Attachment B Assessment against the Ten Clearing Principles

Assessment Against the Ten Clearing Principles

Principle		Assessment	Outcome	Reference
A	Native vegetation should not be cleared if it comprises a high level of biological diversity	The 274.1 ha Development Envelope (DE) includes a 131.4 ha Disturbance Footprint (DF), containing approximately 8.5 ha of native vegetation proposed to be cleared (Attachment C: Figure 3Figure *3*). The Proposal is not located within one of the Biodiversity Hotspots listed in the Guide to the Assessment of Applications to Clear Native Vegetation (DER, 2014). The survey area is situated within 1 km of both the Collie State Forest and the Harris River State Forest (Biota, 2023). Biota (2023, Appendix D) conducted searches of the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act Protected Matters database, Department of Biodiversity Conservation and Attractions (DBCA) *NatureMap* database, Atlas of Living Australia (ALA), DBCA Threatened and Priority Flora Database, BirdLife Australia and the Index of Biodiversity Surveys for Assessments. These search results identified 26 significant species, of which seven were considered 'likely to occur' and 10 species 'may occur'. A spring reconnaissance and targeted flora and vegetation survey, was conducted by Biota (2023) in October 2022, which aligned with the recommended season for botanical surveys in the Jarrah Forest bioregion. No threatened or priority flora or ecological communities were recorded during the spring survey. *Eucalyptus rudis* subsp. *cratyantha* (Priority 4) was considered 'likely to occur' and a further 16 Priority flora species were ranked as 'may occur'. A fauna survey was conducted by Biota (2023) in October 2022, which included a targeted black cockatoo survey and a basic and targeted vertebrate fauna survey. Five currently listed significant vertebrate species were recorded during the fauna survey, comprising: - Chuditch/Western Quoll, *Dasyurus geoffroii* (Vulnerable; BC Act, EPBC Act). - Western Falsistrelle bat, *Falsistrellus mackenzie*i (Priority 4; BC Act). - Forest Red-tailed Black Cockatoo, *Calyptorhynchus banksii naso* (Vulnerable, BC Act, EPBC Act). - Carnaby's Black Cockatoo, *Zanda latirostris* (Endangered; BC Act, EPBC Act). - Baudin's Black Cockatoo, *Zanda baudinii* (Endangered; BC Act, EPBC Act, IUCN Red List 'critically endangered'). A newly described bat species, Holt's Long-eared Bat (*Nyctophilus holtorum* sp. *nov*), was also recorded and is of potential conservation significance due to its restricted distribution and ecology. A further eleven significant vertebrate species were recognised as having some potential to occur in the survey area.	The proposed clearing is not at variance to this Principle.	Attachment C: Figure 3 Proposed Remnant Native Vegetation Clearing Attachment C: Figure 4 Vegetation Condition

Principle		Assessment	Outcome	Reference
		The Proposal requires clearing of approximately 8.5 ha of remnant native vegetation, and comprises 7.4 ha of Spearwood shrubland mapped as 'Degraded' condition and 1.1 ha of individual stand shrubs/trees within previously cleared areas, and mapped as being 'Completed Degraded' condition (Attachment C: Figure *3*). The level of biodiversity within the areas proposed to be cleared is considered to be very low as the condition of the native vegetation ranges between 'Degraded' and 'Completely Degraded'. Given the low level of biodiversity of the native vegetation to be cleared and avoidance of clearing of black cockatoo habitat, the proposed clearing is considered not at variance to this Principle.		
B	Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.	Biota (2023) undertook a desktop study, which identified 26 significant species, of which seven were considered 'likely to occur' and 10 species 'may occur'. Prior to undertaking the field survey, Biota (2023) considered that seven of the 26 species were 'likely to occur' in the survey area and 10 species 'may occur'; a further eight species were considered unlikely to occur, and one species would not occur. A fauna survey was conducted by Biota (2023) in October 2022, and included a targeted black cockatoo survey and a basic and targeted vertebrate fauna survey. The Biota (2023) biological survey recorded 48 vertebrate fauna species, comprising 11 mammal, two reptile and 35 bird species. Five currently listed significant vertebrate species were recorded during the fauna survey, comprising: - Chuditch/Western Quoll, *Dasyurus geoffroii* (Vulnerable; BC Act, EPBC Act). - Western Falsistrelle bat, *Falsistrellus mackenziei* (Priority 4; BC Act). - Forest Red-tailed Black Cockatoo, *Calyptorhynchus banksii naso* (Vulnerable, BC Act, EPBC Act). - Carnaby's Black Cockatoo, *Zanda latirostris* (Endangered; BC Act, EPBC Act). - Baudin's Black Cockatoo, *Zanda baudinii* (Endangered; BC Act, EPBC Act, IUCN Red List 'critically endangered'). A newly described bat species, Holt's Long-eared Bat (*Nyctophilus holtorum* sp. *nov*), was also recorded and has potential conservation significance due to its restricted distribution and ecology. A further eleven significant vertebrate species were recognised as having some potential to occur in the survey area. Species considered likely to occur but not recorded during the field survey were: Southern Brown Bandicoot, *Isoodon obesulus obesulus,* Quenda, *Isoodon fusciventer* and South-western Brush- Phascogale, *Phascogale tapoatafa wambenger*. Biota (2023) identified that the DE includes thirteen identified fauna habitat types, including Eucalypt forest, Wandoo and Flooded Gum woodland, Myrtaceous heaths, Paperbarks over shrubland, Dampland, Revegetated and planted vegetation, Eucalypt plantations, Pinus stands, and water bodies (associated with the Collie River). Biota (2023) reported that a large proportion of the survey area comprised Cleared: highly modified land.	The proposed clearing is not at variance to this Principle.	Attachment C: Figure 5 Fauna Habitat Attachment C: Figure 6 Black Cockatoo Habitat

