GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 10789/1
Permit Holder:	Regional Power Corporation, Trading as Horizon Power
Duration of Permit:	From 03/04/2025 to 03/04/2030

The permit holder is authorised to clear *native vegetation* subject to the following conditions of this permit.

PART I – CLEARING AUTHORISED

1. Clearing authorised (purpose)

The permit holder is authorised to clear *native vegetation* for the purpose of the construction of Blackstone Power Station and Solar Farm

2. Land on which clearing is to be done

Lot 9 on Deposited Plan 91722, Papulankutja

3. Clearing authorised

The permit holder must not clear more than 3.87 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

4. Period during which clearing is authorised

The permit holder must not clear any *native vegetation* after 03/04/2028.

PART II – MANAGEMENT CONDITIONS

5. Avoid, minimise, and reduce impacts and extent of clearing

In determining the *native vegetation* authorised to be cleared under this permit, the permit holder must apply the following principles, set out in descending order of preference:

(a) avoid the clearing of *native vegetation*;

(b) minimise the amount of *native vegetation* to be cleared; and

(c) reduce the impact of clearing on any environmental value.

6. Weed management

When undertaking any clearing authorised under this permit, the permit holder must take the following measures to minimise the risk of introduction and spread of *weeds*:

(a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;

(b) ensure that no known *weed*-affected soil, *mulch*, *fill*, or other material is brought into the area to be cleared; and

(c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

7. Directional clearing

The permit holder must conduct clearing activities in a slow, progressive manner from South to North to allow fauna to move into adjacent *native vegetation* ahead of the clearing activity.

8. Revegetation and rehabilitation – retention of vegetative material and topsoil

The permit holder must:

a) retain the vegetative material and topsoil removed by clearing authorised under this permit and stockpile the vegetative material and topsoil in an area that has already been cleared;

b) within 12 months following clearing authorised under this permit, revegetate and rehabilitate the area(s) that are no longer required for the proposed solar farm and energy infrastructure by:

(i) re-shaping the surface of the land so that it is consistent with the surrounding five metres of uncleared land;

(ii) ripping the ground on the contour to remove soil compaction;

(iii) laying the vegetative material and topsoil retained under condition 4(a) on the cleared area(s); and

(iv) undertake weed control activities on an 'as needed' basis to reduce weed cover within the cleared areas to no greater than the weed cover within the surrounding five metres of uncleared land.

9. Wind erosion management

The permit holder must commence construction of the solar farm and associated infrastructure (activities relating to the proposed purpose) no later than three (3) months after undertaking the authorised clearing activities to reduce the potential for wind erosion.

PART III - RECORD KEEPING AND REPORTING

10. Records that must be kept

The permit holder must maintain records relating to the listed relevant matters in accordance with the specifications detailed in Table 1.

Table 1: Records that must be kept

No.	Relevant matter	Specifications
1.	In relation to the authorised clearing activities generally	(a) the species composition, structure, and density of the cleared area; (b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to GDA2020, expressing the geographical coordinates

No.	Relevant matter	Specifications
		in Eastings and Northings; (c) the date that the area was cleared; (d) the size of the area cleared (in hectares); and (e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 5; and (f) actions taken to minimise the risk of the introduction and spread of *weeds* in accordance with condition 6; and (g) the date that construction of the solar farm and associated infrastructure (activities relating to the proposed purpose) was commenced.
2.	In relation to revegetation and rehabilitation management pursuant to condition 8	a) the areas revegetated and work undertaken to rehabilitate areas b) weed management activities undertaken
3.	In relation to erosion management pursuant to condition 9	(a) Activities undertake to avoid, minimise and mitigate erosion from wind

11. Reporting

The permit holder must provide to the *CEO* the records required under condition 10 of this permit when requested by the *CEO*.

DEFINITIONS

In this permit, the terms in Table have the meanings defined.

Table 2: Definitions

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*.
clearing	has the meaning given under section 3(1) of the EP Act.
condition	a condition to which this clearing permit is subject under section 51H of the EP Act.
fill	means material used to increase the ground level, or to fill a depression.
department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
EP Act	*Environmental Protection Act 1986* (WA)
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.

