



Clearing Permit Decision Report

1. Application details and outcomes

1.1. Permit application details

Permit number:	9951/2
Permit type:	Purpose Permit
Applicant name:	Golden Spur Resources Pty Ltd
Application received:	26 February 2023
Application area:	338.83 hectares
Purpose of clearing:	Mineral production and associated infrastructure
Method of clearing:	Mechanical Removal
Tenure:	Mining Lease 36/24 Mining Lease 36/25 Mining Lease 36/162 Mining Lease 36/299 Mining Lease 36/328 Mining Lease 36/660
Location (LGA area/s):	Shire of Leonora
Colloquial name:	Bellevue Gold Project

1.2. Description of clearing activities

Golden Spur Resources Pty Ltd proposes to clear up to 338.83 hectares of native vegetation within a boundary of approximately 1,060 hectares, for the purpose of mineral production and associated infrastructure. The project is located approximately 40 kilometres north of Leinster, within the Shire of Leonora.

The application is to allow for the construction of associated infrastructure for the Bellevue Gold Project.

Clearing permit CPS 9951/1 was granted by the Department of Mines, Industry Regulation and Safety on 19 January 2023 and was valid from 11 February 2023 to 10 February 2028. The permit authorised the clearing of up to 279.1 hectares of native vegetation within a boundary of approximately 850 hectares, for the purpose of mineral production and associated infrastructure.

On 26 February 2023, the Permit Holder applied to amend CPS 9951/1 to increase the permit boundary by 210.804 hectares, and to increase the amount authorised to clear by 59.73 hectares for the purpose of associated infrastructure construction for the Bellevue Gold Project.

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	11 May 2023
Decision area:	338.83 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 Mines, Industry Regulation and Safety (DMIRS) on 26 February 2023. DMIRS advertised the application for a public comment for a period of 21 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), the clearing principles set out in Schedule 5 of the EP Act (Glossary), 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;
- the potential loss of conservation significant fauna;
- the potential impact to vegetation growing in association with watercourses; and
- potential land degradation in the form of wind 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 weeds;
- undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity;
- avoid the clearing of vegetation growing in association with watercourses where possible and maintain water flows; and
- commence construction no later than three months after undertaking clearing to reduce the risk of erosion.

The assessment has not changed since the assessment for CPS 9951/1. The Delegated Officer determined that the proposed additional clearing of 59.73 hectares and the proposed increase of the permit boundary of approximately 210 hectares is not likely to lead to an unacceptable risk to environmental values.

1.5. Site map

A site map of proposed clearing is provided in Figure 1 below.

