

Your ref: APP-0000354; DWERT8940
Our ref: 12627587

4 December 2024

Mr Travis Inman
Executive Director
EPA Services
8 Davidson Terrace
Joondalup
WA, 6027

Attention – Mr Rory Neale

North Kiaka Quartzite Mine – Assessment No. 2346 – Environmental Review Document — Response to RFI

Dear Mr Inman

Thank you for the letter dated 14 August 2024 (your Reference: APP-0000354; DWERT8940), which provided an updated response to the Environmental Review Document (ERD) submitted to the EPA on 14 June 2024. SIMCOA appreciates the comments and advice provided by the EPA in this letter and provided on previously submitted drafts of the ERD.

In this correspondence SIMCOA has provided detail regarding the following outstanding matters that the EPA required clarification on prior to finalising the assessment:

- Offsets, including an Offsets Strategy and Offsets Management Plan
 - Reconsider and confirm the size of the Cairn Hill and Cairn Hill North offsets, including accounting for uncertainty in data and significant residual impacts from indirect impacts.
 - Provide an Offsets Management Plan, including confirmation of the tenure arrangements with formal agreement from both the Department of Biodiversity, Conservation and Attractions (DBCA) and the Department of Mines, Energy, Industry Regulation and Safety (DEMIRS), Attachment 4 and Attachment 5.
- Outstanding flora, vegetation and fauna surveys and information
 - While previously requested biological surveys to identify and quantify potential impacts on significant flora species, vegetation and Carnaby's Black Cockatoo habitat have been partially addressed, key information is outstanding. Attachment 3.
 - Information gaps increase uncertainty for the quantification of potential impacts, cumulative, significant residual impacts and offsets.
- Emissions – regulation of the potential impacts of air quality and noise emissions on sensitive receptors

SIMCOA has addressed the comments received from the EPA in **Error! Reference source not found.** (Attachment 1) and the comments received from other agencies and the public in **Error! Reference source not found.** (Attachment 1).

SIMCOA appreciates the guidance provided by EPA and other agencies during several meetings and has addressed any comments raised in those meetings, and in subsequent correspondence, in **Error! Reference source not found.**, (Attachment 2).

Yours faithfully



Anne Price
Environmental Specialist

ATTACHMENT 1	Response to Requests for Further Information
ATTACHMENT 2	Additional information requests – Meetings / emails
ATTACHMENT 3	Flora and Vegetation tables
ATTACHMENT 4	Offset Management Plan – Draft
ATTACHMENT 5	Letter from DBCA

Attachments

Attachment 1

**Response to Requests for Further
Information**

Table 1 Response to EPA Comments

Env Factor	Item and previous comment	EPAS advice	Response
Terrestrial Fauna	Vertebrate The studies and surveys undertaken for terrestrial fauna need to meet the EPA's technical guidance. It is noted that a commitment has been made in early 2024 to conduct targeted surveys to address information gaps on Carnaby's Black Cockatoo habitat but no surveys or additional information has been provided. A contemporary assessment is required of the potential impacts (direct, indirect and cumulative), at both local and regional scale.	Consider and discuss uncertainty in potential changes in vegetation types and condition from mapping in 2012. Account for uncertainty in the assessment of direct, indirect and cumulative impacts. Provide clarification on the number and location of identified breeding hollows in relation to the impact areas and foraging habitat with mitigation and/or avoidance measures if required. The above information is also relevant to comments 9, 11 and 23 in Attachment 2.	A detailed (level 2) terrestrial vertebrate fauna survey was undertaken in 2018, with a subsequent targeted Black Cockatoo habitat assessment undertaken in 2024. During the 2018 survey, opportunistic and quadrat-based sampling confirmed the presence of three trees with potential breeding hollows located 100 m west of the south-western extent of the North Kiaka DE (Figure 5.21). These hollows were not in use and given the size of the opening (10cm), these hollows are not expected to be used if other hollows are present within the local area. The development of the access corridor has been located to avoid the potential breeding hollow trees (Figure 5.21). The buffer from the proposed clearing of at least 200m to the nearest potential hollow bearing tree will be maintained throughout the duration of the proposal. This will ensure indirect impacts associated with clearing, and operations will be avoided. The potential for these trees to be support breeding will be monitored annually during the breeding season. Through the implementation of these mitigation measures, the Proposal is unlikely to impact local breeding populations of Carnaby's Cockatoo.
Terrestrial Fauna	Invertebrate (8 December 2023) If additional fauna surveys are undertaken, invertebrate specimens should be retained appropriately to confirm identification by persons with relevant expertise and using available techniques (e.g. genetic analysis). Quantify the impacts on potential and confirmed SRE habitat and provide a map of SRE taxa in relation to their preferred habitat. Discuss the significance of impacts to SRE habitat.	Action Provide substantiation for the adequacy of the proposed offsets to minimise cumulative impacts to SRE's.	There is not expected to be a significant residual impact to SRE assemblages impacted within the DF. The habitat present within the DF is consistent throughout the Coomberdale area, with substrate and vegetation similarities extending throughout the landform. The consistency of habitat outside of the DF and DE is unlikely to have resulted in isolation of SRE species to areas within the DE and as such impacts to the SRE habitat within the DF are not expected to significantly impact the species recorded.
Air quality	Noting advice that emissions of dust, including fine dust (PM10 and PM2.5) from the North Kiaka proposal cannot be regulated under an EP Act Part V licence, provide information on the potential impacts (including from crystalline silica) and regulation of dust emissions in relation to sensitive receptors near the proposal. It is noted that the separation distance to some sensitive receptors is less than 1000 metres. This information should consider potential cumulative impacts on nearby sensitive receptors including background concentrations, the North Kiaka proposal and the existing Moora mine.	Action Consultation with DWER Industry Regulation Part V licensing is required. EPA Services will assist in this process.	SIMCOA notes the provided advice. Given the DWER position that the proposal cannot be regulated under Part V of the EP Act, SIMCOA will accept an appropriate condition under Part IV of the EP Act should the EPA consider that air emissions are a significant factor
Social surroundings	Noting advice that the regulation of emissions from the North Kiaka proposal is not within the scope of an EP Act Part V licence, provide information on potential noise impacts and regulation to demonstrate compliance with the Western Australian noise regulations. Information should consider the North Kiaka proposal as well as potential cumulative impacts from the proposal and existing operations on nearby sensitive receptors.	Action Consultation with DWER Industry Regulation Part V licensing is required. EPA Services will assist in this process.	SIMCOA notes the provided advice. Given the DWER position that the proposal cannot be regulated under Part V of the EP Act, Simcoa will accept an appropriate condition under Part IV of the EP Act should the EPA consider that noise emissions are a significant factor.
Inland waters	Noting that the regulation of discharges from the proposal is not within the scope of an EP Act Part V licence, provide information on the regulation of water discharge from the proposal. It is noted that a Surface Water Management Plan (SWMP) has been developed for the mine to minimise impact downstream environments including Kyaka Brook and Coonderoo River	Action Consultation with DWER Industry Regulation Part V licensing is required. EPA Services will assist in this process.	SIMCOA notes this DWER advice and believes that the implementation of the Surface Water Management Plan (SWMP) which has been developed for the Moora Mine will minimise impact on downstream environments including Kyaka Brook and Coonderoo River
Offsets	The offsets need to meet the requirement of state and commonwealth policy and the quantification of the offsets needs to consider the values being impacted as well as the value of the offsets used. The updated analysis of direct, indirect and cumulative impacts to fauna and flora and vegetation should inform offsets for significant residual impacts to environmental values. The state and commonwealth calculator should be used to justify any banked offsets against historical offset use, and the approach needs to comply with s. 40AA of the EP Act. The EPA's recent Public Advice Considering Environmental Offsets at a Regional Scale.pdf (epa.wa.gov.au) is also relevant to the formulation of offsets.	Offsets – quantification and uncertainty Reconsider the offsets for threatened flora species, the TEC and Carnaby's black cockatoo habitat. Revisit calculations, significant residual impacts and the size of the Cairn Hill and Cairn Hill North offsets including consideration of: uncertainties around environmental values impacted and the presence of these values within offset sites indirect impacts substantiate input values Offsets - Strategy and Management Plan In addition to taking consideration of the Cairn Hill Nature Reserve (class A) and the protection mechanisms and management actions that are currently in place, the confirmation of the tenure for Cairn Hill North is required. Provide an Offsets	Draft Offsets Management Plan is included as Attachment 4. The updated Offset Strategy will accompany the revised ERD.