Term	Definition
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
rehabilitate	means actively managing an area containing native vegetation in order to improve the ecological function of that area.
revegetate	means the re-establishment of a cover of local provenance native vegetation in an area using methods such as natural regeneration, direct seeding and/or planting, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.
temporary works	means access tracks, spoil areas, side tracks, site offices, storage areas, laydown areas, extraction sites, camps, project surveys, pre-construction activities, and similar works associated with a project activity that are temporary in nature.
weeds	means any plant – (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or not indigenous to the area concerned.

END OF CONDITIONS

B. Walker.

Belinda Walker
Executive Director
GREEN ENERGY

Officer delegated under Section 20
of the Environmental Protection Act 1986

10 March 2025

Schedule 1

The boundary of the area authorised to be cleared is shown in the map below (Figure 1).

Figure 1: Map of the boundary of the area within which clearing may occur (Placeholder figure)

Government of Western Australia
Department of Water and Environmental Regulation

Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 10789/1
Permit type:	Purpose permit
Applicant name:	Regional Power Corporation, trading as Horizon Power
Application received:	1 October 2024
Application area:	4.48 hectares
Purpose of clearing:	Construction of Blackstone Power Station and solar farm
Method of clearing:	Mechanical
Property:	Lot 9 on Deposited Plan 91722, Papulankutja
Location (LGA area/s):	Ngaanyatjarra
Localities (suburb/s):	Blackstone/Papulankutja

1.2. Description of clearing activities

The vegetation proposed to be cleared is contained within a single contiguous area (see Figure 1, Section 1.5). The application is to mechanically clear 3.87 hectares (ha) of vegetation within a 4.48 ha envelope to develop a hybrid power station consisting of a solar farm, diesel generator, fuel storage and connection infrastructure. Clearing is also to accommodate an access track from the Blackstone-Warburton Road and Gunbarrel Highway to the solar farm and connection between the solar farm and the existing diesel generator. The proposed clearing will facilitate access to green energy options and replace the community's diesel generator that was lost in 2022.

1.3. Decision on application

Decision:	Granted
Decision date:	11 March 2025
Decision area:	3.87 hectares of native vegetation, as depicted in Section 1.5, below.

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (DWER) advertised the application for 7 days and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix B), relevant datasets (see Appendix F), the findings of applicants photographs and summary of vegetation condition (see Appendix D), the clearing principles set out in Schedule 5 of the EP Act (see Appendix C), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). The Delegated Officer also took into consideration the purpose of the clearing to facilitate the construction of a mixed solar power plant and infrastructure to replace the power input needed for a remote indigenous community.

The assessment identified that the proposed clearing will result in:

- the loss of native vegetation that is potentially suitable habitat for conservation significant fauna species

- the loss of native vegetation that potentially supports priority flora species

potential land degradation in the form of erosion and nutrient transport

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the proposed clearing is unlikely to lead to appreciable land degradation or have long-term adverse impacts on environmental values, disturbance of significant species and land degradation can be minimised and managed to unlikely lead to an unacceptable risk to environmental values. The applicant has suitably demonstrated avoidance and minimisation measures.

The Delegated Officer decided to grant a clearing permit subject to conditions to:

- avoid, minimise to reduce the impacts and extent of clearing
- take hygiene steps to minimise the risk of the introduction and spread of weeds
- undertake slow, progressive one directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity
- commencement of construction activities no later than three (3) months after undertaking authorised clearing activities to reduce the potential for wind erosion
- within 12 months following clearing authorised revegetate and rehabilitate areas that are no longer required for the proposed solar farm and associated infrastructure such as construction and lay down areas.

