fitted with a logger and has been processed up to 16 September 2021.

JDA requested and was granted permission to access both DWER bores BY22B and EW03B with manual still water level measurements taken during site visits. In addition, manual water level measurements for BY22B were extracted from DWER's WIR platform. No manual measurements were shown on WIR for EW03B since 2010. It is likely manual measurements would have been conducted during logger downloads to verify the logger data, however, no such record was shown on WIR. Details of the bores are shown in Table 1.

4.3 Surface Water

Surface water was encountered in the northern drain and a groundwater expression in the central wetland during bore and logger installation on the 08 and 09 September 2021. Surface water levels at 3 locations were surveyed on 09 September 2021 and were used in the derivation of the Study Area MGL in JDA (2021).

TABLE 1: GROUNDWATER MONITORING BORE DETAILS

Bore ID	GDA 1994 Coordinates		Natural Surface (mAHD)	Top of Casing (mAHD)	Stick-up (m)	Depth (m)	Date Constructed
	Easting	Northing					
BOY1	376186	6296932	28.19	28.54	0.35	3.30	08 September 2021
BOY2D	376052	6296931	28.93	29.25	0.32	6.50	08 September 2021
BOY2S	376052	6296929	29.01	29.36	0.35	3.15	08 September 2021
BOY3	376087	6296864	27.82	28.08	0.26	3.02	08 September 2021
BOY4	376189	6296661	30.15	30.51	0.36	3.68	08 September 2021 (*Destroyed*)
BOY5	376211	6296547	27.75	28.09	0.34	3.70	08 September 2021
BOY6	376092	6296575	28.35	28.745	0.4	4.03	08 September 2021
BOY7	375862	6296506	27.50	27.81	0.31	4.84	08 September 2021
BOY8	375884	6296640	29.84	30.27	0.43	6.26	08 September 2021
BY22B	375637	6295917	24.36	25.04	-	15	10 February 1978
EW03B	378754	6300895	26.30	-	-	-	13 February 2007

5. MONITORING RESULTS AND ANALYSIS

Recorded fluctuations in logged groundwater levels are presented on Figures 6 and 7. Manually recorded groundwater levels by JDA are presented in Table 2, with peak recorded groundwater levels in 2021 and 2022 summarised in Table 3.

TABLE 2: MANUALLY RECORDED GROUNDWATER LEVELS - 2021 AND 2022

Bore ID	Groundwater Level (mAHD)				
	09-Sep 21	22-Sep 21	26-Oct 21	01-Jun 22	31-Oct 22
BOY1	27.13	27.10	26.86	26.51	26.87
BOY2D	26.75	26.71	26.60	26.57	26.42
BOY2S	26.75	26.68	26.59	26.56	26.67
BOY3	26.67	26.63	26.50	26.10	26.39
BOY4	27.25	27.16	27.24	-[1]	-[1]
BOY5	26.79	26.78	26.69	26.20	26.57
BOY6	26.98	26.92	26.80	26.34	26.72
BOY7	26.24	26.20	26.13	25.37	25.93
BOY8	26.52	26.47	26.33	25.66	26.25

Note: 1. Bore destroyed.

TABLE 3: PEAK RECORDED GROUNDWATER LEVELS – 2021 AND 2022

Bore ID	2021 (September to December)			2022 (January to October)		
	Date Recorded	Water Level (mAHD)	Separation to Natural Surface (m)	Date Recorded	Water Level (mAHD)	Separation to Natural Surface (m)
BOY1	09 September	27.13	1.06	19 August	27.30	0.89
BOY2D	09 September	26.76	2.17	-[1]	-[1]	-[1]
BOY2S	10 September	26.75	2.26	17 August	27.08	1.93
BOY3	10 September	26.68	1.14	14 August	26.87	0.95
BOY4	09 September	27.24	2.90	-[2]	-[2]	-[2]
BOY5	15 September	26.82	0.93	18 August	26.84	0.91
BOY6	09 September	26.99	1.36	20 August	27.08	1.27
BOY7	09 September	26.25	1.25	05 October[3]	26.15[3]	1.35
BOY8	10 September	26.53	3.31	27 August	26.46	3.38

Notes: 1. BOY2D logger failure – June to October 2022.
2. Bore destroyed.
3. BOY7 peaked on 05 October in response to rainfall on 04 October. Groundwater level of 26.13 mAHD recorded in mid-August.

In the monitoring period, groundwater levels across the site declined from September 2021 to a minimum in mid-May 2022 before rising to a peak in mid-August 2022 and thereafter declining to the end of the monitoring period (31 October 2022), Figures 6 and 7.

Local groundwater flow direction is east to west across the southern sand ridge and from north-east to north-west across the northern sand mound. Groundwater was significantly influenced by adjacent surface water drains. Generally, the local groundwater flow direction was similar to regional groundwater flow (Commander, 1984) albeit with local influences.

Peak groundwater levels recorded in 2021 were generally at the commencement of monitoring on 09 September 2021. Groundwater levels were highest in bores furthest from the drainage channels within the Study Area, 27.24 mAHD at BOY4 on the southern sand ridge and 27.13 mAHD at BOY1 on the north sand mound, Tables 2 and 3 and Figures 6 and 7. Groundwater likely peaked in 2021 in August, prior to the commencement of monitoring.

In 2022, peak groundwater levels in the southern sand ridge ranged from 26.46 mAHD at BOY8 to 27.08 mAHD at BOY6, Table 3. Groundwater levels would have likely been highest at BOY4 but this bore was destroyed in October 2021. Compared to September 2021, groundwater peaked in 2022 0.02 m and 0.09 m higher in BOY5 and BOY6, respectively, and 0.1 m and 0.07 m lower in BOY7 and BOY8, respectively, Table 3.

Peak groundwater levels in the northern sand mound in 2022 ranged from 26.87 mAHD at BOY3 to 27.30 mAHD at BOY1 and were 0.22 to 0.33 m higher than in September 2021, Table 3.

In the nested BOY2 bores, there was no significant difference in groundwater levels at the commencement of monitoring in September 2021 but the 31 October 2022 manual groundwater level measurements, Table 2, show there is some perching occurring with the BOY2S groundwater level 0.25 m higher than BOY2D.

Groundwater levels in September 2022 are relatively similar to those in September 2021 at the commencement of monitoring, Figures 6 and 7, and groundwater levels would have peaked in 2021 at a similar level to 2022 with the surrounding Guildford Formation at surface, Figure 2, acting as a control on groundwater levels within the potential EIL areas.

Across the monitoring period at the Study Area bores, the seasonal variation ranged from 0.92 m at BOY5 to 1.15 m at BOY1 and averaged 1.04 m, and the separation to the peak groundwater levels ranged from 0.89 m at BOY1 to 3.31 m at BOY8.

6. MAXIMUM GROUNDWATER LEVEL (MGL)

Water level time series for DWER bores BY22B and EW03B are presented on Figures 8 and 9.

Groundwater levels in BY22B have declined by 1.5 to 2m since the late-1990s with the downward trend continuing, Figure 8. The calculated Average Annual Maximum Groundwater Level (AAMGL) thus generally represents a higher annual maximum than present-day groundwater levels and a much lower annual maximum than pre-1997 groundwater levels. The decline is likely due to a combination of reduced rainfall and groundwater abstraction within the underlying Yarragadee Formation aquifer. As the bore appears to be screened within the upper portion of the Yarragadee aquifer, water levels may not be representative of the water table aquifer and therefore is not an appropriate comparison bore for the Study Area.

Figure 9 shows the available logged groundwater levels for EW03B for the period 2009 to 30 June 2022. The calculated AAMGL for EW03B, 2011 to 2020, is 24.67 mAHD. Due to operational issues, the logger is unlikely to have recorded the groundwater peaks in 2009 and 2010 thus the maximum levels recorded within these years were excluded from the calculation of AAMGL. The Maximum Groundwater Level (MGL) of 25.07 mAHD, 0.40 m above the AAMGL, was recorded on 30 August 2018 and followed approximately 97 mm of rainfall, recorded at the Boyanup rainfall gauge in the prior 72 hours.

In 2022, JDA's groundwater level measurements at EW03B of 24.70 mAHD on 29 July and 24.72 mAHD on 01 November 2022 were both just above the bore AAMGL and likely captured the rising and falling groundwater levels at the bore in 2022 rather than the peak.

MGL values in JDA (2021) for the potential EIL area were estimated by applying a correction of +0.18 m to groundwater levels recorded within Study Area bores on 09 September 2021, Table 4. The logger recorded groundwater level at EW03B on 10 September 2021 was 24.89 mAHD, 0.22 m above the bore AAMGL and 0.18 m below the bore MGL. Estimated MGLs in Study Area bores ranged from 26.42 mAHD in BOY7 to 27.43 mAHD

in BOY4. However, groundwater levels in 2022 peaked in the northern sand mound approximately at MGL (BOY1 and BOY3) or in the case of the shallow nested BOY2S bore, 0.15 m above MGL, Table 4.

Groundwater levels in BOY1 to BOY6 peaked higher in 2022 than in 2021 at the commencement of monitoring on 09 September. Clayey sand/sandy clay and caprock was encountered in these bores at approximately 3 m below natural surface, Appendix A. In bores BOY7 and BOY8, which had lower peak groundwater levels in 2022 compared to 2021, this layer was deeper at approximately 4.5 m and 6 m, respectively.

MGL contours from JDA (2021) were updated in this report to account for higher groundwater levels recorded within the northern sand mound in 2022, shown on Figure 10. Groundwater levels within the southern sand ridge and northern sand mound will largely be controlled by the adjacent local drainage channels and surrounding lower-lying Guildford Formation, Figure 2.

Figure 11 shows depth to MGL from natural surface across the potential EIL. Elevated sand ridge areas with >1.5 m separation to natural surface from MGL occur between the local drainage channels. The maximum separation from MGL to natural surface at the ridge is approximately 5 m to the west of BOY8.

TABLE 4: JDA (2021) MGL VALUES AND 2022 PEAK GROUNDWATER LEVELS

Bore ID	2021 MGL (JDA, 2021)			2022 Peak Groundwater Levels		
	Groundwater Level 09 September 2022	Correction	MGL (mAHD)	Groundwater Level (mAHD)	Date Recorded	Separation to Natural Surface (m)
BOY1	27.13	+0.18	27.31	27.30	19 August	0.89
BOY2D	26.75	+0.18	26.93	-[2]	-[2]	-[2]
BOY2S	26.75	+0.18	26.93	27.08	17 August	1.93
BOY3	26.67	+0.18	26.85	26.87	14 August	0.95
BOY4	27.25	+0.18	27.43	-[1]	-[1]	-[1]
BOY5	26.79	+0.18	26.97	26.84	18 August	0.91
BOY6	26.98	+0.18	27.16	27.08	20 August	1.27
BOY7	26.24	+0.18	26.42	26.15[3]	05 October	1.35
BOY8	26.52	+0.18	26.70	26.46	27 August	3.38

Notes: 1. Bore destroyed.
2. BOY2D failure – June to October 2022.

7. CONCLUSIONS

JDA concludes that:

- Rainfall in 2021 was 1,019 mm at BoM's Boyanup North rain gauge, 84 mm above the long-term average (1889-2020). Rainfall in 2022 to end-November was 787.8 mm, 147 mm lower than the long-term average and 23 mm lower than the 30-year average (1991-2020) for Boyanup.
- Regional groundwater flow direction is east to west, modified locally by unmapped surface water drains.
- Peak groundwater levels recorded in 2021 were generally at the commencement of monitoring on 09 September 2021, although groundwater levels likely peaked prior to monitoring in August. Peak groundwater levels recorded in 2022 were generally recorded in mid-August.
- The single nested bore within the Study Area, BOY2, showed no significant difference in recorded water levels between the shallow and deep bore in 2021 but a 0.25 m difference on 31 October 2022, suggesting there is localised perching on underlying sandy clay/clayey sand and caprock.
- Separation to groundwater from surface elevation within the proposed EIL areas increased with distance from the drainage channels.
- Separation to groundwater ranged from 0.9 to 1.4 m at most bores.
- Seasonal variation averaged 1.04 m and was generally consistent across the monitoring bores.
- The logged groundwater level in DWER bore EW03B on 09 September 2021 of 24.89 mAHD was 0.22 m above AAMGL (2009-2020) but 0.18 m lower than MGL of 25.07 mAHD. The MGL for the bore was recorded subsequent to approximately 97 mm of rainfall in the 72 hours prior on 30 August 2018.
- The JDA (2021) MGL contours have been updated to account for higher groundwater levels recorded in the northern sand mound in 2022. Groundwater levels within both potential EIL areas are controlled by both surface water drainages and surrounding lower-lying Guildford Formation clays at surface.
- Elevated sand ridge areas generally have a minimum 1.5 m separation to MGL with the highest separation of approximately 5 m to the west of BOY8.

References:

Bureau of Meteorology (2022) *Climate Data Online, Boyanup WA (Site No. 009503), Boyanup North (Site No. 009990) and Thirlmere (009648) Rain Gauges*. Accessed October 2022.

Baddock, L.J., Braaten, R., Commander, D.P. and Kern, A.M. (2014) *Hydrogeology and groundwater resources of the Southern Perth Basin.* Hydrogeological record series, Report no. HG61, June 2014.

Commander, D.P. (1984) *The Bunbury Shallow-Drilling Groundwater Investigation*. Geological Survey of Western Australia, Report 12, 1 January 1984.

Commander, D.P. (1993) *Bunbury Shallow Project bore completion reports*. Western Australia Geological Survey, Hydrogeology Report 1993/13 (unpublished).

Department of Primary Industries and Regional Development [DPIRD] (2021) *Donnybrook Weather Station Pan Evaporation Data*. Accessed October 2022.

Department of Water [DoW] (2015) *Selection of future climate projections for Western Australia*. Water Science Technical Series, Report no. WST 72.

DWER (2022) *Water Information Reporting, Bores BY22B (31118058) and EW03B (61111460).* Accessed October 2022.

Geological Survey of Western Australia [GSWA] (1982) Bunbury – Burekup Urban Geology (map series 2031 III – 2031 II).

JDA (2021) *Lot 148 Skippings Road, Boyanup: Groundwater Level Monitoring – September/October 2021*. Doc Ref: J7121a. Prepared for BCP Materials Pty Ltd, 29 November 2021.

Luke, G.L, Burke, K.L. & O'Brien, T.M. (1987) *Evaporation data for Western Australia – Resource Management Technical Report No. 65*. Perth: W.A. Department of Agriculture, division of Resource Management. October 1987.

Attachments:

Figure 1: Location Plan

Figure 2: Existing Study Area Characteristics

Figure 3: Rainfall and Evaporation

Figure 4: Study Area Bore Locations

Figure 5: DWER Bore EW03B Location

Figure 6: Logged Groundwater Levels, BOY1 to BOY4

Figure 7: Logged Groundwater Levels - BOY2S, BOY2D, BOY3, BOY7 and BOY8

Figure 8: DWER Bore BY22B Groundwater Level Time-Series, AAMGL and MGL

Figure 9: DWER Bore EW03B Groundwater Level Time-Series, AAMGL and MGL

Figure 10: Estimated Maximum Groundwater Level (MGL) Contours

Figure 11: Depth to Estimated MGL

Appendix A: Bore Lithological Logs

If you have any queries on this report, please contact Matthew Yan or Michael Ioannidis.

Regards,



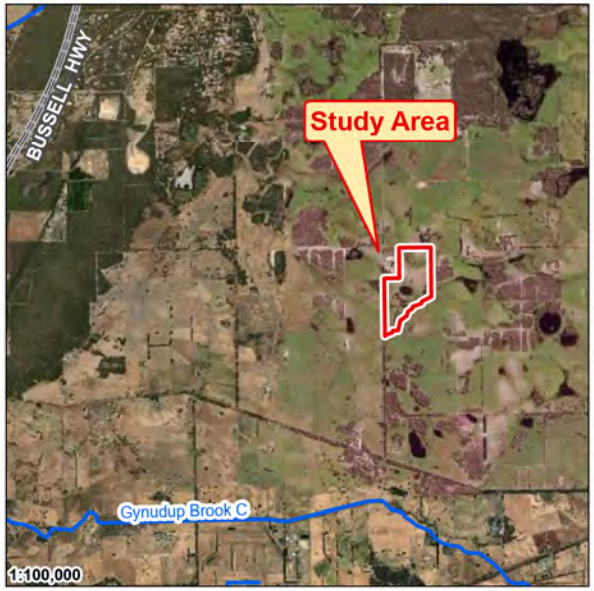
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Data Source: Nearmap Digital Imagery (2021), 05 August 2021

Coordinate System: GDA 1994, Zone 50

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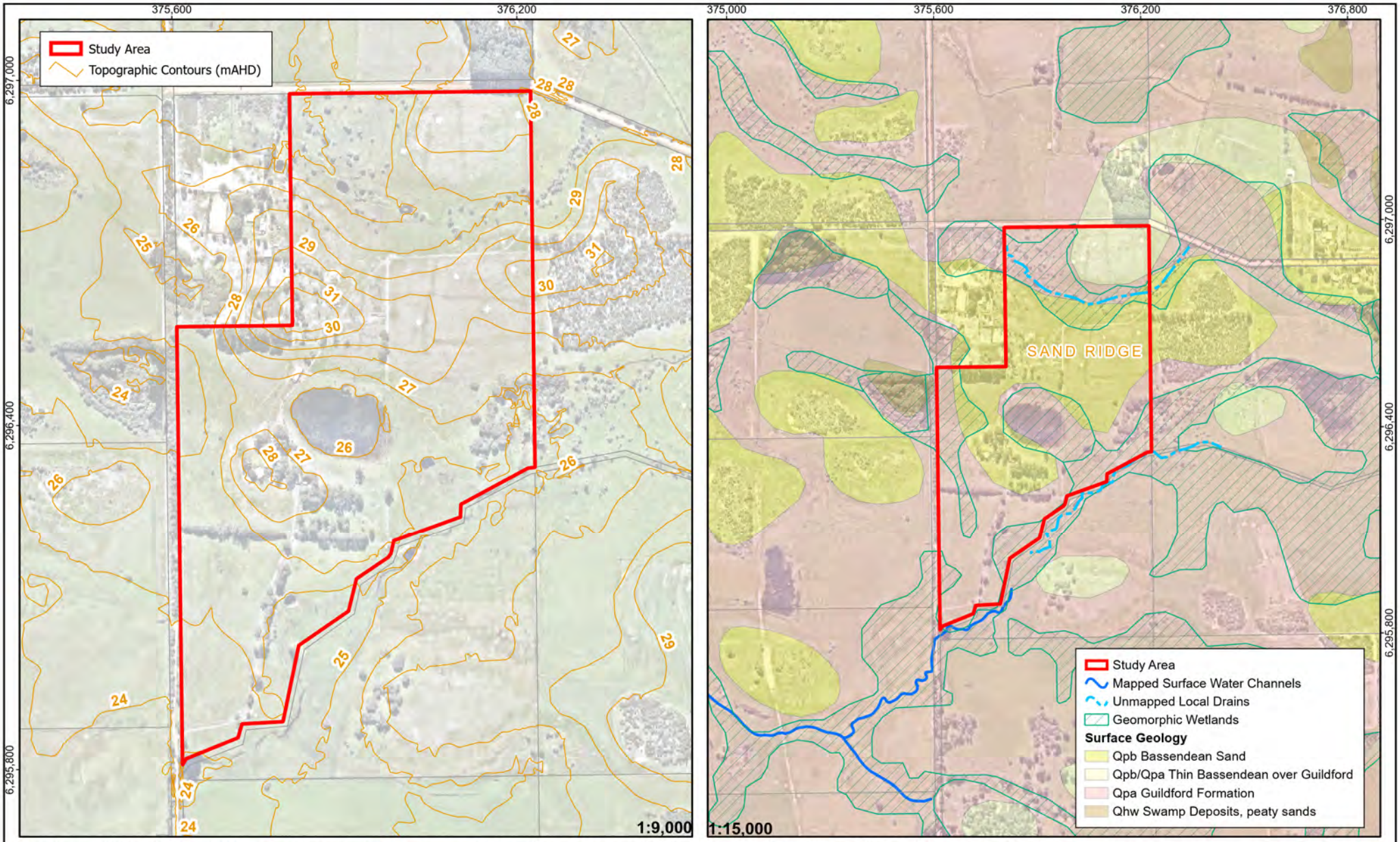
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Lot 148 Skippings Road, Boyanup: Groundwater Level Monitoring

Figure 1: Location Plan



Data Source: GSWA (1982) *1: 50 000 urban geology map - Bunbury - Burekup (2031 III - 2031 II)*. Landgate (2019) *Medium Scale Topo Water Line (LGATE-018)*; NearMaps (2021)

Coordinate System: GDA 1994, Zone 50

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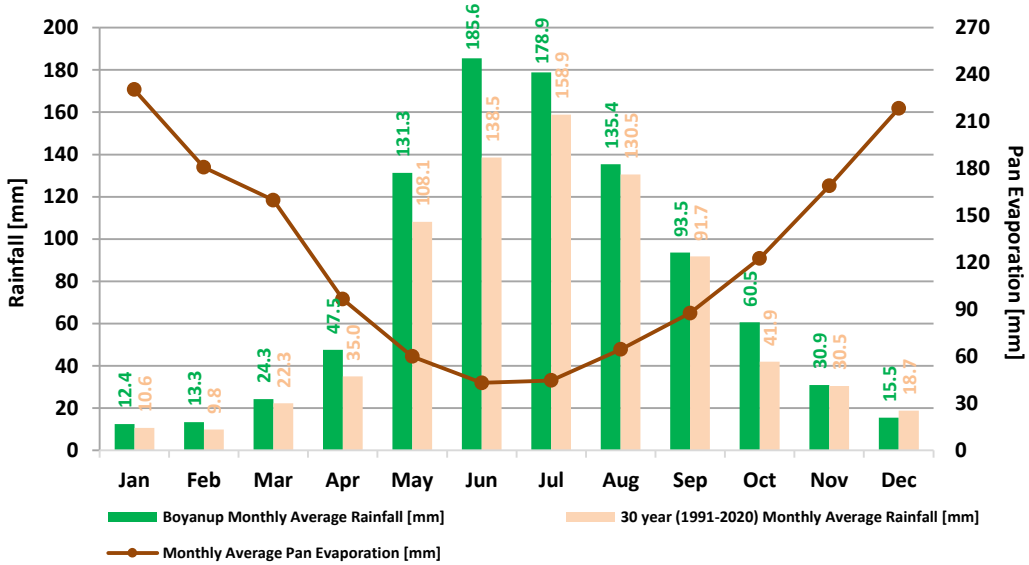
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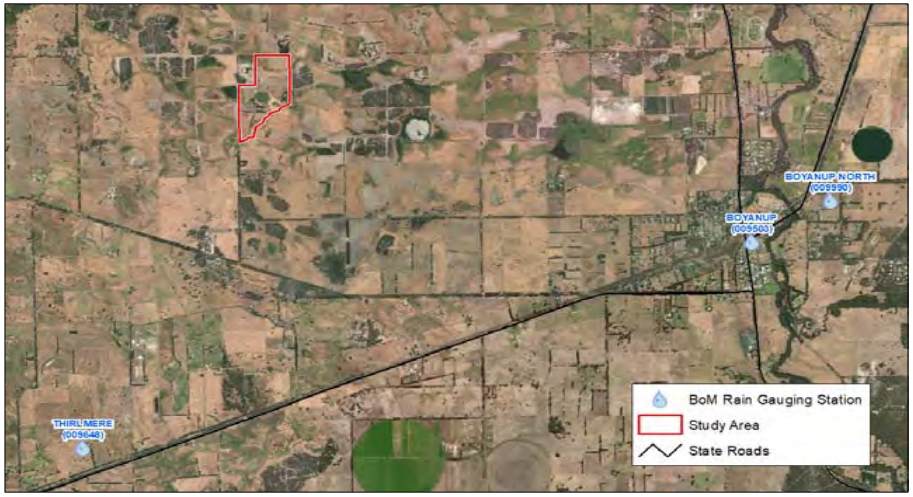
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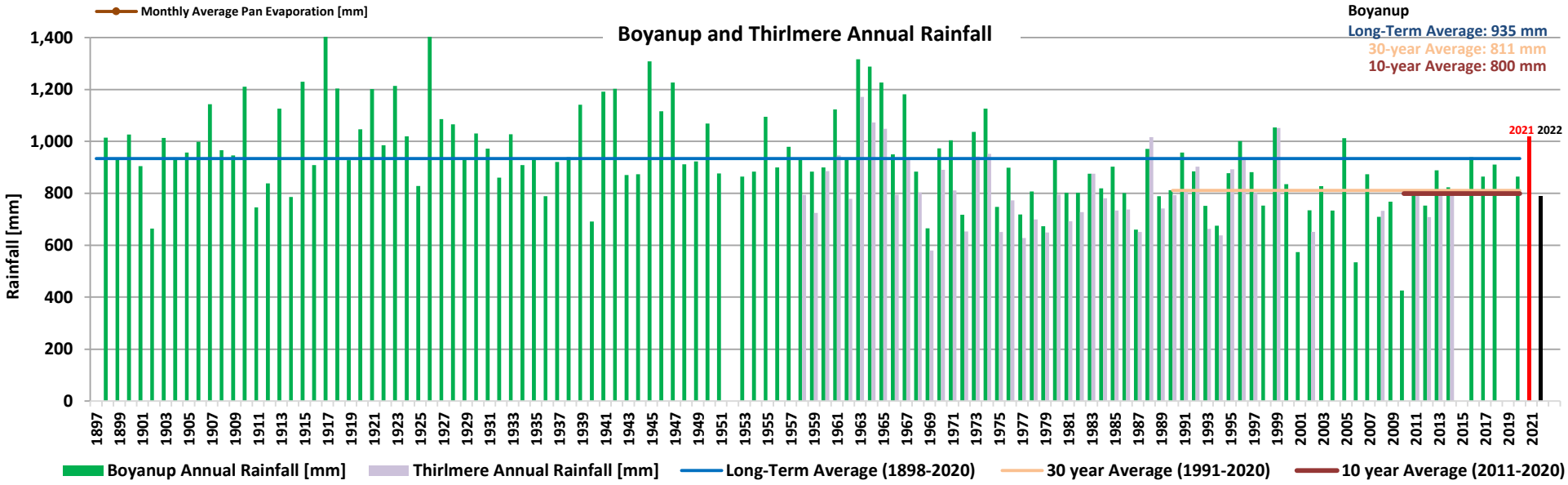
Lot 148 Skippings Road, Boyanup: Groundwater Level Monitoring

Figure 2: Study Area Characteristics

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Data Source: BoM (2022) Climate Data Online Boyanup *WA (009503; 1903-2002), Boyanup North (009990; 2003-2022) and Thirlmere (009648) Rain Gauges* ; DPIRD (2022) *Donnybrook Weather Station*

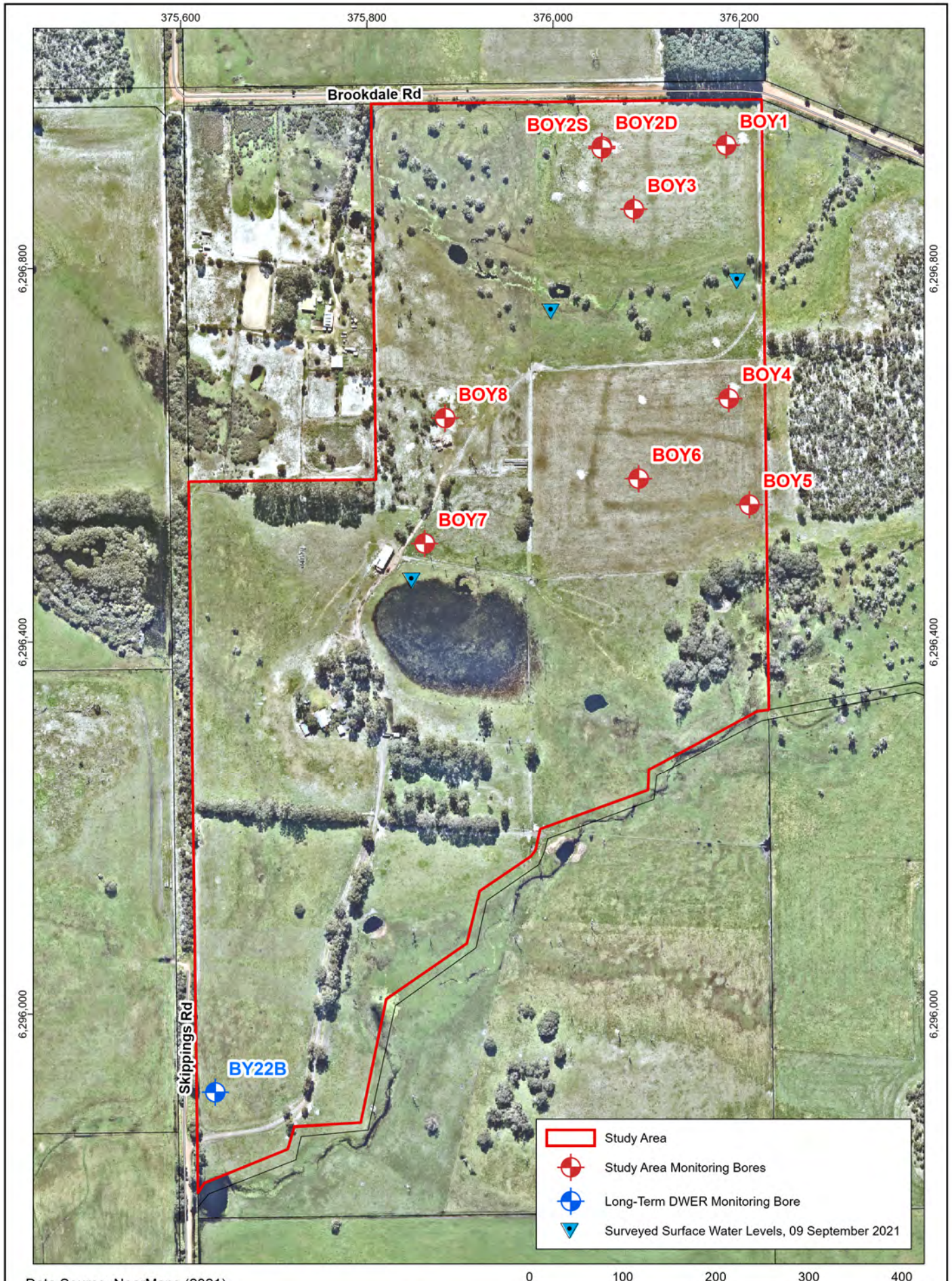
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Lot 148 Skippings Road, Boyanup: Groundwater Level Monitoring

Figure 3: Rainfall and Evaporation



Data Source: NearMaps (2021).