Env Factor	Item and previous comment	EPAS advice	Response
		Management Plan, including confirmation of the tenure arrangements with formal agreement from both the Department of Biodiversity, Conservation and Attractions (DBCA) and the Department of Mines, Energy, Industry Regulation and Safety (DEMIRS). Note the requirements under the Conservation and Land Management Act 1984 (CALM Act) and subject to the Land Administration Act 1997. In deriving the appropriate management actions and protection mechanisms for the Cairn Hill North site, consideration may include to those implemented at the Cairn Hill Nature Reserve.	

Table 1 Response to Agency comments and Public comments

Env Factor	Source of comments	Comment	Response
Proposal - general comments	DWER / DCCEEW	Noted – Documents previously referred to as ‘unpublished reports’ as appendices were provided. Please include links in the table of contents and/or bookmarks in the ERD. As these documents are in some cases >1000 pages long, it is very difficult to cross reference and quality check the information that has been submitted. Please submit appendices as separate files, not as combined documents. Please remove all offset assessment guidance calculations from the ERD, including confidence interval and risk of loss values. This is an internal DCCEEW assessment tool, and the Department sets these values.	Hyperlinks have been included in the PDF document Appendices will be submitted as separate files accompanying the updated ERD
Proposal - general comments	DCCEEW	Note: i. Please provide shapefiles and maps that show CBC habitat within the proposed action area and that are consistent with the Department’s Guide to providing maps and boundary data for EPBC Act projects. These maps should make it clear which areas are proposed to be cleared as part of the action, and what the foraging value of these areas are.	An updated figure showing Carnaby’s Black Cockatoo foraging habitat in the impact area and offsets has been included in the Offset Management Plan provided in Attachment 4. This figure will also be included in Section 5.4 of the ERD. The spatial data for Black Cockatoo foraging habitat are uploaded on IBSA and will be provided to regulators.
Flora and Vegetation	DCCEEW	Please provide a map that shows the transects/survey effort taken for the 2024 flora and vegetation surveys.	Updated and provided in Figure 5.2 in the ERD and as Figure 4 in the Flora and Vegetation Survey Report (GHD 2024).
Flora and Vegetation	DWER	Previous DWER advice related to 2024 targeted surveys have not been adequately addressed in GHD and Trudgen (2024), particularly in relation to appropriate survey timing and extending the search to target to significant species noted in previous surveys. The Proponent previously committed to a targeted flora survey in April 2024 to update the database on the threatened and priority flora population in the North Kiaka Development Envelope. The Proponent’s response in Item 1 of Table 4 (SIMCOA 2024b) is that two Threatened flora species were targeted in the April 2024 surveys. DWER’s previous advice (comments on the ERD provided on 10 May 2024 and on the referral on 15 August 2022) was that the targeted flora survey should incorporate additional significant flora species noted in the ERD. Address the advice previously provided. Most of the significant Proposal impacts noted are to Biodiversity Conservation Act 2016 or Department of Biodiversity, Conservation and Attractions (DBCA) listed species and ecological communities. DBCA advice should be addressed in these matters.	Flora and Vegetation Tables are included in Attachment 3 and provide additional detail regarding the threatened and priority species targeted in the 2024 survey. Section 5.2.3.5.5 of the ERD has been updated to provide greater clarity and justification of the targeted flora survey extent status and adequacy.
Flora and Vegetation	DBCA	In general, it appears that each of the matters identified within the department’s comments on the ERD dated May 2024 have been considered and responded to by the proponent. However, some information provided lacks clarity or sufficient detail to verify its adequacy. Additionally, a number of recommendations and comments provided by DBCA on the ERD were intended for the Department of Water and Environmental Regulation (DWER) consideration. Consequently, the proponent was unable to address these. The proponent has not provided sufficient information on predicted levels of indirect impacts on the Coomberdale Chert TEC (ranked critically endangered) or provided sufficient information to give DBCA certainty that indirect impacts will be managed and mitigated. As indirect impacts have not been quantified, DBCA is unable to assess the significance of the proposed impacts on the TEC. Any indirect impact on the highly restricted and fragmented TEC may be considered significant. Indirect impacts on the TEC may require further consideration in the offset calculations used. Advice – information required for conditions Given the threatened flora, threatened ecological community (TEC) and priority flora values at risk of impacts from the proposal, DBCA seeks to reaffirm the importance of Environmental Protection Act 1986 (EP Act) approval conditions that clearly specify limits of direct and indirect impacts (e.g. number of plants, hectares of vegetation), objectives, and monitoring protocols to identify and manage impacts on conservation significant values. Clarity in the wording of recommended approval conditions will assist DBCA in ensuring that where authorisation/s for the taking or disturbance of threatened species or modification of a threatened ecological community are required under sections 40 and 45 of the BC Act, the authorisation/s are consistent with the Ministerial approval conditions under the EP Act. Advice for noting – conditional approval In addition to the above, based on the adequacy of the dieback management plan supplied, there is the potential for significant impacts on high conservation values from the introduction of <i>Phytophthora cinnamomi</i> . To ensure the risk of dieback is appropriately managed, conditional approval should require the development of a dieback management plan (including a comprehensive dieback assessment) appropriate for the level of risk. The dieback assessment should be conducted in alignment with the current “Phytophthora Dieback Management Manual, October 2020 (minor revision 1.3 dated December 2023)”, and the plan should be prepared in consultation with DBCA.	The Ministerial Statement will include conditions which describe the limits on direct and indirect disturbance of the TEC – to be set based on impact assessment provided in section 5.2 of the ERD. Proposed clearing impacts detailed within the ERD will be consistent with the s40 and s45 BC Act permit applications. Draft versions of the s40 and s45 permit applications and supporting documents will be provided to DBCA separate to this submission. SIMCOA will provide an updated Dieback Survey and associated Dieback Management Plan prior to groundworks commencing.