Principle		Assessment	Outcome	Reference
		The Proposal requires clearing of up to 8.5 ha of remnant native vegetation, consisting of approximately 7.4 ha of Spearwood shrubland in a 'Degraded' condition and 1.1 ha of individual stand shrubs/trees within previously cleared areas. Interpreting the fauna habitat types, as mapped Biota (2023), indicates that the proposed clearing is restricted to 'Cleared: highly modified' fauna habitat types and therefore minimises potential impacts to conservation significant fauna habitat. The targeted survey (Biota, 2023) identified potential and suitable nesting trees, foraging and breeding habitat for black cockatoos, (Section 6.2.2). These trees will be retained as infrastructure has been carefully located to avoid clearing black cockatoo foraging, roosting and breeding habitat, refer section (Attachment C: Figure 6). Construction of the Proposal may present risks to fauna, for example vehicle collisions. These risks will be addressed in the construction environmental management plan. As the proposed clearing is restricted to 'Cleared: highly modified fauna habitat type' and no black cockatoo habitat is proposed to be cleared, the impact to significant fauna habitat will be minimal and therefore the proposed clearing is considered not at variance to this Principle.		
C	Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.	Biota (2023) conducted desktop searches prior to the field investigations and identified a total of seven Threatened flora species and 32 Priority flora species as having been recorded in the survey area. Using aerial imagery, Biota (2023) assessed the likelihood of occurrence for each of the listed species. Of the 39 Threatened and Priority species, eight species were assigned a ranking of 'likely to occur', and 25 were ranked as 'may occur'. A spring reconnaissance and targeted flora and vegetation survey, conducted by Biota (2023) did not record any Threatened or Priority flora species as occurring in the survey area. While *Eucalyptus rudis* subsp. *cratyantha* (Priority 4) was not confirmed to occur, the Report considered the species 'likely to occur' as many *Eucalyptus rudis* trees were observed, but few were identified to subspecies level due to the absence of fruit. A further 16 Priority species were ranked as 'may occur' following the Biota (2023) survey based on their detectability, habitat preferences and proximity to the survey area. The nearest Commonwealth listed Threatened Ecological Communities (TECs), also listed as a Priority 1 Priority Ecological Communities (PECs) at State Level, is located approximately 15 km to the south-east of the Proposal Area. The proposed clearing does not contain Threatened or Priority flora, or TECs/PECs, therefore the proposed clearing is considered not at variance to this Principle.	The proposed clearing is not at variance to this Principle.	Attachment D: Collie Battery Energy Storage System Targeted Biological Survey (Biota, 2023)
D	Native vegetation should not be cleared if it comprises the whole or a part of,	A desktop review of regional vegetation mapping and associated literature conducted by Biota (2023) found one Commonwealth-listed TEC, which is also listed as a Priority 1 PEC at State level, occured in the locality. This community is described as 'Claypans with mid dense shrublands of *Melaleuca lateritia* over herbs'.	The proposed clearing is not at variance to this Principle.	Attachment D: Collie Battery Energy Storage System Targeted Biological Survey (Biota 2023)

