



Clearing Permit Decision Report

1. Application details and outcomes

1.1. Permit application details

Permit number:	10301/1
Permit type:	Purpose Permit
Applicant name:	Peter Gibson
Application received:	10 August 2023
Application area:	29.5 hectares
Purpose of clearing:	Mineral production and associated activities
Method of clearing:	Mechanical Removal
Tenure:	Mining Lease 15/1349 Miscellaneous Licence 15/326
Location (LGA area/s):	Shire of Coolgardie
Colloquial name:	Bullabulling Gravel Project

1.2. Description of clearing activities

Peter Gibson proposes to clear up to 29.5 hectares of native vegetation within a boundary of approximately 31 hectares, for the purpose of mineral production and associated activities. The project is located approximately 30 kilometres west of Coolgardie town, within the Shire of Coolgardie.

The application is to allow for gravel extraction for supply to mining and civil customers with access to this gravel project via an existing access track on Miscellaneous Licence 15/326.

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	19 September 2024
Decision area:	29.5 hectares of native vegetation

1.4. Reasons for decision

This clearing permit application was made in accordance with section 51E of the *Environmental Protection Act 1986* (EP Act) and was received by the Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) on 10 August 2023. DEMIRS advertised the application for a public comment for a period of 7 days, and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix A), relevant datasets (Appendix D), supporting information provided by the applicant including the results of a flora and vegetation survey, the clearing principles set out in Schedule 5 of the EP Act (Appendix C), proposed avoidance and minimisation measures (Section 3.1), relevant planning instruments and any other matters considered relevant to the assessment (Section 3.3).

The assessment identified that the proposed clearing may result in:

- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values;
- direct impacts to malleefowl (*Leipoa ocellata*);
- the loss of native vegetation that is suitable habitat for Arid Bronze Azure Butterfly (*Ogyris subterrestris petrina*) and inland hairstreak (*Jalmenus aridus*).

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 can be minimised and managed to be unlikely to lead to an unacceptable risk to environmental values.

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;
- avoid clearing habitat suitable for Arid Bronze Azure Butterfly (*Ogyris subterrestris petrina*) and inland hairstreak (*Jalmenus aridus*).

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)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Mining Act 1978* (WA)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2014)
- *Procedure: Native vegetation clearing permits* (DWER, October 2021)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2020)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

Evidence was submitted by the applicant demonstrating avoidance and mitigation measures listed below will be undertaken:

- Proposed gravel pit on tenement M 15/1349 avoids clearing all priority flora species identified within the tenement; and
- Proposed access road on tenement L 15/326 will follow an existing track to minimise native vegetation clearing (Peter Gibson, 2023).

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 (Appendix A.1) 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 identified that the impacts of the proposed clearing present a risk to biological values (flora and fauna). 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) – Clearing Principles (a) and (c)

Assessment

The flora and vegetation survey conducted by Native Vegetation Solutions (2019) in the application area recorded three Priority flora species. Based on the vegetation and soil present, the application area has the potential to provide habitat for Priority flora species.

- *Acacia crenulata* (P3)

There are 39 records of this species occurring across two bioregions (Avon Wheatbelt and Coolgardie) (Western Australian Herbarium, 1998-; GIS Database). A total of 1,186 individual plants were recorded in the greater survey area but only 75 individuals of this species were recorded inside of the application area along the proposed access track (NVS, 2019). Two hundred and two individuals are outside of the proposed access track but still within 10 metres of it (NVS, 2019). This level of clearing represents a significant impact at the local scale. However, it is acknowledged that the linear nature of the access track survey and the presence of additional previously known record in the area suggests there are likely to be additional plants outside of the survey area (DBCA, 2024).

The proposed level of impact is unlikely to be significant to the conservation of the species as the application area is within the known distribution of this species and there are additional records of this species in the vicinity. Additionally, it is possible that this species, like many Acacias, responds favourably to disturbance, which may be why it has recruited along the margin on the existing access track (DBCA, 2024).