1.5. Site map

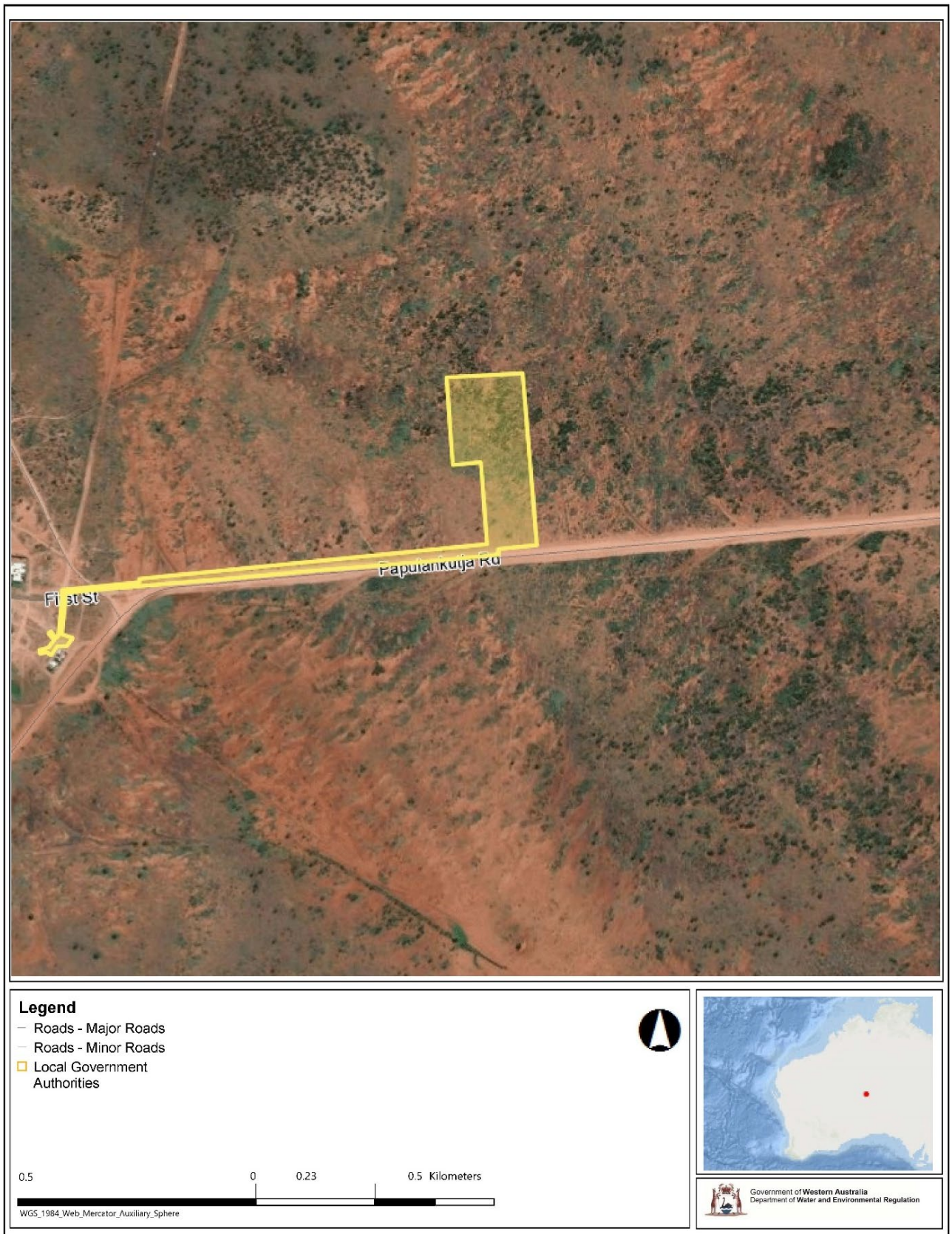

Figure 1- Map of the application area

The area cross-hatched yellow indicates the area authorised to be cleared under the granted clearing permit.

2 Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Country Areas Water Supply Act 1947* (WA) (CAWS Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Planning and Development Act 2005* (WA) (P&D Act)
- *Soil and Land Conservation Act 1945* (WA)
- *Electricity Corporations Act 2005*
- *Energy Operators (Powers) Act 1979 (WA)*

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

Evidence was submitted by the applicant, demonstrating that mitigation measures would sufficiently minimised impacts associated with land degradation, disturbance of fauna habitat and potential priority flora habitat (Horizon Power 2024b). The applicant noted that site selection considered local use water bores and the condition of the vegetation as the main factors for the suitability of the proposed area. The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix B) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles (see Appendix C) identified that the impacts of the proposed clearing present a risk to biological values (fauna, adjacent flora and vegetation). The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

3.2.1. Biological values - flora and fauna- Clearing Principle (a) and (b)

Assessment

Flora and fauna surveys have not been conducted over the application area and due to the remoteness of the location, flora records in the region are very limited. No Threatened flora or Threatened or Priority Ecological Communities are known to occur within the application area (Western Australian Herbarium (1998-). Several fauna species of conservation significance and several Priority flora species have been recorded within 50 kilometres of the application area (GIS Database).

