

YALYALUP NORTHERN EXTENSION, DORAL MINERAL SANDS - EPA PRELIMINARY REVIEW RFI

19 August 2025

ITEM	ISSUE	COMMENT/ADVICE	DORAL RESPONSE
1	TERRESTRIAL FAUNA	<p>Confirm the amount of black cockatoo habitat that will be impacted and avoided through implementing the proposal.</p> <p>Include black cockatoo roosting habitat.</p> <p>Provide clear justification for the amount of black cockatoo and western ringtail possum habitat impacted/avoided.</p>	<p>Black Cockatoo Habitat:</p> <p>Clarified in ERD document:</p> <ul style="list-style-type: none"> • Direct impacts: 177 trees with suitable DBH (DBH>500mm), including 4 trees with possibly suitable hollows (not in use). • Direct impacts: 24.93ha of foraging habitat (10.32ha of native vegetation and 14.61ha of planted non-native species) • Avoided: 587 trees (DBH>500mm) and ~20ha of native vegetation/foraging habitat with DE. <p>Roosting habitat: Section 6.4.5 of ERD has been updated to include additional discussion on roosting habitat.</p> <p>WRP: Section 6.5.1 of ERD has been updated.</p> <p>Updated justification of WRP potential habitat (HQS, habitat connectivity, Abba River habitat separation distances of 20m, shallow mining to <2m).</p> <p>Avoided: 8.96ha of suitable habitat (VSA1 + VSA2)</p> <p>No clearing of suitable WRP habitat along Abba River.</p>

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			<p>Direct impacts (clearing): 6.22ha of low quality potentially suitable habitat (HQS of 3/10).</p> <p>Mitigation:</p> <p>Updated Section 6.7.7 of ERD with more details about Doral's management of dieback and weeds and section 6.7.3 groundwater drawdowns to mitigate indirect impacts to the fauna habitat along Abba River.</p> <p>Doral have also included the provision of potential WRP habitat that occurs within the proposed Scott River Offset as an additional mitigation measure to potential impacts to the species.</p>
		<p>Update previous work on short-range endemic (SRE) fauna in accordance with the risk-based approach outlined in the EPA's technical guidance.</p>	<p>Phoenix Environmental Sciences were engaged to undertake an additional desktop survey of the Yalyalup Northern Extension. The SRE report is provided in Appendix 9.</p> <p>In summary, given the historic clearing within the DE and the fact that the best examples of remnant vegetation have been avoided from disturbance, the Proposal represents at best, a minor risk to SRE taxa, should they occur within the avoided remnants.</p>
2	<p>FLORA AND VEGETATION</p>	<p>Consider the guidance provided by DBCA in Table 1 of the EPA Notice, specifically the consideration of impacts and the proposed offset for TEC SCP01b (ranked critically endangered):</p> <p>Action/s</p>	<p>ERD has been amended to rank SCP01b as critically endangered.</p> <p>The Flora and Vegetation survey has also been updated with correct classification.</p>

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		<p>This TEC is ranked critically endangered. Amend to support accurate assessment of impacts.</p> <p>Given the restricted and isolated occurrences of several TECs, and the potential flexibility for the proponent to alter the final location of proposal elements within the development envelope to avoid or further minimise direct and indirect impacts on the TECs, alternative placement/modification of these elements, including ancillary infrastructure (e.g. roads, waste dumps, etc.), should be considered. Consider avoidance and minimisation of the following TECs identified as occurring within the development envelope of the proposal”</p>	<p>Doral have designed the Proposal to avoid direct impacts to conservation significant vegetation and flora as far as practicable. This has resulted in the avoidance of direct impacts to all occurrences SCP10b(including critical habitat) SCP09, and 26 x <i>Verticordia plumosa</i> var. <i>vassensis</i>. However, of the 2.17ha of SCP01b mapped within the DE, a total of 0.92ha (including all vegetation mapped as being in good condition) has successfully been avoided. However, an area of 1.25ha of SCP01b is located above a deep ore stand and mining these areas is unavoidable. Doral is proposing to offset the significant residual impacts to SCP01b through a land acquisition offset, securing and protecting vegetation in a like-for-similar vegetation, as per the EPA (2024) public guidance for regional offsets. Through consideration of the regional scale, there is an opportunity to allow offsets and other enhancement measures to contribute to delivering nature-positive outcomes by enhancing the resilience, connectedness and quality of environmental values.</p>
3	OFFSETS	<p>Provide a suitable Offset Strategy and Offset Management Plan to counterbalance any significant residual impacts of clearing of vegetation, including Threatened Ecological Communities and habitat for Carnaby’s black cockatoo.</p> <p>This strategy should be developed in accordance with appropriate state, EPA and commonwealth guidance.</p>	<p>Offset Strategy has been updated to include the EPA 2024 Public guidance for offsets at a regional scale.</p> <p>An Offset Management Plan has also been included in the Offset Strategy to demonstrate how the offset will be achieved.</p>