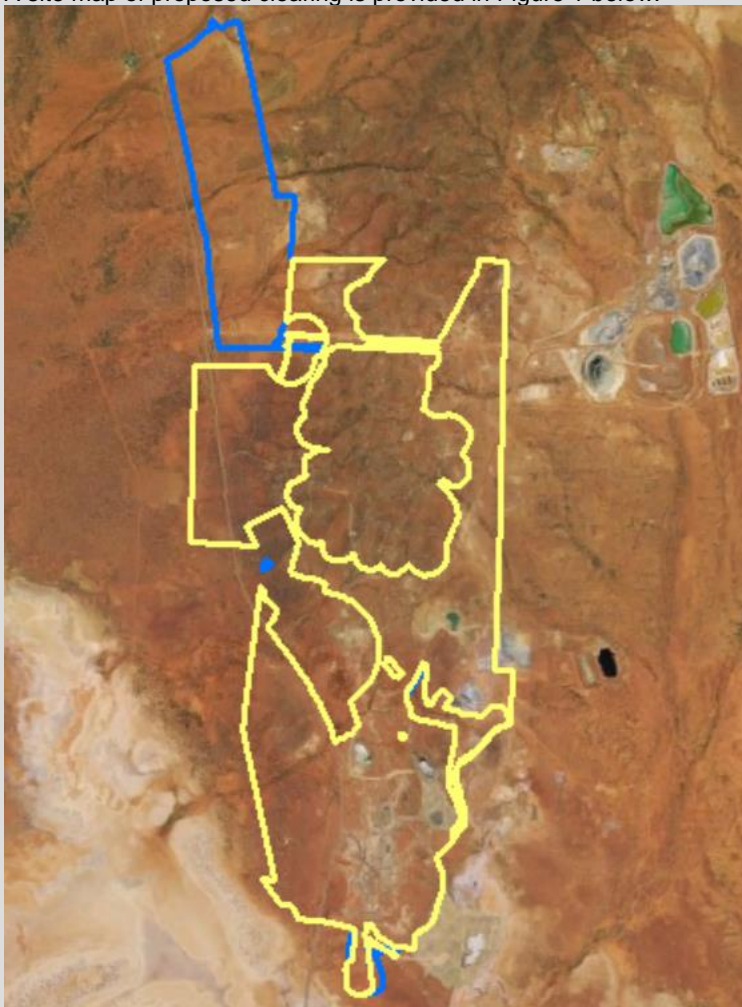


Figure 1. Map of the application area. The yellow area indicates the previous permit area (CPS 9951/2) and the blue area indicates the additional areas included as part of this application.

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)

Relevant agreements (treatys) 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)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment* (EPA, 2020)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

The Bellevue Gold Water Management Plan (RPS, 2021) states that the proponent is committed to implementing the following mitigation measures to ensure proper surface water management:

- minimise disturbance in general, use existing tracks, and keep vehicle movements to a minimum;
- engineering surface water controls to capture sediment loaded surface runoff from disturbed areas, by directing dirty water to a low-lying area and enclosing the perimeter;
- where required design sedimentation basins in high-risk areas, such as near a stockyard or waste dumps;
- construction on or near natural flow paths planned for the dry season;
- limit clearing/retain adequate buffer zones between disturbed areas, and natural flow paths;
- prevent to the extent possible, clean water from mixing with internal dirty runoff;
- shape waste dumps to drain internally with bunding to retain runoff on top. This reduces erosion on loose batter faces;
- construct access roads with a bend, side drains and regular “turnouts”, to discharge runoff into the road surrounds; and
- locate storage areas (chemicals, hydrocarbons, etc) away from, or bunded off from flow paths.

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

The area proposed to be cleared contains two Priority flora species, *Goodenia lyrata* (P3) and *Grevillea inconspicua* (P4) (RPS, 2020). Only *G. inconspicua* is present in the amendment area (RPS, 2020). The proposed amendment is unlikely to have a significant impact on these Priority flora populations. Two migratory birds were also recorded within the application area (Bamford, 2020). Some of the conservation significant species expected to be present are widespread and occur in very extensive regional landscapes, and although possibly present in the broader region they appear to be absent from the project area or appear as vagrants or irregular visitors (Bamford et al., 2020). Targeted surveys for malleefowl nesting mounds in mulga woodland and slender-billed thornbill in samphire flats found no evidence of presence for either species (Bamford et al., 2020). No active, inactive or extinct malleefowl mounds were found, suggesting the species has not recently (within half a century or more) been a breeding resident in the local area (Bamford et al., 2020). The proposed amendment is unlikely to have a significant impact on fauna of the region.

One Priority Ecological Community (PEC), the Violet Range (Perseverance Greenstone) Banded Iron Formation, occurs within the original application area (GIS Database; RPS, 2020). Only a small portion of this PEC is mapped within the amendment area (GIS Database). However, the Violet Range (Perseverance Greenstone) Banded Iron Formation was not recorded within the amendment area (RPS, 2020). Given that all known occurrences of the PEC are within mining leases, the mining tenement conditions will require rehabilitation to be undertaken after mining activities are finished. Whilst rehabilitation is unlikely to be able to recreate the cleared communities associated with the PEC, successful rehabilitation may assist in mitigating ongoing secondary impacts such as fragmentation (DBCA, 2023).

There were nine naturalised weed species recorded within the application area (RPS, 2020). None of the weeds recorded were determined to be Declared Pests or Weeds of National Significance (RPS, 2020). 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 continued implementation of the weed management condition on the permit.

The vegetation associations and the habitat fauna present in the original application area and in the amendment area (see Appendix A) are widespread and common throughout the region. Therefore the proposed amendment is unlikely to cause significant impacts to the vegetation of the area proposed to be cleared.

A review of current environmental information (Appendix A) reveals that the assessment against the clearing principles has not changed significantly from the Clearing Permit Decision Report CPS 9951/1. The amendment has been granted without changes to the conditions placed on the previous clearing permit (CPS 9951/1).