Flora and Vegetation

Observations made by the applicant suggest that the proposed area consists of poor or Degraded (Trudgen, 1991) vegetation. Based on aerial images as well as photographs submitted by the applicant (Appendix E) it appears that Blackstone-Warburton Road may be altering the sheet flow of outwash from the steppes in some areas, characterised by a limited diversity of understorey cover that gradually shifts to healthy vegetation community to the north (visible in Figure 1). Furthermore, vegetation cover appears to be more consistent south of the road while

noticeable edge effects can be observed on the north side of the road which supports the idea that north flowing sheetwash is disturbed at the road limiting its distribution to the vegetation further north.

An analysis of herbarium records available to the Department indicates occurrences of the following conservation significant flora species within the local area (50km):

- *Menkea lutea* (Priority (P) 1) an erect or prostrate annual herb, recorded in small number of locations across the central ranges the next closest record being 60 km East of the proposed area and continuing into South Australia. The species does not appear to be recorded outside of this region and may be geographically constrained to the central ranges habitat.
- *Goodenia asteriscus* (P3) a perennial herb found in clays and loam soils dominated by *Triodia scariosa* (Lang & Davies, 2017). The distribution of recorded species is broad, ranging from the central ranges into the northwest of South Australia.
- *Apowollastonia stirlingii subsp. Stirlingii* (P1), a small understorey herb and subspecies of the more widespread *Apowollastonia stirlingii* (not threatened). Information on the subspecies is extremely limited
- *Euphorbia parvicaruncula* (P1), a short-lived annual or perennial herb with a broad distribution across central Australia into Central Queensland and Northern New South Wales.

The listed taxon are recorded across broad distributions in central Australia.

Of the above species, *Goodenia asteriscus* (Priority 3)was recorded the closest to the application area. Topographic and Soil mapping demonstrate that the species occurs near the same local landform, the Blackstone ranges on the same soil type, outwash plains of basic igneous rocks and low steppes. However, as the species listed are priority, understanding of their distributions and life history are limited which imposes limitations on predicting their prevalence in an area without ground truthing.

Menkea lutea is recorded in few locations across Central Australia and appears to be constrained to the central ranges habitat where it does occur. Given the condition of the proposed area and the species occurrence on outwash plains suggests that the species is preferential to the conditions associated with the land system and would likely rely on the sheet flow of rainfall outwash from the rocky steppes. Based the observed impacts on the site discussed above and the limited presence of herbaceous understorey the likelihood of *Menkea lutea* occurring on the site is low and the risk of proposed clearing impacting the species low as well.

Noting the broad distribution of the species, the Degraded condition of vegetation, and limited extent of clearing, the listed flora species are unlikely to be impacted by the relatively minor clearing proposed.

Overall, in the context of the local area, the amount of outwash plain habitat cleared is minor. A significant amount of this habitat remains undeveloped and capable of sustaining the species listed.

Clearing may result in the increase of weed species presence due to increased area of disturbance resulting in further intrusion into adjacent intact endemic vegetation causing indirect impacts through competition and altering fuel loads. This can be mitigated through weed control and rehabilitation of disturbed areas to limit the extent to which weeds can be introduced and established.

Fauna

Based on preferred habitat types, the following conservation significant fauna are considered possible to occur within the application area:

-*Macrotis lagotis*

The Greater Bilby (*Macrotis lagotis)* was recorded 20km southeast of the proposed area where the Blackstone Range meets the Great Victoria Desert. The preferred habitat is generally constrained by availability if soils suitable for burrowing and areas dominated by spinifex and mulga within this regional context. The proposed site is situated on outwash plain with mulga shrubland and may potentially be suitable habitat, however the site is partially degraded comprises a small area in a largely intact regional vegetation complex. It is unlikely that clearing will pose a significant risk to the Greater Bilby's persistence at a local or regional scale.

-Polytelis alexandrae

Princess Parrots *(Polytelis alexandrae)* have not been recorded in proximity to the proposed clearing however the vegetation complexes in the landscape are considered suitable habitat for the species. The proposed area does not appear to support significant hollow bearing trees for breeding and as such the area represents a small proportion of potential foraging habitat for the species that is not significant in the context of the greater regional landscape.