<table>
<tr><th colspan="2">Principle</th><th>Assessment</th><th>Outcome</th><th>Reference</th></tr>
<tr><td></td><td>or is necessary for the maintenance of a threatened ecological community (TEC).</td><td>The DBCA database search returned three mapped occurrences of this community within 20 km, the closest being 15 km to the southeast of the survey area. Based on inspection of aerial imagery conducted by Biota, no habitat for this community was apparent in the survey area prior to the field survey. The field survey concluded that the vegetation types present in the survey area did not comprise TECs listed under the EPBC Act, or TECs or PECs listed at State-level.
As the proposed clearing footprint does not include any TECs (the closest being 15 km from the Proposal), the proposed clearing is considered not at variance to this Principle.</td><td></td><td></td></tr>
<tr><td>E</td><td>Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.</td><td>Broad scale (1:250,000) pre-European vegetation mapping of the area has been completed at an association level (Beard, 1975), and found that the Development Envelope is mapped as system association West Darling 3.3 comprising forest of mainly of mainly Jarrah (Eucalyptus marginata), and Marri (Corymbia calophylla) (Biota, 2023).
Based on 2018 data, over 80% of the West Darling 3.3 association remains across the Northern Jarrah Forest subregion and the Shire of Collie (Biota, 2023).
Based on previous mapping of vegetation complexes, Biota (2023) interpreted that four vegetation complexes were within the study area. The disturbance footprint contains three vegetation complexes, see Table 2 and shown in Attachment C: Figure 7. Based on 2018 data, all three vegetation complexes have over 75% of pre-European extent remaining.
Table 2 Vegetation Complexes within Development Envelope
<table>
<tr><th>Vegetation Complex</th><th>Pre-European Extent (ha)</th><th>Current Extent (ha)</th><th>% Remaining</th><th>Current percentage remaining within lands Protected (IUCN I-IV) for Conservation (%)</th><th>Impact of proposed clearing on Vegetation Complex (ha)</th><th>Reduction of current extent due to the proposed clearing (%)</th></tr>
<tr><td>Murray 1, My1</td><td>68,695</td><td>52,296</td><td>76.13</td><td>25.66</td><td>0.366</td><td>0.0006</td></tr>
<tr><td>Dwellingup, D1</td><td>208,491</td><td>181,039</td><td>86.83</td><td>8.35</td><td>8.11</td><td>0.0045</td></tr>
<tr><td>Yarragil 2, Yg2</td><td>50,259</td><td>46,475</td><td>92.47</td><td>10.58</td><td>0</td><td>N/A</td></tr>
</table></td><td>The proposed clearing is not at variance to this Principle.</td><td>Attachment C: Figure 7 South West Forest Vegetation Complexes</td></tr>
</table>

Principle		Assessment	Outcome	Reference
		The proposed clearing consists of 7.4 ha of 'Degraded' spearwood shrubland and 1.1 ha of individual native tree stands/shrubs within a previously cleared paddock. All three vegetation complexes within the disturbance footprint have over 75% of their Pre-European extents remaining (based on 2018 data). On this basis it is considered the clearing will not have a significant impact on these remaining remnant vegetation extents and the proposed clearing is considered not at variance to this Principle.		
F	Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.	There are no Internationally (RAMSAR) or Nationally Important wetlands or watercourses within the Proposal area. The Proposal is within the Collie Subarea of the Collie Groundwater Management Area. (Attachment A: Figure 8). The Proposal is located at the centre of the Collie River Basin of the South West Region, WA and within the Collie River Lower East Branch Subarea of the Collie Surface Water Management Area (Department of Water and Environmental Regulation, 2023). (GHD, 2023). Remnant vegetation mapped by Biota (2023) found that the majority of vegetation occurs near the Collie River and the low lying wetland catchment area. No machinery or heavy vehicles will be required to cross the Collie river. Transmission poles/towers will be located within areas mapped as 'previously cleared'. A helicopter will be used to install the transmission line across the river, avoiding construction impacts to the Collie River, see Attachment C: Figure 2. No remnant vegetation will be cleared in the lowlying wetland catchment area. As this Proposal does not require clearing of vegetation associated with the Collie River or the lowlying wetland catchment area, it is assessed as not at variance to this Principle.	The proposed clearing is not at variance to this Principle.	Attachment C: Figure 8 Regional Hydrology
G	Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	DWER groundwater salinity mapping (DWER-026) indicates that the proposed clearing is located in an area with a TDS concentration of <500 mg/L (GoWA, 2023). The DPIRD soil salinity risk mapping (DPIRD-009) indicates the soil salinity risk within majorirty of the NVCP application area is mapped as L1 "*<3% of map unit has a moderate to high salinity risk or is presently saline*", with approximately 10% within the south of the NVCP application area mapped as M1 "*10-30% of map unit has a moderate to high salinity risk or is presently saline*", and approximately 27% mapped as H1 "*50-70% of map unit has a moderate to high salinity risk or is presently saline*" (GoWA, 2023). Clearing 8.5 ha of native vegetation at this location will not result in a risk to secondary salinity known to occur in the broader region. The proposed clearing occurs in an area that has been cleared for agriculture. As a result, the land is highly modified and degraded as a result of long term vehicle movements, cropping and grazing. On this basis it is considered that the proposed clearing native vegetation will not further contribute to any land degradation and therefore the clearing not at variance to this Principle.	The proposed clearing is not at variance to this Principle.	

