

1. Application details and outcomes

1.1. Permit application details

Permit number:	10537/1
Permit type:	Purpose Permit
Applicant name:	Northern Star (Carosue Dam) Pty Ltd
Application received:	28 February 2024
Application area:	233 hectares
Purpose of clearing:	Mineral Production and Associated Activities
Method of clearing:	Mechanical Removal
Tenure:	Mining Leases 31/30, 31/380, and 31/381
Location (LGA area/s):	Shire of Menzies
Colloquial name:	Enterprise Project

1.2. Description of clearing activities

Northern Star (Carosue Dam) Pty Ltd proposes to clear up to 233 hectares of native vegetation within a boundary of approximately 375.5 hectares, for the purpose of mineral production and associated activities. The project is located approximately 130 kilometres northeast of Kalgoorlie-Boulder, within the Shire of Menzies.

The application is to allow for the next phase of mining of the Enterprise Project, involving expansion of existing pits, waste rock landform, and supporting infrastructure including run-of-mine pad, turkey's nest, workshops, and offices (Northern Star Resources Limited, 2024b; 2024c). This clearing permit will replace and partially expand on the previous clearing permit, CPS 4033/4, which expired 31 January 2024.

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	6 February 2025
Decision area:	233 hectares of native vegetation

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 Energy, Mines, Industry Regulation and Safety (DEMIRS) advertised the application for a public comment for a period of 21 days, and one submission was received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix C), relevant datasets (Appendix F), supporting information provided by the applicant (Appendix A) including the results of biological surveys, the clearing principles set out in Schedule 5 of the EP Act (Appendix D), proposed avoidance and minimisation measures (Section 3.1), relevant planning instruments and any other matters considered relevant to the assessment (Section 3.2.1).

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;
- impacts to habitat for conservation significant fauna;
- the loss of native vegetation growing in association with a watercourse; and
- potential land degradation in the form of water erosion.

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 weed, and to remove or kill any weeds growing within the permit area at least once per annum;
- commence construction no later than three months after undertaking clearing to reduce the risk of erosion; and
- avoid clearing riparian vegetation, and where a watercourse or drainage line is to be impacted by clearing, the existing surface flow is to be maintained, or reinstated downstream into existing natural drainage lines.

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)
- *Biosecurity and Agriculture Management Act 2007* (BAM Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Mining Act 1978* (WA)

Relevant agreements (treaties) considered during the assessment include:

- Japan-Australia Migratory Bird Agreement
- China-Australia Migratory Bird Agreement
- Republic of Korea-Australia Migratory Bird Agreement

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)
- *Guidance for the Assessment of Environmental Factors – Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia* (EPA, 2004)
- *Technical guidance – Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016a)
- *Technical guidance – Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016b)
- *Technical guidance – Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2020)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

Northern Star Resources Limited (2024b; 2024c) have stated they operate on a hierarchy of avoid, minimise, rehabilitate, and offset. Northern Star Resources Limited (2024b; 2024c) achieve this hierarchy primarily through changes in design during mine planning and implementation. The following considerations were made during the mine planning process (Northern Star Resources Limited, 2024b; 2024c):

Avoid – it will not be possible to avoid the additional clearing, as additional disturbance will be required to accommodate the expanded mining infrastructure (e.g. mining void, waste rock dump etc.).

Minimise – additional clearing will be minimised as far as practicable using a design that minimises lateral expansion of infrastructure (e.g. waste rock dumps) where possible. Clearing will take place progressively during implementation.

Rehabilitate – native vegetation clearing will be rehabilitated in accordance with mine closure obligations under the *Mining Act 1978*. While some clearing such as that for mining voids will be permanent, other areas such as supporting infrastructure and waste rock dumps will be rehabilitated at closure.

Offset – the proposed native vegetation clearing will not result in any significant residual impacts to the environment and therefore an offset is not required.

Clearing of supporting infrastructure has been minimized as far as practicable during design (Northern Star Resources Limited, 2024b; 2024c).

Northern Star Resources Limited (2024b; 2024c) have also stated clearing of native vegetation will be implemented in accordance with their internal environmental management systems, which include:

- Land disturbance permitting procedures.
- Hygiene protocols to prevent the introduction and spread of weeds.
- Harvesting and stockpiling topsoil for use in rehabilitation.
- Dust suppression to minimise erosion and loss of growth media.

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 C) 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 are unlikely to present a significant risk to biological values, conservation areas, or land and water resources, however a review of available information for flora and fauna was required due to the age and timing of the provided supporting information. 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 Principle (a)

Assessment

Botanica Consulting (2010) conducted a flora and vegetation survey over part of the application area and surrounds between 12-13 July 2010, covering approximately 586 hectares.

