

Attachment 1 – Flat Rocks Wind Farm: Clearing Principle Assessment

Clearing principle	Clearing Assessment	Outcome
<p>(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.</p>	<p>Vegetation types mapped within the Flat Rocks Study Area (the Study Area) include:</p> <ul style="list-style-type: none"> • E1 – Mosaic of Open Woodland of <i>Eucalyptus rudis</i> subsp. <i>rudis</i> – <i>Acacia acuminata</i> -, <i>Melaleuca raphiophylla</i> with patches of <i>Melaleuca cuticularis</i> over introduced grasses and Chenopod Shrubland of <i>Tecticornia lepidosperma</i> over introduced grasses on saline clays and sandy-clays in creeklines. • E2 – Open Woodland of <i>Eucalyptus rudis</i> subsp. <i>rudis</i> – <i>Melaleuca raphiophylla</i> over <i>Acacia saligna</i>, <i>Acacia acuminata</i>, <i>Jacksonia sternbergiana</i> over <i>Ficinia nodosa</i> and introduced grasses on sandy-loams and clay-loams on fringes of creeklines. • E3 – Woodland of <i>Eucalyptus wandoo</i> with patches and mixtures of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> – <i>Corymbia calophylla</i> abutting <i>Eucalyptus loxophleba</i> subsp. <i>loxophleba</i> on sandy gravels and <i>Allocasuarina huegeliana</i> on granites over low shrubs of <i>Acacia lasiocarpa</i> var. <i>sedifolia</i>, <i>Bossiaea eriocarpa</i>, <i>Gastrolobium praemorsum</i>, <i>Astrolooma compactum</i>, <i>Acacia pulchella</i>, <i>Hibbertia commutata</i> over low sedges and annuals on sandy-loam gravels on mid and upper slopes. • E4 – Woodland of <i>Eucalyptus wandoo</i> with patches and mixtures of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> – <i>Corymbia calophylla</i> abutting <i>Eucalyptus loxophleba</i> subsp. <i>loxophleba</i> on sandy gravels and <i>Allocasuarina huegeliana</i> on granites over low shrubs of <i>Acacia lasiocarpa</i> var. <i>sedifolia</i>, <i>Bossiaea eriocarpa</i>, <i>Gastrolobium praemorsum</i>, <i>Astrolooma compactum</i>, <i>Acacia pulchella</i>, <i>Hibbertia commutata</i> over low sedges and annuals on sandy-loam gravels on mid and upper slopes. • E5 – Woodland of <i>Eucalyptus astringens</i> subsp. <i>astringens</i> – <i>Eucalyptus wandoo</i> on sandy-loam and some <i>Eucalyptus marginata</i> subsp. <i>marginata</i> over subshrubs and introduced grasses on sandy-loams on slopes. • CI – Cleared • PL – Plantation <p>A total of 76 vascular plant taxa from 57 plant genera and 22 plant families were recorded within the Study Area, comprising of 53 native species and 23 introduced (weed) species.</p> <p>The desktop study conducted within a 20 km search radius of the survey area returned a total of 24 threatened or priority flora recorded as occurring, or potentially occurring, and a further 26 protected fauna species, including 14 birds and 12 mammals (Mattiske, 2022a).</p> <p>Vegetation condition mapping undertaken by Mattiske in 2010 and 2021 has indicated that the vegetation types recorded in the Study Area are classified as good to completely degraded, and vegetation within the proposed disturbance footprint (the NVCP Application Area), all are classified between degraded to completely degraded. All vegetation classified as good condition has been avoided with the proposed clearing restricted to vegetation classified as degraded to completely degraded only.</p> <p>Nearby remnant patches of vegetation, such as the Ngopitchup reserve, are much more likely to support a higher level of biodiversity than the predominantly disturbed and degraded areas intended for clearing.</p>	<p>The proposed clearing is considered not at variance to this principle.</p>