3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 31 March 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 (WC2011/007) over the area under application (DPLH, 2023). 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 11 registered Aboriginal Sites of Significance within the application area (DPLH, 2023). 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

A.1 Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia. It is surrounded by mining developments and native vegetation and it is adjacent to Lake Miranda (GIS Database). The dominant land uses in the vicinity of the application area are mining, exploration, and pastoralism (RPM Global, 2022)
Ecological linkage	According to available databases, the application area does not form part of any known ecological linkages (GIS Database).
Conservation areas	The application area does not fall within any mapped conservation areas. The closest mapped conservation area is the Wanjarri Nature Reserve located approximately 13.1 kilometres northeast from the application area (GIS Database).
Vegetation description	<p>The vegetation of the application area is broadly mapped as the following Beard vegetation associations: 39: Shrublands; mulgascrub; and 676: Succulent steppe; samphire (GIS Database).</p> <p>Two flora and vegetation survey were conducted over the amendment area by RPS Australia West Pty Ltd (RPS) between August 2018 and October 2019 and by Native Vegetation Solutions (NVS). The following vegetation associations were recorded within the original application area (RPS, 2020):</p> <p>Gypsum dunes G01: <i>Cratystylis subspinescens</i> Mid Sparse Shrubland over <i>Maireana pyramidata</i> and <i>Tecticornia</i> sp. Low Sparse Chenopod Shrubland over mixed Sparse Tussock Grassland / Forbland on low stony rises adjacent to Samphire shrublands.</p> <p>Stony Plain and lower hill slopes H01: <i>Mulga</i> spp. Isolated Trees to Low Open Woodland over <i>Acacia tetragonophylla</i>, <i>Eremophila galeata</i> and <i>Hakea preissii</i> Tall Sparse Shrubland over <i>Ptilotus obovatus</i> var. <i>obovatus</i> and mixed Chenopod Low Sparse Shrubland over <i>Aristida contorta</i> and <i>Enneapogon caerulescens</i> Sparse Tussock Grassland on stony plains and lower hill slopes. H02: <i>Mulga</i> spp. and <i>Acacia doreta</i> (long phyllode form) Low Open Woodland to Low Isolated Trees over <i>Senna</i> sp. Meekatharra Mid Sparse to Open Shrubland on stony plains and lower hill slopes.</p> <p>Stony hill slopes, sours and crests H03: <i>Ptilotus obovatus</i> var. <i>obovatus</i> Low Sparse Shrubland over <i>Enneapogon caerulescens</i>, <i>Enneapogon polyphyllus</i> and <i>Aristida contorta</i> Sparse Tussock Grassland. H04: <i>Eremophila galeata</i>, <i>E. forrestii</i> subsp. <i>forrestii</i>, <i>E. exilifolia</i> and <i>Senna artemisioides</i> subsp. <i>helmsii</i> Mid Sparse Shrubland over <i>Ptilotus obovatus</i> var. <i>obovatus</i> Low Sparse Shrubland over <i>Aristida contorta</i> Open Tussock Grassland on stony hill slopes, spurs and crests. H05: <i>Acacia fuscaneura</i> Low Open Woodland over <i>A. xanthocarpa</i> Tall Sparse Shrubland over <i>Eremophila exilifolia</i> and <i>E. forrestii</i> subsp. <i>forrestii</i> Mid Sparse Shrubland over <i>Aristida contorta</i> Sparse Tussock Grassland on stony hill slopes, spurs and crests. H06: <i>Mulga</i> spp. and <i>Acacia doreta</i> (long phyllode form) Low Open Woodland with Isolated <i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i> over <i>A. xanthocarpa</i> Tall Isolated Shrubs over <i>Eremophila exilifolia</i>, <i>E. forrestii</i> subsp. <i>forrestii</i> and <i>Senna artemisioides</i> Mid Sparse Shrubland over <i>Ptilotus obovatus</i> var. <i>obovatus</i> and <i>Maireana</i> spp. Low Sparse Shrubland over <i>Aristida contorta</i> Sparse Tussock Grassland on stony hill slopes, spurs and crests. H07: <i>Acacia doreta</i> (long phyllode form) Low Open Woodland over <i>A. xanthocarpa</i> Tall Sparse to Open Shrubland over <i>Senna</i> sp. <i>Meekatharra</i> and <i>S. artemisioides</i> subsp. <i>helmsii</i> Mid Sparse Shrubland over <i>Ptilotus obovatus</i> var. <i>obovatus</i> Low Shrubland on stony hillslopes, spurs and crests.</p> <p>Drainage lines on stony hills H08: <i>Mulga</i> spp. Low Open Woodland over <i>Senna</i> spp. Mid Sparse Shrubland over <i>Ptilotus obovatus</i> var. <i>obovatus</i> Low Sparse Shrubland over <i>Enneapogon caerulescens</i> and <i>Cymbopogon ambiguus</i> Sparse Tussock Grassland. H09: <i>Mulga</i> spp. Low Open to Closed Forest over <i>Acacia xanthocarpa</i> Tall Sparse to Open Shrubland over <i>Eremophila exilifolia</i> and <i>Senna</i> spp. Mid to Low Open Shrubland over <i>Aristida contorta</i> Sparse to Open Tussock Grassland in drainage lines on stony hill slopes.</p> <p>Drainage Lines P01: <i>Mulga</i> spp. Low Woodland to Low Open Forest over <i>Eremophila galeata</i>, <i>E. serrulata</i> and <i>Senna</i> spp. Mid Sparse to open Shrubland over <i>Cymbopogon obtectus</i> and <i>Aristida contorta</i> Sparse to Open Tussock Grassland in drainage lines on stony hardpan plains. P02: <i>Mulga</i> spp. Low Open Woodland to Isolated Trees over <i>Eremophila pantonii</i> and <i>E. galeata</i> Tall Open to Sparse Shrubland over <i>Senna</i> sp. Meekatharra Mid Open Shrubland over <i>Ptilotus</i></p>