This survey recorded 51 species representing 35 genera and 23 families, and recorded four weed species (*Carthamus lanatus*, *Citrullus amarus*, *Salvia verbenaca*, *Lysimachia arvensis*).

Alexander Holm & Associates (2023; 2024) conducted a flora and vegetation survey over the majority of the application area during 10-11 October 2023, and a supplementary survey conducted during 12-13 May 2024.

The 2023 field assessment recorded 89 taxa representing 23 families, and recorded five weed species (*Citrullus amarus*, *Cenchrus ciliaris*, *Malvastrum americanum*, *Salvia verbenaca*, *Sonchus oleraceus*).

The 2024 field assessment recorded 120 taxa representing 29 families. An additional six weed species were recorded during the 2024 field assessment (*Boerhavia coccinea*, *Carrichtera annua*, *Cucumis myriocarpus*, *Erodium aureum*, *Lysimachia arvensis*, *Rumex vesicarius*).

Annual and biannual species were sparse and mostly located in water-favoured locations during the 2023 survey and abundant and widespread during the 2024 survey. The supplementary recorded significantly more annuals within the Amaranthaceae and Asteraceae families.

No threatened or priority flora were recorded during any of the field assessments (Alexander Holm & Associates, 2023; 2024; Botanica, 2010). Potentially occurring priority flora species would have likely been discovered during the 2024 field assessment, following significant rains and targeting areas of suitable habitat (Alexander Holm & Associates, 2023; 2024; Botanica, 2010). The vegetation, soils, and landscape types of the application area are common and widespread throughout the Eastern Murchison subregion,

Conclusion

Based on the above assessment, the proposed clearing may result in a loss of biodiversity as a result of the high number of weed species present. While all weed species are classified 11 (permitted) under the *Biosecurity and Management Act 2007*, weeds still have potential to outcompete native flora and reduce biodiversity of an area.

Given 12 different weed species were recorded within the application area and surrounds over a span of 14 years, it is recommended that an additional weed and hygiene requirement be implemented as a condition on the permit. The permit holder will be required to kill or remove any weeds at least once annually.

Conditions

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

- take hygiene steps to minimise the risk of the introduction and spread of weeds, and to remove or kill any weeds growing within the permit area at least once per annum.

3.2.2. Biological values (fauna) - Clearing Principles (a) and (b)

Assessment

A reconnaissance fauna survey was conducted over the application area by Bamford Consulting Ecologists (sub-contracted by Alexander Holm & Associates) on 27 October 2023. A total of 5.8 kilometres were traversed. A subsequent fauna survey was undertaken by Red Dog Environmental (sub-contracted by Alexander Holm & Associates) on 20-22 May 2024. The subsequent survey traversed a total of 24.8 kilometres.

The 2023 survey recorded 13 fauna species, consisting of 12 bird and one reptile species. The 2024 survey recorded 37 fauna species, consisting of 32 bird, two reptile, and three introduced species.

One threatened fauna species was recorded during the 2024 field assessment, the southern whiteface (*Aphelocephala leucopsis*). This species is listed as vulnerable under the EPBC Act, however, is not listed as threatened or priority under state legislation. The species occurs across most of mainland Australia south of the tropics and live in a wide range of open woodlands and shrublands where there is an understorey of grasses or shrubs, or both (Commonwealth of Australia, 2008; DCCEEW, 2023).

Based on the conservation advice for southern whiteface (DCCEEW, 2023), habitat critical to the survival of the species includes areas of:

- relatively undisturbed open woodlands and shrublands with an understorey of grasses or shrubs, or both;

- habitat with low tree densities and an herbaceous understory litter cover which provides essential foraging habitat; and
- living and dead trees with hollows and crevices which are essential for roosting and nesting.

It was noted that the species is likely to be a resident of the broader area, but unlikely to be reliant on the habitats present within the application (Red Dog Environmental, 2024). This is primarily due to habitat within the application area has been significantly disturbed and degraded by historic grazing and mining and lacks essential foraging habitat (Red Dog Environmental, 2024; GIS Database).

Conclusion

Based on the above assessment, the proposed clearing will result in a loss of native vegetation where federally listed southern whiteface (*Aphelocephala leucopsis*) has been observed. While the application area likely consists of some habitat for southern whiteface, it is unlikely to provide significant habitat for this species. The available fauna habitats are common and widespread throughout the Eastern Murchison subregion. The value of the available fauna habitats is considered low due to historical mining and disturbance from grazing, particularly in contrast to the quality of surrounding habitat.

For the reasons set out above, it is considered that the impacts of the proposed clearing can be managed to be environmentally acceptable.