Principle		Assessment	Outcome	Reference
H	Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.	Biota (2023) identified that eleven named DBCA Legislated Lands occur in the locality of the survey area, in addition to 25 Section 34a freehold areas, two unnamed reserves and one unnamed national park. The Proposal is situated within 1 km of both the Collie State Forest and the Harris River State Forest. The 11 named legislated lands that occur in the locality are: - Collie State Forest (0.3 km N) - Harris River State Forest (0.8 km N) - Lane Poole Reserve (4 km N) - Muja Conservation Park (20 km SE) - Muja State Forest (1 km W) - Mumballup State Forest (11 km SW) - Wellington National Park (16 km W) - Wellington State Forest (20 km SW) - Westralia Conservation Park (9 km SW) - Wyvern Road Nature Reserve (11 km SW) - Yallatup Nature Reserve (15 km SE) The proposed clearing area does not contain a TEC or PEC (Biota, 2023). The proposed clearing includes 7.4 ha of degraded spearwood shrubland and 1.1 ha of individual tree stands/shrubs within an existing cleared paddock, which is not adjacent to a conservation area. Noting that the vegetation is not critical for habitat connectivity and black cockatoo habitat and that 'Good to Excellent' condition vegetation has been avoided, it is considered that the clearing is unlikely to impact the conservation values of the local area and therefore not at variance to this Principle.	The proposed clearing is not at variance to this Principle.	
I	Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.	The Collie River traverses the development envelope, however no clearing is proposed in the vicinity of the Collie River, transmission lines will be strung across the river. CBESS will be designed within a containment system, to prevent spillages and leaks of chemicals or contaminated firewater from contaminating surface water. These measures are: - Internal runoff: Internal lined swales or pits and pipes, lined and unlined basins and bioswales to manage the discharge from the facility; and – External runoff: Drains and swales designed to separate internal and external catchment runoff. Prior to the commencement of construction or ground disturbance activities, erosion and sediment control measures (such as sediment fences or other appropriate sediment control	The proposed clearing is not at variance to this Principle.	Attachment E: CBESS Surface Water Management Plan (GHD, 2023)

Principle		Assessment	Outcome	Reference
		measures) will be installed around the perimeter of the site and on slopes subject to runoff to prevent the transport of soil and silt particles to of the Collie River. As the proposed clearing is within a highly disturbed area and the management measures above, the clearing is not expected to impact upon the water quality of the Collie River and therefore, the proposed clearing is considered not at variance to this Principle.		
J	Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.	The Proposal occurs on an undeveloped part of the industrial land zone that discharges rainfall runoff into minor streams and major rivers. There have been a few constructed culverts around the area to allow stormwater to pass under roads while keeping the natural flow direction (GHD, 2023). The historic agricultural land use has resulted in the loss of topsoil leaving a less pervious soil profile that is prone to surface water runoff. GHD has undertaken surface water modelling for the CBESS proposal and proposed stormwater management measures designed to capture surface water include strategically located drains and basins (GHD, 2023). Infiltration of rainfall into this largely impermeable soil profile means basins will be designed to store both detention water (stormwater runoff) and contaminated firewater in the event of a fire within the battery area for offsite disposal. Hydrologic modelling has found that these control measures will prevent flooding at this site. The proposed clearing of 8.5 ha of native vegetation, is not anticipated to cause flooding as the vegetation is in mostly degraded or completely degraded condition, with most of the vegetation surrounding the remaining extents already cleared. On this basis it is considered that the proposed clearing is not at variance with this Principle.	The proposed clearing is not at variance to this Principle.	Attachment E: CBESS Surface Water Management Plan (GHD, 2023)

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