Characteristic	Details
	<p><i>obovatus</i> var. <i>obovatus</i> and mixed Chenopods Low Open to Sparse Shrubland over <i>Aristida contorta</i> Sparse Tussock Grassland in drainage lines on stony hardpan plains.</p> <p>P03: <i>Eremophila</i> spp. Tall Open Shrubland over <i>Senna</i> spp. Mid Sparse Shrubland over <i>Ptilotus obovatus</i> var. <i>obovatus</i> Low Open Shrubland over <i>Aristida contorta</i> Sparse Tussock Grassland.</p> <p>Sand flats and low sandy rises</p> <p>S02: <i>Mulga</i> spp. Low Open Woodland to Low Woodland over <i>Eremophila forrestii</i> subsp. <i>forrestii</i> Mid Sparse Shrubland over a mixed Open Tussock Grassland on sand plains and low undulating sand hills and sandy rises.</p> <p>Flat sandplains over hardpan:</p> <p>S03: <i>Mulga</i> spp. Low Open Woodland to Low Woodland over <i>Eremophila forrestii</i> subsp. <i>forrestii</i> Mid Sparse Shrubland over <i>Eragrostis eriopoda</i>, <i>Monachather paradoxus</i> and <i>Eriachne helmsii</i> Tussock Grassland on sand over hardpan plains.</p> <p>Cleared/highly modified:</p> <p>C/M: Highly modified and cleared areas devoid of native vegetation – include roads, tracks, buildings, mining infrastructure, historical pits, processing areas and camps.</p> <p>The amendment area only contains vegetation associations H06, P01, S02, and S03.</p>
Fauna habitats	<p>A total of four Vegetation and Substrate Associations (VSAs) were identified across the original application area to describe the types of habitats available to local fauna species. The VSAs recorded within the original application area are described as (Bamford et al., 2020):</p> <ul style="list-style-type: none"> • Long-leaf Mulga over shrubs and tussock grass on rocks and loam of undulating hills; • Broad-leaf Mulga over shrubs and tussocks grass on sandy-loam plains; • Samphire marsh in loam clay on margins and across parts of Lake Miranda; and • Degraded areas. <p>The VSAs recorded within the amendment area are described as (Bamford et al., 2020):</p> <ul style="list-style-type: none"> • Long-leaf Mulga over shrubs and tussock grass on rocks and loam of undulating hills; • Broad-leaf Mulga over shrubs and tussocks grass on sandy-loam plains; • Degraded areas.
Vegetation condition	<p>The vegetation survey (NVS, 2023; RPS, 2020) and aerial imagery indicate the vegetation within the proposed clearing area is in Very Good to Completely Degraded (Trudgen, 1991) condition.</p> <p>Trudgen (1991) condition rating scale is provided in Appendix C.</p>
Climate and landform	<p>The application area is located in an arid zone where the average annual rainfall is 248.4 millimetres (BoM, 2023).</p>
Soil description	<p>The soil is mapped as soil units Fa7, My50, and SV5 (GIS Database). These soil units are described by Northcote et al. (1960-68) as:</p> <p>Fa7: Greenstone hills and low ranges with some slate and basalt: dominant soils are shallow stony earthy loams on the steep slopes while overlying red-brown hardpan occur on the stony pediments.</p> <p>My50: Broad plains with a scatter of surface gravels: chief soils are shallow neutral red earths and shallow earthy loams in intimate micro association. They are underlain by a red-brown hardpan at depths of 6-30 inches</p> <p>SV5: Saline soils associated with salt lakes; sand and kopi gypsum dunes, and intervening plains: soils are mixed but chief soils are probably shallow with saline soils that sometimes overlie red-brown hardpan.</p>
Land degradation risk and land systems	<p>The application area falls within the Ararak, Bullimore, Carnegie, Laverton, Leonora, Nubev, and Violet land systems (GIS Database). These land systems are described by Pringle et al. (1994) as:</p> <p>Ararak: Broad plains with mantles of ironstone gravel supporting mulga shrublands with wanderrie grasses. As a result of low slopes, protective soil mantles and very diffuse sheet flow, this land system is generally not susceptible to soil erosion.</p> <p>Bullimore: Extensive sandplains supporting spinifex hummock grasslands. Wind erosion may occur after fire; however, stabilisation is usually rapid following rain and consequent regeneration of vegetation.</p> <p>Carnegie: Salt lakes with fringing saline flats and dunes. Lack of slope renders most of this system generally not susceptible to soil erosion.</p>