The applicant may have notification responsibilities under the EPBC Act for impacts to southern whiteface (*Aphelocephala leucopsis*) and their habitats as set out in the EPBC Act 'Conservation Advice for *Aphelocephala leucopsis* (southern whiteface)' (DCCEEW, 2023). 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

No fauna management conditions required.

3.3. Relevant planning instruments and other matters

The clearing permit application was advertised on 19 March 2024 by the Department of Energy, Mines, Industry Regulation and Safety inviting submissions from the public. One submission was received in relation to this application.

There is one native title claim (WCD2023/002 - Nyalpa Pimiku) over the area under application (DPLH, 2024). This claim has been determined by the Federal Court on behalf of the claimant group. 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 Heritage Act 1972* 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. Additional information provided by applicant

Information requested	Information provided
It was noted that the flora and vegetation surveys used to support the assessment of this application were conducted during an inopportune time of the year for the Eremaean botanical province. The rainfall preceding both field assessments were below average, likely resulting not accurately capturing the extent of the biodiversity in the area, or potential conservation significant values.	A supplementary field assessment was undertaken between 12-13 May 2024, following significant rains in March 2024.
It was determined that a single day fauna survey which primarily traversed disturbed areas unlikely captured potentially occurring conservation significant fauna species.	A supplementary field assessment was undertaken between 20-22 May 2024, which significantly increased the traversed areas.

Appendix B. Details of public submissions

Summary of comments	Consideration of comment
One public submission was received with comments regarding the lack of ethnobotanical or ethnozoology surveys; concerns were raised regarding the date of provided surveys, inappropriate timing, and insufficient survey effort. Additional concerns were raised regarding impacts to surface and groundwater (Submission, 2024).	Comments will be considered during the assessment of the proposed clearing. In addition, Northern Star has been consulting directly with WTAC to ensure the future mining project is developed in a manner that protects significant cultural values (Northern Star Resources Limited, 2024a).

Appendix C. Site characteristics

C.1. Site characteristics

Characteristic	Details						
Local context	The area proposed to be cleared is located within the Eastern Murchison subregion, of the Murchison bioregion (GIS Database). The primary land use of the Eastern Murchison is for native pasture grazing, with the application area located within the Edjudina pastoral lease (GIS Database). The application area is surrounded by predominantly gold mining operations (GIS Database). Approximately 99% of the local area (50 kilometre radius from the area proposed to be cleared) remains uncleared (GIS Database).						
Ecological linkage	The application area is not considered a significant ecological linkage. The vegetation immediately surrounding the application area and the majority of the region remains uncleared (GIS Database).						
Conservation areas	The application area is not located within any legislated conservation areas (GIS Database). The nearest legislated conservation area is Goongarrie National Park, located approximately 57.1 kilometres southwest of the application area (GIS Database).						
Vegetation description	The vegetation of the application area is broadly mapped as the following Beard vegetation associations: 389: Succulent steppe with open low woodland; mulga over saltbush; and 400: Succulent steppe with open low woodland; mulga over bluebush (GIS Database). Botanica Consulting (2010) conducted a flora and vegetation survey of part of the application area between 12-13 July 2010. The following vegetation groups were recorded (Botanica Consulting, 2010): <ul style="list-style-type: none"> • <i>Maireana pyramidata</i> chenopod shrubland • <i>Maireana sedifolia</i> chenopod shrubland • mulga woodland • creekline vegetation Alexander Holm & Associates (2023; 2024) conducted a flora and vegetation survey over the majority of the application area during 10-11 October 2023, and a supplementary survey conducted during 12-13 May 2024. The following vegetation communities were recorded (Alexander Holm & Associates, 2023; 2024): <table border="1" data-bbox="391 1915 1465 2069"> <thead> <tr> <th>Land unit</th> <th>Vegetation community</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>2b. Low rises on volcanics with chenopod shrublands</td> <td>CPBS: Calcyphytic pearl bluebush shrubland</td> <td>Sparse degraded chenopod shrubland dominated by <i>Maireana sedifolia</i> with isolated taller shrubs <i>Acacia burkittii</i> and <i>Senna artemisioides</i> subsp. <i>filifolia</i></td> </tr> </tbody> </table>	Land unit	Vegetation community	Description	2b. Low rises on volcanics with chenopod shrublands	CPBS: Calcyphytic pearl bluebush shrubland	Sparse degraded chenopod shrubland dominated by <i>Maireana sedifolia</i> with isolated taller shrubs <i>Acacia burkittii</i> and <i>Senna artemisioides</i> subsp. <i>filifolia</i>
Land unit	Vegetation community	Description					
2b. Low rises on volcanics with chenopod shrublands	CPBS: Calcyphytic pearl bluebush shrubland	Sparse degraded chenopod shrubland dominated by <i>Maireana sedifolia</i> with isolated taller shrubs <i>Acacia burkittii</i> and <i>Senna artemisioides</i> subsp. <i>filifolia</i>					