Env Factor	Source of comments	Comment	Response
Terrestrial Fauna	DCCEEW	Please provide a map that shows the transects/survey effort taken for the 2024 Targeted Black Cockatoo surveys.	The 2024 survey effort is shown in Figure 5.2 (ERD), with the transects aligned with those conducted for the 2024 targeted survey.
Terrestrial Fauna	DWER (Vertebrate fauna)	<p>An additional targeted survey for Carnaby's cockatoo was undertaken to address previous comments. There is limited information of the survey methods and locations of the recent targeted black cockatoo survey in the updated survey report (Appendix M). The survey was undertaken in April, which is not an ideal time for surveying as Carnaby's cockatoos are expected to be moving to non-breeding areas (including Perth-Peel) during this month. The survey timing was still appropriate for assessing foraging habitat and identifying evidence of potential nest hollows, though confirmation of breeding would be unlikely to be obtained during this period. No further comments can be made on the adequacy of this survey against EPA or federal guidance.</p> <p>The statement in the revised Executive Summary of the ERD that 'no potential breeding hollows were identified' is incorrect (p. xiv). The updated report (Appendix M) states that "Three large hollows were recorded during the survey that have been potentially utilised for breeding in the past. These hollows are present in Wandoo (<i>Eucalyptus wandoo</i>) and lie in the southwest corner of the survey area. There are no Wandoo present outside of this portion of the survey area. The three hollows are mapped on Figure 5 in Appendix A" and later that "Three large hollows were recorded during the 2024 survey that have potentially been used for breeding. These hollows are present in Salmon Gums (<i>Eucalyptus salmonophloia</i>) and lie in the southwest corner of the Cairn Hill North survey area and outside of the North Kiaka DE. All hollows are approximately 10cm in diameter and have extensive chews present, as shown in Plate 5. There are no Salmon Gum's present outside of this portion of the survey area. The three hollows are mapped in Figure 8, Appendix F." The location of these hollows are not included in Figure 8 (Appendix F) as it only illustrates the foraging habitat and unspecified 'black cockatoo observations'.</p> <p>However, as shown in Figure 8, the Cairn Hill North boundary is not included within the development footprint. The locations of these three potential breeding hollows should be clarified in relation to the impact areas and foraging habitat, and provide mitigation and/or avoidance if required. Foraging habitat in proximity to potential breeding hollows should be maintained to support local breeding populations. These hollows should be further monitored for evidence or confirmation of breeding in the next breeding season. Records of potential breeding locations should be submitted to Department of Biodiversity, Conservation and Attractions.</p> <p>Offsets are likely to be required for impacts to 'high value' foraging habitat. Offsets should be recalculated based on the results of the most recent surveys and habitat mapping.</p>	<p>The Executive summary of the ERD has been updated to be describe all potential hollows as being located outside of the North Kiaka DF and North Kiaka DE and therefore outside of the impact area.</p> <p>Further discussion regarding the suitability of the nest hollows located outside of the DE has been included in Section 5.5.6.1.2 of the ERD. (Section 4.3.2 of the North Kiaka Terrestrial Fauna and Targeted Black Cockatoo Habitat Survey (GHD, 2024) Appendix M of the ERD). – "During the survey opportunistic and quadrat-based sampling confirmed the presence of three trees with potential breeding hollows located 100 m west of the south-western extent of the North Kiaka DE (Figure 5.21).</p> <p>These hollows were not in use and given the size of the opening (10cm), these hollows are not expected to be used if other hollows are present within the local area. The development of the access corridor has been located to avoid the potential breeding hollow trees (Figure 5.21). The buffer from the proposed clearing of at least 200m to the nearest potential hollow bearing tree maintained throughout the duration of the proposal. This will ensure indirect impacts associated with clearing, and operations will be avoided. The potential for these trees to be support breeding will be monitored annually during the breeding season. Through the implementation of these mitigation measures, the Proposal is unlikely to impact local breeding populations of Carnaby's Cockatoo."</p> <p>The requirements for offsets for foraging habitat have been re-calculated based on discussions with DCCEEW and the most recent 2024 foraging habitat assessment and mapping. These updated calculations are presented within the ERD in Section 7.7.4 as well as the updated Offset Strategy (Appendix T). The Draft OMP is provided as a supporting document for this response (Attachment 4)</p>
Terrestrial Fauna	DWER (Invertebrate fauna)	<p>Management and Mitigation</p> <p>The ERD acknowledges cumulative impacts to SRE species from vegetation clearing (including 15.80 ha for this Proposal) but "given expected approvals/ offset requirements for future clearing, cumulative impacts to SRE are expected to be minimal" (Section 5.5.7.1.3). However, there is no information indicating that the proposed offset area at Cairn Hill has been surveyed for SRE species and it is unknown if this offset will benefit any of the SRE species that will be impacted. Habitat fragmentation of the Wheatbelt is a recognised threat to SRE invertebrates, particularly for trapdoor spiders (Rix et al., 2018).</p>	There is not expected to be a significant residual impact to SRE assemblages impacted within the DF. The habitat present within the DF is consistent throughout the Coomberdale area, with substrate and vegetation similarities extending throughout the landform. The consistency of habitat outside of the DF and DE is unlikely to have resulted in isolation of SRE species to areas within the DE and as such impacts to the SRE habitat within the DF are not expected to significantly impact the species recorded.
Inland Waters	DEMIRS	<p>Simcoa's response to public submissions does not satisfactorily address DEMIRS advice provided to DWER on 1 May 2024. It is the Department's expectation that further investigations are undertaken to support the submission of a Mining Proposal for the North Kiaka project with respect to the following matters:</p> <ul style="list-style-type: none"> • Materials characterisation. • Hydrogeological exploration undertaken to determine groundwater levels at North Kiaka, given the risk identified from acid and metalliferous drainage and potentially acid forming materials below groundwater at the Moora Mine. • Waste rock column leach tests undertaken to ensure potential risks of mobilisation of metals and saline discharge are well understood and can be suitably managed 	<p>SIMCOA notes that there is no intention to mine below the water table at North Kiaka (Section 5.6 of the ERD). Material characterisation and hydrogeological studies that have been undertaken to support this Proposal have not indicated that the ore or waste material is likely to form acid and metalliferous drainage. This is consistent with the results for ore mined above the groundwater table to date at the Moora Mine. SIMCOA will include relevant information on these subjects when it applies to DEMIRS for a Mining Proposal for the North Kiaka Mine. For more information see ERD supporting documents, Material Characterisation in Appendix F and Hydrogeological studies in Appendix W.</p> <p>The Revised proposal will not result in additional activities that have the potential to impact surface water or groundwater resources. As such, management of potential impacts to surface water and groundwater will be consistent with the existing Surface Water Management Plan (Appendix X of the ERD), which is a requirement of the Part V Licence L6149/1988/9.</p>
Social Surroundings	DWER	<p>DWER advice states that the proposed activities associated with the Proposal will be outside the scope for EP Act Part V regulation.</p> <p>Further consultation with Industry Regulation Part V licensing is required.</p>	SIMCOA notes the provided advice.
Offsets	DCCEEW (Offset strategy)	<p>i. As requested in Impact site (ii) below, please provide information and discussion which clarifies the total residual impacts for CBC foraging habitat. Based on the current information the residual impact amount for CBC is 83.48 ha.</p> <p>ii. If the residual impact is greater than 15.58 ha, a larger offset offer will be required which may necessitate an additional site, additional management measures or an indirect offset.</p> <p>iii. Please provide a more detailed discussion on the threats that were present at the Cairn Hill Reserve for CBC foraging habitat, and an explanation as to why these were likely to continue without management. Please provide evidence (i.e. surveys, historical trends, and/or academic literature), to back up this discussion.</p> <p>iv. Please provide a more detailed discussion on the management actions that were carried out at the Cairn Hill Reserve, and how these management actions reduced the pressures to CBC foraging habitat that would have otherwise occurred. Please provide evidence (i.e. surveys, historical trends, and/or academic literature), to back up this discussion.</p> <p>v. Please provide a separate description of the management actions and threats at Cairn Hill North, not just combined with Cairn Hill Reserve. These are considered two different offset offerings and will be assessed as such.</p>	The requirements for offsets have been re-calculated based on discussions with DCCEEW and the most recent surveys and mapping. These updated calculations are presented within the ERD in Section 7.7 as well as the updated Offset Strategy (Appendix T). The Draft OMP is provided as a supporting document for this response (Attachment 4).