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(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	<p>A desktop study (within 20 km of the survey area) identified a total of 26 protected fauna species which are known or likely to occur, including 14 birds and 12 mammals (Mattiske, 2022a).</p> <p>Bird and bat utilisation surveys undertaken have also recorded a total of 52 bird species and 5 bat species, of which one is recognised as a protected species (Forest Red-tailed Black Cockatoo).</p> <p>Areas of native vegetation that are proposed to be cleared have been assessed (Mattiske, 2022b), and no obvious tree hollows were observed. Although few species may forage or pass through the Study Area and NVCP Application Area, given the dominance of completely degraded paddocks that have been maintained for agricultural and pastoral purposes for many decades, the potential impacts to listed species is considered insignificant (Mattiske, 2022a).</p>	The proposed clearing is considered not likely to be 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	<p>A total of 76 vascular plant taxa from 57 plant genera and 22 plant families were recorded within the Study Area, comprising of 53 native species and 23 introduced (weed) species. Of these species, no threatened or priority flora species were recorded.</p> <p>Targeted field assessments of the flora and vegetation of the proposed clearing areas have been completed (Mattiske, 2021, 2022a, 2022b). These assessments concluded that proposed clearing areas are all degraded to completely degraded and no conservation flora will be impacted by these activities.</p> <p>Given the highly modified and disturbed nature of the NVCP Application Area, potential impacts to threatened or priority flora species are therefore considered to be insignificant.</p>	The proposed clearing is considered not likely to be at variance to this principle.
(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community	<p>One Threatened Ecological Community (Eucalypt Woodlands of the Wheatbelt) was identified within the Study Area from both desktop search results, and flora surveys undertaken in 2021. This TEC's currently known extent (DBCA, 2021) occurs along some road reserves within the Study Area and areas adjacent to the Ngopitchup Reserve.</p> <p>Targeted field assessments of flora and vegetation of the proposed clearing areas (Mattiske, 2021, 2022a, 2022b) concluded that the Threatened Ecological Community (Eucalypt Woodlands of the Wheatbelt) will not be impacted by these activities.</p> <p>Proposed clearing of areas within the buffer zone for this TEC are restricted to degraded vegetation along Warrenup Road.</p>	The proposed clearing is considered not at variance to this principle.

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(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared	<p>Remnant vegetation was mapped during surveys undertaken by Mattiske in 2010 (Mattiske, 2010) and 2021 (Mattiske, 2022a). This indicated the NVCP Application Area primarily consisted of highly degraded and modified agricultural land. Where remnant vegetation is present in the NVCP Application Area, it has been classified as degraded to completely degraded (Mattiske, 2022a).</p> <p>The project has gone through several design iterations to avoid clearing as much as possible. Proposed clearing has thereby avoided almost all remnant vegetation patches and where clearing of remnant vegetation has been proposed, it is generally a few trees on the fringes of a degraded or completely degraded remnant patch.</p> <p>As a result, any connectivity or environmental value offered by these remnant patches has largely been retained and proposed clearing is unlikely to be at variance with this principle.</p>	<p>The proposed clearing is considered not likely to be at variance to this principle.</p>
(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland	<p>The NVCP Application Area and proposed clearing does not encompass any watercourses or wetlands listed in the following categories:</p> <ul style="list-style-type: none"> • Directory of Important Wetlands in Australia – The closest Nationally Important Wetland is Coyrecup Lake approximately 47 km to the north east (DBCA, 2018). • Ramsar Sites – The closest Ramsar Site is Lake Muir-Byenup Lagoon approximately 70 km to the south west (DBCA, 2017). <p>The only named watercourse classified as a “Major River” in proximity to the NVCP Application Area is Carlecatup Creek (Landgate, 2022). A 250 m buffer has been applied to this watercourse with no vegetation clearing occurring within this buffer.</p> <p>Two vegetation types mapped by Mattiske during their 2010 and 2021 surveys are associated with watercourses or wetlands:</p> <ul style="list-style-type: none"> • E1 – Mosaic of Open Woodland of <i>Eucalyptus rudis</i> subsp. <i>rudis</i> – <i>Acacia acuminata</i> -, <i>Melaleuca rhapsiophylla</i> with patches of <i>Melaleuca cuticularis</i> over introduced grasses and Chenopod Shrubland of <i>Tecticornia lepidosperma</i> over introduced grasses on saline clays and sandy-clays in creeklines. • E2 – Open Woodland of <i>Eucalyptus rudis</i> subsp. <i>rudis</i> – <i>Melaleuca rhapsiophylla</i> over <i>Acacia saligna</i>, <i>Acacia acuminata</i>, <i>Jacksonia sternbergiana</i> over <i>Ficinia nodosa</i> and introduced grasses on sandy-loams and clay-loams on fringes of creeklines. <p>Clearing of these vegetation types has been avoided except for one location near a watercourse which will require several trees to be pruned or removed to widen access if needed. The vegetation in this area is completely degraded.</p>	<p>The proposed clearing is considered not likely to be at variance to this principle.</p>