- *Eremophila microphylla* (P3)

There are 18 records of this species occurring within one bioregion (Coolgardie) (Western Australian Herbarium, 1998-; GIS Database). A total of 2006 individual plants were recorded in the greater survey area but only approximately 226 individuals of this species were recorded inside of the application area along the proposed access track (NVS, 2019). This represents a significant impact at the local scale. There are likely to be additional plants outside the survey area, given the linear nature of the survey and the presence of specimen records which describe the species as locally common (DBCA, 2024).

- *Gastrolobium graniticum* (T)

There are 60 records of this species occurring within two bioregions (Avon Wheatbelt and Coolgardie) (Western Australian Herbarium, 1998-; GIS Database). No individuals of this species occur within the application area and the nearest record is located 260 metres from the proposed access track (GIS Database). The flora and vegetation survey conducted by Native Vegetation Solutions (2019) did not record any individuals of *Gastrolobium graniticum* in the application area. For this reason and the distance of the nearest record, it is unlikely that the proposed clearing will impact this species at any level.

- *Philothea pachyphylla* (P1)

There are 11 records of this species occurring within one bioregion (Coolgardie) (Western Australian Herbarium, 1998-; GIS Database). No individuals of this species occur within the application area and the nearest record is located 110 metres from the proposed gravel pit (GIS Database). It is unlikely that the proposed clearing will result in a significant impact on this species. However, given its restricted distribution and the small number of known occurrences, care should be taken to minimise secondary impacts to the plants adjacent to the application area (DBCA, 2024).

- *Rinzia triplex* (P3)

There are 33 records of this species occurring within three bioregions (Avon Wheatbelt, Coolgardie, and Murchison) (Western Australian Herbarium, 1998-; GIS Database). A total of 805 individual plants were recorded in the greater survey area but only 20 individuals of this species were recorded inside of the application area on the northern portion of the proposed access track (NVS, 2019). Habitat for this species is not restricted and the proposed clearing is not likely to represent a significant impact on this species.

- *Styphelia saxicola* Hislop (P3)

There are 32 records of this species occurring within two bioregions (Coolgardie and Yalgoo) (Western Australian Herbarium, 1998-; GIS Database). No individuals of this species occur within the application area. However, the nearest record is located 90 metres from the proposed gravel pit (GIS Database). Habitat for this species is not restricted and the proposed clearing is not likely to represent a significant impact on this species.

Conclusion

For the reasons set out above, it is considered that the impacts of the proposed clearing on Priority flora are not likely to be significant and can be managed by taking steps to minimise the risk of the introduction and spread of weeds. Weeds have the potential to significantly change the dynamics of a natural ecosystem and lower the biodiversity of an area. Potential impacts to the biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- Weed control to undertake hygiene measures to minimise and prevent the introduction and spread of weeds.

3.2.2. Biological values (fauna) – Clearing Principles (b)

Assessment

No fauna surveys were undertaken over the application area. A desktop assessment identified no records of conservation significant fauna within the application area, however, 14 records of malleefowl (*Leipoa ocellata*) were found within a 20 kilometre radius of the application area (GIS Database).

Malleefowl, is found in semi-arid to arid shrubland and lowlands, especially those dominated by mallee and/or acacias (DCCEEW, 2023). This species requires sandy substrates and an abundance of leaf litter to breed (DCCEEW, 2023). The flora and vegetation assessment undertaken within the application area identified vegetation associations considered suitable for malleefowl foraging habitat:

- *Eucalyptus griffithsii* woodland (covering 8.45% of the application area); and
- *Eucalyptus* woodland over *Melaleuca* shrubland (covering 5.63% of the application area) (Appendix A.1).

Despite the suitable vegetation for malleefowl foraging habitat, the application area is broadly mapped containing 266k9 and 266g4 soil types (Appendix A.1). Both soil types are dark earthy soils containing calcareous rocks at shallow depths. Similarly, the application area is mapped within the Mx43 and BB5 atlas system (Appendix A.1) exhibiting rock outcrops and rocky ranges. Based on the desktop assessment of the soils and landscapes, the application area is considered unsuitable for malleefowl mound building habitat.

As mentioned above, lack of fauna surveys fails to ground-truth the information provided in a desktop assessment and therefore, may still contain isolated areas that are considered suitable foraging habitat for malleefowl. For this reason, a directional clearing condition will be placed on the clearing permit to minimise any potential impacts to malleefowl habitat.