-Leipoa ocellata

Malleefowl (*Leipoa ocellata*) have been recorded within 10km of the site and the area is potentially suitable for foraging habitat for the species. In lieu of site surveys, photographs were submitted and no breeding mounds were noted within the proposed area. The intact vegetation both locally and regionally means that the proposed clearing poses minimal risk to the species through loss of habitat.

It should be noted that the proposed area is remote and that regular surveys are not undertaken due to limitations to access. Most observations recorded in the area consist of historic sightings and may no longer be representative of the range of the species reviewed under desktop survey. In this instance the proposed impact is a relatively small area represent an impact to an area of significant ecological value for protected or priority species.

Vegetation structure in the proposed area shows signs of disturbance in proximity to the road predominantly, minimal vegetative cover and low structural diversity with potential weed encroachment. The overall area proposed to be cleared will be a minor loss of potential habitat for the fauna discussed in the context of the local landscape. Risk for impact to fauna through loss of habitat is expected to be low provided standard clearing controls are practiced such as slow directional clearing.

Conclusion

Based on the above assessment, the proposed clearing will result in the removal of 4.48 hectares of outwash plain soil systems that have a low likelihood of supporting local priority flora and constitutes a minor loss of habitat for local fauna species. For the reasons set out above, direct impact of the proposed clearing on conservation significant flora and fauna is considered unlikely. The potential impact unlikely can be managed through the conditioning of the permit and as such the proposed clearing does not constitute a significant residual impact.

Indirect impact of clearing in the form of the introduction and spread of weeds into adjacent vegetation can be managed by the application of weed control and rehabilitation of temporary cleared area.

Conditions
To mitigate the potential impact, the following conditions are placed on the permit.

- Slow directional clearing to avoid impact on fauna present
- Weed management / control
- Rehabilitation of temporary cleared area

3.2.2. Land and water resources - Clearing Principle (g)

Assessment

The proposed area has been assessed as having high potential for degradation due to wind erosion due to low annual rainfall and characteristic soils of the area. Removal of vegetation carries a high risk for erosion through both wind and to a lesser extent water which can alter surface hydrology during limited rain as well as lead to dust deposition on adjacent vegetation. These impacts can further indirectly impact adjacent vegetation allowing the spread of weeds through degradation of vegetation quality.

Limited water availability poses difficulties with dust control measures and us such care should be taken to limit exposure of soils to erosion factors. By limiting time between clearing and construction and rehabilitation of areas as soon as is feasible, erosion impacts can be effectively minimised limiting significant degradation to the site.

Care should be taken with the design of drainage to ensure that it does not contribute to erosion of soils through channelling of water at discharge points. The rehabilitation of temporary clearing area can further mitigate the potential of impacts from wind erosion.

Conclusion:

Given the above, the impact of clearing on the land and water resources is not considered to be appreciable. The potential impact can be mitigated by the application of land and water management, limiting exposure and rehabilitation of temporary cleared areas.

Condition:

To mitigate the potential impacts of clearing on land and water resources, the following conditions are placed on the permit:

- commence the construction of solar farm and power station within 3 months of clearing
- rehabilitation of temporary cleared area

3.3. Relevant planning instruments and other matters

The clearing permit application was advertised on 08 November 2024 by the Department of Water and Environmental Regulation inviting submissions from the public. No submissions were received in relation to this application.

Other relevant authorisations required for the proposed land use include:

The Shire of Ngaanyatjarra advised DWER that local government approvals are not required, and that the proposed clearing is consistent with the Shire's Local Planning Scheme. The Shire did not have any objections to the proposed clearing

The site is within Crown Reserve 17614 which is vested for the use and benefit of Aboriginal inhabitants under a management order to vest to the Aboriginal Lands Trust with a headlease between the Trust and the Ngaanyatjarra Council. The area is subject to an Aboriginal settlement layout plan endorsed under State Planning Policy 3.2. The clearing purpose aligns with the purpose of the reserve (use and benefit of Aboriginal inhabitants) which does not require Native title notification however, the applicant is negotiating for formal tenure over the area with the Ngaanyatjarra Land Council.

