



Australian Government

Department of Agriculture, Water and the Environment

Ref: 2019/8388

Peter Bennett  
Manager Optimisation and Rates  
Catalano PTY LTD  
South Western Hwy  
Brunswick Junction WA 6224

Dear Peter,

Thank you for submitting your preliminary documentation. The Department of Agriculture, Water and the Environment is generally satisfied with the contents of the document but will require some elements to be clarified prior to the preliminary documentation being published. These elements are outlined as follows:

Regarding section 2.1 of the Additional Information Report (the Report), the targeted flora survey conducted by Plantecology Consulting on 19 November 2018 and the NatureMap desktop analysis, do not adequately address threatened vascular plant species. The Department notes that the NatureMap desktop analysis states that Dwarf Bee Orchid (*Diuris micrantha*) is unlikely to occur within 5km of the proposed action area. However, the Department's Environmental Reporting Tool (ERT) shows that *D. micrantha* is known to occur within that area, and that the Dwarf Hammer Orchid (*Drakaea micrantha*) is likely to also occur. Furthermore, according to the Department's orchid survey guidelines, the targeted flora survey was conducted outside peak flowering period for these species and is insufficient for a cryptic species that requires survey replication. The Department therefore requests the Report be updated to include a discussion of threatened orchid species within the development envelope.

Regarding section 5.2 of the Report, noise from activity on the proposed action area is "expected to be localised and create minimal nuisance" to the migratory species that utilise the Ramsar listed Lake Preston. The Department notes that section 5.6 of the Environmental Management Plan recommends a buffer of 300-500 m between the limestone pit and "Sensitive Land Uses", "depending on the extent of the processing". Given that the proposed 300 m buffer is the minimum distance required and that neither Sensitive Land Uses nor the extent of the processing is defined, the Department requires the Environmental Management Plan be updated with further detail and justification for the expectation of minimal noise impacts to migratory species within the Ramsar wetland.

Regarding section 3.1.1 of the Report, the Department notes that the Baudin's Black Cockatoo (*Calyptorhynchus baudinii*) and Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*) utilise Jarrah (*Eucalyptus marginata*) and Tuart (*Eucalyptus gomphocephala*) as habitat. The Department also notes that these are the dominant tree species within the proposed project area. Please provide a discussion on the likely occurrence of these two threatened black cockatoo species within the proposed project area and the impacts to their habitat.

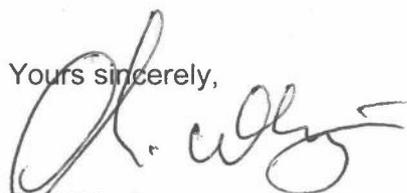
According to section 5.3 of the Report, a minimum depth to the underlying water table of 4.5m from the pit floor will be maintained, and if groundwater is exposed, the exposed area will be backfilled to a depth of 2m. The Department requires that the Report be updated with

details on how monitoring of the distance between the pit floor and the water table will be carried out.

Finally, section 5.3 of the Water Management Plan states that fertilisers and herbicides will be used to sow pasture in the proposed action area upon closure of the project and that the substances and levels will be determined "at this time". The Department requires that the substances, quantities, and area of application post-closure be included within the Plan.

Please update your preliminary documentation in accordance with these comments. Once the additional information has been provided, the Department will be able to progress to the publication stage. If you have any questions about the referral process or this decision, please call or email the Project Officer, Jeffrey Paul ([jeffrey.paul@awe.gov.au](mailto:jeffrey.paul@awe.gov.au) and [paws@environment.gov.au](mailto:paws@environment.gov.au)), on (02) 6274 2751 and quote the EPBC reference number shown at the beginning of this letter.