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Lot 148 Skippings Road, Boyanup: Groundwater Level Monitoring

Figure 4: Study Area and DWER Monitoring Bore Locations



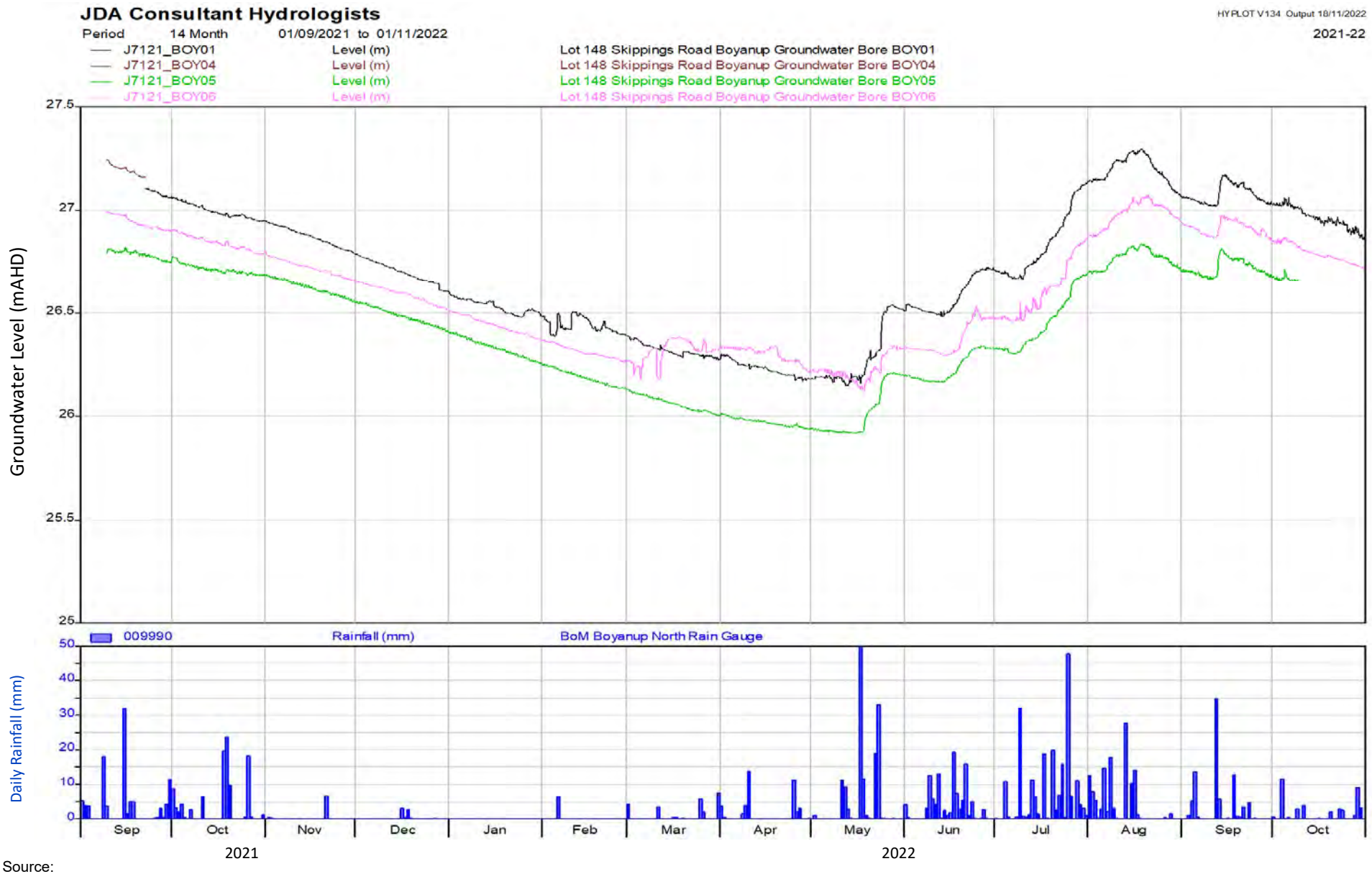
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Figure 5: DWER Bore EW03B Location



Data Source:

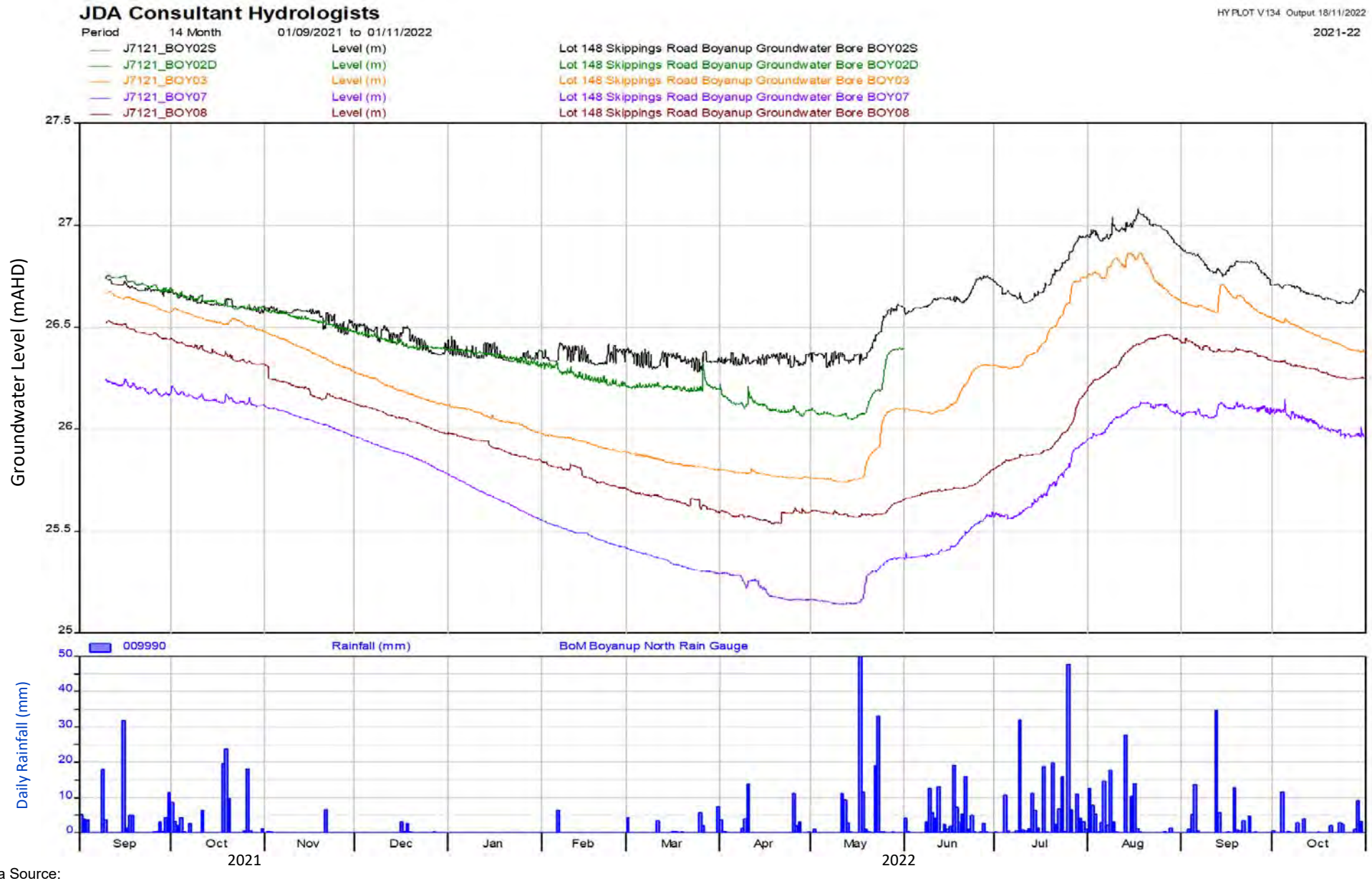
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Lot 148 Skippings Road, Boyanup: Groundwater Level Monitoring

Figure 6: Logged Groundwater Levels - BOY1, BOY4, BOY5 and BOY6



Data Source:

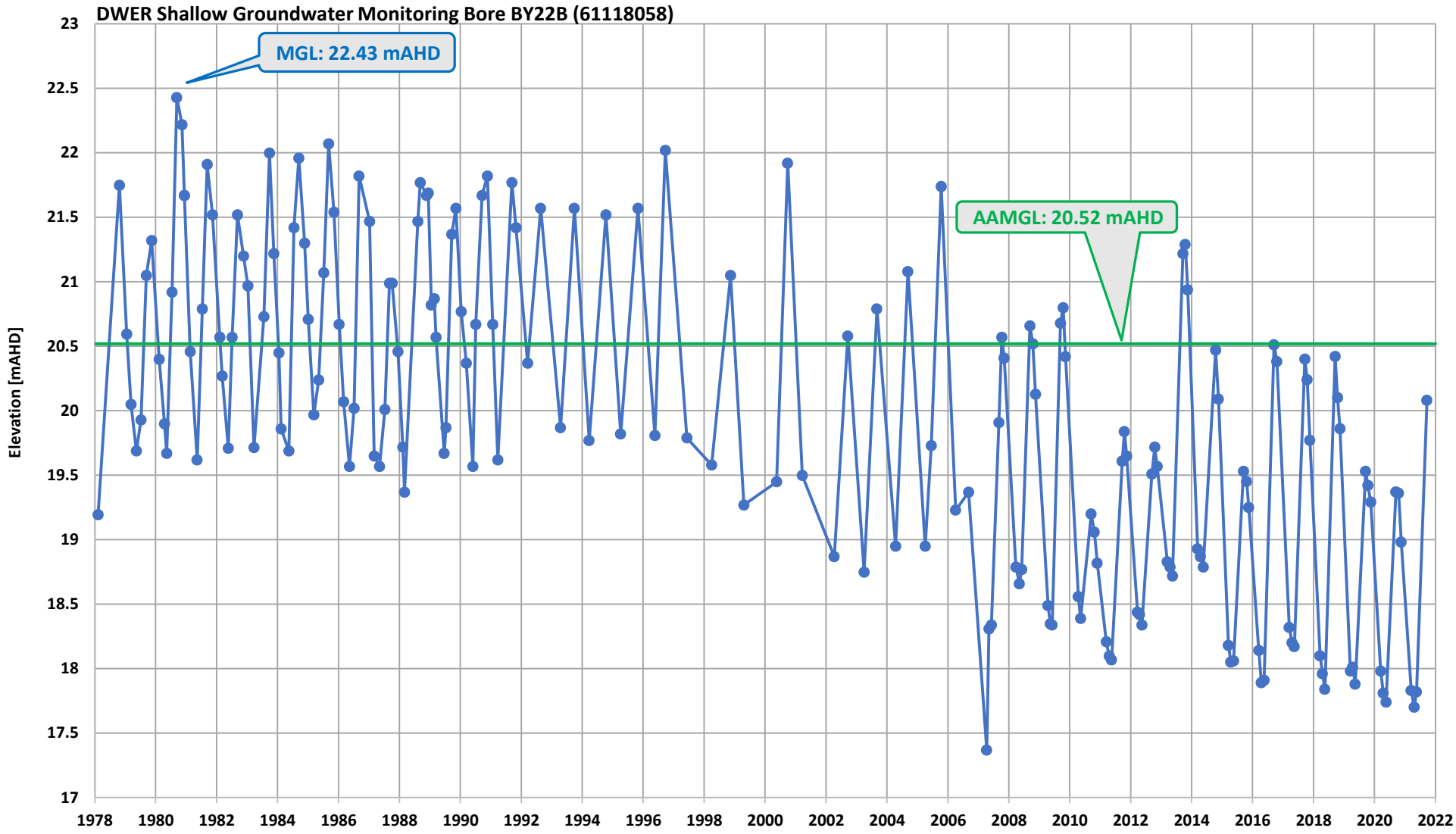
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Lot 148 Skippings Road, Boyanup: Groundwater Level Monitoring

Figure 7: Logged Groundwater Levels - BOY2S, BOY2D, BOY3, BOY7 and BOY8



Data Source: Department of Water and Environmental Regulation Online Water Information Reporting (WIR) (DWER, 2021)

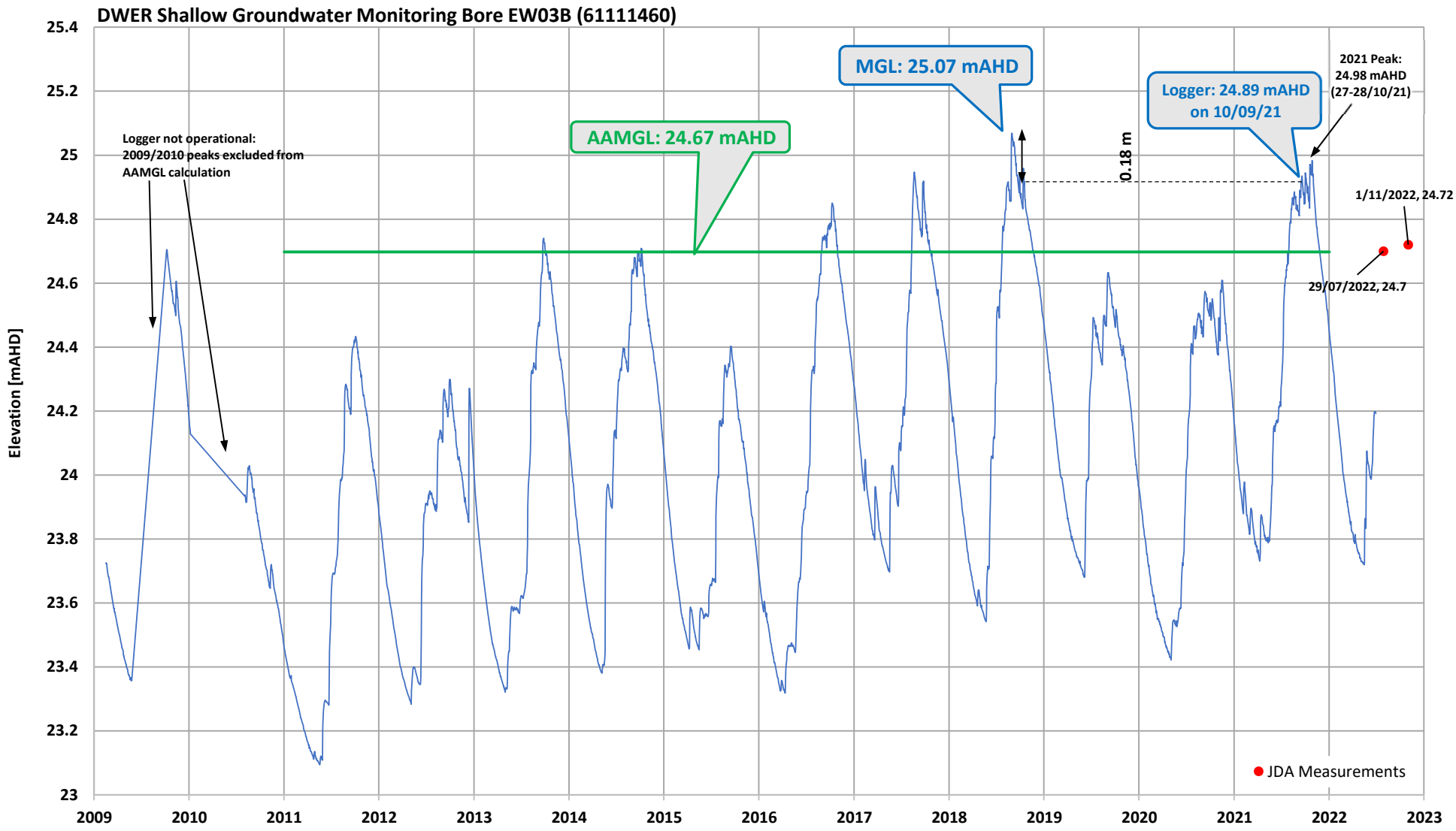
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Lot 148 (No. 168) Skippings Road, Boyanup: Groundwater Monitoring

Figure 8: DWER Bore BY22B Groundwater Level Time-Series, AAMGL and MGL



Data Source: Department of Water and Environmental Regulation Online Water Information Reporting (WIR) (DWER, 2022)

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Lot 148 (No. 168) Skippings Road, Boyanup: Groundwater Monitoring

Figure 9: DWER Bore EW03B Groundwater Level Time-Series, AAMGL and MGL



Data Source: JDA (2021).

Coordinate System: GDA 1994, Zone 50

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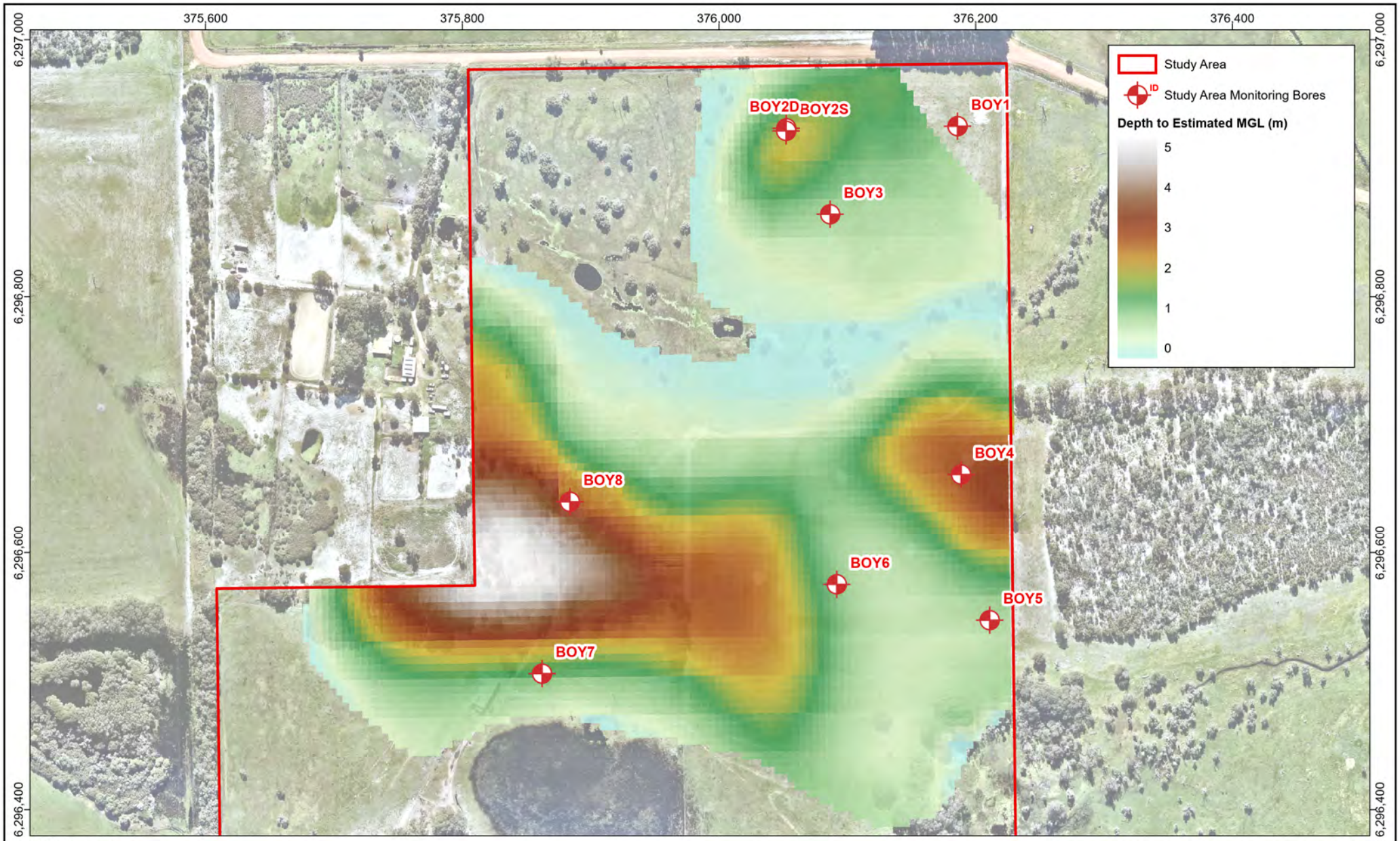
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Lot 148 Skippings Road, Boyanup: Groundwater Level Monitoring

Figure 10: Estimated Maximum Groundwater Level (MGL) Contours



Data Source:

Coordinate System: GDA 1994, Zone 50

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Scale: 1:4,000 @A4

0 50 100 150 200 Metres

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Lot 148 Skippings Road, Boyanup: Groundwater Level Monitoring

Figure 11: Depth to Estimated MGL

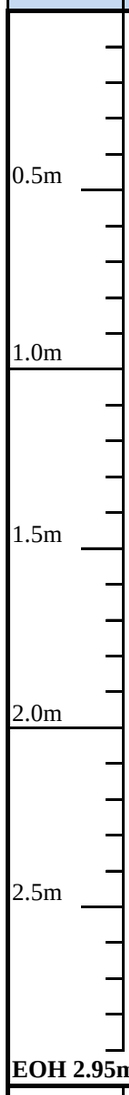
APPENDIX A

Bore Lithological Logs

JDA Consultant Hydrologists
Suite 1, 27 York Street
Subiaco WA 6008
Tel: 9388 2436
Fax: 9381 9279

LITHOLOGICAL LOG

Client: BCP Materials Pty Ltd				Job No:	J7121
Project: Lot 148 Skippings Road, Boyanup				Hole commenced:	08/09/2021
Bore location: BOY01				Hole completed:	08/09/2021
Datum: GDA 94 MGA Zone 50	E 376186	N 6296932		Logged by:	GW
Bore Name: BOY01				Total Depth:	2.95 m
Driller and drill type:	Hollow Stem Auger			R.L. TOC:	28.54 mAHD
Hole diameter:	0.15m	Casing Diam:	0.05m	Natural Surface:	28.19 mAHD



Depth (m)	BORE CONSTRUCTION	GRAPHICAL LOG	LITHOLOGICAL LOG						
			LITHOLOGY	COLOUR	GRAIN SIZE	SORTING	GRAIN SHAPE	MOISTURE	COMMENTS
			Sand	Grey	Medium	Moderate	Sub R	Moist	
								Saturated	
			Coffee Rock *Clayey Sand*	Dark Brown					Thin layer of clayey sand and coffee rock

Gravel
Sand
Clayey Sand
Sandy Clay
Clay
Coffee Rock
Bentonite

Grain Size	Sorting	Grain Shape	Moisture
Very Fine	Poor	Angular	Dry
Fine	Moderate	Subangular	Moist
Medium	Well	Subrounded	Saturated
Coarse	Very well	Rounded	
Very coarse		Well rounded	
Gravel			