Five out of the six vegetation types in the application area contain *Eucalyptus* woodland. These vegetation types contain species which are potential habitat for the Arid Bronze Azure Butterfly and the inland hairstreak and their respective host ant species. These vegetation types total 12.6 hectares of the application area (NVS, 2019). More than 88 per cent (11.16 hectares) of these vegetation types fall within the proposed access track and cannot be avoided. Aerial imagery shows part of the access track had been cleared previously and the rest is adjacent to an existing access track. Therefore the clearing for

access road will be kept to a minimum and utilise previously cleared areas where possible. The remainder 1.5 hectares of Eucalyptus woodland are in very good condition and fall within the proposed gravel pit and can be avoided.

Conclusion

For the reasons set out above, it is considered that the impacts of the proposed clearing on malleefowl can be managed by conducting slow directional clearing to allow malleefowl to move out of the area if present. The impacts to the Eucalyptus woodland habitat can be minimised by avoiding Eucalyptus woodland habitat in very good condition.

The applicant may have notification responsibilities under the EPBC Act for impacts to malleefowl and their habitats, as set out in the EPBC Act. The applicant has been advised to contact the federal Department of Climate Change, Energy, the Environment and Water (DCCEEW) to discuss EPBC Act referral requirements.

Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- Slow directional clearing to allow malleefowl to move into adjacent vegetation ahead of the clearing activity will minimise impact to individuals;
- Avoid clearing 1.5 hectares of Eucalyptus woodland habitat to maintain habitat for the Arid Bronze Azure Butterfly and the inland hairstreak.

3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 15 September 2023 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

There is one native title claim (WC2017/007) over the area under application (DPLH, 2024). This claim has been determined by the Federal Court on behalf of the claimant group. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (DPLH, 2024). It is the proponent's responsibility to comply with the *Aboriginal Cultural Heritage Act 2021* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

Other relevant authorisations required for the proposed land use include:

- A Mining Proposal / Mine Closure Plan approved under the *Mining Act 1978*.