Characteristic	Details		
	3a. Granitic plains supporting <i>Acacia</i> shrublands	PACS: Plain <i>Acacia</i> shrubland	Mostly very sparse <i>Acacia</i> shrublands commonly <i>Acacia tetragonophylla</i> and variously <i>Acacia incurvaneura</i> , <i>Acacia aptaneura</i> , <i>Acacia ramulosa</i> and <i>Acacia quadrimarginea</i> over very sparse lower shrubs including <i>Eremophila</i> species, <i>Teucrium teucriflorum</i> and <i>Ptilotus obovatus</i>
	4c. Plains supporting chenopod shrublands	PXHS: Plain mixed halophyte shrubland or CPBS: Calcyphytic pearl bluebush shrubland	Very sparse to sparse, degraded chenopod shrublands dominated by <i>Maireana sedifolia</i> and <i>Maireana pyramidata</i> shrubland with very sparse overstorey of <i>Acacia incurvaneura</i> , <i>Acacia aptaneura</i> and <i>Casuarina pauper</i> with isolated <i>Pittosporum angustifolium</i>
	5a. Flood plains supporting chenopod shrublands	HCAS: Hardpan plain <i>Acacia</i> chenopod shrubland	Very sparse degraded chenopod shrublands dominated by <i>Maireana pyramidata</i> with a very sparse or isolated overstorey of <i>Acacia tetragonophylla</i> , <i>Acacia caesaneura</i> , <i>Acacia burkittii</i> and <i>Hakea preissii</i>
	6a. Drainage tracts with <i>Acacia</i> shrublands and chenopod understorey	DRAS: Drainage tract <i>Acacia</i> shrubland with chenopod understorey	Sparse to mid-dense <i>Acacia</i> shrubland along drainage banks dominated by <i>Acacia burkittii</i> and <i>Acacia tetragonophylla</i> with taller <i>Acacia incurvaneura</i> and <i>Pittosporum angustifolium</i> . Sparse to mid-dense chenopod shrublands occur on islands and floodways dominated by <i>Maireana pyramidata</i> with <i>Atriplex bunburyana</i> and <i>Ptilotus obovatus</i>
Vegetation condition	<p>The majority of the application area is considered to be in good condition, however various other areas were considered to be in very good, degraded, and completely degraded condition (Alexander Holm & Associates, 2023; 2024; Botanica Consulting, 2010; Trudgen, 1991). The vegetation structure and composition has been significantly altered throughout the entire application area due to livestock grazing or mining infrastructure (Alexander Holm & Associates, 2023; 2024; Botanica Consulting, 2010).</p> <p>The full Trudgen (1991) condition rating scale is provided in Appendix E.</p> <p>A total of 12 weed species have been recorded within the application area from three surveys (Alexander Holm & Associates, 2023; 2024; Botanica Consulting, 2010):</p> <ul style="list-style-type: none"> • <i>Boerhavia coccinea</i> • <i>Carrichtera annua</i> • <i>Carthamus lanatus</i> • <i>Cenchrus ciliaris</i> • <i>Citrullus amarus</i> • <i>Cucumis myriocarpus</i> • <i>Erodium aureum</i> • <i>Lysimachia arvensis</i> • <i>Malvastrum americanum</i> • <i>Rumex vesicarius</i> • <i>Salvia verbenaca</i> • <i>Sonchus oleraceus</i> 		
Climate and landform	<p>The climate of the Eastern Murchison subregion is described as arid, with the nearest weather station recording an average rainfall of approximately 249 millimetres per year (BoM, 2024; CALM, 2002).</p> <p>The application area is mapped at elevations of 360-400 metres Australian height datum (GIS Database). The application area is described as predominantly gently inclined slopes and plains, with drainage tracks and flood plains (Alexander Holm & Associates, 2023; 2024).</p>		
Soil description	<p>The application area is broadly mapped within the Gundockerta land system (DPIRD, 2024; Pringle et al., 1994; GIS Database). The following soils (based on the Western Australian Soil Groups) occur within the Gundockerta land system, which may be present within the application area (DPIRD, 2024; Pringle et al., 1994; GIS Database):</p> <ul style="list-style-type: none"> • calcareous loamy earth • red shallow sandy duplex • stony soil • red-brown hardpan shallow loam • red/brown non-cracking clay 		