Env Factor	Source of comments	Comment	Response
		<p>vi. It is noted that the proponent considers that 100% of the residual impacts to CBC foraging habitat can be offset by Cairn Reserve alone. Based on the information at hand, the Department does not agree with this and considers that under the proposed management, both sites will be required in order to meet the requirements of the EPBC Environmental Offset Policy, 2012.</p> <p>Impact site</p> <p>i. Are the significant residual impacts for CBCs (15.58 ha high quality foraging) inclusive of the 2.54 ha Banksia TEC that will be lost through indirect impacts? (Section 3.4 of the Offset Strategy). If not, these should be included as part of the overall impact.</p> <p>ii. Please ensure that all viable CBC foraging habitat (i.e. with a habitat quality score ≥ 1 using the DCCEEW Habitat Scoring System for WA black cockatoo foraging habitat) is included in the calculation of the residual impacts of the proposed action, not just the high value foraging habitat. Based upon the information currently available in the ERD, 83.48 ha (with an average HQS of 3.41/10) would be the total residual impact for CBC foraging habitat. Please clarify this.</p> <p>iii. The residual impacts to CBCs are inconsistently referenced throughout the documentation (both the hectare amount, and quality). Please ensure these impacts are consistently referenced.</p>	
Offsets	DCCEEW (Offset Management Plan)	i. Please provide an offset management plan for Cairn Hill North, if this cannot be provided, please provide a copy of the offset management plan for Cairn Hill Reserve and describe your commitment to applying a similar approach.	Offset management plan included as Attachment 4 and accompanying the updated Offset Strategy provided as Appendix T of the ERD.
Offsets	DCCEEW (offset site duplication)	<p>i. It is unclear which areas are still allocated to the old conditions of approval for Cairn Hill, what areas are available to form a portion of the new offset package, and what of that area is CBC foraging habitat.</p> <p>ii. Please describe and provide supporting documentation to explain how 18 ha has been calculated to offset a 5 ha impact to CBC foraging habitat in the previous conditions of approval at the Cairn Hill North offset site.</p>	<p>Cairn Hill confirmed as an appropriate offset for the North Kiaka project on 22 November 2024 (DBCA meeting). Refer to stakeholder consultation register in Section 3 of the ERD.</p> <p>The 18ha is an approximation of what would have been necessary as an offset for the 5ha of impact resulting from clearing at Moora Mine. No further detail is included in the offset calculations to justify this calculation.</p>
Offsets	DBCA	The offset package includes land proposed to be ceded for conservation purposes and managed by DBCA pursuant to the CALM Act (i.e., North Cairn Hill). Formal reservation of land under the CALM Act is subject to processes under the Land Administration Act 1997, which require an agreed whole of Government approach for a change in land tenure from private freehold to conservation reserve. Although the information provided by the proponent indicates that the Department of Energy, Mines, Industry Regulation and Safety is supportive of the proposed change in land tenure, continued consultation with DBCA is recommended to ensure conditions align with the department's expectations as the proposed future land manager.	Details of offset tenure and management are included in the Offset management plan included as Attachment 4 and included in the Offset Strategy (Appendix T) of the ERD.

Attachment 2

**Additional information requests -
meetings / emails**

Table 2 Additional tasks from meetings and emails

Date	Request	Response
29 November 2024	<p>The EPA (and DBCA) want to use the 2018 data on the threatened flora species as the base for determinations. This includes in the Offset Management Plan (e.g. at the moment we have 2024 data in the OMP in Tables 1 and 9). The supplementary information (and relevant figures) needs to indicate 2018 numbers for Acacia and Daviesia (and other listed species) in the Offset Areas as these numbers are likely to be used for conditioning in the Ministerial Statement.</p> <p>The OMP needs to link proposed actions to the Coomberdale Recovery Plan</p> <p>There needs to be an action in the OMP that relates to improving/increasing foraging habitat for Carnaby's. We can't just rely on protecting Cairn Hill and Cairn Hill North. Apparently, this is likely to be a DCCEEW requirement for approving the OMP. Greg – this may need to involve specific planting of species that Carnaby's forage on in farmland owned by Simcoa. Can you suggest a location?</p> <p>In the Flora/Veg section of the ERD and in the supplementary information, we need to account for the mini donkey orchid by quoting broader regional information about population numbers, not just state that the project will impact about 60% of the regional areas</p>	<p>The impact calculations have used 2024 or 2018 threatened flora numbers as available.</p> <p>The Offset Strategy refers to the Coomberdale Recovery plan, and OMP actions are based upon the requirements in the Strategy and Recovery plan actions.</p> <p>There is an action in the OMP to increase the foraging habitat for Carnaby's within degraded areas of the Offset Area (Table 11 of the OMP).</p> <p>SIMCOA will investigate opportunities in other farmland areas for rehabilitation projects that include with BC foraging species (Table 11 of the OMP).</p> <p>The Flora and Vegetation section of the ERD (and tables in Attachment 3 of this document) include information on the regional impacts to the <i>Stylidium sp. Moora</i>. Construction of the Project may impact up to 5 individuals of <i>Stylidium sp. Moora</i> that were recorded during the 2018 Survey within the North Kiaka DF. This represents approximately 62.5% of the species recorded within the North Kiaka DE, and 11.9% of the known occurrence of this species within the mapped regional extent of Coomberdale TEC.</p>
20 November 2024	<p>ERD must include:</p> <ul style="list-style-type: none"> A table with all queries throughout the application process referenced against our response in the ERD. An analysis as per the example given by Robert Hughes, in particular: <ul style="list-style-type: none"> i. <u>Atlas Project EPA assessment report.pdf</u> (Section 2 and Table 2) ii. Note that the analysis in <u>APP3 Sig flora Assessment.pdf (epa.wa.gov.au)</u> supported the information in the Atlas EPA report. iii. Addressing/mitigating the one flora mentioned at 62% impact? Information used to compare the threatened and priority listings (Supplementary information, Table 2) for flora 2018 <u>must include</u> offset sites not only impacted sites. 	<p>Tables included below and within relevant sections in the ERD (Section 5.2):</p> <ul style="list-style-type: none"> – ERD Table 5.24 presents the impacts to conservation significant flora – ERD Table 5.25 presents the potential indirect impacts to conservation significant flora <p>Section 5.2.6.1.1 of the ERD discussed the significance of impacts to conservation significant flora.</p> <p>Construction of the Project may impact up to 5 individuals of <i>Stylidium sp. Moora</i> recorded during the 2018 Survey within the North Kiaka DF. This represents approximately 62.5% of the species recorded within the North Kiaka DE, and 11.9% of the known occurrence of this species within the mapped regional extent of Coomberdale TEC.</p>
28 October 2024	<p>DBCA to provide information on potential mechanisms for proponent to implement management actions (including restoration) on existing Class A Nature Reserves (DBCA managed).</p> <p>SIMCOA to facilitate site visit with DBCA on the proposed Cairn Hill North site and existing Cairn Hill Class A Nature Reserve to help inform management actions required to achieve the outcomes of an offset management plan. This would inform the costing of management actions to be developed, possibly in a Memorandum of Understanding</p> <p>Treat Offsets Management Plan and MOU separately; MOU follows after a ministerial statement.</p> <p>Management actions mentioned (access, fire management, dieback management, vegetation monitoring, maintain/improve vegetation condition, weed control) <i>Note that detail of management actions and costing of management actions are not required for Part IV assessment.</i></p> <p>DBCA to follow up on the letter of support for transitioning the mining lease on Cairn Hill North to a Class A Nature Reserve. EPA/S will become involved in facilitation with DEMIRS for an in-principle agreement (need letters of support from DBCA and DEMIRS)</p> <p>DBCA and SIMCOA to discuss factors including but not limited to:</p> <ul style="list-style-type: none"> – aligning the management of Cairn Hill North and Cairn Hill sites management, – direct management mechanisms, – process time periods, and – funding required for actions in offset management plan 	<p>A site visit was facilitated with DBCA on 22 November 2024.</p> <p>The Draft Offset Management Plan is included as Attachment 4 and includes management measures specific to the offsets.</p> <p>DBCA has provided letter of support which has been included in Attachment 5.</p> <p>A letter of support is currently being sought from DEMIRS.</p>
21 October 2024	<p>Following the technical workshop on Monday, 21 October, DBCA added the following comments on the action items forwarded to you on 21 October:</p> <p>Item 1 – Please provide a list of the threatened and priority species targeted for every individual survey completed on site (listing years/locations of surveys) (1) Identify the differences between the list; and (2) Where known, please provide the reason for the differences between the lists i.e. newly described species, splitting of genetic complex, change in genus name etc.</p> <p>Item 4 – Please include buffer areas and justification depending on the potential impact of each factor. For example, appropriate buffers for dust may be 0-10 m and 10-50 m, however justification should be provided to ensure these are appropriate values.</p> <p>Item 5 – Please update the likelihood of occurrence (Table 2) for individual species while applying the precautionary principle. If suitable habitat is present and it was unable to be surveyed in 2024 survey, the likelihood assessment should indicate that the species may be present. For example, <i>Goodenia arthrotricha</i>, <i>Stylidium sp. Moora</i>, <i>Tricoryne sp. Wongan Hills</i>, <i>Austrostipa nunaginensis</i>, <i>Diuris recurva</i> and <i>Guichenotia tuberculata</i> should be considered as possible or likely as the consultant has noted that these species may be present. Please note that the presence of weeds alone is not sufficient evidence to discount occurrence as conservation significant species may persist in weedy areas.</p> <p>Item 6 – Please indicate the source of the information used to inform regional impacts (i.e. DBCA TPFL database, specimen records, ALA, previous surveys) and note the year and location of any surveys used.</p>	<p>Responses are provided in Table 3 of this correspondence, with further detail included in Table 4, Table 5, Table 6 and Table 7 (Attachment 3).</p> <p>Within the ERD, Table 5.4 lists the flora species targeted in each survey, and Table 5.13 outlines how each species is referenced in each survey.</p> <p>Section 5.2.6.2.1.1 of the ERD outlines the logic used to derived he 10m and 50m buffers for potential indirect impacts from dust, based on the dust deposition modelling undertaken (GHD 2020c).</p> <p>Table 5.13 of the ERD provides an updated likelihood of occurrence table with further justification.</p> <p>Where regional data is presented, the source of that information has been included throughout the document.</p>
14 August 2024	<p>To address the requirements of the correspondence of 14 August 2024, as mentioned in discussion:</p> <ul style="list-style-type: none"> – the offset strategy and management need to meet the requirements of state and commonwealth policy 	<p>An updated Offset Strategy is included as an attachment to the ERD. The Offset Management Plan is included as Attachment 4.</p>