Yours sincerely,



Rod Whyte

Director

Project Assessments West Section

7 February 2020

DAWE Comments	Response
<p>Regarding section 2.1 of the Additional Information Report (the Report), the targeted flora survey conducted by Plantecology Consulting on 19 November 2018 and the NatureMap desktop analysis, do not adequately address threatened vascular plant species. The Department notes that the NatureMap desktop analysis states that Dwarf Bee Orchid (<i>Diuris micrantha</i>) is unlikely to occur within 5km of the proposed action area. However, the Department's Environmental Reporting Tool (ERT) shows that <i>D. micrantha</i> is known to occur within that area, and that the Dwarf Hammer Orchid (<i>Drakaea micrantha</i>) is likely to also occur. Furthermore, according to the Department's orchid survey guidelines, the targeted flora survey was conducted outside peak flowering period for these species and is insufficient for a cryptic species that requires survey replication. The Department therefore requests the Report be updated to include a discussion of threatened orchid species within the development envelope.</p>	<p><b>From Plantecology:</b></p> <p>Following a reconnaissance survey (Flora and Vegetation Environmental Values Survey, LEC 2018), which accompanied the initial application to clear native vegetation under the EP Act, a review identified a number of potential impacts, as outlined below:</p> <ul style="list-style-type: none"> <li>• The application area comprises limestone heath geology, which corresponds with the recorded occurrence of Vegetation Type 2 (as identified in the Flora and Vegetation Environmental Values Survey, 2018 (the Survey)). This vegetation type may be representative of Floristic Community Type 26a, known as '<i>Melaleuca huegelii - Melaleuca systema</i> shrublands on limestone ridges (Gibson et al. 1994 type 26a)' (Melaleuca TEC), which is a State listed threatened ecological community.</li> <li>• The application area, and specifically Vegetation Type 2, is considered to provide suitable habitat for three priority flora species, being, <i>Alyogyne</i> sp. Rockingham (G.J. Keighery 14463) (Priority 2), <i>Pterostylis frenchii</i> (Priority 2) and <i>Hibbertia spicata</i> subsp. <i>leptotheca</i> (Priority 3). The Survey noted that <i>Alyogyne</i> sp. Rockingham (G.J. Keighery 14463) and <i>Hibbertia spicata</i> subsp. <i>leptotheca</i> were unlikely to occur within the application area, however both species have been recorded within habitat types that share similarities with the application area.</li> <li>• Based on the distribution and number of records of these species, the proposed clearing may impact on their conservation status if present. While the Survey did not identify these species, noting that it was a reconnaissance survey rather than a targeted survey, and that it was not undertaken at the ideal time to detect these species (April rather than during spring), it is considered that these species may occur within the application area.</li> </ul> <p>A second survey was then undertaken, in which the survey timing was agreed with DWER prior to the survey (see attached email correspondence Appendix 1). This second Survey (Plantecology 2018) was then commissioned with a specific scope to identify and confirm the presence of conservation significant flora and vegetation, as identified above. Apart from the FCT 26a issue (the major focus of the survey), the main priority species likely to occur given the habitat was <i>Pterostylis frenchii</i>, which occurs in tuart woodland on limestone. The threatened flora were not flagged as being a concern by DWER. We therefore planned the survey to address</p>

	<p>the specific DWER concerns, which is why we timed the survey for November and why a letter report was considered appropriate following discussion with DWER regarding this. At no time in discussions with DWER was <i>Diuris micrantha</i> (which does come up on the NatureMap search but occurs in winter-wet swamps and so is not an issue for that site), or <i>Drakaea micrantha</i> (which does <u>not</u> come up in the NatureMap searches and occurs in sandy soils in jarrah forest further inland and is not a limestone species, so also wasn't an issue) raised as a concern and potentially occurring in the area (given that its limestone habitat) and neither sandy. This information was not an issue for the State agencies at the time, and the issues that did concern the State have been specifically addressed.</p>
<p>Regarding section 5.2 of the Report, noise from activity on the proposed action area is "expected to be localised and create minimal nuisance" to the migratory species that utilise the Ramsar listed Lake Preston. The Department notes that section 5.6 of the Environmental Management Plan recommends a buffer of 300-500 m between the limestone pit and "Sensitive Land Uses", "depending on the extent of the processing". Given that the proposed 300 m buffer is the minimum distance required and that neither Sensitive Land Uses nor the extent of the processing is defined, the Department requires the Environmental Management Plan be updated with further detail and justification for the expectation of minimal noise impacts to migratory species within the Ramsar wetland.</p>	<p><b>From LE Consultants:</b></p> <p>An environmental noise model has been constructed using Sound Plan 4. This model illustrates that the 45 dB contour has a maximum extent of the eastern lakeshore and that the 40 dB contour crosses into the Lake. These contours have been simulated with 5 pieces of crushing and ancillary equipment operating in the pit simultaneously. These values are very low when viewed in the context of the noise produced by wind on water in the coastal zone. The noise model has been printed to Figure 2 and included as Appendix 2. In addition, results of research conducted by Institute of Estuarine &amp; Coastal Studies, University of Hull (Cutts et al 2013), suggest that construction noise of less than 50dB have a Low impact on estuarine waterbirds.</p>
<p>Regarding section 3.1.1 of the Report, the Department notes that the Baudin's Black Cockatoo (<i>Calyptorhynchus baudinii</i>) and Forest Red-tailed Black Cockatoo (<i>Calyptorhynchus banksii naso</i>) utilise Jarrah (<i>Eucalyptus marginata</i>) and Tuart (<i>Eucalyptus gomphocephala</i>) as habitat. The Department also notes that these are the dominant tree species within the proposed project area. Please provide a discussion on the likely occurrence of these two threatened black cockatoo species within the proposed project area and the impacts to their habitat.</p>	<p><b>From Greg Harewood. Zoologist</b></p> <p>A black cockatoo habitat assessment has been carried out over the site and the results presented in a stand-alone report this being - Harewood, G. (2019) Fauna Assessment CPS 8057/1 Lot 4 &amp; 5 Ludlow Road, Myalup. Unpublished report for B &amp; J Catalano. Version 3. November 2019.</p> <p>The Department state above that the dominant tree species within the proposed project area are tuart and jarrah. This is incorrect, the dominant tree species (i.e. greatest number of individual specimens) is Limestone marlock (<i>Eucalyptus decipiens</i>). Limestone marlock is not documented in available literature as being used by any of the black cockatoo species a breeding habitat, foraging habitat or roosting habitat.</p> <p>A breeding habitat survey identified a total of 27 trees with a DBH of &gt;50cms within the proposed pit area (15 of which were limestone marlock which is not a tree known to be used for breeding in any event). Twenty-two of the trees (~81.5%) were not observed to contain hollows of any size. Five trees (~18.5%) contained one or more</p>