NOTES: _____

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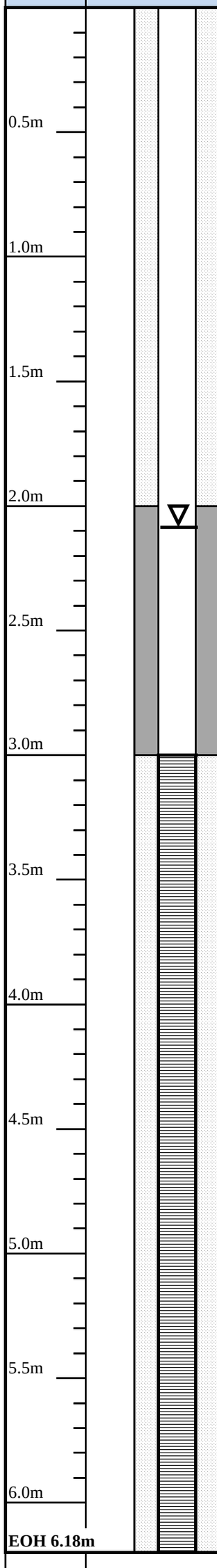
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Date	08/09/2021
Stick Up	0.35 m
Total Depth	3.3 mBTOC
Water Level	1.41 mBTOC

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LITHOLOGICAL LOG

Client:	BCP Materials Pty Ltd					Job No:	J7121
Project:	Lot 148 Skippings Road, Boyanup					Hole commenced:	08/09/2021
Bore location:	BOY02D					Hole completed:	08/09/2021
Datum:	GDA 94 MGA Zone 50	E	376052	N	6296931	Logged by:	GW
Bore Name:	BOY02D					Total Depth:	6.3 m
Driller and drill type:		Hollow Stem Auger				R.L. TOC:	29.25 mAHD
Hole diameter:		0.15m	Casing Diam:		0.05m	Natural Surface:	28.93 mAHD



Depth (m)	BORE CONSTRUCTION	GRAPHICAL LOG	LITHOLOGICAL LOG						
			LITHOLOGY	COLOUR	GRAIN SIZE	SORTING	GRAIN SHAPE	MOISTURE	COMMENTS
0.0m			Sand	Light Grey	Medium	Moderate	Sub R	Moist	
1.0m			Cream						
2.0m									
3.0m			Orange						
4.0m			Dark Brown					Saturated	
5.0m									
6.0m			Clay	Grey Brown	Fine/Medium				
EOH 6.18m									

Gravel
Sand
Clayey Sand
Sandy Clay
Clay
Coffee Rock
Bentonite

Grain Size	Sorting	Grain Shape	Moisture
Very Fine	Poor	Angular	Dry
Fine	Moderate	Subangular	Moist
Medium	Well	Subrounded	Saturated
Coarse	Very well	Rounded	
Very coarse		Well rounded	
Gravel			

NOTES: _____

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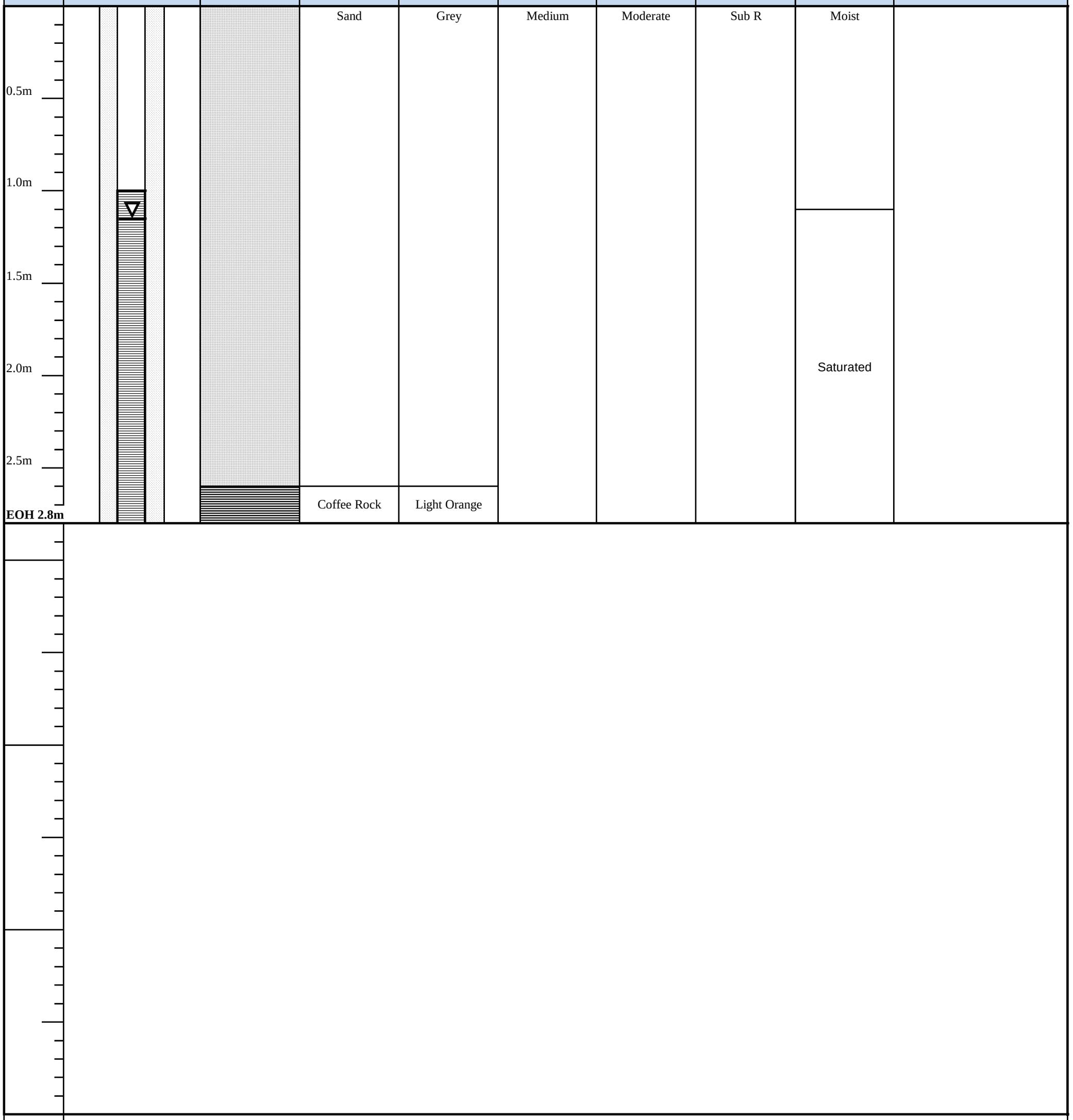
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Date	08/09/2021
Stick Up	0.32 m
Total Depth	6.5 mBTOC
Water Level	2.42 mBTOC

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LITHOLOGICAL LOG

Client: BCP Materials Pty Ltd				Job No:	J7121
Project: Lot 148 Skippings Road, Boyanup				Hole commenced:	08/09/2021
Bore location: BOY03				Hole completed:	08/09/2021
Datum: GDA 94 MGA Zone 50	E 376087	N 6296864		Logged by:	GW
Bore Name: BOY03				Total Depth:	2.8 m
Driller and drill type:	Hollow Stem Auger			R.L. TOC:	28.08 mAHD
Hole diameter:	0.15m	Casing Diam:	0.05m	Natural Surface:	27.82 mAHD



Gravel
Sand
Clayey Sand
Sandy Clay
Clay
Coffee Rock
Bentonite

Grain Size	Sorting	Grain Shape	Moisture
Very Fine	Poor	Angular	Dry
Fine	Moderate	Subangular	Moist
Medium	Well	Subrounded	Saturated
Coarse	Very well	Rounded	
Very coarse		Well rounded	
Gravel			

NOTES: _____

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Date	08/09/2021
Stick Up	0.26 m
Total Depth	3.02 mBTOC
Water Level	1.43 mBTOC

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Fax: 9381 9279

LITHOLOGICAL LOG

Client: BCP Materials Pty Ltd					Job No:	J7121
Project: Lot 148 Skippings Road, Boyanup					Hole commenced:	08/09/2021
Bore location: BOY04					Hole completed:	08/09/2021
Datum: GDA 94 MGA Zone 50	E	376189	N	6296661	Logged by:	GW
Bore Name: BOY04					Total Depth:	3.4 m
Driller and drill type:	Hollow Stem Auger				R.L. TOC:	30.5 mAHD
Hole diameter:	0.15m	Casing Diam:		0.05m	Natural Surface:	30.24 mAHD

Depth (m)	BORE CONSTRUCTION	GRAPHICAL LOG	LITHOLOGICAL LOG						
			LITHOLOGY	COLOUR	GRAIN SIZE	SORTING	GRAIN SHAPE	MOISTURE	COMMENTS
0.5m			Sand	Grey	Medium	Moderate	Sub R	Moist	
1.0m									
1.5m									
2.0m									
2.5m								Saturated	
3.0m			Sand						
EOH 3.4m			Clayey Sand	Light Orange					

Gravel
Sand
Clayey Sand
Sandy Clay
Clay
Coffee Rock
Bentonite

Grain Size	Sorting	Grain Shape	Moisture
Very Fine	Poor	Angular	Dry
Fine	Moderate	Subangular	Moist
Medium	Well	Subrounded	Saturated
Coarse	Very well	Rounded	
Very coarse		Well rounded	
Gravel			

NOTES: _____

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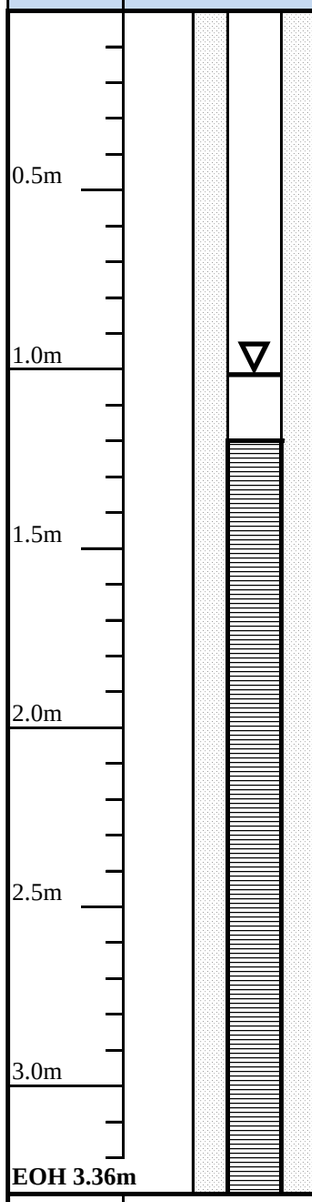
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Date	08/09/2021
Stick Up	0.26 m
Total Depth	3.68 mBTOC
Water Level	2.69 mBTOC

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Tel: 9388 2436
Fax: 9381 9279

LITHOLOGICAL LOG

Client: BCP Materials Pty Ltd				Job No:	J7121
Project: Lot 148 Skippings Road, Boyanup				Hole commenced:	08/09/2021
Bore location: BOY05				Hole completed:	08/09/2021
Datum: GDA 94 MGA Zone 50	E 376211	N 3296547		Logged by:	GW
Bore Name: BOY05				Total Depth:	3.36 m
Driller and drill type: Hollow Stem Auger				R.L. TOC:	28.09 mAHD
Hole diameter: 0.15m	Casing Diam: 0.05m			Natural Surface:	27.75 mAHD



Depth (m)	BORE CONSTRUCTION	GRAPHICAL LOG	LITHOLOGICAL LOG						
			LITHOLOGY	COLOUR	GRAIN SIZE	SORTING	GRAIN SHAPE	MOISTURE	COMMENTS
0.0			Sand	Grey	Medium	Moderate	Sub R	Moist	
0.5									
1.0				Cream				Saturated	
1.5									
2.0									
2.5									
3.0			Sandy Clay	Brown					Hard coffee rock
EOH 3.36m									

Gravel
Sand
Clayey Sand
Sandy Clay
Clay
Coffee Rock
Bentonite

Grain Size	Sorting	Grain Shape	Moisture
Very Fine	Poor	Angular	Dry
Fine	Moderate	Subangular	Moist
Medium	Well	Subrounded	Saturated
Coarse	Very well	Rounded	
Very coarse		Well rounded	
Gravel			

NOTES: _____

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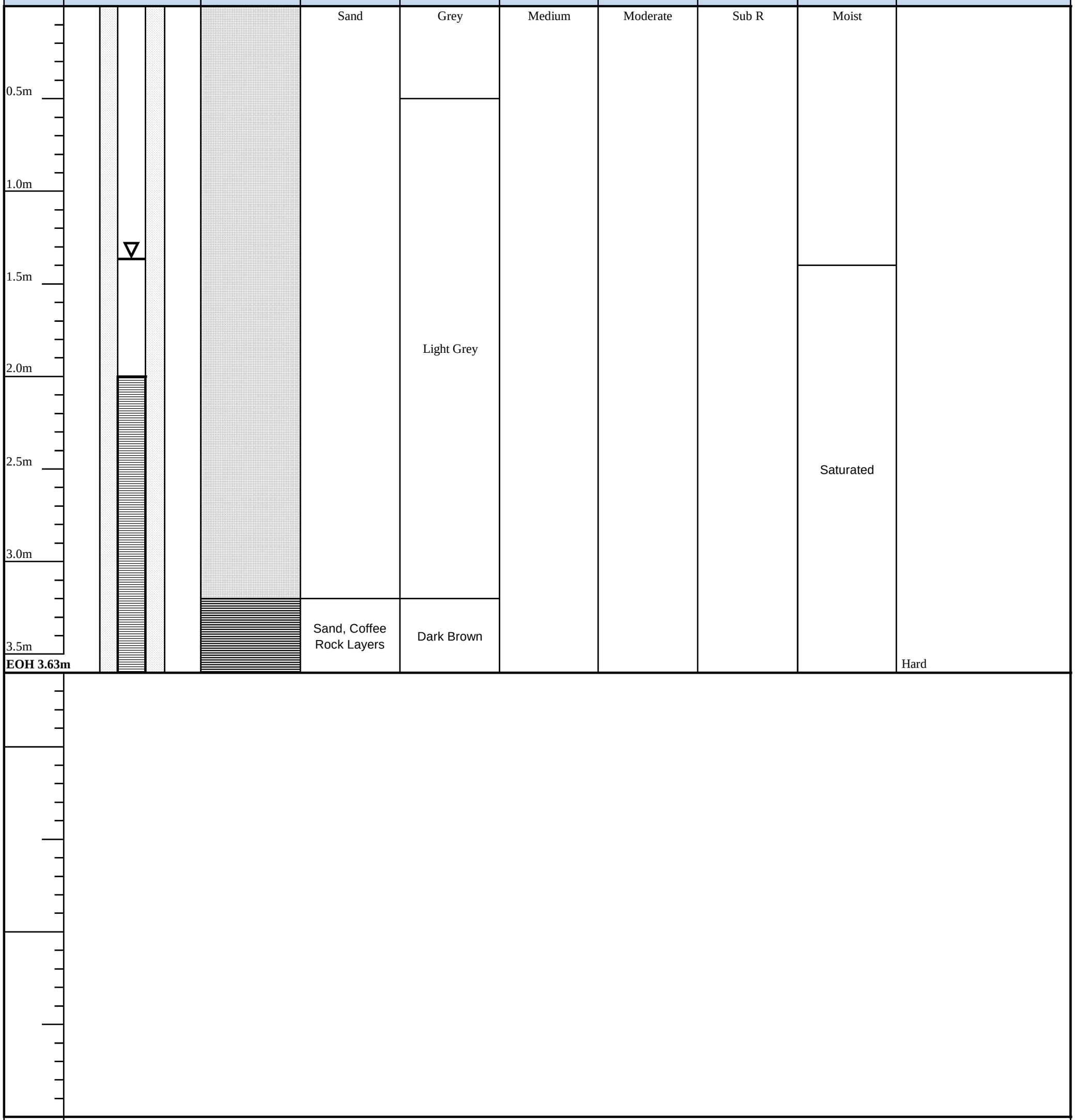
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Date	08/09/2021
Stick Up	0.34 m
Total Depth	3.70 mBTOC
Water Level	1.31 mBTOC

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Tel: 9388 2436
Fax: 9381 9279

LITHOLOGICAL LOG

Client: BCP Materials Pty Ltd					Job No:	J7121
Project: Lot 148 Skippings Road, Boyanup					Hole commenced:	08/09/2021
Bore location: BOY06					Hole completed:	08/09/2021
Datum: GDA 94 MGA Zone 50	E	376092	N	6296575	Logged by:	GW
Bore Name: BOY06					Total Depth:	3.63 m
Driller and drill type:	Hollow Stem Auger				R.L. TOC:	28.74 mAHD
Hole diameter:	0.15m	Casing Diam:		0.05m	Natural Surface:	28.34 mAHD



Gravel
Sand
Clayey Sand
Sandy Clay
Clay
Coffee Rock
Bentonite

Grain Size	Sorting	Grain Shape	Moisture
Very Fine	Poor	Angular	Dry
Fine	Moderate	Subangular	Moist
Medium	Well	Subrounded	Saturated
Coarse	Very well	Rounded	
Very coarse		Well rounded	
Gravel			

NOTES: _____

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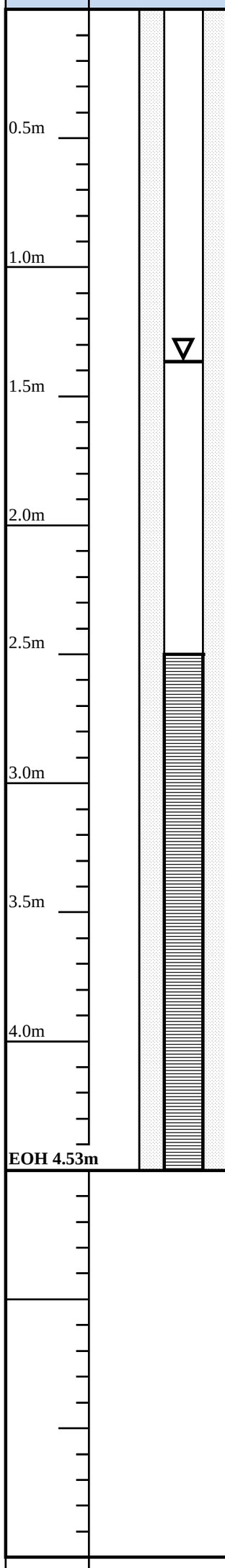
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Date	08/09/2021
Stick Up	0.4 m
Total Depth	4.03 mBTOC
Water Level	1.77 mBTOC

JDA Consultant Hydrologists
Suite 1, 27 York Street
Subiaco WA 6008
Tel: 9388 2436
Fax: 9381 9279

LITHOLOGICAL LOG

Client: BCP Materials Pty Ltd				Job No:	J7121
Project: Lot 148 Skippings Road, Boyanup				Hole commenced:	08/09/2021
Bore location: BOY07				Hole completed:	08/09/2021
Datum: GDA 94 MGA Zone 50	E 375862	N 6296506		Logged by:	GW
Bore Name: BOY07				Total Depth:	4.53 m
Driller and drill type: Hollow Stem Auger				R.L. TOC:	27.81 mAHD
Hole diameter: 0.15m	Casing Diam: 0.05m			Natural Surface:	27.5 mAHD



Depth (m)	BORE CONSTRUCTION	GRAPHICAL LOG	LITHOLOGICAL LOG						
			LITHOLOGY	COLOUR	GRAIN SIZE	SORTING	GRAIN SHAPE	MOISTURE	COMMENTS
0.0m			Sand	Dark Grey	Medium	Moderate	Sub R	Moist	
0.5m				Grey					
1.0m									
1.5m								Saturated	
2.0m									
2.5m									
3.0m									
3.5m									
4.0m				Dark Grey					
EOH 4.53m			Sandy Clay	Grey	Fine/Medium				

Gravel
Sand
Clayey Sand
Sandy Clay
Clay
Coffee Rock
Bentonite

Grain Size	Sorting	Grain Shape	Moisture
Very Fine	Poor	Angular	Dry
Fine	Moderate	Subangular	Moist
Medium	Well	Subrounded	Saturated
Coarse	Very well	Rounded	
Very coarse		Well rounded	
Gravel			

NOTES: _____

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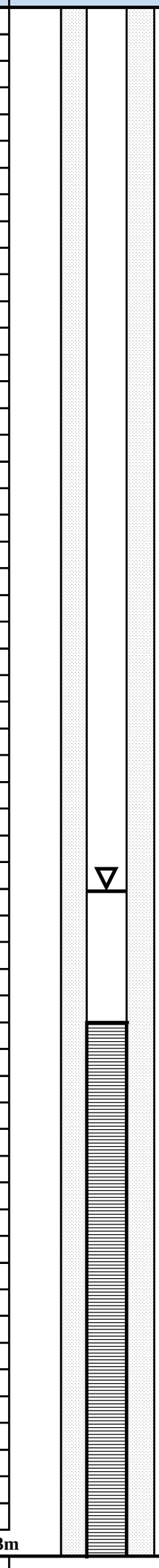
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Date	08/09/2021
Stick Up	0.31 m
Total Depth	4.84 mBTOC
Water Level	1.65 mBTOC

JDA Consultant Hydrologists
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Subiaco WA 6008
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LITHOLOGICAL LOG

Client: BCP Materials Pty Ltd					Job No:	J7121
Project: Lot 148 Skippings Road, Boyanup					Hole commenced:	08/09/2021
Bore location: BOY08					Hole completed:	08/09/2021
Datum: GDA 94 MGA Zone 50	E	375884	N	6296640	Logged by:	GW
Bore Name: BOY08					Total Depth:	5.83 m
Driller and drill type:	Hollow Stem Auger				R.L. TOC:	30.27 mAHD
Hole diameter:	0.15m	Casing Diam:		0.05m	Natural Surface:	29.84 mAHD

Depth (m)	BORE CONSTRUCTION	GRAPHICAL LOG	LITHOLOGICAL LOG						
			LITHOLOGY	COLOUR	GRAIN SIZE	SORTING	GRAIN SHAPE	MOISTURE	COMMENTS
0.5m			Sand	Black	Medium	Moderate	Sub R	Moist	Topsoil
1.0m									
1.5m				Grey					
2.0m									
2.5m									
3.0m									
3.5m				Light Grey					
4.0m									
4.5m									
5.0m									
5.5m									
EOH 5.83m			Sandy Clay	Grey/Brown					

Gravel
Sand
Clayey Sand
Sandy Clay
Clay
Coffee Rock
Bentonite

Grain Size	Sorting	Grain Shape	Moisture
Very Fine	Poor	Angular	Dry
Fine	Moderate	Subangular	Moist
Medium	Well	Subrounded	Saturated
Coarse	Very well	Rounded	
Very coarse		Well rounded	
Gravel			

NOTES: _____

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Date	08/09/2021
Stick Up	0.43 m
Total Depth	6.26 mBTOC
Water Level	3.74 mBTOC

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SCHEDULE OF SUBMISSIONS
PROPOSED JDAP INDUSTRY EXTRACTIVE & EIL

PA48/2023 - PUBLIC COMMENTS
LOT 148 (168) SKIPPINGS ROAD BOYANUP

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
1. ICR139670	We have concerns with this project in regard to the transport element. 1) Skippings Road: is not wide enough for 2 trucks to pass in its current state. We don't want further trees pushed down for widening required, as has recently been done on Boyanup West rd. Farmers already use this road with tractors and will continue to do so, which will be increasingly difficult with the large amount of truck movements (up to 50 per day). 2) Boyanup West Rd may be a RAV network road, but so is South West Highway and Railway Road. These roads are also in a better condition (poor upgrade recently completed). There are significant tractor movements up and down Boyanup West Rd, which remains a significant rural farming area.	**APPLICANTS COMMENT:** We thank you for your submission. We recommend a Traffic Management Plan condition be applied for haulage on Skippings Road to ensure no trucks passing each other on Skippings Road occurs. Skippings road is the shortest route to a RAV network and has therefore been chosen as the preferred haulage route. **OFFICER COMMENTS:** 1) Agree in part. Skippings Road will require upgrading and ongoing maintenance to ensure local amenity and safety is satisfactory. At present, Skippings Road is a gravel constructed road with a surface width ranging from 4.6m to 5.8m. There is no shoulder. There is only one lot (in addition to this proposal) that uses Skippings Road for access. All other lots use alternative access points to either Penn Street, Boyanup West Road or Brookdale Road. 2) Note. Please refer to MRWA advice.

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	3) We feel trucks should be using Brookdale Rd to the SouthWest Highway as the road has already been widened. Trucks previously transporting sand and milk tankers use this road. Not all the sand will necessarily be going to Busselton (South).,	3) Note. The proposed use of Skippings Road creates the least direct negative impact on neighbouring properties.
2. ICR139883	Thanks for coming out to meet us on Tuesday. As a result of our meeting it has been determined that not enough information has been supplied for us to adequately understand the implications of this project that will directly affect the surrounding residents. Because there are 4 dwellings within 500m of the site we are asking the Shire to: 1. Supply the results of independently collected sand core samples to be made public. 2. Have a weather station set up on the site and data be collected over a 12 month period to identify wind patterns and the data be made public. 3. Undertake an independent valuation of the project to assess if JDAP should be involved.	**APPLICANTS COMMENT:** Thank you for your submission. Dust is to be appropriately managed onsite pursuant to the Dust Management proposed. We refer to the advice received from the Department of Health relating to dust. We refer to the advice received from DWER supporting the groundwater modelling methodology. **OFFICER COMMENTS:** 1) Note. Advice from the Department of Health has been obtained (see Submission 8 of Attachment 3) which clarifies the risk from dust. 2) Note. The material outcomes of dust management will be determined by implementing the dust management plan. Weather data provides an indication of conditions, the dust management practices will address specific site conditions. Section 5.4 of report provides site specific responses to wind conditions to manage dust. Please also see Health Department advice (Submission 8 of Attachment 3) 3) Note. The applicant has provided advice on the costings. This is valued at $3 552 053. A break down of these fees has been provided. The nature

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
		of the development involves the extraction of materials which can reasonably include excavation works (front end loader) and water cart as well as topsoil stripping and stockpiling and rehabilitation. It is noted that the costs did not include haulage of materials. The costs provided equal $15.1 per cubic metre. When adding haulage (estimated $0.59 per kilometre, and costs to secure landowner support, it is questionable if this proposal will result in an acceptable return on investment. Furthermore, it is noted that it is calculated on estimated cost of development, and not the value of the resource within the ground.
	4. Undertake an independent assessment of the effects on the water table and the existing wetlands.	**4)** Note. Please refer to advice from DWER and DBCA (submissions 8 and 10 Attachment 3).
3. ICR140026	I am objecting to the Skippings Rd sand extraction for the following reasons. 1 The sand mine is within 106 metres from my home.	**APPLICANTS COMMENT:** We thank you for your submission. Dust is to be appropriately managed in accordance with the Dust Management Plan provided. No interception of groundwater is to occur from operations as supported by DWER. A condition of development approval is to ensure no haulage of material on Brookdale road. **OFFICER COMMENTS:** 1) Note.