Date	Request	Response
	<ul style="list-style-type: none"> – consider the EPA's <u>Public Advice Considering Environmental Offsets at a Regional Scale.pdf</u> is also relevant to the formulation of offsets – Matters that would support the above is how the proposed offset package (including possible restoration, research, trials) provides a response to principles and guiding values in the policy and public advice. – If available, include detail of research/restoration/rehabilitation to date (including any propagation, trials and/or re-establishment of flora implemented/achieved). 	

Attachment 3

Flora and Vegetation tables

Table 3 Draft response to DBCA comments (21 October 2024)

DBCA Comment	Initial response
Species specific impacts utilising both contemporary and historical survey information (table and map) – Impacts should be based on historical survey records and April 2024 survey records and be presented as both a total number of plants and an area of occupancy. Historical information is especially important for fire ephemeral/disturbance specialist species that have likely senesced through time since the last disturbance/fire event but are still present and likely to recruit in the future given suitable conditions.	– Revised impact Table provided for all species with potential direct impacts (Table 4). Where survey data collected in 2024 by GHD is considered comprehensive, this data has been used to determine impacts. Where potential for data deficiency exists due to seasonal survey requirements, previous 2018 data has been used to determine impacts.
Mapped area of occupancy <ul style="list-style-type: none"> – This information is required to determine the likely significance of the impacts. If threatened species are likely to occur in soil seed bank (i.e. <i>Acacia aristulata</i>, <i>Daviesia dielsii</i>) then a mapped area of occupancy is also required to inform a s40 application, as authorisation is required for the take of soil stored seed. 	– Potential habitats based on historical locations intersecting with vegetation mapping has provided potential areas of occupancy for each of the listed species with direct impacts (Table 6). This will be presented in the permit applications under s40 of the BC Act.
Goodenia arthrotricha <ul style="list-style-type: none"> – It is stated on page 73 of appendix G that this species may be present. It would have been unidentifiable at the time of the April 2024 survey. DBCA is currently unable to determine the likelihood of species occurrence or potential risk to the species and significance of potential impacts if it is present and it is not clear if previous surveys for this species were adequate. – It is requested that the habitat for this species within the development envelope be mapped so that the risk and potential significance can be determined. Please also indicate the distance to the nearest confirmed record. – If the above information determines that soil stored seed of <i>Goodenia arthrotricha</i> is highly likely to be present but impacts are not likely to be significant, additional survey may be required under the BC Act, post EP Act approval. 	<ul style="list-style-type: none"> – The occurrence of this species is considered unlikely, given it was not found in previous surveys across the area and due to the degraded nature of the vegetation caused by weed infestation and grazing pressure, which suggests that the establishment and continued presence is unlikely. – Potential habitat of the species has been mapped with the closest record is located 465m south of the DE. The species is known to occur in vegetation ~450m south of the DE. After fire or disturbance it may appear from soil stored seed at additional locations to those already known. An assessment of suitable habitat, within which known locations of this species have been recorded was undertaken to determine the potential distribution of this specie within the larger project area. The assessment determined that none of the habitat associated with previous records is present north of Kiaka Road and therefore this species is unlikely to occur within the DE given an absence of suitable habitat. – Noted
– Information on indirect impacts – The number of plants within 10 and 50 m should be presented. This should also consider old surveys/area of occupancy for fire ephemeral/disturbance specialist species.	– This has been calculated and is presented in Table 6.
– Information on mitigation measures for indirect impacts.	– Noted – has been provided in the updated ERD in section 5.2.5
– Information on any threatened or priority flora not appropriately targeted – The 2024 April survey was not appropriately timed (for all species) and was limited by seasonal conditions. In addition, it is not clear from the 2024 flora report if there are species that have not been adequately surveyed. For example, any newly listed threatened or priority flora that were not targeted in appropriately timed historical surveys may not have been detected in the April 2024 survey, however with the presentation of a combined report, this it unclear.	– A revised likelihood of occurrence assessment has been provided in Table 8.
– Please provide a copy of the desktop assessment for the 2024 survey, and include habitat, flowering period and likelihood assessment. Please also identify any annuals and species that are unable to be identified outside of flowering period.	– This has been presented in a clearer manner in an updated consolidated report (included as Appendix G of the ERD).
– Please provide a risk assessment for those species not able to be identified in April 2024 that area considered likely to occur.	– This has been included in an updated consolidated flora and vegetation report (included as Appendix G of the ERD).
– Please provide maps indicating the survey area for each of the development envelope flora surveys.	– This has been included in an updated consolidated flora and vegetation report (included as Appendix G of the ERD).
– Please provide any flora survey shapefiles and development envelope shapefiles where available.	– Provided via email and included in the IBSA submission

Table 4 Proposed impacts to conservation significant species

Species	Conservation Status		Proposal Impacts							Offset site	
	EPBC	BC / DBCA	Directly Impacted	Potential Indirect Impacts (within 10m of DF)	Potential Indirect Impacts (within 10-50m of DF)	% Impact within DE	Number within local area (Trudgen historical survey area)	% Impact within local area (Trudgen historical survey area)	Regional numbers (occurrences within 20 km) (ALA 2024)	Number in reservation/potential offset area (GHD 2024)	Ratio of offset to impact (direct)
<i>Acacia aristulata</i>	EN	EN	2	0	0	100	1,100	0.2	23	33	16.5:1
<i>Daviesia dielsii</i>	EN	EN	0	0	0	0	365	0	32	81	-
<i>Stylidium</i> sp. <i>Moora</i>	-	P2	5 ¹	1	1	62.5	42	11.9	13	0	0
<i>Babingtonia cherticola</i>	-	P3	0	0	0	0	77	0	13	4723	-
<i>Diuris recurva</i>	-	P4	65 ¹ (10 occurrences)	0	0	100	?31 occurrences	33% (occurrences)	5	11 occurrences	1:1
<i>Regelia megacephala</i>	-	P4	567	25	660	16.5	9,159	6.2	20	5703	10:1