possible hollows considered by the Author **not to be suitable** for black cockatoos to use for nesting purposes.

No trees appeared to contain hollows with larger entrances (greater than ~10cm) that appeared big enough to possibly allow the entry of a black cockatoo into a suitably sized and orientated branch/trunk.

Based on available vegetation mapping it is estimated that there is approximately 9,514 ha of native vegetation within 10 km the subject site. Remnant native vegetation present within the subject site (total ~8.3 ha) makes up ~0.087% of this total. It can be reasonably expected that these areas contain numerous “habitat trees” many of which are likely to provide breeding opportunities for black cockatoos.

Following is a list of the main flora species recorded within the subject site during the fauna assessment that are known to be used as a direct food source (i.e. seeds or flowers) or indirect food source (grubs) by one or more species of black cockatoo:

- Tuart (*Eucalyptus gomphocephala*) - seeds,
- Jarrah (*Eucalyptus marginata*) - seeds;
- Peppermint (*Agonis flexuosa*) – bark, grubs; and
- Candlestick Banksia (*Banksia attenuata*) - seeds.

Overall the subject site cannot be regarded as representing quality black cockatoo foraging habitat. Tuarts and peppermint are only foraged upon rarely and the number of jarrah and banksia trees present is very small and would amount to far less than 1 ha in total.

No foraging debris left by black cockatoos was observed within the subject site during the site surveys, though a small amount of evidence (chewed tuart fruits) was recorded just outside of the proposed pit area. This foraging evidence was attributed to the forest red-tailed black cockatoo two individuals of which were observed feeding within the tree.

Based on available vegetation mapping it is estimated that there is approximately 9,514 ha of native vegetation within 10 km the subject site. Remnant native vegetation present within the subject site (total ~8.3 ha) makes up ~0.087% of this total. There area is also over 3,000 ha of pine plantations with 10km of the site. Pinecones provide an important food source for Carnaby’s black cockatoo and to a lesser extent Baudin’s black cockatoo.

No evidence of black cockatoo roosting within trees located within the subject site was observed during the field reconnaissance survey.

A review of the 2017 Great Cocky Count database shows no documented roost sites within or near the subject site. The closest recorded roost is about 6 km south east