No Aboriginal sites of significance have been mapped within the application area. It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972* (WA) and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Water and Environmental Regulation and the Department of Biodiversity, Conservation and Attractions, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works

End

Appendix A. Public Submission

The clearing permit application was advertised on 08 November 2024 by the Department of Water and Environmental Regulation inviting submissions from the public. No submissions were received in relation to this application.

Appendix B. Site characteristics

B.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is part of a part of an expansive tract of native vegetation in the extensive land use zone of Western Australia. It is adjacent to the Blackstone/Papulankutja community predominantly consisting of private dwellings, associated infrastructure and an airstrip. The area is separated from the Blackstone Ranges, low steppes and rock outcropping to the south by Blackstone-Warburton Road. The proposed clearing area is in part, degraded in proximity to the road gradually grading to large tracts of low open woodland toward the northeast. Aerial imagery indicates the local area (50-kilometre radius from the centre of the area proposed to be cleared) retains approximately 80 per cent of the original native vegetation cover.
Ecological linkage	The application area does not intersect any formally mapped ecological linkages. Due to the remote nature of the application area, clearing poses only a minor reduction in ecological connectivity in the greater landscape. Proximity to the town limits the value of the vicinity as an area for dispersal or linkage as well as degradation limiting vegetation cover for linkage.
Conservation areas	The application area is within Ranges of the Western Desert which is listed on the Register of National Estate (GIS Database).
Vegetation description	Photographs supplied by the applicant indicate the vegetation within the proposed clearing area consists of low forest and woodlands and open grassy areas to degraded bare ground near Blackstone Warburton Road. Representative photos are available in Appendix F. This is consistent with the Beard Vegetation Associations mapped vegetation type: • Vegetation association 19 which is described as Low woodlands of *Acacia aneura* s.l.(mulga) and associated species (GIS Database). The mapped vegetation type retain approximately 99 per cent of the original extent (Government of Western Australia, 2019).
Vegetation condition	Photographs supplied by the applicant indicate the vegetation within the proposed clearing area is in Good to very degraded (Trudgen, 1991) condition, described as: • Area in vicinity of the road appears to be very degraded with weeds and largely bare ground with no remnant vegetation structure. • Moving north away from the road the edge effects gradually grade to good quality low, open mulga woodland over triodia. • Vegetation quality increases to pristine with distance from development area due to remote nature of the area. The full Trudgen (1991) condition rating scale is provided in Appendix E. Representative photos are available in Appendix F.
Climate and landform	The development area is within the south portion of the Central Ranges, climate is characterised as arid, with low annual rainfall (177mm/annum on average) with a slightly higher chance of occurrence during the winter period but can be highly variable year to year. the area is situated on an outwash plain running from the low rocky steppes south of Blackstone/Papulankutja .

Characteristic	Details
Soil description	The soil is mapped as MM27 atlas system, Outwash plains subjacent to basic igneous rocks some low hills of basic rocks occur in the unit, occasional dunes. Soils trend towards alkaline at the surface over the mapped unit.
Land degradation risk	The area has been mapped as having: • High to extreme hazard for wind erosion • Very high to extreme hazard for water erosion • Moderate risk for soil salinity • High susceptibility for subsurface compaction • High to extreme hazard for phosphorus export
Waterbodies	The desktop assessment and aerial imagery indicated that no watercourses or bodies intersect the proposed area to be cleared, minor, ephemeral drainage channels are located to the south within the low steppes breaking into sheet wash fans where the slope terminates.
Hydrogeography	The area proposed to be cleared is within the Murchison Groundwater area proclaimed under the RIWI act 1914.Groundwater in this area comprises of fractured rock aquifers in the vicinity of the ranges and a paleo valley north of the site ranging from fresh to slightly brackish (Symington et al, 2024). Fractured rock aquifers are estimated at approximately 6 mbgl while the paleovalley is estimated up to 28 mbgl.The proposed area for clearing is situated on an outwash plain in an area with high potential for water erosion and moderate risk for soil salinity(DPIRD 2019).
Flora	No flora or vegetation survey was undertaken over the application area. There are no known records of conservation significant flora in the application area or vicinity. The closest recorded significant flora are *Menkea lutea*, *Goodenia asteriscus, Eucalyptus sparsa* and *Vittadinia pustula* located approximately between 13 and 17 km from the application area. There are records of at least 10 priority flora within 50 kilometres radius, three of which are found on the same soil and vegetation types as the application area
Ecological communities	No Threatened or Priority Ecological Communities have been recorded in the local or regional proximity to the proposed area for clearing.
Fauna	No fauna survey was undertaken over the application area. Based on potential soil and habitat types within the application area, several conservation significant species may occur within the application area. Fauna records in the local area are limited to historical observations

B.2. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix H.1), and impacts to the following conservation significant flora required further consideration.