Characteristic	Details
Land degradation risk	The Gundockerta land system is susceptible to water erosion where not protected by a stony mantle, particularly in areas where perennial vegetation is significantly reduced or the soil surface has been disturbed (DPIRD, 2024; Pringle et al., 1994; GIS Database).
Waterbodies	Two minor non-perennial watercourses flow into the application area, and forge into one watercourse (GIS Database).
Hydrogeography	The application area is not within any legislated surface water area (GIS Database). The nearest Public Drinking Water Source Area is the Menzies Water Reserve, located approximately 114.3 kilometres west of the application area (GIS Database). The application area is located within the Goldfields Groundwater Area proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (GIS Database). The mapped groundwater salinity is 3,000-7,000 total dissolved solids milligrams per litre, which is described as brackish or saline water quality (GIS Database).
Flora	There are records of ten priority flora species within a 50 kilometre radius of the application area (GIS Database).
Ecological communities	There are no known ecological communities within the application area (GIS Database). The nearest ecological community is the 'Mount Linden Range vegetation complex (banded ironstone formation)' priority ecological community (P3), located approximately 48.3 kilometres north-northeast of the application area (GIS Database).
Fauna	There are records of 12 conservation significant fauna species within a 100 kilometre radius of the application area (GIS Database). Three of these species are listed as migratory, one as vulnerable, one as endangered, six as priority, and one as other specially protected species (GIS Database).
Fauna habitat	The following broad fauna habitats were recorded within the application area (Alexander Holm & Associates, 2023; 2024; Red Dog Environmental, 2024): <ul style="list-style-type: none"> • 2b - Low rises on volcanics with chenopod shrublands • 3a - Granitic plains supporting acacia shrublands • 4c - Plains supporting chenopod shrublands • 5a - Flood plains supporting chenopod shrublands • 6a - Drainage tracts

C.2. Vegetation extent

	Pre-European area (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current extent in all DBCA Managed Land (proportion of pre-European extent) (%)
IBRA bioregion - Murchison	28,120,586	28,044,823	~99	2,185,987.96	7.77
Beard vegetation associations - State					
389	642,356	640,468	~99	22,954.79	3.57
400	190,823	189,665	~99	NA	NA
Beard vegetation associations - bioregion					
389	493,977	492,089	~99	22,954.79	4.65
400	190,823	189,665	~99	NA	NA

Government of Western Australia (2019)

C.3. Flora analysis table

The following conservation significant flora species have records within a 50 kilometre radius of the application area (GIS Database). Habitat suitability and likelihood of occurrence was determined utilising biological survey information (Alexander Holm & Associates, 2023; 2024; Botanica, 2010; WAH, 1998-; GIS Database).

Species name	Conservation status	Distance of closest record to application area (km)	Likelihood of occurrence	Habitat suitability	Are surveys adequate to identify? [Y, N, N/A]
<i>Acacia eremophila</i> var. Numerous-nerved variant (A.S. George 11924)	P3	9.8	likely	suitable habitat present	Y
<i>Calandrinia</i> sp. Menzies (F. Hort et al. FH 4100)	P3	44.1	unlikely	limited suitable habitat	Y
<i>Eremophila arachnoides</i> subsp. <i>tenera</i>	P3	36.0	possible	suitable habitat present	Y
<i>Eremophila mirabilis</i>	P2	49.8	unlikely	limited suitable habitat	Y
<i>Hysterobaeckea ochropetala</i> subsp. <i>cometes</i>	P3	44.1	unlikely	limited suitable habitat	Y
<i>Placynthium nigrum</i>	P3	40.4	unlikely	Limited suitable habitat	Y
<i>Stackhousia</i> sp. Lake Mackay (P.K. Latz 12870)	P1	29.2	unlikely	no suitable habitat	Y
<i>Tecticornia mellarium</i>	P1	31.5	unlikely	no suitable habitat	Y
<i>Tecticornia</i> sp. Lake Way (P. Armstrong 05/961)	P1	22.7	unlikely	no suitable habitat	Y
<i>Thryptomene eremaea</i>	P2	3.5	likely	some suitable habitat present	Y

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

C.4. Fauna analysis table

The following conservation significant fauna species have records within a 100 kilometre radius of the application area (GIS Database). Habitat suitability, likelihood of occurrence, and impact was determined utilising biological survey information (Alexander Holm & Associates, 2023; 2024; Red Dog Environmental, 2024; GIS Database).