Table 5 Proposed impacts to other potentially important species

Species	Conservation Status		Proposal Impacts							Offset site	
	EPBC	BC / DBCA	Directly Impacted	Potential Indirect Impacts (within 10m of DF)	Potential Indirect Impacts (within 10-50m of DF)	% Impact within DE	Number within local area (Trudgen historical survey area)	% Impact within local area (Trudgen historical survey area)	Regional numbers (populations within 20 km) (ALA 2024)	Number in reservation/potential offset area	Ratio of offset to impact (direct)
<i>Banksia sphaerocarpa</i> var. <i>aff. caesia</i>	-	Other	6 ¹	0	0	100	9	66.7%	No data	0	0
<i>Calothamnus</i> aff. <i>quadridus</i> (Moora - Watheroo)	-	Other	2 ¹	0	0	100	56	3.4%	No data	0	0
<i>Calytrix</i> sp. Coomberdale (M.E. Trudgen MET 21184)	-	Other	7 ¹	0	0	100	197	3.4%	No data	0	0
<i>Cristonia stenophylla</i>	-	Other	1 ¹	0	0	100	3	25.0%	0	0	0
<i>Gastrolobium acutum</i> (previously State listed P3 species)	-	Other	1	0	5	100	17	5.6%	3	8	8:1
<i>Kunzea praestans</i> (previously a State listed P3 species)	-	Other	10 ¹	0	0	100	219	4.4%	27	0	0
<i>Pterostylis exserta</i>	-	Other	1 ¹	0	0	100	3	25.0%	10	1	1:1
<i>Quoya</i> (<i>Pityrodia</i>) <i>dilatata</i>	-	Other	3 ¹	0	0	100	52	5.5%	10	0	0
<i>Stylidium</i> sp. <i>Moora</i>	-	Other	0 ¹	1	1	0	-	-	13	0	0
<i>Wurmbea drummondii</i> (previously a State listed P4 species)	-	Other	2 ¹	0	0	100	2	50.0%	7	0	0
<i>Xanthorrhoea</i> sp. Coomberdale (M.E. Trudgen MET 25047)	-	Other	9 ¹	0	0	100	254	3.4%	No data	0	0

Table 6 Proposed impact to area of occurrence of threatened species

Species	Conservation Status		Proposal Impacts (previous record based (50m buffer clipped to vegetation extent))					Proposal Impacts (vegetation mapping based)				
	EPBC	BC / DBCA	Area of Occurrence (total known records) (ha)	Area of occurrence within DE (ha)	Area of occurrence within DF (ha)	% Impact within DE	% Impact mapped extent	Area of Occurrence (total known records) (ha)	Area of occurrence within DE (ha)	Area of occurrence within DF (ha)	% Impact within DE	% Impact mapped extent
<i>Acacia aristulata</i>	EN	EN	82.74	9.03	3.67	40.6	4.4	471.4	63.5	16.0	25.2	3.4
<i>Daviesia dielsii</i>	EN	EN	69.48	9.02	1.82	20.2	2.6	407.6	56.3	13.5	24.0	3.3
<i>Goodenia arthrotricha</i>	EN	EN	n/a	n/a	n/a	n/a	n/a	28.65	0.00	0.00	0.0	0.0

¹ Trudgen 2018

Table 7 Proposed impact to area of occurrence to priority species

Species	Conservation Status		Proposal Impacts (previous record based (50m buffer clipped to vegetation extent)					Proposal Impacts (vegetation mapping based)				
	EPBC	BC / DBCA	Area of Occurrence (total known records) (ha)	Area of occurrence within DE (ha)	Area of occurrence within DF (ha)	% Impact within DE	% Impact mapped extent	Area of Occurrence (total known records) (ha)	Area of occurrence within DE (ha)	Area of occurrence within DF (ha)	% Impact within DE	% Impact mapped extent
<i>Diuris recurva</i>	-	P4						113.15				

Table 8 Likelihood of occurrence

Species	Historical report reference			Conservation Status		Flowering period	Survey efficacy		Likelihood of occurrence within DE (post survey)	
	2012 Desktop	2018 Desktop	2024 Desktop	EPBC	BC / DBCA		Description	Adequate?		
<i>Acacia aristulata</i>	DRF	Threatened Flora	Threatened Flora 37 total occurrences 23 occurrence records within 20km buffer Data range of 47km with DE in the south of this range.	EN	EN	September to December	High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés Targeted during 2018 targeted flora survey within DE. DE and offset site re-surveyed in 2024.	Yes, while the 2024 survey was undertaken in Autumn, the species was readily observable during the targeted survey.	Known to occur, population well defined. After fire or disturbance may appear from soil stored seed at additional locations to those already known.	Known
<i>Daviesia dielsii</i>	DRF	Threatened Flora	Threatened Flora 92 total occurrences 32 occurrences within 20km buffer Distribution ranges from Eneabba to Busselton Occurrences are most densely distributed over a 75km distance. The DE is located in the south of this densely distributed range.	EN	EN	July	High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés. Targeted during 2018 targeted flora survey within DE. DE and offset site re-surveyed in 2024.	Yes, while the 2024 survey was undertaken in Autumn, the species was readily observable during the targeted survey.	Known to occur in 2012 survey area; population well defined. After fire or disturbance may appear from soil stored seed at additional locations to those already known.	Known
<i>Eucalyptus pruiniramis</i>	DRF	Threatened Flora	Threatened Flora 105 total occurrences 1 occurrence within 20km buffer Distribution ranges from Three Springs to Gingin Data range of over 200km with the DE located slightly south of the centre of this range.	EN	EN		Targeted survey in 2024	Yes, while the 2024 survey was undertaken in Autumn, the species was readily observable during the targeted survey.	Recorded within Offset site only	Unlikely
<i>Gastrolobium appressum</i>	DRF (Not identified in the desktop assessment.)	Threatened flora	Threatened flora 60 total occurrences 0 occurrences within 20km buffer Data range of 155km with DE located to the centre of this range.	VU	EN	August to December	High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés Targeted during 2018 targeted flora survey within DE. DE and offset site re-surveyed in 2024.	Yes, while the 2024 survey was undertaken in Autumn, the species was readily observable during the targeted survey.	Highly unlikely to occur. Outside known range, soil, habitat not suitable	Unlikely
<i>Gastrolobium hamulosum</i>	DRF (Not identified in the desktop assessment.)	Threatened Flora	Threatened Flora 94 total occurrences 2 occurrences within 20km buffer Distribution ranges from Coorow to Perth Data range of 200km with the DE in the north of this range.	EN	CR	August to October	High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés Targeted during 2018 targeted flora survey within DE. DE and offset site re-surveyed in 2024.	Yes, while the 2024 survey was undertaken in Autumn, the species was readily observable during the targeted survey.	Highly unlikely to occur, due to survey intensity and size of the species.	Unlikely
<i>Goodenia arthrotricha</i>	DRF	Threatened Flora	Threatened Flora 32 total occurrences 4 occurrences within 20km buffer Distribution ranges from Coomberdale to Bedfordale	EN	EN	October to November	High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés Targeted during 2018 targeted flora survey within DE. DE and offset site re-surveyed in 2024.	Yes, while the 2024 survey was undertaken in Autumn and the species likely not observable, the species was not recorded within the	Known to occur in vegetation ~450m south of the DE. After fire or disturbance may appear from soil stored seed at additional locations to those already known.	Unlikely