Species name	Conservation status	Suitable habitat features ? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Menkea lutea	P1	Y	Y	Y	17 km	16	N/A
Appollowastonia stirlinggii subsp. stirlingii	P1	Y	Y	Y	30 km	164	N/A
Euphorbia parvicaruncula	P1	Y	Y	Y	34 km	378	N/A
Goodenia asteriscus	P3	Y	Y	Y	17 km	29	N/A
Eucalyptus sparsa	P3	Y	N	Y	15km	175	N/A
Vittadinia pustulata	P3	N	Y	N	17km	941	N/A
Amaranthus centralis	P3	N	Y	N	30km	102	N/A
Indigofera gilesii	P3	N	Y	N	37 km	55	N/A
Lythrum paradoxum	P3	N	N	N	21 km	94	N/A

Species name	Conservation status	Suitable habitat features ? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Indigofera cornuligera subsp. cornuligera	P3	N	N	N	30 km	358	N/A

B.3. Fauna analysis table

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Macrotis lagotis	VU	Y	Y	20 km		N/A
Polytelis alexandrae	VU	Y	Y	N/A		N/A
Leipoa ocellata	VU	Y	Y	10 km		N/A
Dasycercus blythi	P4	Y	N	31 km		N/A
Petrogale lateralis centralis	VU	Y	N	34 km		N/A
Liopholis kintorei	VU	N	Y	N/A		N/A
Sminthopsis psammophila	EN	N	N	N/A		N/A
Pezoporus occidentalis	EN	N	N	N/A		N/A
Erythrotriorchis radiatus	EN	N	N	N/A		N/A
Calidris acuminata	VU	N	N	N/A		N/A
Macroderma gigas	VU	N	N	N/A		N/A
Falco Hypoleucos	VU	N	N	N/A		N/A

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

B.4. Land degradation risk table

Risk categories	***Land Unit 1***
Wind erosion	99% of the map unit has a high to extreme hazard
Water erosion	99% of the map unit has a high to extreme hazard
Salinity	99% of the map unit has a moderate hazard
Subsurface Acidification	0% of the map unit has high susceptibility
Flood risk	99% of the map unit has moderate to high hazard
Water logging	99% of the map unit has a moderate to very high risk
Phosphorus export risk	99% of the map unit has high to extreme hazard

Appendix C. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): *"Native vegetation should not be cleared if it comprises a high level of biodiversity."* Assessment:	Not likely to be at variance	Yes See 3.2.1

Assessment against the clearing principles	Variance level	Is further consideration required?
The area proposed to be cleared does not contain locally/regionally significant flora, fauna, habitats, assemblages of plants.		
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."* Assessment: The area proposed to be cleared likely does not contain significant habitat for conservation significant fauna due to edge effects from the road and tracks affecting vegetation density and introducing weeds. The proposed area is relatively minor in proportion with the local and regional context for native vegetation and fauna habitat providing a large area.	Not likely to be at variance	Yes See 3.2.1
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: "There are no known records of Threatened flora within the application area (GIS Database). No flora or vegetation surveys were undertaken within the application area, and searches of available databases did not identify any Threatened flora with the potential to occur. The vegetation association within the application area are common and widespread within the region (GIS Database), and the vegetation proposed to be cleared is unlikely to be considered critical habitat for any Threatened flora species.	Not likely to be at variance	No
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."* Assessment: The area proposed to be cleared does not contain species that can indicate a threatened ecological community. No threatened ecological communities are listed in the vicinity of the proposed area.	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation areas		
Principle (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."* Assessment The extent of native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia (Commonwealth of Australia, 2001). The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.	Not at variance	No
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."* Assessment: The application area is located within an area known as the Ranges of the Western Desert, which is listed on the Register of National Estate for its unique natural values (GIS Database). The ranges of the Western Desert covers an area of approximately eight million hectares (GIS Database). The area of the proposed clearing is unlikely to have any significant impact on the natural values of this area.	Not at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: land and water resources		
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."* Assessment: Given no water courses or wetlands are recorded within the application area and nearby drainage channels are ephemeral, the proposed clearing is unlikely to impact on- or off-site hydrology and water quality.	Not at variance	No
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The mapped soils are highly susceptible to wind and water erosion and moderately susceptible to salinity (DPIRD 2019). Noting the extent of the application area and the condition of the vegetation, the proposed clearing may have an appreciable impact on land degradation. However, these risks are able to be addressed and mitigated through standard management and design including staged clearing, minimising the time between clearing and construction and erosion control measures.	May be at variance	Yes See 3.2.2
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."* Assessment: Groundwater access in the vicinity of the town consists of shallow fractured rock (up to 6mbgl) which have been avoided by the applicant in selecting the proposed area. Groundwater resources north of the town consist of deeper paleochannels up to 28m deep.	Not at variance	No
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment The mapped soils and topographic contours in the surrounding area do indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding. The proposed clearing is situated on an outwash plain with high potential for erosion altering sheet wash and surface water hydrology. However, due to the low seasonal rainfall and an arid climate, risk of flooding is low outside of extreme rainfall events.	Not at variance	No