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	2 High winds in this area will contaminate the air quality and as I understand this is Silica sand and could expose my family to Silicosis. 3 Contamination of both ground and rain water which is our only source of water. 4 Salinity caused by going to within half a metre of the water table making revegetation impossible. 5 Destruction of Brookdale Rd due to heavy truck usage after they realize Skippings Rd is impractical to use due to sand location and trucks bogging down on site.	2) Note. Please see advice from Department of Health (Submission 8 Attachment 3) for advice on health risks associated with dust. 3) Note. Please refer to 2) above. 4) Note. Pleaser refer to DWER submission in relation to groundwater issues (Submission 9 Attachment 3). 5) The proposal will be restricted to Skippings Road due to the haulage impracticalities of Brookdale Rd.
4. ICR140061	I wish to submit my objections to the proposed EIL Lot 148 (168) Skippings road Boyanup. As our house is 106 mtrs from the proposed Extraction site I am very concerned about the following: 1) Associated noise pollution 2) Air pollution due to the high winds in the area, Silica dust, health concerns regarding silicosis etc	**APPLICANTS COMMENT:** Anticipated noise impacts are to be appropriately addressed as setout within the acoustic report and affirmed by DWER. Refer to the Department of Health regarding potential dust concerns. The Dust Management Plan provided will ensure no dust is to cross the boundary and ensure early management of dust sources occurs. **OFFICER COMMENTS:** 1) The acoustic assessment demonstrates that noise impacts can be controlled through construction of noise bunds and restricted hours of operation. On this basis, noise impacts can be controlled through conditions. 2) It is noted that dust in the locality may not be entirely attributable to the proposed extractive industry, noting that keeping of horses can generate dust (see extract from 2023 aerial showing potential areas with minimal groundcover

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	3) Health issues due to chronic Asthmatics in the household.	 3) Note. Please refer to Health Department advice (submission 8 Attachment 3) in relation to health risks associated with sand extraction. 4) Agree in part. Please refer to DWER advice regarding groundwater separation requirements (Submission 9 Attachment 3). In relation to dust impacting rainwater, this would likely be collected during the wet season when dust generation would be minimal due to moisture in the soil limiting dispersal. It is noted that any dust on rainwater catchment sources would be addressed through a first

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	4) Water contamination as we rely solely on rain & ground water 5) Property being unusable for the purpose for which it was purchased, due to the above issues 6) This property is a private horse property. Horses are flight responsive and will become unsafe to handle & ride making the property unsuitable for use.	flush before being collected for drinking purposes. 5) Agree in part. Advice from DWER recommends a greater groundwater separation (see Submission 9 Attachment 3). The rehabilitation plan, combined with the above, will assist in ensuring that property will be suitable for long term pasture. 6) Noted. See above in relation to the acoustic assessment.
5. ICR140082	To whom it may concern, I would like to submit my objections to the proposed EIL - Lot 148 (168) Skippings Rd, Boyanup. I live at Lot 379 (587) Brookdale Rd, Boyanup which means our house is just 106 mtrs from the proposed site. Our property was purchased for the sole purpose of using it for our performance horses as well as enjoying the quiet county lifestyle. My concerns are as follows: 1) Silica dust or dust in general with subsequent health implications not only affecting our own health but the health of our performance horses.	**APPLICANTS COMMENT:** We thank you for your submission. Please refer to the advice provided above to the matters raised. We refer to the recommended conditions as set out within the government referral agency comments. **OFFICER COMMENTS:** 1) Note. Please see advice provided by the Health Department (submission 8 Attachment 3) in relation to risks to health from sand extraction dust.

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	2) Water contamination - we are 100% reliant on ground and rain water as we DO NOT have scheme water. What do we do when our water sources are contaminated? 3) Noise Pollution - Horses are flight animals and are easily frightened. Which makes the risk of serious injury or death to both horses and handlers real. This would make it impossible to work safely with them so could not use the property as it is intended for. Not to mention the mental health implications of being surrounded by a sand mine as it affects two sides of our property. 4) There are children living here that are home schooled. This property is registered with the Department of Education to provide a quiet and safe learning environment. The constant noise would totally disrupt their education. 5) Loss of trees and vegetation vital for the local wildlife which would take years to grow back IF ever? - salinity risk. possible flooding, which brings greater amounts of mosquitoes and associated disease. etc. 6) Huge loss of property value - who wants to live next door to a sand mine? 7) In summary, I am totally against the proposed EIL of Lot 148 (168) Skippings Rd, Boyanup. I do not live 6kms down a dirt rd to have to put up with the noise and health implications of living right next door to a sand mine!	2) Note. See above. 3) The acoustic assessment demonstrates that noise impacts can be controlled through construction of noise bunds and restricted hours of operation. On this basis, noise impacts can be controlled through conditions. 4) Noted. See above comments on acoustic assessment. In addition, it is noted that this locality is in an Rural setting where this is an expectation that commercial agricultural activity can occur and is likely to generate some level of impact to amenity. 5) The vegetation along the edge of proposed Stage 2 should be retained. No planning justification has been provided to support a reduced setback in this location. 6) Note. The planning process is not able to consider property values as part of the assessment. 7) Note.
6. ICR140107		**APPLICANTS COMMENT:** Potential impacts relating to noise, dust and traffic are to be managed as previously stated. **OFFICER COMMENTS:** 1) Note.

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	1) I live at Lot 379, 587 Brookdale Road, Boyanup and I am writing my objections to the proposed sand mine just 106m away from our house. 2) This address is a School Site Registered with the Department of Education to provide a safe and quiet learning environment to my two children. The proposed sand mine noise silica dust or dust pollution would greatly impact on their health and education. 3) I am concerned for our families health silica dust or dust alone as we have several members of the family with Asthma, Autoimmune Disorders and are Immunocompromised. 4) We also have performance and breeding horses that could not safely live surrounded by a sand mine. One of our performance horses has severe asthma that requires her being nebulised daily, a non dusty environment is vital for her survival. 5) We would not be able to safely train or breed our horses as they are a noise/movement sensitive flight animal. It would be too high a risk of serious injury/death to horse/handler. 6) The mental health implications already affecting our family even my 10yo daughter about this proposed sand mine, health and safety risks being on our own property surrounded so closely has already taken its toll.	2) Note. The acoustic assessment provided demonstrates that noise will comply with requirements. In addition, it is noted that this locality is in a Rural setting where this is a general expectation that agricultural and residential uses can coincide or exist within close proximity to one another. Such activity can occur and is likely to generate at least some level of impact to amenity. 3) Note. Department of Health has provided advice on the risk to health associated with sand extraction (see submission 8 Attachment 3). 4) Note. See above. 5) Note. See above. 6) Note.
7. ICR140280	Application number: PA48/2023	**APPLICANTS COMMENT:** The applicant recommends to the Shire that a condition of Development Approval ensure no haulage of material uses Brookdale Road or Penn Street.

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	1) My only concern in relation to the proposed sand pit on Skippings Rd is the heavy haulage route that will be taken when entering and exiting the site. 2) Does the Shire have the power or interest to make the route traveled by the trucks a condition of the proposal? If the route only uses Skippings Rd straight to Boyanup West Rd I don't see a problem but if Penn Rd is used we now have a problem. Penn Rd is much too narrow for heavy truck traffic and the shire struggles to maintain the road now let alone with any increase in heavy transport. This will definitely affect my property at 394 Penn Rd.	**OFFICER COMMENTS:** 1) Note. The proposal seeks to use a direct route from Skppings Road to Boyanup West Road. Any haulage will require an upgrading of Skippings Road to ensure it is of a suitable standard for the needs generated by this proposal. 2) Note. It is not proposed to use Penn Road.
8. ICR140268		**APPLICANTS COMMENT:** Thank you for your submission. In response we recommend the following: Traffic: We recommend a Traffic Management Plan be prepared to the satisfaction of the Shire to ensure haulage vehicles using Skippings road do not pass on the road (radio call up on entry). Maintenance of the road during haulage is the sole responsibility of the operator to the satisfaction of the Shire. Posted speed limit of 40km/h during haulage is to be applied. Noise and Dust are appropriately managed as advised by DWER and Dept Health. Haulage on Skippings Road is proposed to limit potential impact on surrounding residents and is the shortest route to a RAV network.

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	Application number: PA48/2023 1) We are the owners of Lot 146 Skippings Road, Boyanup with driveway leading on to Skippings Road and we wish to advise of our objection to the proposal. 2) The current usage of this road is. • Farming eg; Tractors and trucks for grain, hay, fertilizer and cattle on a daily basis. • Feedlot cart for cattle. • Local traffic including young children who will commence catching the bus during this project. • Mountain biking and endurance 3) Our objection is for the follow reasons: - • The report (Page 22) has stated "that Skippings Road is an unsealed gravel local road, with a width of 7m capable of supporting the proposed haulage trucks". We have taken several on- site road width measurements and they are well below 7 m. It is understood that in accordance with AusRoads Guidelines the road should be 7 metres wide to allow for 3.5m lane width for the passing of heavy haulage trucks, and preferably with a 600mm gravel shoulder on each side. It appears that the current road width does not meet these requirements and therefore raises significant safety and environmental concerns. For this road to be widened there would need to be a significant number of trees and foliage removed, which is home to endangered native wildlife eg; Red Tail Carnaby and possums. 4) The following measurements taken are provided for your information.	**OFFICER COMMENTS:** 1) Note. 2) Note. 3) Skippings Road is a public road and can be upgraded to ensure that it is of a standard to accommodate the proposed use for haulage of raw materials. 4) Note.

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	• Driveway to Lot 146 – 5.6m • 1st road culvert north 5.8m • 2nd road culvert north 4.6m	
	5) For the safety of other road users and residents we request that the Shire stand firm on these best practice requirements as a strict minimum.	5) Skippings Road will require upgrading and that it's existing standard is not suitable for the proposed use. Upgrading will require a widening of the surface, construction of shoulders and additional seal.
	6) On Page 14 the contractor states that potential environmental impacts associated with Noise and Dust during operations are appropriately managed in accordance with the relevant management plans outlined within this report (Draft Local Planning Scheme No. 8).	6) Note
	7) The acoustic report confirms that, due to the presence of noise-sensitive dwellings on neighbouring properties, the maximum acceptable noise level recorded at peak operation is to be 45dB(A). This noise level is exceeded when recorded from the nearest residential property with no noise controls implemented. Therefore, noise resulting from operations is proposed to be managed through the use of an earth bund during all stages of operations, given that it has been stated that the road will only be maintained and not upgraded.	7) Note.
	8) The Report States (Page 25) that visual monitoring of dust generation from the operations are to be undertaken onsite on an ongoing basis (windblown dust); - Should dust generation be observed and there is a risk of dust being blown out of the active extraction stage, additional watering of dust sources with the water cart will be organised; - Alternative dust controls, such as chemical dust suppressants (soil binding agents) and dust fencing will be implemented on an as needed basis for any persistent sources of dust such as stockpiles or open areas waiting for extraction; - When weather conditions negate the	8) Dust can be controlled through conditions. The proposed management arrangement is considered reasonable.

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	effectiveness of dust prevention and mitigation measures and dust continues to be blown offsite, all dust generating activities will cease until conditions improve and compliance with this DMP can be achieved; and - Additional chemical dust suppressants and dust fencing may be required on each topsoil bund to mitigate impacts on the existing dwelling located west of the extraction area as required. No dust is to cross the Lot boundary at any time, with the measures listed above considered appropriate to manage the potential of dust generation onsite. We do not consider these measures to be appropriate as appears to purely rely on an assessment by the crew at the time. We consider that dust generation is a significant risk of this work and the report states that the contractor "may" undertake mitigation strategies based on their own assessments at the time. Should the proposal proceed we believe there would need to be strict dust mitigation conditions placed on the contractor to both prior to the work commencing and on a daily basis.	
	9) In addition to the above we are concerned about the noise and safety generated by the significant increase in trucks entering and exiting from Skippings road onto West Boyanup Road. This is in very close proximity to our home, horse paddocks and sole access to our home. Considering the length of this project, these concerns are valid.	9) Note.
	10) The Report states that during peak haulage campaigns, it is anticipated that 8 trucks are to enter and exit the site every hour with an anticipated extraction of 1,200 tonnes of sand per day. The total number of haulage movements is expected to be approximately 50 movements per day. Pursuant to the Traffic Impact Assessment Guidelines of the WAPC, a traffic impact assessment for the proposed development is not required as movements during each peak hour are less than 10 movements. This is a significant increase in the use of the current gravel road and request	10) Skippings Road is a public road and that the Noise Regulations do not directly apply. However, vehicle movements will be limited to day light hours and number of movements generally less than 50 movements per day. It is noted that the dwelling on this property is over 800m north of the proposed road access point and no traffic will drive north from the access point. The closest dwelling to Skippings Road is near the intersection of Boyanup West Road

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	that prior to any consideration of this application that a traffic impact assessment is undertaken by the shire. We are concerned about who will be monitoring these movements.	and is approximately 75m from Skippings Road and 90m from Boyanup West Road. The next nearest dwelling is 300m west of Skippings Road and 50m from Boyanup West Road. The next nearest dwelling to Skippings Road is 800m to the east. There are no other dwellings along this section of road.
	11) On Page 18 of the report (3.7 Shire of Capel Extractive Industries Local Law (2016) the applicant has request concession with regard to boundary setbacks and extraction depths. We believe that these local laws have been put in place to ensure mimimal disruption to the neighbouring community and to specify safe extraction depths and recommend that the Shire implements its own Local Laws with no concessions.	11) Agree. No planning justification has been provided for reduced setbacks to both property boundaries. In relation to separation distances to wetlands and groundwater, please see comments provided by DWER and DBCA (submissions 8 and 10 Attachment 30.
	12) The proposed hours of operation are 7:00am to 7:00pm, Monday to Friday inclusive, and 7:00am to 1:00pm on Saturdays. No works are to occur on Sundays or Public Holidays. We are concerned, that this considerable increase in large vehicle traffic on the current gravel road will inhibit safe access for other road users during day light hours for the majority of the week.	12) Disagree. See comments for item 3) above regarding Skippings Road.
	13) The report has stated that the lot has dual frontage to Brookdale Road (north) and Skippings Road (west). Regional access to Bussell Highway is provided via Skippings Road and then Boyanup Road West, a RAV 3 haulage route, we understand that this application has been submitted for Skippings Road, but we believe that there should be further investigation into Brookdale Road as it is a far superior Road to Skippings Road.	13) Disagree. Skippings Road provides a direct haulage route and has minimal frontages and dwellings located along its alignment. The suggested alternative haulage route will result in increased traffic along local roads with significantly more dwellings relying it for access and more dwellings with reduced front setbacks.
9. ICR140468		**APPLICANTS COMMENT:** Noise and Dust are appropriately managed by the proposal as reviewed by DWER and Dpt of Health.

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	1) My name is Kelli Michela. I currently live at 544 Brookdale Road North Boyanup with my husband and two children. We moved to this address in 2017, after looking for two years for a suitable rural property to start a beef cattle farm in view of us raising our children and retiring here. At that time we owned a stump grinding and earthmoving business that helped farmers reclaim their cropping and livestock farming after the trees farms were finished. After a complaint from a resident of Brookdale road about our truck movements, I had a visit from a council representative. During this visit I was informed that we were not permitted to move our truck along Brookdale Road as it is not rated for our size truck. She had been misinformed that we were intending on running our business from our residence. As I explained to her that was not what we were doing but rather moving stuff onto our property and not using it as a transport yard as she had been told. I was told in no uncertain terms that this land is zoned rural/farming and we would never be granted permission to change the zoning from such. With this in mind I find it confusing to say the least that the land at lot 148 Skippings road, also zoned rural /farming, is now trying to change the zoning and breaking the shires own bylaws. Further to this the council bylaws also state that a sand mine cannot be within 500m of a residence. We however fall only 250m from said sand mine, this itself breaks your own council bylaws. Putting a so called bund is going to do nothing to cut down the noise or dust. The bund will only act as a buffer and blow the dust further up and into the air. Speaking of the wind and our exposure we would like to request that more extensive monitoring be done on wind speed and directions for an	Please refer to previous advice regarding separation to groundwater. **OFFICER COMMENTS:** 1) Note. The proposal is not intending to change the zoning. The proposed use "Extractive Industry" is a discretionary use that can be considered by the decision making authority. "Separation distances" are guidelines to assist in decision making. If a proposal will occur within the separation distances recommended, it will require justification and supporting documentation to ensure impacts can be reasonably addressed. In this instance, an acoustic assessment has been provided that demonstrates noise can be addressed through restricted hours of operation and construction of a noise bund. Further, impacts from dust can be addressed through dust management arrangements and conditioned.

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	extended period of time to gauge just how much wind we are exposed to. Being flat plains we are very exposed to whatever wind direction as we have no protection.	
	2) Within the proposal the proponent wants to excavate down to within .5 m of the water table. Your council bylaws state that excavations cannot be within 2 m of the water table. As there is known underground rivers and swamp areas on neighboring properties that also feed into the five mile brook how does the council propose to protect this precious water source and environment?	**2)** Agree. In respect to groundwater separation and setbacks to wetlands, please refer to DWER submission 9 Attachment 3
	3) The operation times the proponent has proposed are between the hours of 7am to 7pm Monday to Friday and 7am to 1pm Saturdays. We did not buy our rural piece of paradise in the shire of Capel to listen to the constant noise of machinery and reversing beepers regardless of the day of the week or time of the day.	3) Note. The acoustic assessment demonstrates that noise will be managed within acceptable levels and can be addressed by a condition.
	4) It has been brought to our attention by the proponent at a previous meeting that the sand they want to extract is very high in silica and as such is likely to be used for cement production. As there is no where within the proposal this is mentioned I would like to request a sand sample by and independent party be taken and the results be made public. As was recently in the news, the dangers of dust associated with concrete products such as fabricated bench tops, I see very little difference between this and the silica dust we are likely to be inhaling on a daily basis. There is also the further risk to us by way of the dust settling on our roofs and then being washed into our rain water tanks, our primary source of drinking water. As these are rural properties we have no other source of water. Please see attached information I have obtained from the Lung Foundation website in regards to silicosis. According to this information silica exposure can lead to many serious diseases and health conditions.	4) Note. Please refer to Department of Health advice regarding health risks associated with sand extraction (Submission 8 Attachment 3).

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	Many of which will not show signs or symptoms for years after exposure. If this is the case for me or my family in later years who do I pursue for compensation to cover lost income and medical expenses the shire, JDAP, the proponent or land owner? 5) We are also beef cattle breeders, what are the risks likely to be to our cows and calves? Not only will they have to endure the dust but they will also have to eat grass laced with silica once the dust has settled on it and in the hay that we produce also. As for the water they drink that will also become contaminated as the dust settles on the top of the troughs, yet another way they are forced to consume this known caseinogens. Who is going to constantly test our water and guarantee it is at a safe level for both us and our livestock. 6) Thank you for taking the time to read my submission.	5) Note. See comments for item 4) above. The proposal includes a noise bund along the northern edge the property that has potential to reduce potential impacts of dust generated from proposed stages 7 and 8. Other stages are at least 300m at their closest point to the southern boundary of the property on the northern side of Brookdale Road. With staging, rehabilitation and dust control measures proposed, the impact on the nearby beef cattle would be minimal. 6) Note.
10. ICR140476	I wish to register my concerns re the above mentioned development. 1. The development is close to a number of dwellings and will impinge on the lifestyle and potentially the health of those that reside in the dwellings. 2 The local residents of the area all rely on rain water and the dust and small particles which will blow on the wind represent a	**APPLICANTS COMMENT:** Please refer to previous advice provided relating to Dust, Traffic, Noise and separation to groundwater. **OFFICER COMMENTS:** 1) Note. The nearest dwelling is approximately 106m from stage 2 of the proposed extraction site. 2) Disagree In relation to dust impacting rainwater, this would likely be collected during

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	contamination hazard which has the propensity to impinge on our lifestyle and well being.	the wet season when dust generation would be minimal due to moisture in the soil limiting dispersal. It is noted that any dust on rainwater catchment sources would be addressed through a first flush before being collected for drinking purposes.
	3. Although the application states Skippings road I fail to see that the construction of that road will accommodate truck traffic particularly when parts of it are a difficult drive for a regular car.	3) Agree. Skippings Road will require upgrading to be of a suitable standard to accommodate the traffic generated by the proposal.
	4. Many residents (including the closest residents to the proposed mine site) on the road keep horses, these animals are susceptible to airway problems when they are subject to dusty conditions.	4) Note. The proposed dust management arrangements will control dust to acceptable standards. It is noted that the majority of properties are setback significantly from the extractive industry site.
	5. I am concerned for the natural environment and ecosystems. The area has quite a few rare and endangered species which live and breed in the swamps, lakes and treed areas.	5) Note. Please see submissions from DWER regarding the need to obtain a clearing permit. This process provides scope to consider impacts on native flora and fauna (submission 9 Attachment 3).
	6. As a resident of 30 years I have noticed that it is very unwise to disturb the topsoil unnecessarily as this causes the land to become barren, when the acid sulphate under soil is bought to the surface.	6) Note. A rehabilitation plan is proposed and will occur in stages to minimise disturbance.
	7. I have noticed when digging post holes that the deeper down you dig the finer the sand grain particles appear to be. Finer particles will be a greater health hazard as they will become air born easier.	7) Note. Please refer to advice from Department of Health in relation to risks to health from sand extraction (Submission 8 Attachment 3).
	8. Finally I am opposed to any development that advances one to the detriment of another which I feel this does when you consider its proximity to home of its nearest neighbour.	8) Note. The decision maker is required to consider impacts on local amenity as part of the assessment process.
11.	Thank you for the opportunity to comment on this application.	**APPLICANTS COMMENT:**

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ICR140522	I would like this application to be rejected. 1) This proposed mine site is on rural land and the surrounding small holdings are hobby farms mainly centred around horses and small beef cattle herds. These blocks are lifestyle blocks with families who have chosen the amenity of the rural landscape. Such a change in land use will severely change this amenity adding noise, silica dust and nuisance. At least four families will be directly impacted. All have children who ride horses. 2) The house on the property most impacted is 106m from the proposed mine site. Their property is less that 30acres and was selected in a rural zoned environment to support valuable competition riding horses and equine breeding stock. The noise, dust and nuisance from a mine site would not enable these activities to continue. The lifestyle of this family will be directly and adversely affected. 3) As well, this property is an accredited home schooling location with parents delivering home schooling to two children. Trying to deliver lessons with industrial level noise and nuisance very close by would be impossible. With local laws stating a dwelling, let alone a school site, must be more than 300 to 500m from a mine site this application should not be approved. 4) Silica sand particles are known carcinogens. Research from the Cancer Council indicates the fine silica dust particles that lodge in the lungs cause silicosis. As well, ingested particles	Please refer to previous advice provided relating to Dust, Traffic, Noise and separation to groundwater. Please refer to DWER advice regarding the setback to the mapped multiple use wetland. **OFFICER COMMENTS:** 1) Note. Impacts associated with noise can be addressed through treatments recommended in the acoustic assessment. Further, dust management proposed will ensure that dust will be managed to a reasonable level. It is noted that a number of existing agricultural/rural activities in the locality may also have the potential to generate dust nuisance. 2) Note. Please see above. 3) Note. Please see above. In addition, it is noted that the property is located within a rural area and not a residential setting. On this basis, there is an expectation that rural pursuits and commercial scale rural activities will occur in the locality. 4) Note. Please refer to Health Department submission that addresses health risk

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	can cause renal failure. This submission doesn't reference the silica content and size of the particles. The proponent indicated the sand, because of the high silica content, will be used for concrete products and further research would suggest the silica content could be higher than 90%.	associated with sand extraction (Submission 8 Attachment 3)
	5) With strong easterly winds and sea breezes from the south west and west in summer the dust caused from the excavation process will blow onto the neighbouring properties, into homes and into the rainwater tanks that are the sole source of drinking water in this rural area. No amount of water will contain the silica dust once this extensive landscape is excavated. Rehabilitation will take years and cannot be guaranteed. This application should not be approved based on a direct health risk, from the fine silica dust particles, to the families living close by.	5) In relation to dust impacting rainwater, this would likely be collected during the wet season when dust generation would be minimal due to moisture in the soil limiting dispersal. It is noted that any dust on rainwater catchment sources would be addressed through a first flush before being collected for drinking purposes. Rehabilitation and works will take place in stages to reduce potential impacts on dust generation. A condition to include a bond can be provided to ensure rehabilitation works will be completed.
	6) The "protected "wetlands that surround and bisect the proposed mine site will be at risk. With endangered flora and fauna like the striped minnow etc living in this swamp land, taking sand to within 0.5 of the water table will alter the environment and have a negative effect on such populations. This application should not be approved on environmental grounds.	6) Please refer to DWER advice (Submission 9 Attachment 3).
	7) The gravel road networks in this locality are fragile and have been a concern to locals over the 30 plus years I have lived here. A extensive log of complaints to the Shire will support this statement. Heavy haulage on these roads will lead to degradation of the driving surface. Heavy haulage trucks travelling at speed and taking most of the central driving	7) Skippings Road will require upgrading to accommodate the proposed use and ongoing maintenance.

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	surface will be a safety risk to other road users. We will be pushed onto the crumbling road edges putting us at risk. This application should not be approved unless the suggested haulage road is extensively upgraded at the expense of the proponent not the rate payer. 8) In summary, on many levels - proximity to homes, health risks from silica sand dust particles, fragile roads systems, protected swamps and waterways and severe alteration to the amenity of this rural locality- this application should not be approved.	8) Note.
12. ICR140482	We are the residents at 476 Brookdale Road North Boyanup and, are deeply concerned about the proposed mining of sand on Brookdale Road. We strongly urge Council to take immediate action to halt this project due to the following reasons: **1) Proximity to Residential Area**: The closest residence is 106 meters away from the mining site. Such close proximity raises serious concerns regarding the potential health and safety risks for the residents, especially considering that one of these residences is registered as a school with two children attending. Our property lies approximately 500m from the proposed site.	**APPLICANTS COMMENT:** Please refer to previous advice provided relating to Dust, Traffic, Noise and separation to groundwater. Please refer to DWER advice regarding the setback to the mapped multiple use wetland. **OFFICER COMMENTS:** 1) Noted. Impacts associated with dust and noise can be addressed through conditions. It is noted that the proposal is supported by an acoustic assessment that confirms compliance with the noise regulations can be achieved subject to constructing a bund and limiting hours of operation. It is also noted that the property is located within a Rural zone and not a residential zone where a different set of amenity considerations apply.