Species	Historical report reference			Conservation Status		Flowering period	Survey efficacy		Likelihood of occurrence within DE (post survey)	
	2012 Desktop	2018 Desktop	2024 Desktop	EPBC	BC / DBCA		Description	Adequate?		
			Data range of 190km with the DE at the most northern point of this range.					DE from previous surveys.	However, based on the level of disturbance to vegetation including weed incursion and grazing, this species is considered unlikely to occur.	
<i>Hemiandra gardneri</i>	DRF (Not identified in the desktop assessment.)	Threatened Flora	Threatened Flora 54 total occurrences 2 occurrences within 20km buffer Distribution ranges from Coorow to Moora Data range of 80km with the DE in the south of this range.	EN	CR	August to October	High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés Targeted during 2018 targeted flora survey within DE. DE and offset site re-surveyed in 2024.	Yes, while the 2024 survey was undertaken in Autumn, the species was readily observable during the targeted survey.	Highly unlikely to occur. due to survey intensity. Apart from one old record in the Moora area known occurrences are more than 25 km away. Soil types in TEC remnants not suitable.	Unlikely
<i>Synaphea quartzitica</i>	DRF	Threatened Flora	Threatened Flora 17 total occurrences 12 occurrences within 20km buffer Distribution ranges from Watheroo to Moora Data range of 46km with the DE in the south of this range.	EN	EN	July to August	High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés Targeted during 2018 targeted flora survey within DE. DE and offset site re-surveyed in 2024.	Yes, while the 2024 survey was undertaken in Autumn, the species was readily observable during the targeted survey.	The occurrence in the TEC survey area is localised. Additional localities possible but unlikely. Unlikely to occur in TEC north of Kiaka Road due to habitat differences.	Unlikely
<i>Acacia congesta</i> subsp. <i>cliftoniana</i>	P1	P1	P1 45 total occurrences 1 occurrence within 20km buffer Distribution ranges from Mingenew to Wongan Hills. 1 occurrence record in Pomonal. Data range of 200km with the DE located slightly south of the centre of this range.		P1	August to September	High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés Targeted during 2018 targeted flora survey within DE. DE and offset site re-surveyed in 2024.	Yes, while the 2024 survey was undertaken in Autumn, the species was readily observable during the targeted survey.	Highly unlikely to occur. The putative record at Cairn Hill is likely to be mis-determined. All other records of <i>Acacia congesta</i> from Cairn Hill or the TEC area (including 4 determined by B. Maslin) are considered to be subspecies <i>congesta</i> .	Unlikely
<i>Bossiaea moylei</i>	Recorded as <i>Bossiaea</i> sp. Cairn Hill (M Henson CH2-28)	Recorded as <i>Bossiaea</i> sp. Cairn Hill (M Henson CH2-28)	P1 14 total occurrences 14 occurrences within 20km buffer Data range of 10km with the DE in the centre of this range.		P2	September	High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés Targeted during 2018 targeted flora survey within DE. DE and offset site re-surveyed in 2024.	Yes, while the 2024 survey was undertaken in Autumn, the species was readily observable during the targeted survey.	Known to occur in 2012 survey area, population well defined. <i>Bossiaea moylei</i> has a sporadic distribution in the TEC south of Kiaka Road. It has not been recorded north of Kiaka Road in any quadrat, relevé, or any rare flora search transect.	Unlikely
<i>Stylidium glabrifolium</i>	P2	P2	P2 10 total occurrences 0 occurrences within 20km buffer Distribution range in the Shire of Chittering Data range of 22km with the DE under 70km north of this range.		P2	October to November	High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés Targeted during 2018 targeted flora survey within DE. DE and offset site re-surveyed in 2024.	Yes, while the 2024 survey was undertaken in Autumn and the species likely not observable, the species was not recorded within the DE from previous surveys.	Known to occur in 2012 survey area. Not recorded north of Kiaka Road. Weed levels in the proposed mine area reduce the likelihood of occurrence there.	Unlikely

Species	Historical report reference			Conservation Status		Flowering period	Survey efficacy		Likelihood of occurrence within DE (post survey)	
	2012 Desktop	2018 Desktop	2024 Desktop	EPBC	BC / DBCA		Description	Adequate?		
<i>Stylidium milleri</i>	Not listed	Not listed	P2 12 total occurrences 0 occurrences within 20km buffer Distribution ranges from Coorow to Gingin Data range of 137km with the DE located slightly north of the centre of this range.		P2	September to October	High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés DE and offset site re-surveyed in 2024.	Yes, while the 2024 survey was undertaken in Autumn and the species likely not observable, the species was not recorded within the DE from previous surveys.	Highly unlikely to occur as soil types and vegetation types are not suitable.	Unlikely
<i>Stylidium sp. Moora</i> (J.A.Wege 713)	??	??	P2 23 total occurrences 13 occurrences within 20km buffer Distribution ranges from Coomberdale to Mogumber Data range of 57km with the DE at the northern point of this range.		P2		High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés and DRF/Priority transects. DE and offset site re-surveyed in 2024.	Yes, while the 2024 survey was undertaken in Autumn when the species would not have been identifiable, the degraded condition of the areas of the historical record make it unlikely that the species would have persisted.	Known to occur historically, however, the poor condition of the vegetation due to weed incursion and grazing make the occurrence of this species unlikely.	Unlikely
<i>Tricoryne sp. Wongan Hills</i> (B.H. Smith 794)	P2	P2	P2 13 total occurrences 1 occurrence within 20km buffer Distribution ranges from Kalbarri to York Data range of 596km with the DE in the south of this area.		P2	October and November	High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés Targeted during 2018 targeted flora survey within DE. DE and offset site re-surveyed in 2024.	Yes, while the 2024 survey was undertaken in Autumn and the species likely not observable, the species was not recorded within the DE from previous surveys.	Known to occur in survey area. Population well defined, although some plants not in flower during surveys <u>may</u> be present in areas where not recorded.	Unlikely
<i>Eremaea sp. Cairn Hill</i> (B. Morgan 532)	P1	P1	P1 11 total occurrences 4 occurrences within 20km buffer Distribution ranges from Coorow to Mogumber Data range of 97km with the DE located slightly south of the centre of this range.		P2	October to November	High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés Targeted during 2018 targeted flora survey within DE. DE and offset site re-surveyed in 2024.	Yes, while the 2024 survey was undertaken in Autumn, the species was readily observable during the targeted survey.	Occurs at one location in 2012 survey area. A distinctive medium sized shrub, unlikely to occur at other locations there. Suitable habitat does not occur north of Kiaka Road.	Unlikely
<i>Acacia flabellifolia</i>	(Not identified in the desktop assessment.)	(Not identified in the desktop assessment.)	P3 52 total occurrences 1 occurrence within 20km buffer Distribution ranges from Geraldton to Moora Data range of 200km with the DE just south of this range.		P3	August	High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés DE and offset site re-surveyed in 2024.	Yes, while the 2024 survey was undertaken in Autumn, the species was readily observable during the targeted survey.	Highly unlikely. The closest records for this species to the proposed North Kiaka Mine are from ca. 20 km to the north (near Watheroo). One collection from near Watheroo was collected on quartzite, but others were collected from Wandoo woodland. <i>Acacia flabellifolia</i> has not been collected in the 2012 survey area. <i>Acacia ericksoniae</i> , has been recorded, but is clearly different to <i>Acacia flabellifolia</i> .	Unlikely