Species name	Conservation status		Distance of closest record to application area (km)		Are surveys adequate to identify? [Y, N, N/A]
	WA	EPBC			
BIRD					
<i>Actitis hypoleucos</i> common sandpiper	MI	MI	94.2	unlikely, no suitable habitat	Y
<i>Calidris ruficollis</i> red-necked stint	MI	MI	80.8	unlikely, no suitable habitat	Y
<i>Falco peregrinus</i> peregrine falcon	OS		68.4	possible	Y
<i>Leipoa ocellata</i> malleefowl	VU	VU	20.4	possible, however limited suitable habitat	Y
<i>Thinornis rubricollis</i> hooded plover, hooded dotterel	P4		77.9	unlikely, no suitable habitat	Y
<i>Tringa nebularia</i> common greenshank, greenshank	MI	MI	95.2	unlikely, no suitable habitat	Y
INVERTEBRATE					
<i>Branchinella simplex</i> a fairy shrimp (inland WA)	P1		62.6	unlikely, no suitable habitat	N/A
MAMMAL					
<i>Dasyercus blythi</i> brush-tailed mulgara	P4		85.7	unlikely, extremely limited suitable habitat	Y
<i>Sminthopsis longicaudata</i> long-tailed dunnart	P4		63.0	unlikely, extremely limited suitable habitat	Y
<i>Sminthopsis psammophila</i> sandhill dunnart	EN	EN	97.4	unlikely, extremely limited suitable habitat	Y
REPTILE					
<i>Aspidites ramsayi</i> (southwest subpop.) woma (southwest subpop.)	P1		14.2	unlikely, this record is from 1992 with the next closest record occurring greater than 100 kilometres from the application area	Y

Species name	Conservation status		Distance of closest record to application area (km)		Are surveys adequate to identify? [Y, N, N/A]
	WA	EPBC			
<i>Lerista puncticauda</i> dotty-tailed robust slider (Great Victoria Desert)	P2		91.6	unlikely, this record is from 1993, and the application area is not located within the Great Victoria Desert	Y

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority, OS: other specially protected species

Appendix D. 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 area proposed to be cleared is unlikely to contain locally or regionally significant flora, fauna, habitats, assemblages of plants. The flora composition and vegetation types within the application area are typical of the region and not considered unusually diverse.</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.1, above.</i>
<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>One federally listed threatened fauna species was recorded within the application area. While this species was recorded, the available fauna habitats area unlikely to provide critical or significant habitat for any conservation significant fauna species due to historical and ongoing degradation of these habitats.</p>	May be at variance	Yes <i>Refer to Section 3.2.2, above.</i>
<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> There are no known records of threatened flora species within the application area or within a 50 kilometre radius (GIS Database).</p> <p>The flora and vegetation survey did not identify any threatened flora species or vegetation necessary for the continued existence of threatened flora (Alexander Holm & Associates, 2023; 2024; Botanica Consulting, 2010).</p>	Not likely to be at variance	No
<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> There are no known state or federally listed threatened ecological communities (TECs) located within or in close proximity to the application area (GIS Database). The nearest known threatened ecological community is the state listed 'Depot Springs stygofauna community' (VU), located approximately 283 kilometres northwest of the application area (GIS Database).</p> <p>The biodiversity surveys of various parts of the application area did not record any ecological communities that could be representative of a TEC (Alexander Holm & Associates, 2023; 2024; Botanica Consulting, 2010; Red Dog Environmental, 2024).</p>	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation areas		
<p><u>Principle (e):</u> "Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."</p> <p><u>Assessment:</u> The application area falls within the Murchison bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 99% of the pre-European vegetation still exists in the IBRA Murchison bioregion (Government of Western Australia, 2018). The application area is broadly mapped as Beard vegetation associations 389: Succulent steppe with open low woodland; mulga over saltbush; and 400: Succulent steppe with open low woodland; mulga over bluebush (GIS Database). Approximately 99% of the pre-European extent of these</p>	Not at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
<p>vegetation associations remains uncleared at both the state and bioregional level (Government of Western Australia, 2018).</p> <p>The application area does not represent a significant remnant of native vegetation in an area that has been extensively cleared.</p>		
<p><u>Principle (h):</u> "Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area."</p> <p><u>Assessment:</u> Given the distance to the nearest conservation area, 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> "Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."</p> <p><u>Assessment:</u> There are two non-perennial drainage lines to the north and east that flow into application, meet, and form a broad draining line and flows out to the west (GIS Database).</p> <p>Botanica Consulting (2010) recorded one vegetation type associated with this drainage area:</p> <p>Creekline vegetation - upper storey of <i>Acacia burkittii</i>, <i>Santalum lanceolatum</i> and <i>Santalum spicatum</i>. The mid-storey included <i>Eremophila longifolia</i>, <i>Acacia tetragonophylla</i> and <i>Maireana pyramidata</i>. The lower-storey included <i>Sida calyxhymenia</i>, <i>Maireana triptera</i> and <i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>.</p> <p>Subsequently, Alexander Holm & Associates (2023; 2024) recorded a similar vegetation type within this area:</p> <p>DRAS: Drainage tract <i>Acacia</i> shrubland with chenopod understorey</p> <p>Sparse to mid-dense <i>Acacia</i> shrubland along drainage banks dominated by <i>Acacia burkittii</i> and <i>Acacia tetragonophylla</i> with taller <i>Acacia incurvaneura</i> and <i>Pittosporum angustifolium</i>. Sparse to mid-dense chenopod shrublands occur on islands and floodways dominated by <i>Maireana pyramidata</i> with <i>Atriplex bunburyana</i> and <i>Ptilotus obovatus</i>.</p> <p>Potential impacts to vegetation growing in association with these drainage lines may be minimised by the implementation of a watercourse management condition.</p>	At variance	No
<p><u>Principle (g):</u> "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."</p> <p><u>Assessment:</u> The Gundockerta land system is susceptible to water erosion where not protected by a stony mantle, particularly in areas where perennial vegetation is significantly reduced or the soil surface has been disturbed (DPIRD, 2024; Pringle et al., 1994; GIS Database). Potential land degradation as a result of the proposed clearing may be minimised by the implementation of a staged clearing condition.</p>	May be at variance	No
<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>Given no permanent watercourses or Public Drinking Water Sources Areas are recorded within the application area or within close proximity, the proposed clearing is unlikely to impact surface or ground water quality (GIS Database).</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>There are no permanent water courses or waterbodies within the application area (GIS Database). Seasonal drainage lines are common in the region and drainage predominantly occurs as sheetflow, discharging into surrounding salt lake systems (Northern Star Resources Limited, 2024c). Temporary localised flooding may occur briefly following very high, and significant rainfall events (Northern Star Resources</p>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Limited, 2024c). The proposed clearing is unlikely to increase the incidence or intensity of natural flooding events.		