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	2) **Lack of Transparency:** The lack of provided information regarding the sand matrix, including whether it contains silica sand, is worrisome. Additionally, no details have been provided regarding bore logs or other relevant information that should be made available to ensure the safety and environmental impact of the mining operations.	2) Note. Government agency advice has been obtained and no requests were made to provide additional information to assist with the technical assessment of the application.
	3) **Dust Suppression and Silica Exposure:** The responsibility for monitoring dust suppression and lodging complaints lies with the residents, which is an unfair burden to place on them. The presence of silica in the air and water collected off roofs poses significant health risks, as silica is known to be cancer-causing. Monitoring should occur 12 months prior to any activity occurring at the site, should this project go ahead – do determine a baseline.	3) The responsibility for monitoring dust is that of the operator and if there is clear evidence of dust issues generated, the Shire is the responsible compliance body. In relation to dust impacting rainwater, this would likely be collected during the wet season when dust generation would be minimal due to moisture in the soil limiting dispersal. It is noted that any dust on rainwater catchment sources would be addressed through a first flush before being collected for drinking purposes.
	4) **Provision of a Watercart:** We note that the report makes provision for a watercart, but makes no reference to where the water will come from and the application does not have a permit to draw underground water that would adequately supply the watering for dust suppression. Moreover the report does not cover the frequency of watering, and proposes self monitoring. This will be then up to us as residents to make sure that dust is not blowing over our properties and getting into our drinking water.	4) Note. The watercart will be required as part of dust management. For the purposes of this application, it is not necessary to details where the water supply is coming from. In relation to monitoring responsibility, please see 3) above.
	5) **Construction Methodology and Environmental Impact:** The proposed construction methodology for the "topsoil" mound raises concerns about its stability and potential impact on the surrounding area. The height of the proposed mound is simply inadequate, and without proper design, and construction the mound will simply blow away and/orcollapse. Proper grassing and dust suppression	5) The bund will be required to be stable and not generate dust impacts.

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	measures must be implemented to mitigate the environmental consequences.	
	6) Wetlands and Water Table: The mining activities are likely to negatively impact the nearby wetlands area. Moreover, digging to a depth of only 0.5 meters from the water table poses risks of contamination and ecological damage.	6) Note. Please see advice provided by DWER and DBCA (Submissions 8 and 10 Attachment 3)
	7) Hauling Speed and Road Maintenance: The proposed speed limit of 20km/h on-site raises questions about off-site hauling and its potential impact on road safety. The maintenance of the public haul road has not been adequately addressed in the provided details.	7) Note. Speed limits can be imposed to ensure suitable safety on the public road network, combined with upgrading and maintenance of Skippings Road.
	8) Impact on Animals: The close proximity of the mining operations to horses, which are known to have flight responses during loud noises and disturbances, poses a significant risk to their well-being.	8) The acoustic assessment shows that the proposal will comply with relevant noise requirements. Further, the majority to properties are a significant distance from the extraction operation.
	9) Considering these concerns, we kindly request Council immediate intervention to stop the mining of sand on Brookdale Road. We urge Council to prioritize the health, safety, and environmental well-being of the residents and the surrounding ecosystem.	9) Note. This is outside the scope of this application.
	10) We were at the council meeting where a resident raised his concerns about the mining activities and haul trucks on Queelup Road. If Council does not stand against this proposal, it will end up with another headache similar to Queelup Road.	10) Note. This is outside the scope of this application.
	11) We have had many years working in the civil construction and mining industry. We are aware of how construction, operation and maintenance of a proposal such as this should progress.	11) Note

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	12) We thank Council attention to this matter. We trust that Council will take the necessary steps to address our concerns and protect the interests of the community.	12) Note
13 ICR140534	1) Thank you for the opportunity to provide comment on the proposed Extractive Industry Licence application at Lot 148 (168) Skippings Road, Boyanup. 2) Firstly, I am generally concerned about the large number of Extractive Industry Licence applications which have been submitted in the Shire of Capel in recent years. I am aware that there is an extreme shortage of sand generally for projects, but also that the sand deposits in surrounding LGAs are severely depleted. This is placing increased pressure on remaining areas in our Shire which have sand deposits. If there is a shortage now, what is going to happen over the coming decades when future generations also need sand? 3) Under Explanatory Note, State Planning Policy 2.4, Planning for Basic Raw Materials, it states: "Basic Raw Materials (BRM) are a finite resource and their efficient use is required to ensure an ongoing supply".	**APPLICANTS COMMENT:** Please refer to previous advice provided relating to Dust, Traffic, Noise and separation to groundwater. Please refer to DWER advice regarding the setback to the mapped multiple use wetland. **OFFICER COMMENTS:** 1) Note 2) Note. The determining authority can only consider this application in terms of its individual merits. 3) Note

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	4) I am requesting the Shire of Capel staff and our Councillors to review the number of EIL's currently being applied for and to question why the current new applications, many of which have marginal sand hills, are being considered with conditions which do not meet our own Shire's Extractive Industries Local Law 2016? (copy attached)	4) Note. The determining authority can only consider this application in terms of its individual merits. The assessment process is guided by the established planning framework that provide a range of considerations that are to be taken into account when considering an application.
	5) Recent EIL applications are applying to excavate to within only 0.5 metres above the water table. Very recently, one marginal block of land has been approved at the Regional Joint Development Assessment Panel (RJDAP), where the Shire on two previous occasions had refused approval. Why? Because the area was not deemed suitable. So why has it been approved now?	5) Note. This determining authority (JDAP) assessed this application. In this instance, the determining authority can only consider this application in terms of its individual merits.
	6) More than ever, our Shire staff and Councillors need to very carefully assess the influx of EIL applications and provide strong rigour and analysis of the value of these EILs, both economically and also the impact it will have on the environment and our future. I do not believe the analysis of our EIL applications are being assessed thoroughly enough and strong and valid concerns from residents and local experts are being ignored.	6) Note. The proposal will be assessed in accordance with the established planning framework. Each application is required to be assessed in terms of its individual merit.
	7) <u>Distance to nearby homeowners</u> I am deeply concerned about some of the wording in this application, in particular Item 3.8 Separation Distances between Industrial and Sensitive Land Uses, electronic page 20. "The proposed development is located 106m from the nearest sensitive land use, separated and screened by existing vegetation and a proposed topsoil bund. Management of Noise and Dust impacts on this sensitive land use are appropriately	7) Note. The issues of dust and noise are the key potential impacts on local amenity. These matters can be addressed through conditions based on the acoustic assessment and advice received from the Department of Health.

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	outlined within this report to ensure no adverse impacts are posed by this development". 8) I cannot imagine how the family who reside in their home only 106 metres from the proposed development must be feeling. Their home is very close to the proposed extraction, but so too is the remainder of their property. How will people be able to work safely outside across their whole property with the EIL proposal so close? How will the applicant "ensure no adverse impacts"? I find this statement to be broad reaching and simply quite impossible when one home is only a short distance from the proposed activities. 9) The Department of Planning, Lands and Heritage's Guidelines for Basic Raw Materials, 2018 states: Section 4.6 Separation Distances and Buffers Separation distances and buffers apply to land use and development on land in proximity to BRM activities. Separation distances inform the development of buffers to separate potential impacts from activities that may affect human health and amenity. Buffers to sensitive land uses are influenced by: site characteristics, the proposed location of infrastructure, access routes, pits and stockpiles, and the extraction method……. The following is a general guide to buffer distance measured from quarrying operations to the likely area affected within a sensitive land use: • 300 – 500 meter buffer of sand and limestone quarries (with buffer distances determined by proposed activities, on an individual basis).	8) Note. In addition, please see comments 7) above. 9) Note. The application is required to be assessed against the established planning framework and on each applications individual merit.

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	10) The 300 - 500 metre buffer reference is a "general guide" in a "Guideline" to measuring buffer distances. This EIL application must be assessed on an "individual basis" considering the proximity to homes, the adjoining landowners' loss of amenities, the impact on waterways, its unsuitable location on a multi-use wetland and the unsustainable request to extract below two metres above the ground water.	10) Note.
	11) The applicant states: "relevant buffer distance is recommended to be 300-500 m to sensitive land uses, depending on the size and nature of operations, with key impacts associated with operations being noise and dust".	11) Note. See comments in 7) above.
	12) I very strongly dispute the applicant's assessment of the key impacts <u>as only being noise and dust</u>.	12) These are two considerations. Further considerations include impacts on the water environment, road network and reduced setbacks.
	13) There are at least a further two key impacts for adjoining landowners which need to be raised, discussed, and assessed by the Shire being: • the loss of amenities; and more importantly, but not limited to – • the impact on human health.	13) Note.
	14) <u>Loss of amenities</u> Adjoining landowners will suffer the permanent and stressful loss of their rightful enjoyment of their rural properties. If this application was to be approved, it will result in significant adverse impacts and	14) Note. This cannot be proven. The proposed use is for a limited timeframe and off site impacts such as dust and noise can be

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	will diminish the current and future enjoyment of the nearby landowners' rural amenities, to which they are entitled. The proposed EIL is simply too close to nearby homes and rural properties and this EIL will be adversely impactful on the day-to-day enjoyment and commercial operation of their rural pursuits. 15) <u>Impact on human health</u> I was unable to see a detailed description and analysis in the application of what material is proposed to be extracted. There have already been queries raised about this matter with Shire staff who attended concerned residents' meetings. Queries were also raised by residents at a recent Council meeting. Have those queries, concerns and subsequent requests been adequately addressed and answered? It is our understanding that this EIL application to extract sand is likely to contain very high levels of silica dust and particles, which is well known and scientifically documented to be a carcinogen. Shire staff know that several residences are within the 300-500 metre buffer zone with the area being in an open windswept plain with homes, livestock and watercourses which will be affected by silica dust if excavated. There are many published papers with evidence based data about silica dust and cancer. Please refer to the three extracts below highlighting the health hazards and dangers of inhaling silica particles. From the Cancer Council: Silica dust and cancer Silica dust is harmful when inhaled into your lungs. As it is 100 times smaller than a grain of sand, you can be breathing it in without knowing.	controlled through design, limited hours of operation and conditions. It is also noted that many rural activities permitted in the locality also generate potential impacts associated with noise, dust, vibration and odour. 15) Note. Please see advice from Department of Health regarding risks to health associated with sand extraction (Submission 8 – Attachment 3).

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	Exposure to silica dust can lead to the development of lung cancer, silicosis (an irreversible scarring and stiffening of the lungs), kidney disease and chronic obstructive pulmonary disease. It is estimated that 230 people develop lung cancer each year as a result of past exposure to silica dust at work. Extract form CDC (Centers for Disease Control & Prevention) Silica dust particles become trapped in lung tissue causing inflammation and scarring. The particles also reduce the lungs' ability to take in oxygen. This condition is called silicosis. Silicosis results in permanent lung damage and is a progressive, debilitating, and sometimes fatal disease. From the Wisconsin Health Department: Air Quality: Respirable Crystalline Silica from Sand Mining – Sand mining in Wisconsin …. The sand is desirable for fracking and some other uses due to its size, shape, and crystalline silica properties and because the deposits are usually close to the surface and easy to mine. An increase in the number of new requests for mining and processing plant permits has led several communities to raise questions about the possibility for respirable crystalline silica (RCS) to be generated at mine sites, and how RCS might impact the health of nearby residents. What is respirable crystalline silica (RCS)? Dust can be made up of visible (larger) and microscopic (smaller) particles. Particulate matter is defined as airborne material (solid or liquid) that is smaller than 100 microns (millionths of a meter) in size. For comparison, human hair is typically between 70 to 100 microns in diameter. The size of the particulate matter affects how long the particles can stay airborne and how far particles can travel before settling out onto	

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	surfaces. Smaller particles stay airborne longer and thus can travel further than larger particles. <u>Respirable crystalline silica (RCS)</u> refers to particles of crystalline silica less than four microns in size, or particulate matter 4 (PM4). PM4-sized particles can penetrate deep into the lungs, where the most critical effects of RCS– silicosis and cancer – are thought to occur. Will the Shire urgently seek independent core samples to show the content of what is proposed to be extracted and what the percentage of silica is across the proposed site - before progressing with this application? What percentage of silica particles are less than four microns in size? Does this site, if excavated, pose a health risk to those living nearby? 16) I am requesting the Shire to ask these important questions as part of their governance and to ensure that all parties are fairly represented. 17) For all future EIL applications, will the Shire staff, please consider requesting independent testing of what material is proposed to be extracted, and make the results available to the public? 18) Our health is our most precious asset. This single significant issue cannot be swept aside or ignored by the people assessing this EIL application. In my opinion, this potential health risk cannot be mitigated, and the application should be refused. 19) <u>Ground water levels / monitoring / contamination of drinking water</u>	16) Note. The Shire will provide advice in accordance with the established planning framework. 17) Note. Please refer to advice from the Department of Health in relation to risks to health associated with sand extraction. 18) Note

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	When speaking with residents, they have advised that the water table comes to the surface in winter. Many of the local residents draw their water from the shallow water table. Alternative water sources would be from installed rainwater tanks, but the runoff will be contaminated by silica dust if this site is excavated. Silica dust will contaminate roof tops and the water collected for drinking water and household use. A blunt but heartfelt question to all people reviewing and assessing this application follows. 20) Scenario: If this EIL application were to be passed, extraction permitted down to 0.5 metres from the water table and independent testing of the content of the material to be mined was ignored and not undertaken - would the assessors of this application be comfortable drinking the extracted ground water and water collected from the nearby rainwater tanks as their main source of hydration for the next ten years? Would they be comfortable for their families, children, grandchildren, friends and pets to consume only this water? I am respectfully asking the assessment panel to think very carefully about what the residents are facing and what they are requesting, which is a thorough assessment of all the risks posed by this proposed extraction, including an analysis of what is to be extracted. 21) Scenario: If this EIL application were to be passed and it was later found that the silica dust particles did indeed pose a serious health risk, will the Shire, assessors and operator take full responsibility for granting this application and pay full compensation to those affected? 22) <u>Extraction depth</u> The applicant is requesting to extract down to the low level of only 0.5 metres above the water table. Many of us are aware that the Shire of Capel Extractive Industry Gazetted local law, Clause 6.1	19) Note. Please refer to advice from DWER (Submission 9 Attachment 3) in relation to groundwater 20) Note. 21) Note 22) Note. The Shire's Local Law requires a 2m separation. The Shire's local planning policy sets criteria for when a reduced groundwater separation can be considered.

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	states that excavation in our Shire should not be permitted below two metres (set out in Application, Item 3.6, on electronic page 18). The beginning of the applicant's report provides an overview of Lot 148 under Item 2.2 advising that it is: "gently undulating, with a sandy ridge from east to west within the extraction area. The site levels range from 31m AHD on the western boundary to 30m AHD on the eastern boundary, gently sloping to 26m AHD on the northern and southern boundary of the extraction area". 23) Why has this site not been mined in previous years? Because this block does not have a significant sand hill for extraction. This development would most likely not be economically viable if it was to be extracted down to two metres above the water table, as per our Shire's Extractive Industry Local Laws. To make it economically viable, the applicant wants to break our Shire's Extractive Industry Local Laws, which are there to protect the environment and future generations, and extract down to only 0.5 metres above the water table. 24) To protect the water table, how is a project monitored adequately to ensure that machine operators are not excavating below a determined level – right across the site – and at all times? 25) Extract from electronic page 103: When reviewing the ground water monitoring records (from electronic page 100 onwards), it appears that the monitoring was concluded at the end of October. Were records kept for a full 12 months? If not, why was this the case?	23) Note. The determining authority can only consider the proposal before it. 24) Note. A condition can be imposed to require electronic monitoring to ensure extraction levels are complied with. 25) Note. Please see advice from DWER in relation to groundwater (Submission 9 Attachment 3)

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	I recall from other applications in the Boyanup area the high-water table has been in November. 26) From electronic page 104: I am concerned with the wording "Peak groundwater levels recorded in 2021 <u>were generally</u> at the commencement of monitoring on 9 September 2021…….. Groundwater <u>likely peaked</u> in 2021 in August, <u>prior to the commencement of monitoring</u>". Again, has there been a full 12 month record of the water monitoring? If not, I am respectfully asking the Shire to request a full calendar year of water monitoring. 27) Further, as one recorded year may be drier than other years, it would be a better practise if the Shire was to request surface water testing over a two-year period, as a minimum. From the time of interest in an EIL until it comes to the table for a decision, I would suggest that there would be time for two years of monthly water recordings to be taken which would give a more accurate picture of the true water levels. In addition to requesting a more comprehensive set of ground water testing, results should be made public on a quarterly basis, with monthly results being recorded. 28) <u>Multi Use Wetland / Drain</u> There is a government drain which is highly visible on maps, drain no. 10613/340 directs water flow to the permanent Lake Waneragup. This drain indicates that Lot 148 must be a very wet block. Any excavation or earthmoving in this vicinity will impact on the lake and should not be allowed as it will also impact on the quality of water flow along this drain.	26) Note. Please see advice from DWER in relation to groundwater data (Submission 9 Attachment 3) 27) Note. Please see advice from DWER in relation to groundwater data (Submission 9 Attachment 3) 28) Note. please see advice from DBCA and DWER regarding water environments (Submissions 8 and 10 Attachment 3)

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	29) Any excavation at Lot 148 will very likely contaminate the surface water which feeds into Lake Waneragup. This is a hot spot for water birds and is an important wetland in this area. People, livestock, birds, and fauna rely on clean surface water and any excavation at Lot 148 will impact on humans and animals.	29) Note. Please see comments in 28) above
	30) <u>Conclusion</u> Every EIL application wants to maximise extraction for best economic gain. The applicant states on page 20 that "a reduced setback to the side boundary provides a great volume of material for extraction". Of course it does, but this should not mean that this EIL should be approved, nor that the strong EIL conditions which have stood this Shire in good stead for many decades be eroded, yet again. I am pleading with the Shire to review decisions which have been made over previous decades and to preserve the unique bushland and remaining low sand ridges across the Shire. Simply because there is a shortage of sand (as mentioned earlier, a finite resource), does not mean that EIL's should be approved, nor allow for our gazetted local laws to be ignored and conditions put aside for a developer.	30) Applications need to be determined in accordance with the established planning framework.
	31) I am very strongly opposed to approval of any extraction on Lot 148 as the low undulating sand hills in this multi-purpose wetland needs to be preserved and the amenities of the nearby affected landowners needs to be respected.	31) Note
	32) We live in in the Shire of Capel for its unique environment and many of us have chosen to live in this locality so that we can enjoy the peaceful rural lifestyle. If this application were to be allowed, the rural lifestyle, environment, our health and the simple enjoyment which we all chose, will be taken away	32) Note

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	because of the wishes of one developer. For the reasons detailed above, I am strongly opposed to this any approval of this extractive industry application. 33) I am urging the Shire staff, Councillors and RJDAP assessment panel to reject this application. Thank you for considering my submission.	33) Note
14. ICR140540	1) Mining within a rural and residential area is inappropriate. 2) The dangers to people, horses and livestock is not worth the risks. 3) Please decline the application for the health and safety of the people of Boyanup.	**APPLICANTS COMMENT:** Please refer to previous advice provided. **OFFICER COMMENTS:** 1) Note. The application will be assessed in accordance with the established planning framework and on its individual merits. 2) Note. Please see above. **3)** Note. Please see above
15. ICR140539		**APPLICANTS COMMENT:** Please refer to previous advice provided relating to Dust, Traffic, Noise and separation to groundwater. Haulage is to utilise Skippings Road only subject to a Traffic Management Plan to the satisfaction of the Shire. Slow speeds will be utilised to limit impacts.

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	1) As an Employee of one of the many equine Businesses I am against this development. There are multiple equine racing stables in the area as well as vast grazing land for stock. Approval of this development will cause airborne dust with who knows what in it which once settles could be harmful to the stock and racehorses in the area not to mention the family home under 200 metres from the proposed site. 2) With many existing residents and businesses in the area already set up as a horse and family friendly area it will become industrial which will affect the entire community. 3) Please think of the community I stead of the profit.	**OFFICER COMMENTS:** 1) Note. The proposal will be assessed in accordance with the established planning framework and considered on its individual merits. The proposal includes dust management arrangements to ensure dust is reasonably contained on site. 2) Note. Please see comments in 1) above. **3)** Note. Please see comments in 1) above.
16. ICR140560	I, OBJECT to submission PA48/2023 1) Councilors voting for this need to properly understand the long term implications of this 8 stage proposal and how it affects neighbouring properties and community who also belong to the Capel Shire. 2) PA48/2023 does not provide full facts or guarantees as it is a manipulative 133 page advertising booklet aimed at making a quick buck at nature's and community expense.	**APPLICANTS COMMENT:** We thank you for the time taken in preparing your submission. Please refer to previous advice provided relating to Dust, Traffic, Noise and separation to groundwater, including advice from relevant agencies. **OFFICER COMMENTS:** 1) Note. The proposal will be assessed in accordance with the established planning framework which requires local amenity to be considered as part of the decision making process. 2) Note. 3) Note. Please see comments in 1) above.

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	3) My regular drive to Boyanup is a testament to previous sand excavation approved by the Capel Shire, the landscape remains scarred and unrehabilitated decades later.	
	4) This proposal wants to include wetland areas and truly destroy not only the designated area but also the extended area that surrounds it.	4) Note. Please refer to DWER comments regarding the wetland
	5) The weight of responsibility falls to surrounding land and neighbouring landowners to carry the burden of supporting indigenous wildlife populations driven out.	5) The areas of land are mainly cleared grass lands with the exception of small stands of isolated trees. It is recommended that is supported, the trees on the western boundary of Stage 2 be retained.
	6) History shows us that the scope, noise, traffic, and dust pollution of these operations always exceed what is presented/approved.	6) Note. Please see comments in 1) above.
	7) Communities are counting on councils to monitor and action breeches of compliance, how will council monitor and action?	7) Note. The Shire has a responsibility to monitor compliance and has the legal authority to enforce breaches where it can be proven beyond a reasonable doubt. A range of enforcement options are available for the Shire to consider depending on the scale, frequency and significance of a breach.
	8) History also shows us that approving councils are powerless to do anything about it except boast annual revenue gains through fines – fines that are inadequate and do not provide a hinderance to ongoing breeches.	8) Note.
	9) Sadly, Shire of Capel Councilors will not read this objection.	9) Note.
	10) Sadly, my objection will be noted, without any reference to its contents.	10) Note
		APPLICANTS COMMENT:

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17. ICR141225 LCDC	1) Thank you for your letter of 12 May 2023 providing an opportunity to comment on the proposed extraction from Lot 148 Skippings Road, Boyanup. 2) The Capel Land Conservation District Committee (LCDC) was founded in 1992 and is a statutory committee appointed by the Commissioner of Soil and Land Conservation in Western Australia, to administer land conservation districts in accordance with an Order proclaimed by the Governor.	The applicant thanks the LCDC for their comprehensive submission. The key issues raised are listed below: 1. Separation to groundwater 2. Potential Health risk associated with Dust (separation distance) 1. As previously stated, the applicant accepts a condition on the advice from DWER for a separation of 0.8m. 2. The applicant refers to the advice received from the Department of Health. Respiratory issues associated with silica dust is not considered relevant to this proposal. As recommended by the Department of Health, the applicant accepts a condition to include digital dust monitoring during stages 2, 7 and 8 to the satisfaction of the Shire and DoH. **OFFICER COMMENTS:** 1) Note 2) Note

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	3) LCDCs main functions are to promote sustainable land management and undertake projects.	3) Note
	4) LCDCs are statutory bodies formed under section 23 of the Soil and Land Conservation Act 1945.	4) Note
	5) LCDCs operate within land conservation districts defined by an Order of the Governor in Council on the advice of the Minister for Agriculture and Food. The Commissioner of Soil and Land Conservation manages the land conservation district system and supports LCDCs. The Commissioner operates from within the Department of Primary Industries and Regional Development (DPIRD).	5) Note
	6) I have lived in the Boyanup area for over 86 years. Several other members of the Capel LCDC have also lived in the Shire of Capel all their lives and we feel confident to comment on this proposed EIL to extract a relatively small amount of sand by skimming the top off the land profile.	6) Note
	7) The Capel LCDC is of the opinion that if this application was to be assessed within the parameters of the Shire of Capel, Extractive Industries Local Law 2016, it would not reach the $2 million dollar value to justify a RJDAP hearing.	7) Note
	8) Basically, this is yet another EIL in the Shire of Capel where the managing applicant is in many cases the same principal, but operates under a different Proprietary Limited Company registration.	8) Note
	9) The Shire should take all steps to ensure that all financial liability for projects of this type is protected because if things go wrong with any of these EILs, the Shire could be exposed to substantial rehabilitation costs.	9) A rehabilitation plan is required as part of the application. A condition for a bond to be held for rehabilitation.

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	10) There is also the possibility that when several projects are approved to operate over similar time spans, it may be difficult for the operator to concurrently manage several projects to a satisfactory level.	10) Note.
	11) Sand is a substance that has become in short supply due to the large projects such as the Bunbury Outer Ring Road (BORR), where it is estimated that 9 million cubic metres are required. Once available sand resources are exhausted, where will the future needs be secured from? Sand is finite and as such this resource needs careful management. There should be closer scrutiny where this finite resource is used, otherwise, the Shire may find it will be short of this important essential resource in the future.	11) Note. However, this falls outside the scope of the assessment for this application.
	12) Many applicants for EILs live outside the Shire of Capel, such as the City of Busselton and the City of Bunbury, where what sand did exist, has now already been exhausted. Again, there has to be much more careful use of how this finite resource is managed, as we will find ourselves short for any essential future projects.	12) Note. However, this falls outside the scope of the assessment for this application.
	13) Regarding the application for an EIL at Lot 148 Skippings Road, two important issues stand out.	13) Note
	14) Shallowness of water table in the area I refer to the bore monitoring results, under the following: "5. Monitoring Results and Analysis, electronic page 103/133: Table 3: Peak Recorded Groundwater Levels – 2021 and 2022" Out of the nine records, two bores have failed and of the remainder, three bore recordings show the maximum groundwater levels to the surface are less than one metre in 2022 and only marginally better in 2021, see below:	14) There is a reasonable potential to intercept groundwater given the separation distances indicated from the natural surface. For further information, please see advice provided by DWER (Submission 9 below).

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	2021			2022	
Bore #	Date	Separation to Natural Surface (m)		Date	Separation to Natural Surface (m)
BOY1	9/09/2021	1.06		19/08/2022	0.89
BOY3	10/09/2021	1.14		14/08/2022	0.95
BOY5	15/09/2021	0.93		18/08/2022	0.91

Table 3: Peak recorded groundwater levels – 2021 and 2022 Extract from electronic page 103/133.

As three of the measured water levels are less than one metre from the water table, by the time the top soil is removed, there would be only a few centimetres of sand between the top of the soil and the water table, so there is virtually no sand in those particular areas.

Of the other bore sites, only one bore, No. 8 shows a difference of 3.38 metres, which would be the only area where a small quantity of sand could be extracted and still comply with the Shire's EIL gazetted law.

The three remaining bore sites range between 1.27 metres and 1.93 metres above the water table, which would not meet the Shire's EIL gazetted law for extraction.