	<p>of the subject site, but no birds have been recorded at this location (during the Great Cocky Count) since 2011.</p> <p>Based on available vegetation mapping it is estimated that there is approximately 9,514 ha of native vegetation within 10 km the subject site. Remnant native vegetation present within the subject site (total ~8.3 ha) makes up ~0.087% of this total. There are also over 3,000 ha of pine plantations with 10km of the site. It can be reasonably expected that these areas contain many roosting options for black cockatoos.</p> <p>The overall habitat quality for black cockatoos within the subject site can therefore be regarded as being low. There are only a small number of habitat trees (DBH &gt;50cm) in or near the subject site and none contain hollows suitable for black cockatoos to use for nesting. The extent of foraging habitat is very small and dominated by plant species foraged upon only rarely, if at all (i.e. small fruited eucalypts). There were no roosting sites identified within or near the subject site.</p> <p>Based on available vegetation mapping it is estimated that there is approximately 9,500 ha of native vegetation within 10 km the subject site, much of which is very likely to represent potential black cockatoo breeding, foraging and roosting habitat of some type. Remnant native vegetation present within the subject site (total ~8.3 ha) makes up ~0.087% of this total.</p> <p>Based on these observations impacts on black cockatoos that will result as a consequence of development at the subject site is likely to be negligible.</p>
<p>According to section 5.3 of the Report, a minimum depth to the underlying water table of 4.5m from the pit floor will be maintained, and if groundwater is exposed, the exposed area will be backfilled to a depth of 2m. The Department requires that the Report be updated with details on how monitoring of the distance between the pit floor and the water table will be carried out.</p>	<p>It is proposed that the separation of 4.5m between the pit floor and the water table will be monitored by the construction of a monitoring bore in the pit to measure groundwater levels and by an annual pit survey to monitor the pit floor level.</p>
<p>Substances, quantities, and area of application of fertilisers and herbicides post closure to be included.</p>	<p>The Water Management Plan will be updated as follows:  A total of 18,000 native plants and 28 ha of pastures will be planted on completion of the extraction activities. Where native vegetation is to be planted, weed management will be undertaken by a licensed contractor using the appropriate quantities of glyphosate required. This can only be calculated just before planting since weed cover cannot be predicted. Each native plant stem will be fertilised using a 10gm native plant fertiliser tablet with NPK composition of 20:1:10%.</p>

	<p>For the 28ha of pasture planting, best practice guidelines for planting near sensitive water resources indicate that a soil test should be done just prior to planting with the appropriate soil treatments being determined from the soil tests. It is still at least 5 years before any planting will be undertaken and soil conditions will change during this period.</p>
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# APPENDIX 1

## Mike Lundstrom

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**From:** Ray Carvalho <ray.carvalho@dwer.wa.gov.au>  
**Sent:** Tuesday, 23 October 2018 1:56 PM  
**To:** Mike Lundstrom  
**Subject:** RE: Florwering times

Hi Mike

I have discussed with my Manager Mathew Gannaway who is also a botanist, and he agrees with the below information provided by Michelle. As such we are in agreement that a targeted survey in late spring between mid and late November would be adequate in this instance.

Kind regards

Ray Carvalho  
Environmental Officer  
Native Vegetation Regulation

Department of Water and Environmental Regulation  
Level 4, The Atrium, 168 St Georges Terrace, PERTH WA 6000  
Locked Bag 33, Cloisters Square, PERTH WA 6850  
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E: [ray.carvalho@dwer.wa.gov.au](mailto:ray.carvalho@dwer.wa.gov.au) | [www.dwer.wa.gov.au](http://www.dwer.wa.gov.au)  
Twitter: [@DWER\\_WA](https://twitter.com/DWER_WA)

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**From:** Mike Lundstrom [mailto:mikelund1@bigpond.com]  
**Sent:** Thursday, 18 October 2018 1:40 PM  
**To:** 'Michelle Carey' <michellecarey@dodo.com.au>  
**Cc:** Ray Carvalho <ray.carvalho@dwer.wa.gov.au>  
**Subject:** RE: Florwering times

Hi Michelle

Thanks for this advice. I will ask Ray Carvahlo to request DBCA to comment on the suitability of the proposed survey time period.

