

Clearing Permit Decision Report

1. Application details and outcomes

1.1. Permit application details

Permit number: 8519/2

Permit type: Purpose Permit

Applicant name: Silver Lake (Integra) Pty Limited

Application received: 17 May 2024 **Application area:** 100 hectares

Purpose of clearing:Tailings Storage FacilityMethod of clearing:Mechanical RemovalTenure:Mining Lease 25/347

Location (LGA area/s): City of Kalgoorlie-Boulder

Colloquial name: Mt Monger Project

1.2. Description of clearing activities

Silver Lake (Integra) Pty Limited proposes to clear up to 100 hectares of native vegetation within a boundary of approximately 989.8 hectares, for the purpose of a tailings storage facility. The project is located approximately 62.5 kilometres southeast of Kalgoorlie, within the City of Kalgoorlie-Boulder.

The amendment application is to allow for future expansion of the tailings storage facility and associated infrastructure (Silver Lake, 2024).

A total of approximately 27.73 hectares have been cleared under the permit, based on the most recent annual clearing report submitted 22 September 2023 (Silver Lake, 2023).

Clearing permit CPS 8519/1 was granted by the Department of Mines, Industry Regulation and Safety (now the Department of Energy, Mines, Industry Regulation and Safety) on 22 August 2019 and was valid from 14 September 2019 to 13 September 2024. The permit authorised the clearing of up to 100 hectares of native vegetation within a boundary of approximately 989.8 hectares, for the purpose of a tailings storage facility.

On 17 May 2024, the permit holder applied to amend CPS 8519/1 to extend the permit duration by five years, to 13 September 2029. The amount authorised to clear, and the permit boundary remains unchanged.

1.3. Decision on application and key considerations

Decision: Grant

Decision date: 13 September 2024

Decision area: 100 hectares of native vegetation

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed, and determined in accordance with sections 51KA(1) 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 7 days, and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix A), relevant datasets (Appendix D), supporting information provided by the applicant including the results of biological surveys, the clearing principles set out in Schedule 5 of the EP Act (Appendix B), 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;
- · impacts to riparian vegetation; 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 weeds;
- staged clearing to minimise water erosion, by commencing construction no later than three months after undertaking clearing; 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.

The assessment has not changed since the assessment for CPS 8519/1, except in the case of principle (g). Satellite imagery indicates that erosion has occurred along the drainage line that intersects the application area. The Delegated Officer determined that the proposed duration extension is not likely to lead to an unacceptable risk to environmental values.

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 510 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)
- 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)
- Technical guidance Terrestrial Fauna Surveys for Environmental Impact Assessment (EPA, 2016)
- Technical guidance Terrestrial Fauna Surveys for Environmental Impact Assessment (EPA, 2020)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

Silver Lake's Environmental Management Plan was last reviewed in 2021, which outlined the following measures to manage impacts (Silver Lake, 2021):

- clearing the minimum necessary native vegetation for safe construction and operation of the Project
- managing all new ground disturbance through the internal Surface Disturbance Permit (SDP) process
- clearing of the P3 PEC vegetation will be avoided where possible and kept to the minimum approved area if unavoidable
- conducting operations in accordance with the Conservation Management Plan
- minimising disturbed areas and progressively rehabilitating to avoid colonisation by weed species and dust generation
- controlling off-road vehicle use with no driving permitted off designated routes
- all earthmoving vehicles are inspected to be clear of weeds, soil and vegetative matter before mobilisation, including submission of signed Weed Hygiene checklist
- using provenance seed in the rehabilitation programme
- using dribble bars on all water trucks to limit spray drift impact on surrounding vegetation
- adhering to procedures to prevent and control the spread of weeds
- educating personnel about dust management and clearing within the Randell Timber Reserve will be included in the induction and training programs
- providing inductions and ongoing education about minimising impacts to fauna
- · implementing sound hygiene practices including appropriate disposal of wastes to avoid attracting feral species
- using trained reptile removers to remove trapped reptiles away from the impact area
- · installing fauna egress matting in each corner of turkey nests/dams and also fencing if required
- SLR will consult with the pastoralist regarding feral animal management including appropriate goat management in consultation with DBCA if required
- minimising impact on natural surface water flows where possible by designing the Project to avoid existing drainage lines
- where impacts to drainage lines are unavoidable:

- constructing diversion drains and bunding to divert natural surface water flow around landforms
- o reinforcing landform toes with competent waste rock at this location to reduce erosion impacts
- lining drains with competent NAF waste rock in erosion prone locations
- o installing designed floodways and/or culverts at drainage line road crossings
- modify drainage management if ponding occurs
- installing dewatering pipelines next to infrastructure ensuring potential adverse impacts on the surrounding environment is minimised
- inspecting mine site infrastructure and surrounding areas after significant rainfall to identify any pooling or damage done as a result of surface flows
- leaving vegetation corridors between mining infrastructure areas, where possible, to provide soil stability and maintain existing surface water flows.