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. Site characteristics

A.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared part of an expansive tract of native vegetation in the extensive land use zone of Western Australia. It is surrounded by native vegetation and landscape of the Coolgardie bioregion and lies approximately 30 kilometres west of Coolgardie town.
Ecological linkage	According to aerial imagery, the application area does not form part of any formal or informal ecological linkages (GIS Database).
Conservation areas	The application area is not located within any known or mapped conservation area. The closest mapped conservation areas is the Kangaroo Hills Timber Reserve located approximately 12 kilometres east of the application area and the Goldfields Woodlands Conservation Park located approximately 18 kilometres west of the application area (GIS Database).
Vegetation description	<p>The vegetation of the application area is broadly mapped as the following Beard vegetation associations:</p> <p>8: Salmon gum and gimlet medium woodlands; and 435: Acacia shrublands (GIS Database).</p> <p>A flora and vegetation survey was conducted over the application area by Native Vegetation Solutions during November 2018. The following vegetation types were recorded within the application area (NVS, 2019):</p> <ul style="list-style-type: none"> - <i>Eucalyptus</i> woodland over mixed <i>sclerophyll</i> shrubland: Dominant species were <i>Eucalyptus salmonophloia</i>, <i>Eucalyptus clelandiorum</i>, <i>Eucalyptus oleosa</i> subsp. <i>oleosa</i>, <i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i>, <i>Acacia crenulata</i> (P3), <i>Eremophila oppositifolia</i>, subsp. <i>angustifolia</i>, <i>Eremophila granitica</i>, <i>Philotheca brucei</i>, subsp. <i>brucei</i>, <i>Dodonaea microzyga</i> subsp. <i>acrobata</i> and <i>Eremophila ionantha</i> (Covering 16.23% of the application area); - <i>Allocasuarina</i> shrubland: Dominant species were <i>Allocasuarina campestris</i>, <i>Aluta appressa</i>, <i>Thryptomene kochii</i>, <i>Euryomyrtus maidenii</i>, <i>Homalocalyx thryptomenoides</i>, <i>Persoonia coriacea</i>, <i>Hibbertia eatoniae</i> and <i>Hysterobaeckea ochropetala</i> subsp. <i>reliqua</i> (Covering 59.14% of the application area); - <i>Eucalyptus</i> woodland over <i>Melaleuca</i> shrubland: Dominant species were <i>Eucalyptus eremophila</i> subsp. <i>eremophila</i>, <i>Eucalyptus platycorys</i>, <i>Eucalyptus rigidula</i>, <i>Melaleuca eleuterostachya</i>, <i>Melaleuca hamata</i>, <i>Triodia tomentosa</i>, <i>Westringia cephalantha</i> and <i>Acacia colletioides</i> (Covering 5.63% of the application area); - <i>Eucalyptus griffithsii</i> woodland: Dominant species were <i>Eucalyptus griffithsii</i>, <i>Trymalium myrtillus</i> subsp. <i>myrtillus</i>, <i>Acacia acuminata</i>, <i>Eremophila caperata</i>, <i>Eremophila ionantha</i>, <i>Grevillea acuaria</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i> and <i>Dodonaea microzyga</i> subsp. <i>Acrobata</i> (Covering 8.45% of the application area); - <i>Eucalyptus salubris</i> woodland: Dominant species were <i>Eucalyptus salubris</i>, <i>Acacia hemiteles</i>, <i>Maireana triptera</i>, <i>Acacia camptoclada</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i>, <i>Grevillea acuaria</i>, <i>Eremophila caerulea</i> subsp. <i>caerulea</i> and <i>Eremophila glabra</i> subsp. <i>Glabra</i> (Covering 2.96% of the application area); and - <i>Eucalyptus salmonophloia</i> woodland: Dominant species were <i>Eucalyptus salmonophloia</i>, <i>Santalum acuminatum</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i>, <i>Maireana triptera</i>, <i>Acacia hemiteles</i> and <i>Eremophila scoparia</i> (Covering 7.59% of the application area).
Vegetation condition	<p>The vegetation survey (NVS, 2019) indicate the vegetation within the proposed clearing area is in very good to degraded (Keighery, 1994) condition.</p> <p>The full Keighery (1994) condition rating scale is provided in Appendix C.</p>
Climate and landform	The application area is located in the Southern Cross and Eastern Goldfield subregion of the Coolgardie bioregion described as arid to semi-arid (NVS, 2019) with an annual average rainfall of 265.4 millimetres (Coolgardie WA) (BoM, 2024).
Soil description and land degradation risk	<p>The soils of the application area are broadly mapped as the following soil type:</p> <ul style="list-style-type: none"> - 266k9: Alkaline red earths with limestone or limestone nodules at shallow depth on gently sloping slightly concave plains; and - 266g4: Shallow calcareous loamy soils with shallow brown and grey-brown calcareous earths below which weathered rock occurs at shallow depths (DPIRD, 2023). <p>The application area lies within the Mx43 and BB5 atlas system (DPIRD, 2023). These atlas systems are described as:</p> <ul style="list-style-type: none"> - Mx43: Gently undulating valley plains and pediments; some outcrop of basic rock; and

Characteristic	Details
	- BB5: Rocky ranges and hills of greenstones-basic igneous rocks (Northcote et al., 1960-68).
Waterbodies	The desktop assessment and aerial imagery indicated that one minor, non-perennial drainage line transects the proposed access track within the application area (GIS Database).
Hydrogeography	The application area falls within the Goldfields Groundwater Area, which is legislated by the <i>RIWI Act 1914</i> (GIS Database). The mapped groundwater salinity is 14,000 to 35,000 milligrams per litre total dissolved solids which is described as saline (GIS Database).
Flora	The flora survey undertaken by Native Vegetation Solutions (NVS, 2019) recorded three priority species within the application area. Based on suitable habitat and historical records, an additional seven conservation significant flora species recorded within a 20 kilometre radius could potentially occur within the application area (NVS, 2019; GIS Database) (Appendix A.3).
Ecological communities	There are no mapped Threatened or Priority Ecological Communities (TEC/PEC) within a 20 kilometre radius of the application area (GIS Database). The nearest ecological community is the Priority 1 Finnerty Range/Mt Dimer/Yendilberin Hills vegetation complexes (banded ironstone formation) located approximately 69 kilometres north west of the application area (GIS Database).
Fauna	There are no records of conservation significant fauna within the application area (GIS Database). A desktop assessment identified 14 records of malleefowl (<i>Leipoa ocellata</i> , VU) within a 20 kilometre radius of the application area (GIS Database).