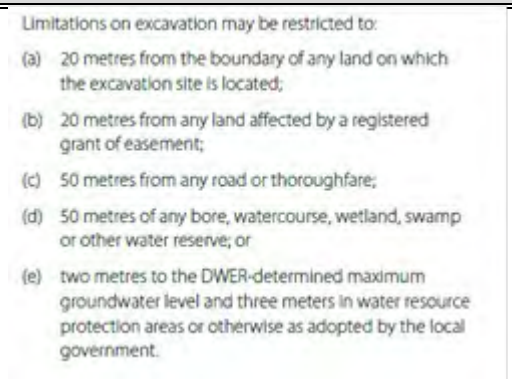
The bore locations can be reviewed on "Figure 10: Estimated Maximum Groundwater Level (MGL) Contours", refer electronic page 117/133.

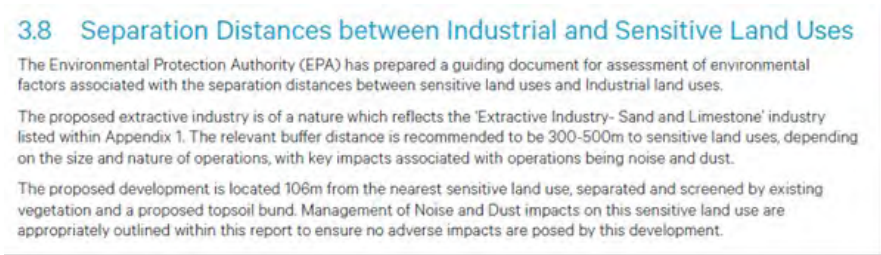
The applicant is proposing to excavate down to only a mere 0.5 metres above the water table, but when allowing for the top soil removal, there would be very little sand to remove.

15) Most importantly, this lower extraction of 0.5 metres greatly conflicts with what is clearly set out in conditions in the

15) Note. The Shire's Local Law requires a 2-metre groundwater separation. The Shire's

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	Western Australian Government Gazette "Shire of Capel, Extractive Industries Local Law 2016", extract below. A full copy is attached at the base of this submission for further review. The Shire's limitations, obligations of the Licensee and prohibitions "shall not excavate within 2 metres of the estimated maximum groundwater level". **PART 6—LIMITATIONS, OBLIGATIONS OF THE LICENSEE AND PROHIBITIONS** **6.1 Limits on excavation near boundary** Subject to any licence conditions imposed by the local government, a person shall not, without the written approval of the local government, excavate within— (a) 20 metres of the boundary of any land on which the excavation site is located; (b) 20 metres of any land affected by a registered grant of easement; (c) 40 metres of any thoroughfare; (d) 50 metres of any bore, watercourse, wetland, swamp or other water reserve; or (e) 2 metres of the estimated maximum groundwater level as determined from time to time by the Department of Water or otherwise as adopted by the local government. 16) I believe this application would be thrown out by the Shire of Capel Councillors at their monthly meeting without any hesitation should this application have come before them. 17) I now refer to the State Planning Policy 2.4 – Planning for Basic Raw Materials Guidelines, July 2021. Item 8 on Page 15 of these Guidelines set out the Extractive Industries Local Law, which states exactly the same guidelines which are supported by our own Shire's gazetted law above. A full copy of these Guidelines is attached at the base of this submission for further review.	Local Planning Policy provides performance guidance when a 2 metre separation is not achieved. In this these instances, the criteria states: "PC1.2.3 Development is located and managed to achieve a high level of surface and groundwater resource protection to provide soil depth for rehabilitation, future land use and a buffer against groundwater contamination and exposing groundwater." For further information on groundwater separation, please refer to Submission 9 below. 16) Note 17) Note.

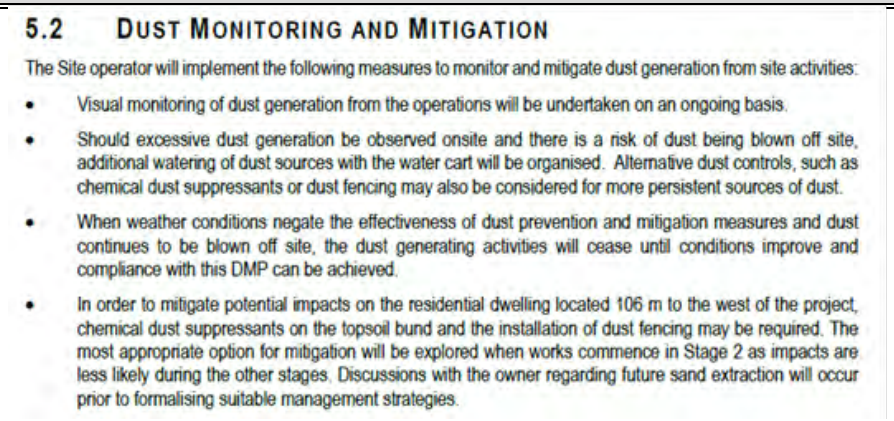
SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	 Limitations on excavation may be restricted to: (a) 20 metres from the boundary of any land on which the excavation site is located; (b) 20 metres from any land affected by a registered grant of easement; (c) 50 metres from any road or thoroughfare; (d) 50 metres of any bore, watercourse, wetland, swamp or other water reserve; or (e) two metres to the DWER-determined maximum groundwater level and three meters in water resource protection areas or otherwise as adopted by the local government. Item 8 - State Planning Policy 2.4 – Planning for Basic Raw Materials Guidelines, July 2021, page 15.	
	18) The further problem with skimming the sand from the surface close to the water table is if the applicant is to rehabilitate with pasture, a significant amount of fertiliser will have to be applied to make any pasture growth worthwhile. As a result, much of this fertiliser, will leak into the shallow water table and as several of the local landowners draw water for their personal use from shallow aquifers, there is a risk of fertiliser contamination and poisoning to humans and livestock. Rehabilitation with pasture will increase the risk of weed invasion.	18) Note. Please refer to DWER advice (submission 9 below)
	19) If the State's Planning Policy and the Shire's EIL gazetted law of remaining two metres above the water table rule was to be enforced, then this application would simply be rejected and thereby eliminate the risk of contamination of the water table with fertiliser.	19) Note
	20) Potential health risks to local residents from silica dust particles There are three residences in close proximity to the proposed EIL. Sensitive receptors are on the following locations, refer to Site Plan	20) Note. Please refer to advice provided by the Department of Health (Submission 8 below)

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	on electronic page 37/133 and Sensitive Receptor detail on electronic page 57/133. Lot 379* which is located 106 metres to the west, Lot 149, which is located 261 metres north; and Lot 142 which is located 513 metres to the east. *Of note, the resident at Lot 379 is within 300 metres of most of the extraction areas, putting their home and property in extreme danger of contamination with silica dust particles. 21) The applicant states under 3.8 that "the relevant buffer https://www.msn.com/en-au/feeddistance is recommended to be 300-500m to sensitive land uses". See extract below.  3.8 Separation Distances between Industrial and Sensitive Land Uses The Environmental Protection Authority (EPA) has prepared a guiding document for assessment of environmental factors associated with the separation distances between sensitive land uses and Industrial land uses. The proposed extractive industry is of a nature which reflects the 'Extractive Industry- Sand and Limestone' industry listed within Appendix 1. The relevant buffer distance is recommended to be 300-500m to sensitive land uses, depending on the size and nature of operations, with key impacts associated with operations being noise and dust. The proposed development is located 106m from the nearest sensitive land use, separated and screened by existing vegetation and a proposed topsoil bund. Management of Noise and Dust impacts on this sensitive land use are appropriately outlined within this report to ensure no adverse impacts are posed by this development. 3.8 – Separation Distances between Industrial Site and Sensitive Land Uses Extract from application – refer electronic page 20/133 22) Furthermore, there are other serious impacts and matters for concern with this operation other than only "noise and dust".	21) Note. Please see comments from Health Department (submission 8) below. 22) Note. Please see Health submission below (submission 8) in relation to dust. Matters associated with noise are addressed in the acoustic assessment provided that demonstration that the proposal can satisfy noise requirements.

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	23) However in the State Planning Policy 2.4, Planning for Basic Raw Materials Guidelines, July 2021 the separation distance "should be anywhere between 300 and 1000 metres" – not 500 metres.  • The site provides an adequate separation distance to sensitive land uses such as (but not limited to) residential or special rural area, existing dwellings in a rural area, schools or hospitals. Depending on the nature of the BRM operation, separation distances should be anywhere between 300 and 1000 metres. Extract from the State Planning Policy 2.4 – Planning for Basic Raw Materials Guidelines, July 2021 Page 13 – Checklist 1 – Site Location Considerations. The State Planning Policy from July 2021 now sets out that separation distances should be anywhere up to 1,000 metres, depending on the nature of the BRM operation. 24) Clearly, two of these Sensitive Receptors are less than 300 metres from the EIL site and on the open bare windswept plains of the area, they are very prone to be exposed to the extraction dust, which is very likely to have a high silica dust particle content. 25) This is a substantial health hazard which has been well documented and is increasingly being raised in news items as a severe hazard. 26) The NSW Government has published a Fact Sheet on Silica, highlighting what a significant health risk silica dust particles are, with various quotes noted below:	23) Note. The proposal justifies the reduced separation distances through dust and noise mitigation measures. 24) Note. Please refer to Health Department submission 8 below. 25) Please refer to Health Department submission 8 below. 26) Note.

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	"Silica is frequently found as a dust during mining, construction and excavation." "Repeated and prolonged exposure to low to high concentrations of respirable crystalline silica, however, can cause permanent injury and lead to serious lung disease such as silicosis." "Silicosis can result from breathing respirable crystalline silica over a period of years, or following short-term exposure to extremely high concentrations." "Silicosis occurs when crystalline silica is deposited in the air sacs of the lungs. This causes inflammation, which can result in scarring and calcification, and eventually reduced lung capacity." "Silicosis may be linked to heart failure, since the heart has to work harder to pump blood through the scarred lung tissue." "Another common complication is increased susceptibility to lung infections, particularly tuberculosis." https://www.neca.asn.au/sites/default/files/media/state_nsw/Events/Electrical%20Safety%20Workshop/Toxic%20Tour/Silica-fact-sheet-8538.pdf 27) Below is further information with research showing that airborne silica dust particles are a health hazard: "Research has shown that these particles can degrade air quality as far as 750 meters away, leading to a variety of serious health problems, particularly in children and other vulnerable populations." "More than 162,000 people make their homes within 1,500 meters of the frac sand-related sites in the region. In the absence of definitive evidence on the potential risk from airborne silica at **1,500 meters**, EWG recommends that air monitoring be conducted to determine whether there is a danger to public health at that distance as well." https://www.ewg.org/research/danger-air# 28) It is noted above that air monitoring is to be conducted at 1,500 metres, however in this application, one home is only 106 metres away from the proposed excavation site. 29) In my opinion, the very close proximity to homes and farms is a significant reason in itself to refuse this project. 30) Hydrology report data Water monitoring records do not appear to be complete and do not show a full 12 month period even though there appear to be records listed under 2021 and 2022. High water tables have notably been recorded in the Boyanup area towards the end of the calendar year, but the applicant's records appear to cease in October. 31) The Capel LCDC respectfully requests the assessing Shire staff to clarify the hydrology report and the length of time	27) Note. 28) Note. Please see Health Department submission 8 below for advice on dust. 29) Note. 30) Note. Please refer to advice from DWER (submission 9) for advice on groundwater matters. 31) Note. Please refer to advice from DWER (submission 9) for advice on groundwater matters.

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	bore data has been recorded for and advise this to the RJDAP assessing panel.	
	32) When there is an application for an EIL, the Capel LCDC is further respectfully asking the Shire to request, as a minimum, a full 12 month record of water level monitoring and where possible a record over a full two year period.	32) Note. Please refer to advice from DWER (submission 9) for advice on groundwater matters.
	33) Multi-use Wetland A major portion of Lot 148 Skippings Road is located in a Multi-Use Wetland indicating a very high water table and that this block is very wet. There is a Government drain through this site, reference No. 10613/340 which directs water flow to the permanent Lake Waneragup.	33) Note. Please refer to advice from DWER (submission 9) for advice on groundwater matters and DBCA submission on wetlands.
	34) An EIL operation at this location will have a significant impact on the quality of the water on this property (and surrounding properties), and in particular on the water flowing along this drain. It is highly likely that excavated dust particles will poison the surface water and that which flows into Lake Waneragup.	34) Note. Please refer to advice from DWER and DBCA (submissions 8 and 10).
	35) Dust monitoring and mitigation The applicant states on electronic page 66/133 that dust monitoring will be undertaken. However, if this application were to go ahead, how will the dust particles be managed on days where the EIL is not operational? Even if the activities were to cease, dust will continue to be blown off site and pose a significant risk, especially on the windswept Boyanup Plains. Extract below.	35) Note. Please refer to advice from Health Department (submission 8) in relation to dust concerns.

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	 **5.2 DUST MONITORING AND MITIGATION** The Site operator will implement the following measures to monitor and mitigate dust generation from site activities: • Visual monitoring of dust generation from the operations will be undertaken on an ongoing basis. • Should excessive dust generation be observed onsite and there is a risk of dust being blown off site, additional watering of dust sources with the water cart will be organised. Alternative dust controls, such as chemical dust suppressants or dust fencing may also be considered for more persistent sources of dust. • When weather conditions negate the effectiveness of dust prevention and mitigation measures and dust continues to be blown off site, the dust generating activities will cease until conditions improve and compliance with this DMP can be achieved. • In order to mitigate potential impacts on the residential dwelling located 106 m to the west of the project, chemical dust suppressants on the topsoil bund and the installation of dust fencing may be required. The most appropriate option for mitigation will be explored when works commence in Stage 2 as impacts are less likely during the other stages. Discussions with the owner regarding future sand extraction will occur prior to formalising suitable management strategies. Extract from application, electronic page 66/133 36) Weather data collection The application refers to weather data from both Bunbury and Donnybrook. On electronic page 56/133 the applicant has referred to the wind data from Bunbury: "Long-term wind roses for Bunbury (Bureau of Meteorology 2022) indicate prevailing winds comprise morning easterlies and afternoon westerlies (Appendix 1)". 37) The Capel LCDC has recommended on several previous occasions that applicants install an anemometer on the site being assessed, to accurately measure weather conditions. "Anemometers continuously measure wind speed by the amount of wind pressure against a surface, such as a cup or a propeller, or by using sonic pulses. A mechanical anemometer contains a wheel with cups or a propeller at the end of the spokes of the wheel. One of them contains a magnet. Each time the magnet passes a switch, it makes a recording. This can give an extremely accurate reading of the wind speed." Reference:	36) Note. Please see Health Department submission 8 below for advice on dust. 37) Note. Please see Health Department submission 8 below for advice on dust.

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	https://www.davisinstruments.com/pages/what-is-an-anemometer 38) On recent communications with the Bureau of Meteorology, we were advised the following in relation to onsite weather monitoring: "The height at which the anemometer sits is important. And its siting / where it is installed (it must represent its surroundings). Prices will obviously vary with quality." (from BOM) 39) The climate weather data included in the applicant's submission has been referred to from both Bunbury and Donnybrook weather stations and gives a serious shortfall of what true readings would be like at 148 Skippings Road, Boyanup. 40) Further, the weather data provided for assessment in this application does not give a continuous recording which would be provided by a strategically placed anemometer on the applicant's property. This would provide an accurate assessment and I believe a very different result. 41) The weather records in both Bunbury and Donnybrook are significantly different to what is experienced on the open windy Boyanup Plains and therefore the weather data contained in this EIL application is not satisfactory and the Shire staff and the RJDAP panel members should not accept the readings. 42) EIL Monitoring – Outdoor Dust Monitoring Equipment With the significant number of EIL's in the Shire of Capel, we believe the Shire should invest in a machine that measures the outdoor dust levels in the air to ensure a safe and healthy environment for those	38) Note, Please see Health Department submission 8 below for advice on dust. 39) Note. Please see Health Department submission 8 below for advice on dust. 40) Note. Please see Health Department submission 8 below for advice on dust. 41) Note. Please see Health Department submission 8 below for advice on dust. 42) Note. Please see Health Department submission 8 below for advice on dust.

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	living and working within close proximity of EILs, but also for those working at operating sites. 43) These monitoring devices are designed to measure Particle Matter (PM) such as PM1, PM2.5, PM4 and PM10 levels, as well as temperature, humidity and wind speed. PM refers to the particles of crystalline silica less than four microns in size, or Particulate Matter 4 (PM4). 44) It is the PM4-sized particles which can penetrate deep into the lungs, where the most critical effects of Respirable Crystalline Silica (RCS) – silicosis and cancer – are thought to occur. 45) Conclusion To my knowledge, other active sites of sand EILs in the Shire have usually been a long distance from any residences. This one has homes in very close proximity which makes it very different and it poses a serious health hazard to those living very nearby. Therefore, knowing this, if this project is approved, those giving authority for the operation to go ahead must take responsibility if a health hazard develops related to silica in any of the population living in such close proximity. Historically, this site has not been mined because there is not a significant amount of sand to extract if the Shire's Extractive Industry Local Laws are upheld. We are totally opposed to excavation down to the requested 0.5 metres as it is too close to the water table. With all the potential risks raised above, the Capel LCDC remains strongly opposed to any approval of this Extractive Industry Licence. Thank you for considering the Capel LCDC's submission.	43) Note. Please see Health Department submission 8 below for advice on dust. 44) Note. Please see Health Department submission 8 below for advice on dust. 45) Note.

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	Attachments: Capel Gazetted Law – EIL 2016  Shire of Capel - Gazetted Law - EIL 20 State Planning Policy 2.4 - Planning for Basic Raw Materials Guidelines, July 2021  SPP_2.4_Planning for Basic Raw Materi NSW Government – SafeWork NSW - Silica Fact Sheet 8538  Silica-fact-sheet-8538.pdf	

SCHEDULE OF SUBMISSIONS
PROPOSED JADAP INDUSTRY EXTRACTIVE & EIL
PA48/2023 – AGENCIES COMMNETS
LOT 148 (168) SKIPPINGS ROAD BOYANUP

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
1 ICR139547 DPLH Aboriginal Heritage Conservation	Thank you for your email and letter dated 12 May 2023, in which you ask for comment on the proposed Development application at Lot 148, Skippings Road, Boyanup. A review of the Register of Places and Objects as well as the Department of Planning, Lands and Heritage's Aboriginal Heritage Database confirms that the lot does not intersect with any recorded Aboriginal heritage place. As there is no intersection with a registered Aboriginal heritage site or lodged place under the Aboriginal Heritage Act 1972, there are no approvals required for the proposed industrial development. However, I encourage you to communicate with the traditional knowledge holders and representative Aboriginal body for the area (Gnaal Karla Booja Aboriginal Corporation) should you wish to learn more about the Aboriginal heritage of the area, as we are now getting towards the new Aboriginal Cultural Heritage Act 2021, which emphasises early communication and agreement making.	**APPLICANTS COMMENT:** Acknowledged **OFFICER COMMENTS:** Noted.
2. ICR140583 Main Roads WA	I refer to your email below and advise that Main Roads has no objection to the proposed extractive industry subject to compliance with any requirements of Main Roads Heavy Haulage section.	**APPLICANTS COMMENT:** Acknowledged with thanks. **OFFICER COMMENTS:** Noted.
3. ICR140823	COMMENT: Application for Development Approval Referral for Industry Extractive & EIL - Lot 148 (168) Skippings Road Boyanup	**APPLICANTS COMMENT:** Please refer to advice from DWER following assessment of the DMP.

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Dept of Primary Industries & Regional Development	Thank you for the opportunity to comment on the proposed extraction of sand at Lot 148 Skippings Road, Boyanup. The Department of Primary Industries and Regional Development (DPIRD) does not support the application for the proposed extraction of sand at the abovementioned lot in its current form due to the following concerns: 1) Guidance Statement No. 3 – Separation Distances between Industrial and Sensitive Land Uses (EPA, 2005) recommends a separation distance of between 300 and 500 metres for sand and limestone extraction with no grinding or milling works, and sensitive land uses. There are two residences within 300 metres of the proposed sand extraction areas. 2)DPIRD does not support the proposed boundary setback of 10 metres. DPIRD recommends that no extraction be permitted within 20 metres from the boundary.	The proposed setback to the boundary as proposed is to remain, as a recent DAP approval was granted for an extractive industry at Lot 265 Ducane Road, North Boyanup (DAP/23/02425) with a setback to the side boundary of 8m (condition 5). The reduced setback should therefore be assessed on its merits. Advice from DWER supports an amended separation to groundwater at 0.8m. The applicant supports this amended separation. A Weed Management Plan is to be prepared prior to the issue of an extractive industry licence to the satisfaction of the Shire. **OFFICER COMMENTS:** 1) Note. Key impacts generated by the extractive operation will be noise (machinery and haulage) and dust (exposed areas and haulage). The proposal is supported by noise and dust management plans that will ensure that these two elements can be managed to acceptable standards. For further advice on these matters, please refer to submissions 9 and 10 below. 2) Agree. No planning justification for a reduced setback has been provided. Further, the reduction in setback will result in the removal of remnant vegetation along the western edge (abutting stage 2).

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	3) A separation of at least 0.5 metres is required between the final ground level (after rehabilitation) and the maximum groundwater level (MGL). With no separation between the proposed extraction areas and multiple use wetlands, the likelihood of maintaining the specified separation to MGL is reduced. 4) No Weed Management Plan (WMP) was supplied and DPIRD can therefore not comment on this aspect of the application. The management of weeds is briefly discussed in the document, but DPIRD recommends that if the application is approved a WMP should be developed for the site to ensure that weeds are properly managed during the extraction and rehabilitation proses. I trust these comments inform your decision on this matter.	3) Agree. Based on DWER advice (see submission 10 below). It is recommended that the proposed minimum groundwater separation of 0.8m be required. 4) Agree. A condition requiring a weed management plan is recommended.
4. ICR141086 Dept of Mines Industry Regulation & Safety	SHIRE OF CAPEL - EXTRACTIVE INDUSTRY AND EIL - DEVELOPMENT APPROVAL - LOT 148 NO 168 SKIPPINGS RD BOYANUP Thank you for your letter dated 12 May 2023 inviting comment on the development approval for Extractive Industry Licence (EIL) for sand (13.23Ha) at Lot 148 (64.88Ha) No 168 Skippings Road, Boyanup in the Shire of Capel. The Department of Mines, Industry Regulation and Safety (DMIRS) has determined that this proposal raises no significant issues with respect to mineral and petroleum resources, geothermal energy, and basic raw materials. DMIRS lodges no objections to the above development application.	**APPLICANTS COMMENT:** Acknowledged with thanks. **OFFICER COMMENTS:** Noted
5 Department of Health	**PROPOSED DEVELOPMENT APPROVAL FOR INDUSTRY EXTRACTIVE AND EIL** **– LOT 148 (168) SKIPPINGS ROAD BOYANUP**	**APPLICANTS COMMENT:** The applicant acknowledges the Department of Health's letter of no objection and support for the measures

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	Thank you for your letter of 26 June 2023, requesting comments from the Department of Health (DoH) on the above proposal. The DoH provides the following comment: 1) Chemical Hazards The submission is in support of application for a new sand quarry on 13Ha of low-lying land between Brookdale and Skippings Road, Boyanup, Shire of Capel. The proposal is for the shallow excavation (from above the groundwater level), progressive removal of sand and rehabilitation of land to agricultural use with no importation of fill onto the site. The nearest sensitive receptor is a farmhouse 105m to the west of the site and 230m to the north of the site. The Environmental Protection Authority (2005) guideline "Separation Distances between Industrial and Sensitive Land Uses" recommends that a default separation/buffer distances of 300-500m be established around sand quarry facilities with no screening or crushing, where they may be significant noise and dust impacts and risks arising. In addition, DoH is aware of a local resident approximately 500m east of the site who has expressed concerns about the impacts and public health risks from sand dust derived from the proposed operation. The proponent has prepared a qualitative dust risk assessment and provided details of visible dust monitoring and management measures to be employed at the site, including the use of dust suppression sprays, dust fencing, soil perimeter bunds and a commitment to cease operations during periods of high wind. The proponent has stated that "no dust is to cross the Lot boundary at any time". These measures have	contained within the Dust Management Plan to ensure dust is appropriately managed onsite. No onsite effluent disposal is proposed as part of this proposal. Access to drinking water is not proposed as part of this application. **OFFICER COMMENTS:** 1) Agree. Recommend a condition to require additional controls be imposed on dust management to reduce risk and provide base line and ongoing data to assist with auditing dust and for compliance.

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	been enshrined in a Dust Management Plan which includes a Dust Complaint Form and community contact details. Whilst DoH considers the public health risks associated with dust from sand quarrying to be low, prolonged exposure to high levels of sand dust in the air is unpleasant, may irritate the eyes, nose and throat, and exacerbate pre-existing breathing difficulties. The proponent should discuss and agree on these dust management measures with local residents. 2) Medical Entomology The subject land is in a region that is not currently known to experience significant problems with nuisance and disease carrying mosquitoes or other insects. However, any future development needs to avoid the creation of additional mosquito breeding habitats. It is the recommendation of the DoH that the proponent ensures that proposed site works do not create additional mosquito breeding habitat as follows: • Changes to topography resulting from earthworks must prevent run-off from leading to surface ponding which may become mosquito breeding habitat. • Water tanks and other water-holding containers must be sealed or screened to prevent mosquito access and breeding. • Waste items should be filled with sand/soil, kept undercover or punctured to reduce the chances of these items holding water and becoming mosquito breeding habitat • Constructed water bodies must be located, designed and maintained so they do not create or contribute to mosquito breeding 3) Water Supply and Wastewater Disposal The following comments relate to Water Supply and Wastewater Disposal, subject to the Department of Water and Environmental Regulation confirming that the proposal complies with State Planning Policy 2.7:	2) Note. 3) Note.