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(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation	<p>Groundwater salinity mapping by DWER (DWER, 2018b) indicates the NVCP Application area experiences a TDS range of 7,000-35,000 mg/L which is considered saline to highly saline (DWER, n.d.).</p> <p>Soil salinity risk produced by DPIRD (DPIRD, 2019b) indicates the soil salinity risk across the majority of the NVCP Application Area is classified as “<3% of map unit has a moderate to high salinity risk or is presently saline” or “3-10% of map unit has a moderate to high salinity risk or is presently saline”. There are some small areas classified as “50-70% of map unit has a moderate to high salinity risk or is presently saline” at the northern and southern extents of the Study Area however no clearing will occur in these areas.</p> <p>Proposed clearing within the NVCP Application Area has been primarily restricted to heavily disturbed and cleared areas or select peripheral trees in windbreaks and shelterbelts, retaining the integrity of any significant remnant patches of vegetation. As a result, clearing is not expected to result in any appreciable land degradation.</p>	The proposed clearing is considered not at variance to this principle.
(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.	<p>There are no conservation areas intercepted or encompassed by the NVCP application area.</p> <p>There is one conservation area, Ngopitchup Reserve, located adjacent to the NVCP application area and another unnamed reserve within 1 km. The nearest clearing sites to either reserve are verge trees along the eastern side of Warrenup Road. However, clearing at this location is unlikely to impact the environmental values of Ngopitchup reserve given the degraded condition of the verge-side vegetation (Mattiske, 2022b).</p> <p>Considerations have also been made for the value provided by shelterbelts and wind breaks for connectivity between remnant patches. These areas have been avoided by utilising existing gaps in vegetation to retain any value provided to nearby conservation areas.</p>	The proposed clearing is considered 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.	<p>The NVCP Application Area and proposed clearing does not encompass any surface or groundwater areas listed in the following categories</p> <ul style="list-style-type: none"> • RIWI Act Proclaimed Groundwater Areas – The nearest proclaimed Groundwater Area is the Busselton-Capel Groundwater Area approximately 140 km to the west (DWER, 2018c). • RIWI Act Proclaimed Surface Water Areas and Irrigation Districts – The nearest proclaimed Surface Water Area or Irrigation District is the Warren River and Tributaries Surface Water Area approximately 12 km to the west (DWER, 2018d). • CAWS Act Part 2A Catchment Control Areas – The nearest Catchment Control Areas is the Warren River Water Reserve approximately 12 km to the west (DWER, 2018a). <p>The NVCP Application Area does not intersect or encompass any protected surface or groundwater system identified above and is unlikely to result in long-term deterioration in local water resources given the degraded and disturbed nature of the vegetation to be cleared. Potential short-term construction impacts such as dust emissions or erosion will be addressed through the necessary controls as part of the Project’s construction environmental management plan.</p>	The proposed clearing is considered not at variance to this principle.

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(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding	<p>Flood Risk Mapping by DPIRD (DPIRD, 2019a) identified the majority of the NVCP Application Area as “<3% of the map unit has a moderate to high flood risk”.</p> <p>Given the small amount of clearing proposed in relation to the full NVCP application area and low flood risk, clearing is considered to not be at variance with this principle.</p>	<p>The proposed clearing is considered not at variance to this principle.</p>

Note. ¹ Study Area refers to the landowner boundaries encompassing the Project site. ² NVCP Application Area refers to the “total footprint of clearing” identified in the NVCP Application Form, of which the actual area of native vegetation to be cleared is a small proportion of.

References

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