A.2. Vegetation extent

	Pre-European area (ha)	Current extent (ha)	Extent Remaining %	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre-European extent in all DBCA Managed Lands
IBRA Bioregion - Coolgardie	12,912,204.35	12,648,491.39	97.96	16.39	16.37
Beard vegetation associations - State (Western Australia)					
Veg Assoc No. 8	694,638.14	346,425.77	49.87	47,035.60	6.77
Veg Assoc No. 435	994,575.28	762,428.26	76.66	213,958.81	21.51
Beard vegetation associations - Bioregion (Coolgardie)					
Veg Assoc No. 8	280,248.26	275,589.11	98.34	9.52	9.52
Veg Assoc No. 435	738,211.22	732,467.35	99.22	28.29	28.29

Government of Western Australia (2019)

A.3. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix D.1), and biological survey information (NVS, 2019), impacts to the following conservation significant flora required further consideration.

Species name	WA Conservation Status	Distance of closest record to application area	Number of individuals recorded (application area)	Number of known records (State)
<i>Acacia crenulata</i>	P3	0 km	75	39
<i>Acacia epedunculata</i>	P1	11.7 km	0	12
<i>Acacia websteri</i>	P1	16.6 km	0	29
<i>Eremophila microphylla</i>	P3	0 km	2006	18
<i>Eucalyptus exigua</i>	P3	17.9 km	0	52
<i>Gastrolobium graniticum</i>	T	0.26 km	0	60
<i>Myriophyllum petraeum</i>	P4	12.9 km	0	97
<i>Philotheca pachyphylla</i>	P1	0.11 km	0	11

Species name	WA Conservation Status	Distance of closest record to application area	Number of individuals recorded (application area)	Number of known records (State)
<i>Rinzia triplex</i>	P3	0 km	20	33
<i>Styphelia saxicola</i> Hislop	P3	0.09 km	0	32

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority (NVS, 2019; Western Australian Herbarium, 1998-; GIS Database)

A.4. Fauna analysis table

With consideration for the site characteristics set out above and relevant datasets (see Appendix D.1), the following conservation significant fauna have been assessed and found to possibly occur within the application area.

Species Name	WA Conservation Status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of records within 20 km to application area
Malleefowl	VU	N	Y	1.7	14

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

(GIS Database)