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	4) Wastewater Management The proposal is required to comply with the requirements of the Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations 1974 (the Regulations). The DoH has no objection to the proposal subject to providing further information as required. In particular: 1. If the proposal has a change in purpose, the proposed systems may require upgrading and must be systems approved or certified for use by the DoH. They will require an adequate ongoing maintenance program. 2. A site-specific Site and Soil Evaluation is to be undertaken by a qualified consultant during the wettest seasonal time of the year (mid-July/August) as per AS/NZS 1547:2012. 3. Detailed plans showing the proposed building envelopes, all trafficable areas, parking bays and land application area/s including setback distances, exclusion zones and measurements. In accordance with the Regulations an 'Application to Construct or Install an Apparatus for the Treatment of Sewage' is required to be submitted to the Local Government for each wastewater treatment system and may be required to be forwarded to the DoH for assessment and approval.	4) Note.
	5) Drinking Water Management All drinking water provided on site must meet the health-related requirements and risk management framework set out in version 3.7 of the Australian Drinking Water Quality Guidelines 2011. These are highlighted in principle in the following link: https://www.health.wa.gov.au/Articles/J_M/Mine-sites-and-exploration-camps	5) Note

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	Any non-drinking water (i.e., water that is not intended or suitable for drinking) must be managed to ensure it cannot be confused with or contaminate the drinking water supply. This requires satisfactory labelling of non-drinking water taps and, depending on system configuration, suitable backflow prevention arrangements. Should you have any queries or require further information please contact Chris Hill or Hannah Santoso on 9222 2000 or eh.eSubmissions@health.wa.gov.au	
6	Thank you for providing the above Development Application (DA) for the Department of Water and Environmental Regulation (Department) to consider. This proposal is for the extraction of 234,255 tonnes of sand over a period of over 5 years in 8 extraction stages (Screenshot 1 & 2). DWER notes the Shire's concern regarding the proximity of this DA to the wetland. To support this proposal, the following documents have been prepared: • Extractive Industry Development Application & Licence - Lot 148 (No. 168) Skippings Road (by element, doc: 2022/22-337 , Issue 5, dated: 28/4/2023) (to be referred to as the DA report) • Groundwater Monitoring Report (Appendix F of the DA report, by JDA, Ref: J7121b, dated 19 Dec 2022) (covering monitoring period Sept 2021 – Oct 2022) The Department has identified that the proposal will impact on the environment and water resource values. Key issues and recommendations are provided below, and these matters must be addressed to the satisfaction of the Department:	**APPLICANTS COMMENT:** In response to the matters raised by DWER, the applicant provides the following response: **1 – Proposed Screening of Material & Associated Works approval.** The applicant accepts an advice note to be included within the officer recommendation. **2 – Clearing of Native Vegetation**: The applicant accepts an advice note be included within the officer recommendation. **3. Pit floor & Groundwater:** Refer to DWER detailed advice below. A condition of development approval is accepted to ensure operations maintain a 0.8m separation to groundwater. **4. Multiple Use Wetlands:**

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		Applicant acknowledges DWER advice on the anticipated limited impact to the multiple use wetland. **5. Water Supply:** The applicant accepts a condition of development approval where the source of water for dust suppression is provided to the satisfaction of the Shire. **6. Environmental Risk:** Operations are proposed as outlined within the DA pursuant to WQPN 15. No condition of development required. **7. Staging Plan** Operation are to be in accordance with the Excavation and Works Plan approved by the Shire. Details on rehabilitation are to be provided within the rehabilitation management plan provided to the Shire for approval. **Issue 8: Rehabilitation Plan & Final landform** We recommend and accept the Shire's standard rehabilitation condition, which sets out the rehabilitation methodology, monitoring and final landform design. **Issue 9: Stormwater & dewatering** No dewatering is proposed onsite. The applicant accepts a condition of development approval for the preparation of a stormwater management plan for the management of sediment associated with haulage from stages 7 & 8. Issue 10: Fuel & Chemical Management

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		The applicant accepts DWER advice and recommends the Shire's standard condition for no storage of hydrocarbon's onsite and on-site refuelling is to be done by a mobile vehicle fitted with a hydrocarbon spill kit. No major repairs are to occur onsite. **Issue 11: Dieback Management Plan** The applicant accepts a condition for the preparation of a dieback management plan. **Issue 12: ASS (Acid Sulphate Soils)** The applicant accepts DWER advice and recommends this be included as an advice note within the Shire's RAR. **Issue 13: Noise** Refer to the applicant's response below. **Issue 14: Dust** Refer to the applicant's response below. **OFFICER COMMENTS:**
	· **Issue 1:** The proposed operations may be categorised as Prescribed Premises under the Environmental Protection Regulations 1987 · Advice 1: The following is advised: o a) Screening: the applicant lodge an application for a works approval (or licence) with DWER under the EP Act for the proposed screening related to the extraction activity o .b) the applicant is to refer to the Industry Regulation Guide to Licensing available at http://www.der.wa.gov.au/our-work/licences-	1) Agree. Advice is proposed to bring attention to this requirement which is covered through separate legislation and processes.

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	and-works-approvals and to contact DWER regarding works approvals and licenses at info@dwer.wa.gov.au or 6364 7000	
	· **Issue 2**: The clearing of native vegetation in this proposal is subject to the Environmental Protection Act 1986 (EP Act) · Advice 2: The following is advised: o .a) native vegetation: The proponent is to apply for a clearing permit at https://www.der.wa.gov.au/our-work/clearing-permits/46-clearing-permit-application-forms (Screenshot 3) o .b) non-native vegetation: Where the vegetation is non-native vegetation (not indigenous/has been intentionally planted) and does not fit the definition of 'native vegetation' as specified under the EP Act, a clearing permit is unlikely to be required (Screenshot 3) o .c) for further information DWER can be contacted by email at admin.nvp@dwer.wa.gov.au or by telephone (6364 7098)	2) Agree. Advice is proposed to bring attention to this matter.
	· **Issue 3**: Pit floor levels and groundwater · Advice 3: The following is advised: o .a) Recommended condition: The maximum pit floor depth shall be a minimum 0.8m above the current maximum groundwater level (MGL) and no dewatering works are to be undertaken without DWER consultation. The Local Government is to be notified within 24 hours if the water table is intercepted	3) Agree. It is recommended that the separation distance be increased to 0.8m and conditioned. It is noted that the applicant agrees to this requirement.

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	o .b) The Shire should note: ▪ the maximum groundwater level (MGL) is likely to be higher than that claimed in the Groundwater Monitoring Report given some of the levels established using the 2021 data were reached or exceeded in 2022, even though there was less annual rainfall in 2022 than 2021 ▪ in view of the uncertainty of the MGL, to ensure the 0.5 m vertical buffer to the MGL is achieved, an additional 0.3m should be added to the current maximum groundwater levels estimated in the Groundwater Monitoring Report (i.e. 0.8m to the current MGL) (see recommended Condition 3a) ▪ a method be provided by the proponent to the satisfaction of the Shire to ensure the proposed pit depths are accurately adhered to across the site. · **Issue 4**: Wetlands · Advice 4: The Shire is advised: o .a) MU wetland: the proposed extraction is unlikely to have an appreciable impact to the MU wetland provided that groundwater is not intercepted and the 0.5m vertical separation is maintained, as per Condition 3a (i.e. 0.8m vertical separation to the current maximum groundwater levels) o .b) REW wetland: the Shire is advised to consult with the Department of Biodiversity, Conservation and Attractions (DBCA) regarding the proposed extraction and the REW wetland	4) Agree. A condition is recommended.

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	· **Issue 5**: Water supply · Advice 5: The following is advised: o .a) Recommended condition: The proponent is to quantify their water requirements for all aspects of the proposed extraction and provide evidence of a secure water source, to the satisfaction of the Shire o .b) Advice: In the event the proponent intends to use licensed groundwater to support the proposed extraction, they are required to contact DWER's Bunbury water licensing branch on 97264111 to amend their existing licence under the Rights in Water and Irrigation Act 1914 o .c) Advice: In the event additional water is required over and above their current licensed allocation, the proponent should note that no additional water is available other than via a trade/agreement with another licensee – to which DWER can assist	5) Agree. A condition is recommended.
	· **Issue 6:** Environmental risks · Advice 6: Recommended condition: The proposed extraction is to be implemented in accordance with DWER's Water quality protection note (WQPN) no. 15 'Basic raw materials extraction' (July 2019) where appropriate to the site situation to ensure environmental risks are appropriately mitigated	6) Agree. A condition is recommended to address this matter.
	· **Issue 7**: Staging Plan · Advice 7: Recommended condition: Extraction must be undertaken in accordance with the agreed staging plan, as approved by the local government. Commencement of the subsequent extraction stage shall be subject to the previous extraction site having substantially commenced rehabilitation	7) Agree. A condition is recommended to address this matter.

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	· **Issue 8**: Rehabilitation Plan and final landform · Advice 8: The following is advised: o .a) Recommended condition: A Rehabilitation Plan is to be prepared and approved to the satisfaction of the Shire consistent with WQPN 15 and the Guidelines for Preparing Mine Closure Plans1, and covering the intended staging, final landform (including separation to groundwater), proposed post extraction land use and successful rehabilitation criteria. o .b) Advice: The final landform minimum contour levels should be at least 0.8 m above the current MGL (see Condition 3a)	8) Agree. A condition is recommended to address this matter.
	· **Issue 9**: Stormwater and dewatering · Advice 9: The following is advised: o .a) Recommended Condition: no dewatering works are to be undertaken without DWER consultation. o .b) Recommended Condition: A Stormwater Management Plan is to be prepared and approved to the satisfaction of the Shire, consistent with WQPN 15, such as but not limited to details on how sediment mobilisation can be mitigated from activities crossing the drainage line to Stages 7 and 8	9) Agree. A condition is recommended to address this matter.
	· **Issue 10**: Fuel and chemical management · Advice 10: Recommended condition: Management of all activities involving hazardous chemicals (including plant refuelling and/or servicing) shall be in accordance with DWER's WQPN 56 – 'Toxic and Hazardous Substance Storage and Use' (Dec 2018)	10) Agree. A Condition is recommended to address this matter.

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	· **Issue 11**: Dieback management plan · Advice 11: Recommended condition: A Dieback Management Plan is to be prepared, approved, and implemented to the satisfaction of the Shire, in consultation with DBCA, consistent with the Best Practice Guidelines for Management of Phytophthora Dieback in the Basic Raw Materials Industries	11) Agree. A Condition is recommended to address this matter.
	· **Issue 12**: Acid sulfate soils (ASS) · Advice 12: The following advice note be included: "Acid sulfate soils (ASS) risk mapping indicates that a portion of the site is located within an area identified as representing a moderate to low risk of ASS occurring within 3 metres of the natural soil surface. Please refer to Department of Water and Environmental Regulation's (DWER) acid sulfate soil guidelines for information to assist with the management of ground and/or groundwater disturbing works: https://www.der.wa.gov.au/your-environment/acid-sulfate-soils/69-acidsulfatesoils-guidelines."	12) Agree. Advice is recommended.
	· **Issue 13**: Noise · Advice 13: Please refer to the attachment '2023-06-21 Shire of Capel - Noise - Technical Review Repot - Lot 148 Skippings Road Boyanup – FINAL.pdf'	13) Note.
	· **Issue 14**: Dust · Advice 14: Please refer to the attachment 'AQ1786-MAQ_Dust advice for Shire.doc'	14) Note
	Where the Department has a statutory role, planning applications should be considered prior to the Department issuing any relevant permits, licenses and/or approvals.	

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	In the event that the applicant determines that a works approval or licence application is required under Part V of the Environmental Protection Act 1986 (EP Act), the advice provided in this communication does not prejudice and must not be considered to infer the outcome of the EP Act licence and works approval process. More detail pertaining to the above issues are provided in Table 1 below. In the event there are modifications to the proposal that may have implications on aspects of environment and/or water management, the Department should be notified to enable the implications to be assessed. Should you require any further information on the comments please contact the undersigned.	
DWER (Noise)	Technical (Review) Report Advice on Acoustic Assessment Report for the Proposed Extractive Industry at Lot 148 Skippings Road, Boyanup, prepared for the Shire of Capel	**APPLICANTS COMMENT:** The technical review of the Acoustic report prepared by Herring Storer is respectfully received. We note in particular: "ENB would consider the predicted noise compliance reliable, particularly when the plant operates on the pit floor and behind the pit face." Regarding operations within stages 2, the intent is for operations to work from stage 1 into stage two and will remain behind the working face (approximately 3m high). Similarly, operations within stage 8 are to be located behind the working face as they progress from stage 7. The applicant during operations will ensure they communicate with neighbours should any concerns be raised.

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
		OFFICER COMMENTS:
	1. Introduction This advice was prepared for the Shire of Capel in response to a request for comment dated 12 May 2023 on the proposed sand extraction operations located at Lot 148 Skippings Road, Boyanup.	1) Note.
	2. Documentation In support of this request, the Shire made the following documents available which form the basis of this technical expert advice. The Shire did not request any specific advice.	2) Note
	Material / document name Extractive Industry Development Application & Licence Acoustic Assessment: Extractive Industry – Lot 148 (No 168) Skippings Road, Boyanup (Ref: 30435-3-22200) – Prepared for BCP Materials Pty Ltd Author — Date Element Advisory Pty Ltd (element) — April 2023 Herring Storer Acoustics — 16 December 2022	
	3. Advice The Environmental Noise Branch (ENB) of the Department of Water and Environmental Regulation has reviewed the Development Application & Licence prepared by element in April 2023, as well as the Acoustic Assessment report prepared by Herring Storer Acoustics (HSA) on 16 December 2022 to support the application.	Note.
	The application is for a sand quarry operation located in a rural area at Lot 148 (No. 168) Skippings Road, Boyanup. The proposed operation will be from 0700-1700 Monday to Friday and 0700-1300 on Saturdays. No	Note.

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	operations will occur on Sundays or Public Holidays, hence noise from the proposed sand quarry needs to demonstrate the compliance with the daytime assigned noise levels only. There will be four residential premises within 1000 m of the proposal, located to the west and south of the proposed sand quarry. The closest neighbouring residence is 106 m away from the closest sand pit (Stage 2) to the west. It can be expected that noise generated by the proposed sand extractive operation will have significant impact on this residence when the operation moves to the proposed Stage 2 extractive area. ENB notes that the pits will be open towards the north/west, which can provide additional noise reduction to the operation's plant to those residences located to the north and west, as the plant will work behind the pit face which acts as a noise barrier for the closest residences to the north and west. The methodology of the noise modelling and assessment conducted by HSA seems correct. The sound power levels quoted for the major equipment items are within the reasonable ranges of such types of equipment. Noise modelling was conducted for the eight proposed operational scenarios. Based on HSA's initial noise modelling without any noise barriers, noise emissions from the operation would exceed the assigned noise level at the closest neighbouring residence. Consequently, HSA proposed earth bunds along the western and northern boundary lines of the Stage 2 pit, along the northern and eastern boundary lines of the Stage 8 pit and along the eastern boundary line of the Stage 7 pit. By incorporating those earth bunds into the noise modelling, HSA predicted that noise emission levels from the proposed operation would comply with the assigned noise levels at all four neighbouring residences in all eight operational scenarios. ENB would consider the predicted noise compliance reliable, particularly when the plant operates on the pit floor and behind the pit face. ENB has identified a couple of issues as below:	Note. Note

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	1. The proposed earth bunds will be built by topsoil, which will only be 2 m high. ENB would consider that a 2 m high noise barrier on the boundary may not be very effective in reducing noise, particularly when the plant needs to operate at the surface level or a shallow pit floor. In that situation, the proponent may need to implement additional measures for State 2 and Stage 8 operations. For instance, locating the product stockpile around the plant in the directions of the closest receivers will provide additional noise attenuation; and 2. The proposed operation is in a rural area, where the existing ambient noise can be low. However, as HSA did not seem to have conducted an ambient noise assessment, the actual existing ambient noise levels at the neighbouring residences are unknown. It should be noted that in a situation where a proposed operation significantly increases the ambient noise levels at the neighbouring residences, the affected residents may be impacted by noise, even though the noise from the proposed operation complies with the assigned noise level. The proponent may need to be advised of this risk and consider remedial options if complaints arise. 4**. Limitations** Technical expert advice in any field is subject to various limitations. Important limitations to the advice include: • No computer modelling was undertaken to verify the results predicted by HSA.	Agree. Recommend the noise plan be amended. Agree. Recommend the noise plan be amended. Note.
DWER Hydrology	RE: Hydrology advice for Proposed Extractive Industry at Lot 148 Skippings Road Boyanup Background of proposal	**APPLICANTS COMMENT:** We acknowledge DWER has accepted the methodology completed by JDA.

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	• There is a proposed extraction of sand at the above address. • The proponent has bores installed at the property showing the maximum groundwater levels. • There is little to no separation distance to Multiple Use wetland. The Shire should note the following referral statements: Page 11 of the referral states: • "Setbacks to multiple use wetlands are not required as they contain few remaining attributes or functions of a wetland. It is for this reason no buffers have been considered as part of this application. The proposed development will not impact upon the environmental value of the multiple use wetland." Extraction to a maximum depth of +0.5m from the MGL is proposed. Contained in this referral is Appendix F is the following document: • Extractive Industry Development Application & Licence - Lot 148 (No. 168) Skippings Road (by element, doc: 2022/22-337 , Issue 5, dated: 28/4/2023) (to be referred to as the DA report) • Groundwater Monitoring Report (Appendix F of the DA report, by JDA, Ref: J7121b, dated 19 Dec 2022) (covering monitoring period Sept 2021 – Oct 2022) The Groundwater Monitoring Report states: • "0n 08 September 2021, nine groundwater monitoring bores, BOY1 to BOY8 on Figure 4, were installed across the potential EIL area by Edrill Environmental and supervised by JDA. Drilling continued until an impermeable layer was reached or to a maximum of 6 m depth. A nested bore (shallow and deep) was installed at BOY2 (BOY2S and BOY2D) as a hard caprock layer was encountered approximately 3 m below surface. Bores BOY2S and BOY2D were screened above or below the caprock	JDA's response to the comments received from DWER are provided as follows: "I've read through DWER's file note and advise as follows with regards to JDA report: • Section 4.2 on Page 3 states that DWER Bore BY22B is likely to be drilled and screened in the deeper Leederville or Yarragadee Aquifer, not the shallow Superficial Aquifer. • Section 6 Page 5 states that DWER Bore BY22B "appears to be screened within the upper portion of the Yarragadee aquifer, water levels may not be representative of the water table aquifer and therefore is not an appropriate comparison bore for the Study Area". Based on the above, DWER Bore BY22B should not be used as a reference for assumption of water level behaviour of the Superficial Aquifer. Notwithstanding, whilst monitoring commenced September 2021, Page 5 states "Groundwater likely peaked in 2021 in August, prior to the commencement of monitoring". When reviewing Figures 6 and 7, you'll see the water level hydrograph shows peak in Aug 2022." The applicant, on advice from JDA and DWER accepts a condition of development approval for a separation to groundwater at 0.8m above the maximum groundwater levels shown to ensure the minimum separation distance to groundwater is maintained during operations. **OFFICER COMMENTS:**

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	layer respectively with a bentonite seal placed above the caprock layer for BOY2D." (Figure 4 of Groundwater Monitoring Report – see screenshot below) • "The risk associated with intercepting groundwater is not considered likely, as the MGL contours produced by JDA include a correlation to the average annual maximum groundwater level determined by DWER." In view of the above information and the Groundwater Monitoring Report, the following was considered: • Whether the minimum separation to the highest groundwater of 0.5m is likely to be obtained. • If there are any hydrogeological implications of locating the extraction area right next to the multiple use wetland – as per the Shire's inquiry. • If there are any other considerations DWER's assessment of 'Groundwater Monitoring Report' by JDA Based on the information provided, DWER considers the procedure that JDA has used to determine the maximum groundwater levels across the site to be appropriate. The proponent has installed 9 shallow monitoring bores to measure groundwater levels and compared these levels with historical data from DWER bore EW03B. The historical level at EW03B was 0.18 m higher at its highest (2009 to present) compared to the time the groundwater levels were measured in the onsite monitoring bores (2021). JDA has added this difference (0.18 m) to the maximum groundwater levels on site to establish a maximum groundwater level (MGL).	

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	Given the EW03B data only dates back to 2009 it was also compared to levels in BY22B. The historical data for bore BY22B starts in 1978 and measured much higher maximums than for the period of record for bore EW03B. This would initially suggest the MGL should be increased to account for these historical highs, however, there appeared to be a significant change in the maximum groundwater levels at BY22B from 2005. When the historical rainfall presented in the report in considered, it does not appear that BY22B will recover to its pre 2005 maximum groundwater levels. Rainfall in 2021 was above the long-term average of 935 mm however the maximum groundwater level in BY22B was below the average annual maximum groundwater level. When the 2022 groundwater levels (gwls) were measured on site, some of the site monitoring bores recorded levels at or above the estimated MGL, even though the recorded annual rainfall was less than in 2021. There was no logger data recorded at EW03B over 2022 so the same method used to establish the 2021 MGL could not be applied for this period. Where the 2022 levels were higher than the previously estimated 2021 MGL levels, JDA has used the 2022 level as the maximum to update the contours across the site. As such, the higher 2022 gwls would suggest that the actual MGL in 2021 may have been higher than the levels recorded in September. It also proves that a direct comparison with historical data from DWER bore EW03B is probably not suitable for creating the MGL across the proposed extraction site. The Post Extraction Plan of the Groundwater Monitoring Report (pg 43 of PDF) (Appendix B of DA report) shows the proposed post extraction contours mirror the MGL contours, which are simply 0.5 m higher than the current natural ground level contours. In view of the above, DWER is concerned that the highest MGL may be higher than the current MGL estimated by JDA in their Groundwater Monitoring Report. As such, the proposed 0.5 m vertical buffer to the	

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	MGL may not be achieved with the proposed excavation depth. As such, to clear this uncertainty, an additional 0.3m should be added to the proposed 0.5m (i.e., 0.8m vertical separation to the current estimated MGL). DWER therefore advises the following: • the maximum groundwater level (MGL) is likely to be higher than that claimed in the Groundwater Monitoring Report given some of the levels established using the 2021 data were reached or exceeded in 2022, even though there was less annual rainfall in 2022 than 2021 • in view of the uncertainty of the MGL, to ensure the 0.5 m vertical buffer to the MGL is achieved, an additional 0.3m should be added to the current maximum groundwater levels estimated in the Groundwater Monitoring Report (i.e. 0.8m to the current MGL) (see recommended Condition 3a) • a method be provided by the proponent to the satisfaction of the Shire to ensure the proposed pit depths are accurately adhered to across the site.	**Note** Agree. Recommend a condition be imposed to increase the groundwater separation to 0.8m Agree.
DWER (Dust)	Key points:	**APPLICANTS COMMENT:** DWER comments acknowledge and support the dust management measures set out within the Dust Management Plan. The Dust Management Plan contains a complaints register and the operational managers phone number will be made available to the public via the entrance sign should anyone raise any dust complaints. **OFFICER COMMENTS:**

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	• The recommended separation distance of 300m to 500m for sand mining as per EPA GS3 has not been met with two receptors at 106m and 261m distance. This represents an increased risk and additional dust controls (and potentially dust monitoring) may be required to prevent off site health and amenity dust impacts at receptors during stages 2, 3 and 8, which are closest to these receptors. With the exception of stages 2, 3 and 8, DWER generally agrees with the risk rating of Medium as calculated by the proponent for the site. • DWER recommends that: o Given that the site is located in a rural area with a small number of residences in the vicinity, if the development proceeds then early and ongoing engagement with the adjacent residents is included in the DMP. This should include establishing communication pathways for residents to notify the proponent of air quality concerns throughout the life of the project. Should dust impacts become evident, the proponent reviews dust management practices and considers implementing monitoring as per the DEC 2011 dust guideline. Further to the Shires technical advice request of 29 May 2023, DWER has reviewed: • Appendix D of *Extractive Industry Development Application and Licence (*element, April 2023) prepared for BCP Materials Pty Ltd for the extraction of sand on Lot 148 Skippings Road, Boyanup. • Shire of Capel Extractive Industry Local Law 2016 (Shire of Capel, 2016). Please refer to our statement of limitations regarding this review as shown below. Background: According to the Dust Management Plan (DMP) the proposal is for a Development Application (DA) and Extractive Industry Licence (EIL) for	Note. Agree. Note

<table>
<tr><th>SUBMITTER</th><th>SUMMARY OF SUBMISSION</th><th>COMMENTS / RECOMMENDATION</th></tr>
<tr><td></td><td>
the extraction of sand on Lot 148 (No. 168) Skippings Road in Boyanup located approximately 12 km south of Bunbury within the Shire of Capel (Figure 1, Figure 3 and Figure 4 in the DMP). The Shire of Capel requires that a DMP is prepared as a part of the DA/EIL application. The property is zoned rural in the Shire of Capel Town Planning Scheme No. 7 and in the Greater Bunbury Region Scheme. The project envelope and EIL area covers approximately 13.24 ha of Lot 148 which has a total area of 64.88 ha. The majority of Lot 148 has been cleared. The property also includes a residential dwelling and associated farming outbuildings which is not considered a sensitive receptor by the proponent.

The surrounding properties are zoned rural and are mainly used for grazing. The nearest receptors are shown in the below (Table 1 of DMP).

Table 1: Sensitive Receptors within 1 km of Extractive Operations
<table>
<tr><th>Property Details</th><th>Distance and Direction from Operations</th><th>Type of Receptor</th></tr>
<tr><td>Lot 379 Plan 232768</td><td>106 m west</td><td>Residential dwelling</td></tr>
<tr><td>Lot 149 Plan 232768</td><td>261 m north</td><td>Residential dwelling</td></tr>
<tr><td>Lot 142 Plan 232768</td><td>513 m east</td><td>Residential dwelling</td></tr>
</table>
The proponent has indicated that the DMP was prepared in accordance with the Department of Environment and Conservation's A guideline for managing the impacts of dust and associated contaminants from land development sites, contaminated sites remediation and other related activities (DEC 2011).

Scope of the advice:

DWER has been requested to review the DMP. No specific questions were asked. DWER has reviewed the DMP in consideration of the following:

Consideration of the existing setting and features of the proposal area.

</td><td>Note</td></tr>
</table>

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	• Recommended separation distance as per the 2005 EPA Guidance Statement No. 3: Separation Distances between Industrial and Sensitive Land Uses (EPA GS3) • Proposed dust controls as per the DEC 2011 dust guideline. Advice: DWER has reviewed the DMP and provides the following advice: • The recommended separation distance of 300m to 500m for sand mining as per the 2005 EPA Guidance Statement No. 3: Separation Distances between Industrial and Sensitive Land Uses (EPA GS3) has not been met, with two receptors at 106m and 261m away (Table 1 in the DMP and Figure 1 below). DWER considers that this represents an increased risk and additional dust controls (and potentially dust monitoring) may be required to prevent off site health and amenity dust impacts at receptors during stages 2, 3 and 8 which are close to these receptors. With the exception of stages 2, 3 and 8, DWER generally agrees with the risk rating of Medium as calculated by the proponent for the site. DWER also notes that the extraction will occur in stages (this would be expected to reduce the risk of dust impacts from the site) and that each stage is less than 2ha (Figure 2), as required under the Shire of Capel Extractive Industry Local Law 2016. • The proposed dust controls in Section 5 of the DMP are consistent with commonly used dust controls for similar operations such as those described in the DEC 2011 dust guideline. • DWER recommends that: o Given that the site is located in a rural area, with a small number of residences in the vicinity, DWER recommends that if the development proceeds, then early and ongoing engagement with the adjacent residents is included in the DMP. This should include opening communication pathways for residents to notify the proponent of air	Agree. A condition is recommended to address dust matters. Note. Agree. A condition is recommended to address dust matters.