Species	Historical report reference			Conservation Status		Flowering period	Survey efficacy		Likelihood of occurrence within DE (post survey)	
	2012 Desktop	2018 Desktop	2024 Desktop	EPBC	BC / DBCA		Description	Adequate?		
<i>Austrostipa nunaginensis</i>	P3 Recorded as <i>Austrostipa</i> sp. Cairn Hill	P3 Recorded as <i>Austrostipa</i> sp. Cairn Hill	P3 795 total occurrences 1 occurrence within 20km buffer In Western Australia distribution ranges from Geraldton to Bruce Rock Data range of 440km with the DE near the centre of this range.		P3	Late Spring	High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés Targeted during 2018 targeted flora survey within DE.	Yes, while the 2024 survey was undertaken in Autumn and the species likely not observable, the species was not recorded within the DE from previous surveys.	Given the small size of this taxon and the frequency of other <i>Austrostipa</i> of similar size in the TEC, it is possible that a small number of additional occurrences may occur. Weed levels in the proposed mine area reduce the likelihood of occurrence there.	Unlikely
<i>Babingtonia urbana</i>	(Not identified in the desktop assessment.)	(Not identified in the desktop assessment.)	P3 38 total occurrences 1 occurrence within 20km buffer Distribution ranges from Moora to Mundijong Data range of 193km with the DE just north of this range.		P3	October to February	High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés DE and offset site re-surveyed in 2024.	Yes, while the 2024 survey was undertaken in Autumn, the species was readily observable during the targeted survey.	Highly unlikely to occur. The lack of wetland habitat excludes any reasonable chance of this taxon occurring in the TEC survey area.	Unlikely
<i>Babingtonia cherticola</i>	P3 Previously recorded as <i>Baeckea</i> sp. Moora (R. Bone 1993/1)	P3	P3 26 total occurrences 13 occurrences within 20km buffer Distribution ranges from Coorow to Cataby Data range of 87km with the DE near the centre of this range.		P3		High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés Targeted during 2018 targeted flora survey within DE. DE and offset site re-surveyed in 2024.	Yes, while the 2024 survey was undertaken in Autumn, the species was readily observable during the targeted survey.	Unlikely to occur as the DE was systematically surveyed and the species was not recorded.	Unlikely
<i>Guichenotia tuberculata</i>	P3	P3	P3 50 total occurrences 2 occurrences within 20km buffer Distribution ranges from Morawa to Yoting Data range of 300km with the DE near the centre of this range.		P3	August to October	High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés Targeted during 2018 targeted flora survey within DE.	Yes, while the 2024 survey was undertaken in Autumn and the species likely not observable, the species was not recorded within the DE from previous surveys.	The occurrence in the TEC survey area is localised. Additional localities possible but unlikely. Unlikely to occur in TEC north of Kiaka Road	Unlikely
<i>Hemigenia conferta</i>	P3	P3	P3 29 total occurrences 0 occurrences within 20km buffer In Western Australia distribution is in Wongan Hills. Data range of 20km with the DE 60km north west of this range.		P3	September to October	High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés Targeted during 2018 targeted flora survey within DE. DE and offset site re-surveyed in 2024.	Yes, while the 2024 survey was undertaken in Autumn, the species was readily observable during the targeted survey.	The occurrence in the TEC survey area is localised. Additional localities possible but unlikely. Unlikely to occur in TEC north of Kiaka Road due to habitat differences.	Unlikely
<i>Melaleuca sclerophylla</i>	P3	P3	P3 111 total occurrences 4 occurrences within 20km buffer In Western Australia distribution ranges from Kalbarri to Hopetoun Data range of 875km with the DE near the centre of this range. Dense occurrences north and south east of the DE.		P3	June to September	H High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés Targeted during 2018 targeted flora survey within DE. DE and offset site re-surveyed in 2024.	Yes, while the 2024 survey was undertaken in Autumn, the species was readily observable during the targeted survey.	Known to occur in southern part of 2012 survey area. No suitable habitat north of Kiaka Road.	Unlikely
<i>Petrophile biternata</i>	(Not identified in the desktop assessment.)	(Not identified in the desktop assessment.)	P3 59 total occurrences 1 occurrence within 20km buffer		P3	August to October	High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés DE and offset site re-surveyed in 2024.	Yes, while the 2024 survey was undertaken in Autumn, the species was readily observable	Highly unlikely to occur.	Unlikely

Species	Historical report reference			Conservation Status		Flowering period	Survey efficacy		Likelihood of occurrence within DE (post survey)	
	2012 Desktop	2018 Desktop	2024 Desktop	EPBC	BC / DBCA		Description	Adequate?		
			In Western Australia distribution ranges from Carnamah to Newdegate Data range of 560km with the DE in the north of this range. Densest occurrences around the DE.					during the targeted survey.		
<i>Diuris recurva</i>	P4	P4	P4 104 total occurrences 5 occurrences within 20km buffer Distribution ranges from Kalbarri to Dowerin Data range of 470km with the DE in the south of this range.		P4	July to August	High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés Targeted during 2018 targeted flora survey within DE.	Yes, while the 2024 survey was undertaken in Autumn when the species would not have been identifiable, the degraded condition of the areas of the historical record make it unlikely that the species would have persisted.	Known to occur historically, however, the poor condition of the vegetation due to weed incursion and grazing make the occurrence of this species unlikely.	Known (historical record)
<i>Regelia megacephala</i>	P4	P4	P4 38 total occurrences 20 occurrences within 20km buffer Distribution ranges from Watheroo to Gingin Data range of 90km with the DE in the north of this range.		P4	October to December	High coverage of all habitats in 2012 survey area with 99 quadrats, 398 relevés Targeted during 2018 targeted flora survey within DE. DE and offset site re-surveyed in 2024.		Forms numerous stands in the 2012 survey area. Given the size of this taxon, it is likely all stands in the TEC survey area have been recorded.	Known
<i>Banksia sphaerocarpa</i> var. aff. <i>caesia</i>	Potential range extension	Potential range extension	Potential range extension	-	Other		n/a	n/a		Known
<i>Calothamnus</i> aff. <i>quadrifidus</i> (Moora - Watheroo)	Potential geographic restriction	Potential geographic restriction	Potential geographic restriction	-	Other		n/a	n/a		Known
<i>Calytrix</i> sp. Coomberdale (M.E. Trudgen MET 21184)	Potential geographic restriction	Potential geographic restriction	Potential geographic restriction	-	Other		n/a	n/a		Known
<i>Cristonia stenophylla</i>	Potential range extension	Potential range extension	Potential range extension	-	Other		n/a	n/a		Known
<i>Gastrolobium acutum</i> (previously State listed P3 species)	Northern extent of known distribution	Northern extent of known distribution	Northern extent of known distribution	-	Other		n/a	n/a		Known
<i>Kunzea praestans</i> (previously a State listed P3 species)	Potential geographic restriction	Potential geographic restriction	Potential geographic restriction	-	Other		n/a	n/a		Known
<i>Pterostylis exserta</i>	Known from less than 10 records	Known from less than 10 records	-	-	Other		n/a	n/a		Known
<i>Quoya (Pityrodia) dilatata</i>	Potential sub-species based on disjunct population	Potential sub-species based on disjunct population	Potential sub-species based on disjunct population	-	Other		n/a	n/a		Known
<i>Wurmbea drummondii</i> (previously a State listed P4 species)	No longer a priority species, but not very common.	No longer a priority species, but not very common.	-	-	Other		n/a	n/a		Known
<i>Xanthorrhoea</i> sp. Coomberdale (M.E. Trudgen MET 25047)	Potential geographic restriction	Potential geographic restriction	Potential geographic restriction	-	Other		n/a	n/a		Known

Attachment 4

Offset Management Plan - Draft

Attachment 5

Letter from DBCA



Department of **Biodiversity,
Conservation and Attractions**
Office of the Director General

Our ref: CEO729-24
Enquiries: Harley Taylor
Phone: [REDACTED]
Email: [REDACTED]

Mr Greg Phyffer
Moora Mine Manager
Simcoa Operations Pty Ltd
[REDACTED]

Dear Mr Phyffer

REQUEST FOR DBCA SUPPORT FOR CHANGE OF TENURE OF CAIRN HILL NORTH TO CLASS A CONSERVATION RESERVE

I refer to your letter dated 26 September 2024 requesting the support of the Department of Biodiversity, Conservation and Attractions (DBCA) for the proposed offset for the North Kiaka Project proposal currently under assessment by the Environmental Protection Authority.

Consistent with DBCA's (then the Department of Parks and Wildlife) advice, dated 23 August 2013, DBCA remains supportive of the remnant vegetation contiguous with Cairn Hill Nature Reserve (class A; Reserve No. 47694) on Lot 52 of Plan 029474 (i.e. North Cairn Hill) to be ceded for conservation purposes, and managed by DBCA under the *Conservation and Land Management Act 1984* (CALM Act) as a class A nature reserve. North Cairn Hill contains significant conservation values, including threatened flora and ecological communities. The addition of this area to the formal reserve system aligns with the objectives for establishing a Comprehensive, Adequate and Representative system of reserves in Western Australia.

Formal reservation of land under the CALM Act is subject to processes under the *Land Administration Act 1997* and will require an agreed whole-of-Government approach for a change in land tenure from private freehold to conservation reserve. It is recommended that written support from the Department of Energy, Mines, Industry Regulation and Safety is sought by Simcoa Operations Pty Ltd (Simcoa).

To assist DBCA in providing further advice on the offset management actions and potential resourcing requirements associated with the proposed offset site, a site visit with all parties present is recommended. Should you wish to discuss this advice, or arrange the recommended site visit, please contact DBCA's Acting Principal Environmental Officer, Ms Harley Taylor, on [REDACTED] or email [REDACTED]

Yours sincerely

Stuart Smith
DIRECTOR GENERAL

19 November 2024



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