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<p><u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity."</p> <p><u>Assessment:</u></p> <p>The application area contains three Priority flora species (NVS, 2019; GIS Database). Initially, five Priority flora species were in the application area, but the Permit Holder has provided avoidance measures and made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on conservation significant flora (Astill, 2023).</p> <p>In accordance with the Permit Holder's avoidance measures, potential loss of conservation significant flora caused by the proposed clearing can be further minimised through the implementation of a vegetation management condition.</p>	May be at variance	Yes Refer to Section 3.2.1, above
<p><u>Principle (b):</u> "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."</p> <p><u>Assessment:</u></p> <p>There are no records of conservation significant fauna species within the application area (GIS Database). A desktop assessment identified 14 records of malleefowl (occurring within a 20 kilometre radius of the application area (GIS Database). Potential habitat for the Arid Bronze Azure Butterfly and inland hairstreak is present in the application area.</p>	May be at variance	Yes Refer to Section 3.2.2, above.
<p><u>Principle (c):</u> "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."</p> <p><u>Assessment:</u></p> <p>A flora survey and desktop assessment of the application area did not record any species of Threatened flora (NVS, 2019; GIS Database).</p> <p>The closest record of a Threatened flora species is <i>Gastrolobium graniticum</i> located approximately 260 metres south of the proposed access track (GIS Database). Although suitable habitat is present in the application area, it is unlikely the proposed clearing will impact this species.</p>	Not likely to be at variance	Yes Refer to Section 3.2.1, above
<p><u>Principle (d):</u> "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> <p><u>Assessment:</u></p>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
The application area does not form part of any known or mapped Threatened Ecological Communities (NVS, 2019; GIS Database).		
Environmental value: significant remnant vegetation and conservation areas		
<p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u></p> <p>The application area falls within the Coolgardie Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 97% of the pre-European vegetation still exists in the IBRA Coolgardie Bioregion (Government of Western Australia, 2019).</p> <p>The application area is broadly mapped as Beard vegetation associations 8 and 435 (GIS Database), approximately 49 per cent and 76 per cent of the pre-European extent of these vegetation associations remain uncleared respectively (Government of Western Australia, 2019). Despite the extensive levels of clearing of these vegetation associations on a state level, the bioregional level has not been extensively cleared as over 98 per cent of the pre-European extent of vegetation associations 8 and 435 remain uncleared (Government of Western Australia, 2019).</p> <p>Given the bioregional pre-European vegetation remains largely uncleared, coupled with the small area of clearing proposed by the Permit Holder, the application area does not represent a significant remnant of native vegetation in an area that has been extensively cleared.</p>	Not likely to be at variance	No
<p><u>Principle (h):</u> <i>“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.”</i></p> <p><u>Assessment:</u></p> <p>The application area is not located within any conservation areas (GIS Database). The nearest conservation area is Goldfields Woodlands Conservation Park, located approximately 17 kilometres south west of the application area (GIS Database). Given the distance to Goldfields Woodlands Conservation Park, the proposed clearing is unlikely to have an impact on the environmental values of any conservation areas.</p>	Not likely to be at variance	No
Environmental value: land and water resources		
<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u></p> <p>The application area contains one minor non-perennial drainage line intersecting the proposed access track (GIS Database). Aerial imagery showed no distinctive vegetation growing alongside the drainage line compared to surrounding vegetation. Given the arid to semi-arid climate of the Southern Cross and Eastern Goldfield subregion and the minor non-perennial nature of the drainage line it is unlikely riparian vegetation can be found growing in association with the drainage line intersecting the proposed access track.</p> <p>As a precaution, a water management condition will be placed on the permit to ensure the water flow within the drainage line is maintained in the presence of significant rainfall.</p>	May be at variance	No
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p> <p>The application area has been mapped as occurring on the Mx43 and BB5 atlas system. Chief soils within both atlas systems include limestone and similar calcareous materials at shallow depths (DPIRD, 2023) which may potentially lead to erosion following long periods of heavy rainfall, however, is uncharacteristic of the Coolgardie region. Given the amount of clearing authorised coupled with the narrow access track width, and the proposed gravel pit utilising previously disturbed areas (NVS, 2019), the proposed clearing is not likely to result in appreciable land degradation.</p>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
<p><u>Principle (i):</u> “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> <p><u>Assessment:</u></p> <p>No permanent water courses, wetlands, or Public Drinking Water Source Areas are recorded within the application area (GIS Database), the proposed clearing is unlikely to impact surface or ground water quality.</p>	Not likely to be at variance	No
<p><u>Principle (j):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</p> <p><u>Assessment:</u></p> <p>No permanent watercourses or wetlands are recorded within the application area and the average annual evaporation (2,400 to 2,800 millimetres) (BoM, 2024) is higher than the average annual rainfall (265.4 millimetres) (BoM, 2024) the proposed clearing is unlikely to cause excessive levels of water runoff that would exacerbate the incidence or intensity of flooding in the local area.</p>	Not likely to be at variance	No

Appendix C. 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 Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Measuring vegetation condition for the South West and Interzone Botanical Province (Keighery, 1994)

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.
Completely degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as ‘parkland cleared’ with the flora comprising weed or crop species with isolated native trees or shrubs.