Appendix D. Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from:

Trudgen, M.E. (1991) *Vegetation condition scale* in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.

Measuring vegetation condition for the Eremaean and Northern Botanical Provinces (Trudgen, 1991)

Condition	Description
Excellent	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
Very good	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
Good	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.
Poor	Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
Very poor	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.
Completely degraded	Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.

Appendix E. Photographs of the vegetation within the application area

Coordinates: 25°59'51.7"S 128°17'37.5"E

Coordinates: 25°59'51.9"S 128°17'39.9"E

Coordinates: 25°59'45.6"S 128°17'40.3"E

Coordinates: 25°59'45.6"S 128°17'41.7"E

Coordinates: 25°59'45.6"S 128°17'41.7"E

Coordinates: 25°59'50.8"S 128°17'40.4"E

Coordinates: 25°59'48.2"S 128°17'42.0"E

Coordinates: 25°59'48.2"S 128°17'42.0"E

Appendix F. Sources of information

F.1. GIS databases

Publicly available GIS Databases used (sourced from www.data.wa.gov.au):

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

F.2. References

Horizon Power (2024a) *Clearing permit application CPS 10789/1*, received 5 November 2024 (DWER Ref: APP-0025629).

Horizon Power (2024b) *Supporting information for clearing permit application CPS 10789/1,* received 16 October 2024 (DWER Ref: APP-0025629).

Commonwealth of Australia (2001) *National Objectives and Targets for Biodiversity Conservation 2001-2005*, Canberra.

Department of Environment Regulation (DER) (2013). *A guide to the assessment of applications to clear native vegetation*. Perth. Available from: https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf.

Department of Primary Industries and Regional Development (DPIRD) (2019). *NRInfo Digital Mapping. Department of Primary Industries and Regional Development.* Government of Western Australia. URL: https://maps.agric.wa.gov.au/nrm-info/ (accessed 20 November 2023).

Department of Water and Environmental Regulation (DWER) (2019). *Procedure: Native vegetation clearing permits*. Joondalup. Available from: https://dwer.wa.gov.au/sites/default/files/Procedure_Native_vegetation_clearing_permits_v1.PDF.

Government of Western Australia (2019) *2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019.* WA Department of Biodiversity, Conservation and Attractions. https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics

Symington, N. J., Halas, L., Lester, J. E., Thiele, Z., Smith M. L., Hansen, J. W. L., Dixon-Jain, P., Ley-Cooper, Y. and Sundaram B. (2024). *Musgrave Palaeovalley Groundwater Project Synthesis Report*. Record 2024/31. Commonwealth of Australia (Geoscience Australia), Canberra. https://dx.doi.org/10.26186/149406

Trudgen, M.E. (1991) *Vegetation condition scale* in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.

Western Australian Herbarium (1998-). *FloraBase - the Western Australian Flora*. Department of Biodiversity, Conservation and Attractions, Western Australia. https://florabase.dpaw.wa.gov.au/ (Accessed 11 November 2024)