Regards  
Mike Lundstrom  
0417934863

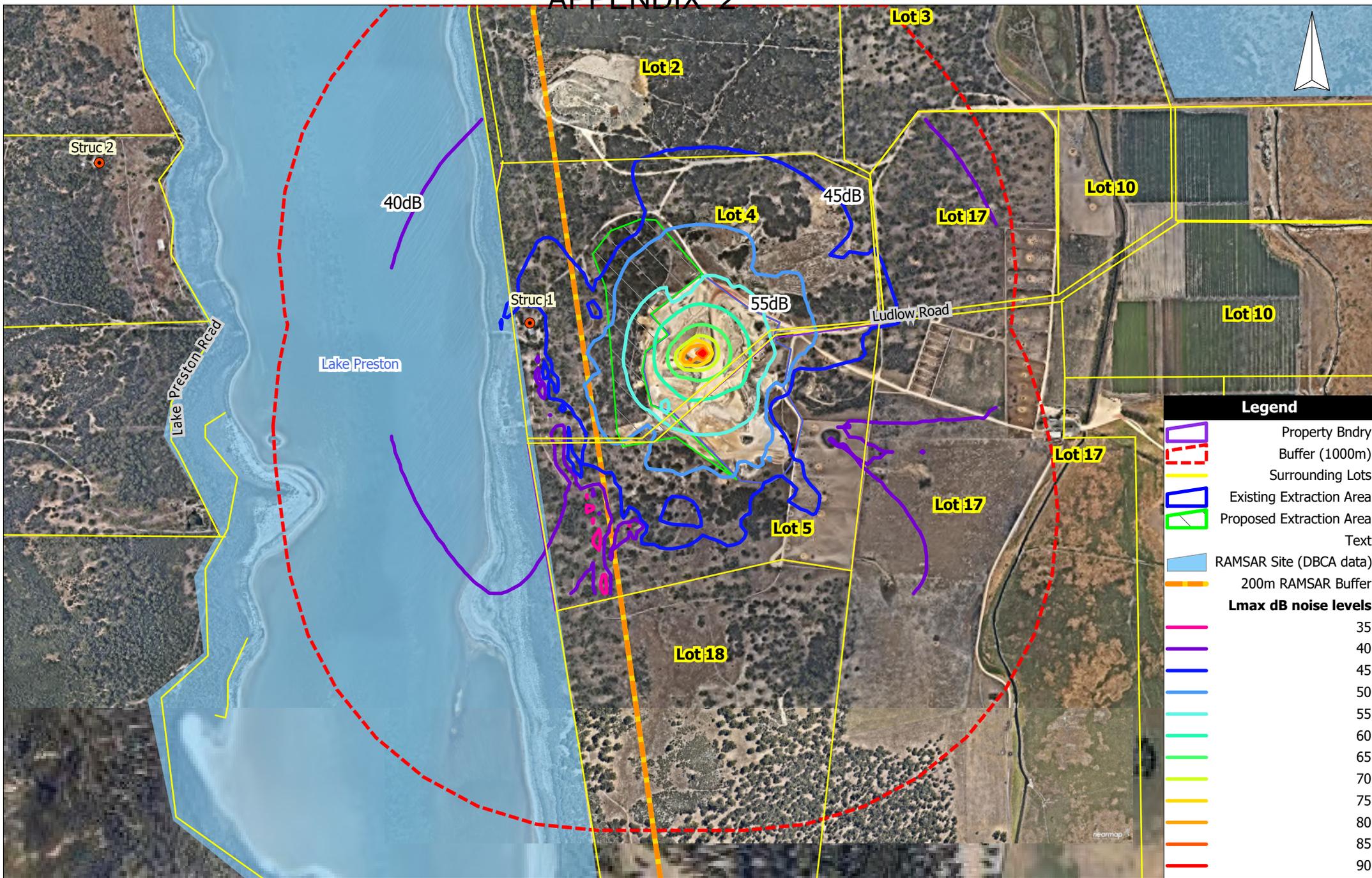
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**From:** Michelle Carey <[michellecarey@dodo.com.au](mailto:michellecarey@dodo.com.au)>  
**Sent:** Thursday, 18 October 2018 1:20 PM  
**To:** 'Mike Lundstrom' <[mikelund1@bigpond.com](mailto:mikelund1@bigpond.com)>  
**Subject:** Florwering times

Hi Mike,

The advice from botanists/taxonomists is that a targeted survey in late spring (mid-late November) will be the most appropriate time to search for the species listed by DWER. Can you please confirm that DWER are comfortable with this timing?

# APPENDIX 2



Legend	
	Property Bndry
	Buffer (1000m)
	Surrounding Lots
	Existing Extraction Area
	Proposed Extraction Area
	Text
	RAMSAR Site (DBC data)
	200m RAMSAR Buffer
Lmax dB noise levels	
	35
	40
	45
	50
	55
	60
	65
	70
	75
	80
	85
	90

**Lundstrom Environmental Consultants Pty Ltd**  
 21 Sellen Court, Leeming WA 6149  
 mikelund1@bigpond.com  
 0417934863

Scale: 1:15000  
 Original Size: A4  
 Air Photo Date: Nearmap Jan 2018  
 Datum: Australian Geocentric 1994 (GDA94)

**B&J Catalano Pty Ltd**  
**Lots 4 & 5 Ludlow Rd**  
**Limestone Extraction**

**Noise Contour Map**  
**Figure 2**