Appendix E. 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 F. Sources of information

F.1. GIS databases

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

- Cadastre (LGATE-218)
- Contours; GEODATA TOPO 250K Series 3 (Geoscience Australia)
- Clearing Regulations - Environmentally Sensitive Areas (DWER-046)
- Clearing Regulations - Schedule One Areas (DWER-057)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- 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)
- Native Vegetation Extent (DPIRD-005)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation (DPIRD-006)
- Interim Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- 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 and Priority Flora (TPFL)
- Threatened and Priority Flora (WAHerb)
- Threatened and Priority Fauna
- Threatened and Priority Ecological Communities
- Threatened and Priority Ecological Communities (Buffers)

F.2. References

- Alexander Holm & Associates (2023) Environmental Assessment: Enterprise. Prepared by Alexander Holm & Associates, for Northern Star Resources Ltd, November 2023.
- Alexander Holm & Associates (2024) Vegetation, Flora and Fauna Survey: M31/30, M31/380 and M31/381. Prepared by Alexander Holm & Associates, for Northern Star Resources Ltd, June 2024.
- Botanica Consulting (2010) Level 1 Flora and Vegetation Survey (Tenements: M31/0003, M31/0004, M31/0005, M31/0006, M31/0030, M31/0059, M31/0076, M31/0190, M31/0381, E31/0621, L31/0011). Prepared by Botanica Consulting, for Saracen Mineral Holdings Pty Ltd, July 2010.
- Bureau of Meteorology (BoM) (2024) Bureau of Meteorology Website – Climate Data Online, Menzies. Bureau of Meteorology. <https://reg.bom.gov.au/climate/data/> (Accessed 12 November 2024).
- Commonwealth of Australia (2008) Species Profile and Threats Database. Department of Climate Change, Energy, the Environment and Water, Australia. <https://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl> (Accessed 13 January 2025).
- Conservation and Land Management (CALM) (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- Department of Climate Change, Energy, the Environment and Water (DCCEEW) (2023) Conservation Advice for *Aphelocephala leucopsis* (southern whiteface). Canberra: Department of Climate Change, Energy, the Environment and Water. <http://www.environment.gov.au/biodiversity/threatened/species/pubs/529-conservation-advice-31032023.pdf>
- Department of Environment Regulation (DER) (2014) A guide to the assessment of applications to clear native vegetation. Perth. https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf
- Department of Planning, Lands and Heritage (DPLH) (2024) Aboriginal Cultural Heritage Inquiry System. Department of Planning, Lands and Heritage. <https://espatial.dplh.wa.gov.au/ACHIS/index.html?viewer=ACHIS> (Accessed 4 November 2024).
- Department of Primary Industries and Regional Development (DPIRD) (2024) NRInfo Digital Mapping. Department of Primary Industries and Regional Development. Government of Western Australia. <https://dpiird.maps.arcgis.com/apps/webappviewer/index.html?id=662e8cbf2def492381fc915aaf3c6a0f> (Accessed 12 November 2024).
- Department of Primary Industries and Regional Development (DPIRD) (2025) Western Australian Organism List database. Department of Primary Industries and Regional Development. Government of Western Australia. <https://www.agric.wa.gov.au/organisms> (Accessed 28 January 2025).
- Department of Water and Environmental Regulation (DWER) (2021) Procedure: Native vegetation clearing permits. Joondalup. <https://www.wa.gov.au/system/files/2023-06/procedure-native-vegetation-clearing-permits.pdf>
- Environmental Protection Authority (EPA) (2004b) Guidance for the Assessment of Environmental Factors - Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia, No. 51, June 2004.
- Environmental Protection Authority (EPA) (2016a) Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment. http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey_Dec13.pdf
- Environmental Protection Authority (EPA) (2016b) Technical Guidance – Terrestrial Fauna Surveys. https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/Tech%20guidance-%20Terrestrial%20Fauna%20Surveys-Dec-2016.pdf
- Environmental Protection Authority (EPA) (2020) Technical Guidance – Terrestrial Fauna Surveys. https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/2020.09.17%20-%20EPA%20Technical%20Guidance%20-%20Vertebrate%20Fauna%20Surveys%20-%20Final.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>
- Northern Star Resources Limited (2024a) Additional information provided for Native Vegetation Clearing Permit Application CPS 10537/1. Prepared by Northern Star Resources Limited, August 2024.
- Northern Star Resources Limited (2024b) Clearing permit application form, CPS 10537/1, received 28 February 2024.
- Northern Star Resources Limited (2024c) Enterprise Project Native Vegetation Clearing Permit Application Supporting Document. Prepared by Northern Star Resources Limited, February 2024.