Appendix D. Sources of information

D.1. GIS databases

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

- Aboriginal Heritage Places (DPLH-001)
- Aboriginal Heritage Places (DPLH-001)
- Contours (DPIRD-073)
- Clearing Regulations – Schedule One Areas (DWER-057)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Environmentally Sensitive Areas (DWER-046)
- Groundwater Salinity Statewide (DWER-026)
- Hydrographic Catchments – Catchments (DWER-028)

- Hydrography – Inland Waters – Waterlines
- Hydrography, Linear (DWER-031)
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Native Title (ILUA) (LGATE-067)
- Pre-European Vegetation Statistics
- 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 Mapping – Best Available (DPIRD-027)
- Soil Landscape Mapping – Rangelands (DPIRD-064)
- WA Now Aerial Imagery

Restricted GIS Databases used:

- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

D.2. References

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- Department of Biodiversity, Conservation and Attractions (DBCA) (2024) Advice received in relation to Clearing Permit Application CPS 10301/1. Species and Communities Branch, Department of Biodiversity, Conservation and Attractions, Western Australia, July 2024.
- Department of Climate Change, Energy, the Environment and Water (DCCEEW) (2023) Species Profile and Threats Database (SPRAT). Available from <http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl> (Accessed 8 November 2023).
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- 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>
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- NVS (2019) Reconnaissance Flora and Vegetation Survey Bullabulling Gravel Pit. Report prepared for Peter Gibson by Native Vegetation Solutions, dated January 2019.
- Peter Gibson (2023) Clearing permit application form, CPS 10301/1, received 10 August 2023.
- Western Australian Herbarium (1998-) FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions, Western Australia. <https://florabase.dpaw.wa.gov.au/> (Accessed 1 November 2023).

4. Glossary

Acronyms:

BC Act	<i>Biodiversity Conservation Act 2016</i> , Western Australia
BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)

DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DCCEEW	Department of Climate Change, Energy, the Environment and Water, Australian Government
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia
DMP	Department of Mines and Petroleum, Western Australia (now DMIRS)
DoEE	Department of the Environment and Energy (now DCCEEW)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora (now known as Threatened Flora)
DWER	Department of Water and Environmental Regulation, Western Australia
EP Act	<i>Environmental Protection Act 1986</i> , Western Australia
EPA	Environmental Protection Authority, Western Australia
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
PEC	Priority Ecological Community, Western Australia
RIWI Act	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
TEC	Threatened Ecological Community

Definitions:

{DBCA (2019) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia}:-

T Threatened species:

Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened species under section 26(2) of the *Biodiversity Conservation Act 2016* (BC Act).

Threatened fauna is that subset of ‘Specially Protected Fauna’ listed under schedules 1 to 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for Threatened Fauna.

Threatened flora is that subset of ‘Rare Flora’ listed under schedules 1 to 3 of the *Wildlife Conservation (Rare Flora) Notice 2018* for Threatened Flora.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

CR Critically endangered species

Threatened species considered to be “*facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines. Published under schedule 1 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for critically endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for critically endangered flora.

EN Endangered species

Threatened species considered to be “*facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines. Published under schedule 2 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for endangered flora.

VU Vulnerable species

Threatened species considered to be “*facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines. Published under schedule 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for vulnerable fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for vulnerable flora.

Extinct Species:

EX Extinct species
Species where “*there is no reasonable doubt that the last member of the species has died*”, and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).
Published as presumed extinct under schedule 4 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for extinct fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for extinct flora.

EW Extinct in the wild species
Species that “*is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form*”, and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).
Currently there are no threatened fauna or threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.

Specially protected species:

Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.

Species that are listed as threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.

MI Migratory species
Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

Includes birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

Published as migratory birds protected under an international agreement under schedule 5 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

CD Species of special conservation interest (conservation dependent fauna)
Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).

Published as conservation dependent fauna under schedule 6 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

OS Other specially protected species
Fauna otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Published as other specially protected fauna under schedule 7 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

P Priority species:
Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna or flora.

Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.

Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

P1 Priority One - Poorly-known species

Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.

P2 Priority Two - Poorly-known species

Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.

P3 Priority Three - Poorly-known species

Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.

P4 Priority Four - Rare, Near Threatened and other species in need of monitoring

(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands.

(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as Conservation Dependent.

(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

Principles for clearing native vegetation:

- (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.
- (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.
- (c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.
- (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.
- (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.
- (f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.
- (g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.
- (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.
- (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.
- (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.