Characteristic	Details
	<p>Laverton: Greenstone hills and ridges with acacia shrublands. Stone mantles protect most of this land system against soil erosion, the exception being narrow drainage tracts, which are mildly susceptible to water erosion.</p> <p>Leonora: Low greenstone hills and stony plains, supporting mixed stony chenopod shrublands. Drainage tracts are highly susceptible to water erosion, particularly in areas where perennial shrub cover has been substantially reduced or the soil surface is disturbed. Stony lower footslopes rely on mantles for soil protection against erosion.</p> <p>Nubev: Gently undulating stony plains, minor limonitic low rises and drainage floors, supporting mulga and halophytic shrublands. Drainage zones are moderately susceptible to soil erosion, particularly where perennial shrub cover is substantially reduced or the soil surface is disturbed. Disturbance of the protective stone mantle on saline stony plains is also likely to initiate water erosion.</p> <p>Violet: Undulating stony and gravelly plains and low rises, supporting mulga shrublands. Abundant mantles provide effective protection against soil erosion over most of this land system, except where the soil surface has been disturbed, for example by the construction of tracks and gridlines. In such circumstances, the soil becomes moderately susceptible to water erosion. Narrow drainage tracts are mildly susceptible to water erosion.</p>
Waterbodies	The desktop assessment and aerial imagery indicated that several minor, non-perennial watercourses transect the area proposed to be cleared (GIS Database).
Hydrogeography	The application area is located within the Goldfields Groundwater Area which is legislated by the <i>RWI Act 1914</i> (GIS Database). The mapped groundwater salinity of the majority of the application area is more than 35,000 milligrams per litre total dissolved solids which is described as brine (GIS Database). The northern side of the application area has a mapped groundwater salinity of 1,000-3,000 milligrams per litre total dissolved solids which is described as brackish to saline (GIS Database).
Flora	There were two Priority flora species (<i>Goodenia lyrata</i> (P3) and <i>Grevillea inconspicua</i> (P4)) recorded within the original application area (RPS, 2020). <i>G. inconspicua</i> is also present in the amendment area but <i>G. lyrata</i> was not recorded in the amendment area (RPS, 2020). There are no records of Threatened flora species within the original application area or the amendment area (RPS, 2020; GIS Database).
Ecological communities	One Priority Ecological Community (PEC) is located within the original application area but it was not recorded within the amendment area. The Priority 1 PEC present is the Violet Range (Perseverance Greenstone) Banded Iron Formation (GIS Database). The buffer of the Lake Miranda East Calcrete PEC intersects a south-eastern portion of the application area, however, the community itself does not occur within the original application area or the amendment area (RPM Global, 2022; GIS Database). Part of the buffer for the Yakabindie Calcrete PEC intersects a western portion of the application area however, the community itself also does not occur within the original application area or the amendment area (GIS Database).
Fauna	There were two migratory bird species and three locally significant fauna species recorded within the original application area and the amendment area (Bamford et al., 2020).