- Pringle, H.J., Gilligan, S.A., and van Vreeswyk, A.M. (1994) An inventory and condition survey of rangelands in the north-eastern Goldfields, Western Australia. Department of Primary Industries and Regional Development, Western Australia, Perth. Technical Bulletin 87.
- Red Dog Environmental (2024) Fauna Addendum to Vegetation, Flora and Fauna Survey: M31/30, M31/380 and M31/381. Prepared by Red Dog Environmental, for Northern Star Resources Ltd, June 2024.

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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 (WAH) (1998-) FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions, Western Australia. <https://florabase.dpaw.wa.gov.au/> (Accessed 15 January 2025).

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
DEMIRS	Department of Energy, Mines, Industry Regulation and Safety
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia (now DEMIRS)
DMP	Department of Mines and Petroleum, Western Australia (now DEMIRS)
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 (2023) 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 the species of fauna that are listed as critically endangered, endangered or vulnerable threatened species.

Threatened flora is the species of flora that are listed as critically endangered, endangered or vulnerable threatened species.

The assessment of the conservation status of threatened species is in accordance with the BC Act listing criteria and the requirements of [Ministerial Guideline Number 1](#) and [Ministerial Guideline Number 2](#) that adopts the use of the International Union for Conservation of Nature (IUCN) [Red List of Threatened Species Categories and Criteria](#), and is based on the national distribution of the species.

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.

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.

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.

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).

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.

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).

Migratory species include birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) or 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.

CD

Species of special conservation interest (conservation dependent fauna)

Species of special conservation need that are 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).

Currently only fauna are listed as species of special conservation interest.

OS

Other specially protected species

Species 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).

Currently only fauna are listed as species otherwise in need of special protection.

P

Priority species:

Priority is not a listing category under the BC Act. The Priority Flora and Fauna lists are maintained by the department and are published on the department’s website.

All fauna and flora are protected in WA following the provisions in Part 10 of the BC Act. The protection applies even when a species is not listed as threatened or specially protected, and regardless of land tenure (State managed land (Crown land), private land, or Commonwealth land).

Species that may possibly be threatened species that do not meet the criteria for listing under the BC Act because of insufficient survey 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 prioritisation for survey and evaluation of conservation status so that consideration can be given to potential listing as threatened.

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

Assessment of priority status 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 – known from few locations, none on conservation lands
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, for example, 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 for threatened listing and appear to be under immediate threat from known threatening processes. These species are in urgent need of further survey.

P2 Priority Two - Poorly-known species – known from few locations, some on conservation lands
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, for example, 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 for threatened listing and appear to be under threat from known threatening processes. These species are in urgent need of further survey.

P3 Priority Three - Poorly-known species – known from several locations
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. These species need 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 a conservation dependent specially protected species.
(c) Species that have been removed from the list of threatened species or lists of conservation dependent or other specially protected species, during the past five years for reasons other than taxonomy.
(d) Other species in need of monitoring.

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.