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	quality concerns throughout the life of the project. o Should dust impacts become evident, DWER recommends that the proponent reviews dust management practices to ensure additional dust controls (and potentially dust monitoring) as per the DEC 2011 dust guideline. Limitations of DWER Review Please note the following important information relevant to the review of this proposal by DWER: • The pollutant of concern considered by the proponent is dust; • DWER assumes that the individuals responsible for dust management are suitably experienced in the techniques proposed to control dust. The success of the dust management strategy depends critically on the competence of the relevant personnel; and • DWER does not have primary responsibility for the assessment of public health issues, including Health Risk Assessment, in relation to air pollution. This is the role of the Department of Health.	Note
Syrinx Environmental (on behalf of Shire)	We had a look at the application and our responses to your questions are outlined below. In summary, additional information needs to be sought from the applicant in order to justify some of the key statements and decisions that do not comply with Clause 6.1 of the Shire's Extractive Industry Local Law, chiefly conditions (a), (d) and (e). The key concern is the	**APPLICANTS COMMENT:** The applicant's response to the Shire's environmental consultant comments is provided below: 1. **Groundwater Data Collection** Acknowledgement of the groundwater data collection is appreciated.

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	distance to groundwater and the lack of comments as to why this will work (as they predict). **1. Groundwater data (would the proposal represent a risk) and is the data of a sufficient timeframe)?** • Data was recorded over a period of one year September 21 – October 22 which appears to be of sufficient timeframe to capture seasonal fluctuation in GW levels. Also, regional GW data is presented from multiple years, so in terms of groundwater levels, recorded data is of sufficient timeframe. • Groundwater (and surface water) quality has not been tested and as a result, the risk to nutrient enrichment (via fertilisation of pasture or grazing), acidification and or salinization post-extraction activities cannot be predicted. • There is no mention of any activities impacting the current drainage and how this may impact the environment locally and downstream (e.g. turbidity / sediment, nutrient loads) or changes in water chemistry. • It is understood that the groundwater on site is perched. What is not covered in the document is how the perching water will be managed during the stages of work and after extraction activities so that the hydrological regime of the Multiple Use wetlands on site is not affected. **2. Suitability of buffers (nil) to multiple use wetlands and any comments on potential environmental risks?** The proposal states: Setbacks to multiple use wetlands are not required as they contain few remaining attributes or functions of a wetland. It is for this reason no buffers have been considered as part of this application. The proposed development will not impact upon the environmental value of the multiple use wetland.	2. **Suitability of Buffers to Multiple Use Wetlands** We refer to the advice provided by DWER on the proposal relative to no setbacks to the mapped multiple use wetland. The applicant is required to complete appropriate due diligence pursuant to the ACH Act 2021. Due diligence will be undertaken prior to the commencement of operations. Variation to the setbacks stated within Cl 6.1 of the Shire's Extractive Industry Local Law 2016 may be granted. We therefore refer to the advice received from DWER regarding the environmental status of the wetland onsite. **3. Suitability of end land use** The advice for pasture is acknowledged. However, should operations not proceed, the portions of the site will continue to have limited pasture value evidently dying during summer periods. The extraction floor will not become waterlogged as the 0.8m separation to groundwater must be maintained. The separation distance to the MGL as supported by DWER is considered to provide sufficient separation to future pasture and ensure no water logging (ground water at surface) within the extraction area. The applicant recommends a condition of development approval for the preparation of a rehabilitation and monitoring plan be prepared to the satisfaction of the shire prior to the issuing of an extractive industry licence. **OFFICER COMMENTS:**

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	• While the wetlands on site are degraded, they retain hydrological and water quality functions and could and probably should be restored one day, if we are aligned with the new best practice policies and positions. • The wetlands particularly in the context of the site location may have a cultural significance. With the new cultural laws in place (Aboriginal Cultural Heritage Act 2021), cultural clearance is likely required for extractive industry works. This has not been addressed in the document (perhaps as the new laws are current as of 1st July 2023, but should be addressed as part of this review). • Regarding buffers (Clause 6.1 of the Shire's Extractive Industry Local Law) states 50m buffer from any wetland. So non buffer is not meeting this condition. • WAPC (2005) Guideline for the Determination of Wetland Buffer Requirements Table 10 states some of the management requirements for MU wetlands based on the character that needs protection. Key threatening processes (environmental risks) here are the water regime alteration and the possible entry of vehicles etc., into the wetland areas and or pasture management post mining like fertilising regime, pesticides or similar). Management actions to prevent impacts of these will determine the setback, preferably from the wetland functional area which is as a minimum the geomorphic wetland boundary as mapped by DBCA or wetland's high water mark although this is arbitrary and determination of a wetland's edge is determined via a more robust method which includes soil analysis amongst GW and (where present) vegetation. **3. Suitability of end landform and groundwater conditions for long term pasture?**	Note. Advice from DWER and an increased groundwater separation distance of 0.8m will reduce the risk of waterlogging and potential loss of long term productive grazing land.

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	• The document states that the landform and the excavation of sand to 0.5m of the groundwater table will "enhance the long-term agricultural use of the land post extraction. The reduced separation to groundwater will enable enhanced growth of pasture." • Pasture grasses generally do not have roots long enough to access groundwater (they are generally 10 – 30 cm long with many being much shallower (Perennial pastures for Western Australia) so the claim that the pasture will be enhanced as a result of it being 0.5m above the maximum groundwater level is not well substantiated. • If the soils become waterlogged, a decline in root growth followed by a subsequent decline in shoot growth occurs as roots normally require oxygen for the optimal production of energy from sugars. Then the pasture quantity and quality diminish and plants more suited to those conditions take over (e.g. sedges like Juncus for example) which do not support livestock. • By reducing the distance to groundwater the entry of nutrients and possibly pesticides to groundwater as a result of land use for pasture is increased. This can impact on the water quality (both groundwater and surface water). • The broad-scale mapping of soil conditions such as salinity and acidification risk for the Swan Coastal Plain area (available on https://www.data.wa.gov.au/) indicates that the soils on the property may be vulnerable to both. This can further negatively influence the growth of pasture should the groundwater levels be close to the surface. • As mentioned before, the separation of 0.5 m above max groundwater level is not well justified (beyond the obvious that they would not be able to mine but a very small area of land if	

SUBMITTER	SUMMARY OF SUBMISSION	COMMENTS / RECOMMENDATION
	they stick with 2 m separation distance). This separation distance does not comply with the Shire's Extractive Industry Local Law (excavation 2 m above the maximum groundwater level is considered as a minimum). • The timeframe for signoff/completion is 12 months post seeding which is too short to determine if the pasture is self sustaining or of improved condition to the original. A a minimum two-year establishment period would be recommended to help with this assessment.	

Local Planning Policy
LPP6.2 Extractive Industries

Introduction

The Shire of Capel recognises the supply of basic raw material as an important contributor to the economic development of the Shire as well as the wider South West Region and a critical component of the land development process.

This Policy establishes the Shire's position in relation to the sustainable location, management and rehabilitation of Extractive Industries where they will not cause disruption to amenity, the environment or the proper functioning of the transport network.

The Policy also details the Shire's approach to application requirements and assessment of development applications including groundwater resource protection, batter slopes, rehabilitation, bonding and ongoing monitoring in accordance with the policy objectives.

This Local Planning Policy has been adopted by the Shire of Capel in accordance with the provisions of Schedule 2, Part 2, Div. 2 of the *Planning and Development (Local Planning Scheme) Regulations 2015*.

Purpose

The objectives of this Policy are to:

1. Ensure extractive industries do not adversely affect the environment or the amenity of the locality during or after extraction.
2. Ensure extractive industries are in the most appropriate locations.
3. Ensure volumes of extraction occurs where the available haulage routes and road hierarchy are satisfactory or can be upgraded to support an extractive industry without affecting the safety of road users and the sustainability of the transport network.
4. Achieve a high level of staged rehabilitation to native vegetation where required or where clearing of remnant native vegetation is proposed and approved.
5. Achieve a high level of groundwater resource protection.
6. Clearly outline matters required to be addressed by proponents.
7. To provide clarity of the development assessment process for proponents and the broader community.
8. Inform the community and stakeholders of the importance of a rigorous assessment process and the reasoning for the Shire's policy stance.

Application

This Local Planning Policy applies to all extractive industry proposals within the Rural, Priority Agriculture and General Industry zones applicable under the Shire of Capel Local Planning Scheme No.8 (Scheme 8) except in the following circumstances:

a) Extraction of material coming under the definition of Mining which is exempt from the requirement to obtain development approval by virtue of Section 120 of the Mining Act 1978. In providing advice on any mining proposal and its consistency with the provisions of Scheme 8, regard will be given to the expectations of amenity and environmental effects set out by this Policy.

b) Extraction of materials ancillary to normal rural activity, where for use on the same site and where no processing of the material is required.

c) Extraction of material that falls under the definition of Public Works. Notwithstanding there is no requirement to obtain development approval for a public work, it should be undertaken in accordance with the requirements of this policy.

This policy has due regard to and is to be read in conjunction with the following:

- State Planning Strategy 2050.
- Greater Bunbury Strategy 2013.
- Greater Bunbury Region Scheme, Strategic Minerals and Basic Raw Material Resources Policy 2018.
- Statement of Planning Policy No.2 Environment and Natural Resources Policy.
- State Planning Policy No. 2.4 Basic Raw Materials (2021) including:
    - Explanatory note: SPP 2.4 Planning for Basic Raw Materials.
    - Planning for Basic Raw Materials Guidelines.
- State Planning Policy 2.5 Rural Planning (2016).
- Shire of Capel Local Planning Strategy.
- Planning Bulletin 94 Approval Requirements for Public Works and Development by Public Authorities.
- Environmental Protection Authority Guidance Statement No. 3 Separation Distances between Industrial and Sensitive Land Uses 2005.

In relation to this Local Planning Policy and the Shire of Capel Local Planning Scheme No.8, the definition of an extractive industry is defined as:

"**Industry – Extractive** means premises, other than premises used for mining operations, that are used for the extraction of basic raw materials including by means of ripping, blasting or dredging and may include facilities for any of the following purposes –

a) the processing of raw materials including crushing, screening, washing, blending or grading;

b) activities associated with the extraction of basic raw materials including wastewater treatment, storage, rehabilitation, loading, transportation, maintenance and administration."

"**Land Degradation**" is defined under the Soil and Land Conservation Act 1945 as '*soil erosion, salinity, eutrophication and flooding; and the removal or deterioration of natural or introduced vegetation, that may be detrimental to the present or future use of land.*'

"**Tandem Drive 4 Network**" refers to the prime movers and trailer combinations as part of the restricted access vehicle (RAV) categories. Category 4 relates to 4A – A double vehicles with a maximum length of 27.5 metres, and maximum mass of 88.5 tonnes.

Prior to application lodgement, landowners and applicants are encouraged to discuss all development proposals with Shire officers including making a presentation to the Shire's Development Coordination Unit to determine whether the terms and requirements of this policy apply.

Policy Statement

In determining the suitability of any extractive industry proposal for a particular site, the following policy measures will be assessed. If the Acceptable Development Criteria are met the proposal may be considered more appropriate. If the Acceptable Development Criteria are not met, then the proponent must demonstrate how the proposal still meets the Performance Criteria.

Performance Criteria	Acceptable Development
Element: Amenity	
PC1.1.1 Development is to demonstrate a negligible impact on the amenity of residential areas by way of vehicular traffic, noise, dust, blasting and vibration.	AD1.1.1 Hours of operation are limited to 7am to 7pm Monday to Friday and 7am to 1pm on Saturday. No operation on Sundays or recognised public holiday days.
PC1.1.2. Development does not result in land degradation, or a landform that prejudices the productive end use of the site in accordance with the objectives of the zone.	AD 1.1.2 Development is located, designed and rehabilitated compatible with long-term planning and environmental protection.
Element: Environmental	
PC1.2.1 With advice from relevant state government departments, development is located to minimise the impact upon native flora and fauna; groundwater quality, quantity and use; surface drainage and surface water quality including discharge of sediment and sites of cultural and/or historic significance on or near the land.	AD1.2.1 Development does not prejudicially affect native flora and fauna; groundwater quality, quantity and use; surface drainage and surface water quality including discharge of sediment and sites of cultural and/or historic significance on or near the land.
PC1.2.2 Development is located and managed to minimise the spread of Phytophthora (Dieback).	AD1.2.2 Dieback is managed in accordance with Best Practice Guidelines – Management of Phytophthora Dieback in Extractive Industries (2005 – Dieback Working Group) as detailed within an agreed Dieback Management Plan.
PC1.2.3 Development is located and managed to achieve a high level of surface and groundwater resource protection to provide soil depth for rehabilitation, future land use and a buffer against groundwater contamination and exposing groundwater.	AD1.2.3 Excavation shall not occur within 2 metres of the estimated maximum ground water level. AD1.2.4 Batter slopes with gradients up to 1:6 when rehabilitated to pasture for agricultural land

PC1.2.4 Final excavation batters to achieve rehabilitated slopes compatible with future land use, existing soil structure, topography, and positive environmental outcomes. PC1.2.5 Development is located and managed to a achieve a high level of staged rehabilitation.	uses and/or native revegetation. AD1.2.5 Sites to be rehabilitated in accordance with an agreed Environmental Management Plan and Rehabilitation Implementation Plan prepared and implemented in accordance with application and bonding requirements as specified in Appendix 1 of this Policy. For hard rock extraction sites, an end-of-life pit plan is to be provided and agreed upon between the Shire and applicant at least 5 years prior to the expiration of the approval's validity.
Element: Buffers	
PC1.3 Development to demonstrate satisfactory mitigation and management measures in accordance with SPP4.1 Industrial Interface and Guidance Note 3 – Separation Distances Between Industrial and Sensitive Land Uses (EPA – 2005	AD1.3.1 Buffer distances to be in accordance with Guidance Note 3 – Separation Distances Between Industrial and Sensitive Land Uses (EPA – 2005).
Element: Visual Impact	
PC1.4 Through Development of an adopted Rehabilitation Plan, the final landform shall not have a significant detrimental impact on visual amenity of the landscape when viewed from surrounding sites.	AD1.4.1 Visual screening to be provided through retention of existing vegetation and /or provision of an appropriate landscaping screen/bund to the satisfaction of the Shire. No walls or solid fences will be considered.
Element: Transport	
PC1.5.1 The proposed haulage route is not to have a detrimental impact on safety and amenity of residents, and local road users. PC1.5.2 The application is accompanied by a Traffic Management Plan to demonstrate that haulage periods that conflict with school pick and drop off times are acceptable in their impact to the safety of the road network. PC1.5.3 The applicant is to demonstrate that the haulage traffic will not have adverse impacts on the locality by virtue of noise, dust pollution, and safety, and that suitable arrangements be made by the developer to ensure the road is maintained to an appropriate standard. PC1.5.4 Development does not create hazards to other road users, impact on sustainability of the transport network, nor negatively impact on the	AD1.5.1 Haulage is to be wholly contained to the 'Tandem Drive 4' Network route, as identified by Main Roads Western Australia. AD1.5.2 Haulage traffic is to be proposed at times of the day which will minimise conflict with school pick up and drop off hours (7:30am-9am and 2:30pm-4pm Mondays to Fridays) AD1.5.3 Where available, haulage traffic is to utilise road networks which have a sealed surface, and appropriate designed to accommodate the proposed vehicle types. AD1.5.4 Development application is accompanied by a Traffic Impact Assessment that demonstrates the local road network capacity is sufficient to

amenity of the residences along the route, in terms of: • Access points to the operation site. • Existence of any other extractive industry or heavy haulage in the vicinity and cumulative effects on the transport network.	accommodate the additional traffic and proposed truck volumes generated by the development.

Procedure

Any approval will be for a period of up to 10 years (no excavation to occur within 3 years of the date in which the approval expires) after which the use must cease unless a further application for Development Approval is granted by the Council and an application for an Extractive Industry Licence has been approved by the Shire.

Notwithstanding the above, any initial approval for a hard rock Extractive Industry application will be for a period of up to 20 years after which the use must cease unless a further application for Development Approval is granted by the Council and an application for an Extractive Industry Licence has been approved by the Shire.

Before carrying out any development, any other licences, permits or approvals required must be obtained in accordance with any other law. The Shire will only issue an extractive industry licence under the Local Law once all conditions requiring clearance prior to the commencement of development are approved by both the Shire's Development Services, and Projects, Engineering, and Assets.

Department:	Development Services	Next review:	
Reviewer:		Legislation:	Local Government Act 1995 Planning and Development Act 2005 Planning and Development (Local Planning Schemes) Regulations 2015
Adopted:		Delegation:	166
Amended:		Risk:	
Policy ref #:	**LPP6.2**	Version:	1.0

Appendix 1 - Extractive Industry Application Requirements and Assessment Processes

Introduction

Appendix 1 to the Policy details extractive industry application requirements and assessment processes.

The Shire of Capel requires:

- An application for Development Approval for the land use of Industry Extractive.
- Application for an Extractive Industry Licence.
- Where applicable, a Greater Bunbury Region Scheme application for Planning Approval.

Application Requirements

To enable consistent lodgment of applications and assessment of any proposal by the Shire, government referral agencies, the community and the Council, the following information is required to be submitted.

A. Development and Extractive Industry Licence applications report detailing the following:

Executive Summary

1. **Introduction**

2. **Background information including:**
    a. Location, area and property ownership
    b. Landuse and zoning
    c. Soils and topography
    d. Groundwater
    e. Surface water
    f. Flora and vegetation
    g. Dieback
    h. Fauna
    i. Crown land and reserves
    j. Heritage
    k. Surrounding residents
    l. Existing utilities and services

3. **Planning framework** (including Extractive Industry Local Law)

4. **Proposed development**
    a. Summary of works (including material to be excavated)
    b. Extraction area and setbacks
    c. Resource availability and duration of operations
    d. Staging and timing
    e. Clearing methods
    f. Topsoil handling
    g. Excavation methods

h. Depth and extent of excavation
i. Site access, haulage routes and destinations
j. Number and size of trucks per day/week
k. Onsite machinery (type of equipment, maintenance and truck refuelling)
l. Operating hours (including crushing, blasting and excavation)
m. Proposed infrastructure
n. Public danger signage and fencing
o. Survey information – evidence that a datum peg has been established on the land
p. Proposed end landuse
q. Decommissioning Plan
r. Traffic Impact Assessment
s. Justification for variation from Shire requirements

5. Environmental management

a. Stormwater management plan
b. Vegetation Clearing Plan including DWER clearing application documentation and status
c. Groundwater Management including evidence of onsite bore monitoring during winter/spring months for a 2 (two) year period
d. Noise management plan (including noise assessment where applicable)
e. Dust management plan
f. Hydrocarbons and Chemicals
g. Weed and Dieback (including weed and dieback management plans where applicable)
h. A description of the existing site environment and a report on the anticipated effect that the proposed excavation will have on the environment in the vicinity of the land
i. Details of the nature of existing vegetation, shrubs and trees and a description of measures to be taken to minimise the destruction of existing vegetation
j. Aboriginal heritage
k. Visual impact
    i. Major roads
    ii. Tourist routes/interest points
    iii. Surrounding properties

6. Rehabilitation Implementation Plan

a. Introduction
b. Background
    i. Site location
    ii. Extraction works
    iii. Objectives of rehabilitation
c. Environmental Context
    i. Landform and soils
    ii. Hydrology
    iii. Pre-existing vegetation assessment
    iv. Pathogens
    v. Site stability
    vi. Herbivores
    vii. Dieback status
    viii. Climate (including climate change and consequences for revegetation
    ix. Existing and future uses
d. Risk Assessment
e. Implementation Strategy
    i. General (including signage, fencing and protection works and staging of works
f. Advance Planning and Management
    i. Vegetation retention and clearing
    ii. Topsoil recovery (including existing and future stockpiles and topsoil construction)
    iii. Erosion management
    iv. Mulch supply (including site generated and imported mulch)
    v. Native seed, cutting and transplant recovery
    vi. Seedling supply and advance ordering
    vii. Dieback management
g. Implementation Methodology

i. Weed management
ii. Surface preparation (including bulk earthworks, topsoil respreading, erosion management, ripping/scarification, seedbed preparation, and coarse woody debris)
iii. Shire Hold Point – final contours to be achieved and confirmed by survey before spreading topsoil
iv. Mulching
v. Fence installation - pest management
vi. Access track/s
vii. Species selection and plant allocation
viii. Provenance seed collection and supply
ix. Seed propagation
x. Direct seeding
xi. Seedling planting
xii. Works schedule

h. Post Installation Management
i. Rehabilitation monitoring and performance criteria
ii. Site maintenance
iii. Completion criteria and success targets

i. Resourcing and Budgets
j. Contingency and Management Actions
k. Record keeping, auditing, and reporting
l. Revisions
m. References
n. Appendices:
i. Extraction plan
ii. Species list and allocations
iii. Risk assessment
iv. Management zones
v. Works schedule
vi. Record keeping templates (including maintenance, herbicide application, seeding and planting, revegetation monitoring, photo monitoring points and monitoring, budget monitoring and Shire auditing checklist and documentation)
vii. Implementation budget

7. Conclusion

8. Application plans detailing the following:

a. An **Existing Contour and Feature Plan** of the excavation site to a scale of between 1:500 and 1:2000 on A1 sheet certified by a licensed surveyor showing:
i. The existing land contours based on the Australian Height Datum and plotted at 1 metre contour intervals extending beyond the extraction area by at least 40 metres.
ii. The Lot number and area of the land on which the excavation site is to be located
iii. Survey Datum Peg detail.
iv. The location and external surface dimensions of the existing and proposed excavation of the land, marked in stages no greater than 2 hectares in area which must not be within:
1. 20 metres of property boundary
2. 40 metres of any dedicated public road reserve
3. 50 metres of any watercourse, wetland or swamp
v. The location of existing and proposed thoroughfares or other means of vehicle access to and egress from the land and to public thoroughfares in the vicinity of the land.
vi. The location of buildings, treatment plant, tanks, bores and other improvements and developments existing on, approved for or proposed in respect of the land.
vii. The location of existing power lines, telephone cables and any associated poles or pylons, sewers, pipelines, reserves, bridges, railway lines and registered grants of easement or other encumbrances over, on, under or adjacent to or in the vicinity of the land.
viii. The location of all existing bores, dams, watercourses, drains or sumps on or adjacent to the land.
ix. The location and description of existing fences, gates and warning signs around the land.

x. The location of the areas proposed to be used for stockpiling excavated material, treated material, overburden and soil storage on the land and elsewhere.
xi. The direction of the working face ensuring that only 1 stage is cleared at a time, followed by excavation and rehabilitation. The clearing of stage 3 should not occur until the recontouring of stage 1 is complete awaiting planting.
xii. The location of all existing trees and vegetation.

b. A **Finished Development Plan** of the excavation site to a scale of between 1:500 and 1:2000 on A1 sheet showing:
   i. The proposed land contours based on the Australian Height Datum and plotted at 1 metre contour intervals extending beyond the extraction area by at least 40 metres.
   ii. The location and area of the existing and proposed excavation of the land, marked in stages no greater than 2 hectares in area which must not be within:
      1. 20 metres of property boundary
      2. 40 metres of any dedicated public road reserve
      3. 50 metres of any watercourse, wetland or swamp
      4. 2 metres from the known highest winter water table level
   iii. The location of existing and proposed thoroughfares or other means of vehicle access to and egress from the land and to public thoroughfares in the vicinity of the land.
   iv. The location of buildings, treatment plant, tanks, bores and other improvements and developments existing on, approved for or proposed in respect of the land.
   v. The location of existing power lines, telephone cables and any associated poles or pylons, sewers, pipelines, reserves, bridges, railway lines and registered grants of easement or other encumbrances over, on, under or adjacent to or in the vicinity of the land.
   vi. The location of all existing bores, dams, watercourses, drains or sumps on or adjacent to the land.
   vii. The location and description of existing and proposed fences, gates and warning signs around the land. The area must be securely fenced with warning signs not more than 200 metres apart.
   viii. The location of proposed rehabilitation areas and levels of revegetation.

Advertising process

Within Scheme 8, Industry Extractive is an 'A' land use that requires an application to be advertised prior to determination by the local government. The Local Law specifies a minimum 21day advertising period including the requirement for a newspaper notice.

Table 1 details the required consultation for Development and Extractive Industry Licence applications consistent with LPP6.7 Community Engagement.

Table 1 - Extractive Industry applications advertising processes

Method	Advertising process
Letters to affected surrounding owners/occupiers	21 days advertising period to landowners generally within 500m - EPA Guidance Statement No.3 sets out distances to be used.
Referral to Government Agencies	42 days referral period by letter and/or emails with Shire website link to application
Newspaper notice	Notice placed in local newspaper for 2 consecutive weeks
Website notice	Complete application placed on Shire website for 21 days
Sign at subject site	21 days
Copy at front counter	21 days

The cost of advertising is to be met by applicants.

Security for rehabilitation

To ensure that an excavation site is properly restored and rehabilitated, the local government will require that as a condition/before the issue of an Extractive Industry Licence, the licensee shall provide to the local government a bond or bank guarantee of a kind and in a form acceptable to the local government, for a sum determined by the local government. This security will be held by the local government for all areas which are disturbed until they are fully restored, rehabilitated and proved sustainable. All bonds and bank guarantees must be accompanied by a Rehabilitation Bond Agreement.

The bond or bank guarantee value shall be in accordance with Council adopted fees and charges.

Road deterioration

Extractive Industries can create a concentration of heavy vehicles accessing local roads to traverse from the site entrance to the closest arterial main road. This concentration of heavy vehicles can cause road damage to local roads and the cost of any deterioration is to be passed on to the Extractive Industry, as the source of the heavy traffic.

The Shire of Capel Extractive Industries Local Law 3.1(5) (q) requires the licensee to enter into an agreement with the local government, by which it agrees to pay any extraordinary expenses incurred by the local government in repairing damage caused to thoroughfares in the district by heavy or extraordinary traffic conducted by or on behalf of the licensee under the Licence.

The Shire's Road *Deterioration Preservation Funding For Extractive Industries* calculator provides a consistent and transparent process and the Shire has reviewed the agreement to include industry standard formulas that can be used to calculate the value of deterioration of the pavement for a given number of truck movements. This is based on the West Australian Local Government Association (WALGA) publications:-

- *User Guide, Estimating the Incremental Cost Impact on Sealed Roads from Additional Freight Tasks; and/or*
- *User Guide, Estimating the Incremental Cost Impact on Unsealed Local Roads from Additional Freight Tasks*

Main Roads Western Australia requirements

Applications for sites with direct access to highways and major roads under the control of Main Roads WA will be subject to referral to Main Roads WA. An approval of an extractive industry may increase the number and size of vehicles entering or exiting a highway or major road under the control of Main Roads Western Australia. The upgrading of site access may be required including slip lanes and turning pockets. These upgrades would require Main Roads approval and the applicant would be financially liable for all construction costs.