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		<p>The EPA's Public Advice – Considering environmental offsets at a regional scale (March 2024) is particularly relevant to the proposed offset.</p>	
4	<p>AIR QUALITY AND SOCIAL SURROUNDINGS (NOISE)</p>	<p>Provide information to demonstrate that the significant amendment and the existing Yalyalup Mineral Sands project will remain compliant with air quality standards and the noise regulations at nearby sensitive receptors, e.g. within 2 kilometres.</p> <p>Results of monitoring and compliance should be provided.</p>	<p>Air Quality (dust)</p> <p>Updated section 9.4 of the ERD with a section on compliance of current operation. Additional compliance information in relation to Air Quality from the recent AER is included in Appendix 2 – Compliance.</p> <p>Social Surroundings (Noise)</p> <p>Throughout the 2024 annual reporting period, the Yalyalup Mine was maintained as a day time 7am to 7pm operation for earthmoving machines. Real time noise data was collected at monitoring sites AN1 – AN3 as per condition 18 of the DWER Licence using a real time B&K2250 and Sentinel Software. The system availability was > 90% for each month of the reporting period with the exception of August 2023, where availability was < 90% due to maintenance issues.</p> <p>LA10 noise exceedance alerts as determined by the NMT were automatically generated and received by email from the Sentinel software which were able to be verified by either live streaming audio or personal attendance at the monitoring point for the determination of mine noise. Alerts have been set on the NMT to record a 30 second audio file when the LA10 of 45dBA is exceeded for 30 minutes (35db at night).</p>

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			<p>If (Doral) analysis of alerts determines potential mining noise is found to be a key contributor then responsive actions (i.e. defer activity or machine relocation) is enacted until such time as weather conditions were more amenable.</p> <p>The site and the respective monitoring locations are subject to significant background noise interference. Most of the noise interference is from wind, and significantly at night by frogs and early morning birds which impact on the audibility of the NMT microphone. Bird interference is consistently significant throughout the day and particularly in the mornings. Other sources of interference include road traffic along Yalyalup Rd, machine noise from neighbouring activities and aeroplanes from the nearby Busselton Airport.</p> <p>During the annual period, investigations indicate exceedances are predominantly due to interference. Realtime NMT monitoring is maintained in proximity to the near neighbours to the southern boundary who are regularly consulted in accordance with in-place compensation agreements, and with operational adjustments made as required.</p> <p>Feedback has been received with regards to occasional low frequency noise from the 988 Cat Loader. The less impacting Komatsu WA 500 bought specifically for the site and is used in preference at night. At times of the 988 loader use to feed the hopper, additional strategically placed earth and ore</p>

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			<p>bunding has been installed throughout the year. Feedback from Stakeholders has been positive in response to the actions and the Komatsu WA 500 is less audible.</p> <p>Regular communication was maintained with the neighbours throughout the 2024 operational phase of the mine. In instances of Doral receiving feedback regarding noise, the concerns were investigated and followed up.</p> <p>Section 8.5.2 of the ERD has also been updated to include information on monitoring operations and improvements for noise mitigation that have been made at Yalyalup’s current mine.</p>
5	INLAND WATERS	<p>Address the guidance provided by DBCA in Table 1 of the EPA Notice:</p> <p>“The groundwater modelling for the proposal indicates that dewatering activities would result in a temporary decline in groundwater levels in the area. This has the potential to indirectly impact on conservation significant values, including threatened species and communities. Groundwater drawdown is proposed to be managed in a similar manner to the condition requirements for the Yalyalup Mineral Sands Project under MS1168. It is noted that, the 2023 Compliance Assessment Report (CAR) for the existing Yalyalup Mineral Sands Project states that groundwater trigger criteria (levels) were exceeded at three of the five monitoring bores, and supplementation was unsuccessful in raising and/or maintaining groundwater levels above identified trigger criteria. In addition, the CAR only provides groundwater level measures from the summer of 2022-2023. The summer of 2023-2024 was considerably drier than the preceding summer and there is a high probability that groundwater drawdown impacts of the</p>	<p>The most recent CAR for the 2023-2024 reporting period is provided in Appendix 2.</p> <p>Section 5.8.2 Assessment of Residual Impacts: Indirect Impacts (Flora and Vegetation) has been updated with the latest Visual Health Report by Ecoedge (June 2024).</p> <p>Summary from the CAR 2024:</p> <p>Rainfall for the 2023 calendar year at the nearby Busselton airport was 117.8mm (17%) lower than the 26-year average. Only April and September of 2023 had higher-than-average rainfall, with the remaining 10 months having less-than-average rainfall. There was only 11.2mm of rain between October 2023 and May 2024.</p>

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		<p>Yalyalup Mineral Sands Project were greater than those reported in the CAR for the 2022-2023 reporting period.</p> <p>Action/s</p> <p>Provide the most recent qualitative (i.e. visual) vegetation health scores following the summer of 2023-2024, particularly given the significant drop in visual vegetation health score for certain species identified in the CAR. It is considered important that potential impacts of the proposal (i.e. Northern Extension) are characterised in relation to the realised/observed impacts of the existing proposal including information from the summer of 2023-2024, if available.”</p>	<p>As expected, the pre-dawn PWP scores were higher (less-ve) than the midday monitoring results. Generally, there were no abnormal results over the monitoring period which indicates that there is still enough ground water available for the plants. Normally, the plants are more stressed (higher-ve pressure) in the drier, hotter months February, March and April and showing less signs of stress after rainfall.</p> <p>All plant VH average were stable with a score of above 3.8, and all looking relatively healthy.</p> <p>The VH score of <i>Banksia squarrosa</i> (T) plants is 3.5 or above except for Bs07 which died in September 2023. One <i>Vericordia plumosa</i> (T) has died in February 2024, in the middle of summer. The remaining plants have an average VH score of 3.9.</p>