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 original application area and the amendment area contain conservation significant flora and fauna species (Bamford, 2020; RPS 2020). The potential impacts to these flora and fauna species have been previously assessed on the decision report for CPS 9951/1 and are further discussed in section 3.2.</p>	At variance <i>(as per CPS 9951/1)</i>	Yes See section 3.2
<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>The area proposed to be cleared contains foraging habitat for conservation significant fauna (Bamford, 2020). However, the fauna habitats found within the application area are common and widespread in the local area and extend well beyond the clearing boundary (RPM Global, 2022). Additionally, most of the fauna species that could occur within the application area are considered to be irregular visitors or vagrants</p>	Not likely to be at variance <i>(as per CPS 9951/1)</i>	No

Assessment against the clearing principles	Variance level	Is further consideration required?
only. Therefore, it is unlikely that the proposed amendment will have a significant impact on habitat for fauna of the region.		
<p><u>Principle (c):</u> <i>“Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</i></p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared is unlikely to contain threatened flora or habitats that support threatened flora. There are no records of threatened flora within the application area (GIS Database) and the field survey conducted by RPS (2020) did not record any threatened flora species in the application area.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 9951/1)</p>	<p>No</p>
<p><u>Principle (d):</u> <i>“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.”</i></p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared does not for part of any know or mapped Threatened Ecological Communities (RPS, 2020; GIS Database).</p>	<p>Not likely to be at variance</p> <p>(as per CPS 9951/1)</p>	<p>No</p>
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 Murchison bioregion of the Interim Biogeographic Regionalisation of Australia (GIS Database). Over 99 percent of the pre-European vegetation still exists in the Murchison bioregion (Government of Western Australia, 2019). The application area is broadly mapped as Beard vegetation associations 39 and 676 (GIS Database). These vegetation associations have not been extensively cleared as over 99 per cent of the pre-European extent of these vegetation associations remain uncleared at the bioregional level (Government of Western Australia, 2019). At the state level vegetation association 39 still retains over 99 per cent of its pre-European vegetation, while vegetation association 676 still retains over 95 per cent of its pre-European vegetation (Government of Western Australia, 2019).</p>	<p>Not at variance</p> <p>(as per CPS 9951/1)</p>	<p>No</p>
<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>Given the distance to the nearest conservation area (13.1 kilometres) the proposed clearing is not likely to have an impact on the environmental values of any nearby conservation areas (GIS Database).</p>	<p>Not likely to be at variance</p> <p>(as per CPS 9951/1)</p>	<p>No</p>
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>There are several minor ephemeral drainage lines that intersect the application area (GIS Database). The proposed clearing has the potential to impact vegetation growing in association with these drainage lines. These impacts can be managed through a vegetation management condition on the clearing permit to avoid clearing of riparian vegetation where possible and maintain water flows.</p>	<p>At variance</p> <p>(as per CPS 9951/1)</p>	<p>No</p>
<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 mapped land systems where the application area is located have variable degrees of susceptibility to water and wind erosion (refer to Appendix A). Noting the location of the application area, the proposed clearing is likely to have an appreciable impact on land degradation. These impacts can be managed through a staged clearing condition on the clearing permit to prevent cleared areas from being exposed for long periods of time.</p>	<p>May be at variance</p> <p>(as per CPS 9951/1)</p>	<p>No</p>

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>There are no permanent watercourses, wetlands, or Public Drinking Water Source Areas recorded within the application area (GIS Database). There is a salt lake (Lake Miranda) within 75 metres of the application area. There is a possibility that run-off from the proposed clearing area may reach Lake Miranda. However, due to the large size and the high salinity level of Lake Miranda, the proposed clearing it is unlikely to impact surface or ground water quality. Nevertheless, a staged clearing condition will be placed on the clearing permit to prevent erosion and minimise run off.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 9951/1)</p>	<p>No</p>
<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 watercourses or wetlands within the application area (GIS Database). The areas proposed for clearing have relatively flat topographic contours (RPM Global, 2022). Sporadic and low rainfall, which is characteristic of the local area, and the generally high soil permeability characteristics, indicated that it is unlikely that the proposed clearing will exacerbate or cause a significant incidence of flooding (RPM Global, 2022).</p>	<p>Not likely to be at variance</p> <p>(as per CPS 9951/1)</p>	<p>No</p>

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 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 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)
- 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)
- IBRA Vegetation Statistics
- Pre-European Vegetation Statistics
- 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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- 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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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)
DAWE	Department of Agriculture, Water and the Environment, 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 DAWE)
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>Environmental 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.