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

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 8519/1, with the exception of principle (g). The proposed permit duration extension is unlikely to result in significant environmental impacts, however further clearing within the drainage line that intersects the application area may result in further erosion if not adequately managed.

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

<u>Assessment</u>

A level 2 baseline fauna survey was conducted over the application area and surrounds in October 2007, recording the following fauna habitats (Outback Ecology, 2009b):

- chenopod shrubland on river flat;
- mallee woodland on greenstone hill;
- mallee woodland over spinifex;
- blackbutt (Eucalyptus lesouefii) over open shrubland;
- salmon gum (Eucalyptus salmonophloia) woodland over open shrub; and
- · open mallee woodland over saltbush.

The survey recorded western rosella (inland) (*Platycercus icterotis xanthogenys*, P4) within blackbutt over open shrubland habitat in the application area. There is also a record of the inland western rosella within the application area from 2008 within the same habitat type (GIS Database). These locations within the application are now occupied by the tailings storage facility, however, there still remains some small patches of blackbutt and salmon gum that may be utilised by the inland western rosella (GIS Database).

Conclusion

Based on the above assessment, the proposed clearing may result in a reduction of suitable habitat for the inland western rosella. Further clearing of suitable habitat is unlikely to significantly impact the conservation status or significantly reduce available habitat for the species. The western rosella moves seasonally to abundant food sources (ABRS, 2020) and given the extensive areas of *Eucalyptus* woodlands within the Eastern Goldfields subregion the proposed clearing is unlikely lead to a significant impact.

Conditions

No fauna management conditions required.

3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 2 August 2024 by the Department of Energy, 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 (WC2020/005 - Kakarra Part A) over the area under application (DPLH, 2024). This claim has been registered with the National Native Title Tribunal 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. Site characteristics

A.1. Site characteristics

Characteristic	Details			
Local context	extensive uncleared Eastern G	The area proposed to be cleared is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia (GIS Database). It is surrounded by large areas of uncleared land, mining operations, and salt lake systems, which are common throughout the Eastern Goldfields subregion (GIS Database). It forms a small part of the Great Western Woodlands (GIS Database).		
		ately 99% of the local area (50 kilometre radius from the area proposed to be cleared) incleared (GIS Database).		
Ecological linkage		ation area is not considered a significant ecological linkage. The vegetation ly surrounding the application area and the majority of the region remains uncleared base).		
Conservation areas	nearest leg	ation area is not located within any legislated conservation areas (GIS Database). The gislated conservation area is Randell Timber Reserve, located approximately 7.7 northeast of the application area (GIS Database).		
Vegetation description	association			
		um woodland; salmon gum & goldfields blackbutt (GIS Database).		
	Outback E	I vegetation survey was conducted over the application area and surrounds by cology during June 2008. The following vegetation types were recorded within the area (Outback Ecology, 2009a):		
	CODE	DESCRIPTION		
	Ab	Acacia burkittii tall open scrub over mixed open shrubland over scattered herbs		
	DvS	Dodonaea viscosa subsp. angustissima shrubland over Senna artemisioides subsp. filifolia, Tecticornia disarticulata, Maireana sedifolia low shrubland		
	EgEsp	Eucalyptus griffithsii (low) open forest over Eremophila spp. tall open shrubland/scattered shrubs over Senna artemisioides subsp. filifolia scattered shrubs/open shrubland over Scaevola spinescens, Olearia muelleri low open shrubland		
	EgSa	Eucalyptus griffithsii woodland over Senna artemisioides subsp. filifolia, Eremophila decipiens subsp. decipiens open heath/shrubland over scattered low shrubs		
	EoS	Eremophila oldfieldii subsp. oldfieldii scattered tall shrubs over Senna artemisioides subsp. filifolia, Eremophila glabra subsp. glabra, Dodonaea lobulata shrubland		
	EsCo	Mosaic of Eucalyptus salmonophloia scattered trees over Atriplex nummularia subsp. spathulata, Acacia colletioides tall open shrubland over scattered low shrubs and Casuarina obesa over Maireana sedifolia over scattered low shrubs and herbs		
	EsEl	Eucalyptus salmonophloia (Eucalyptus lesoufii) scattered trees to woodland over Senna artemisioides subsp. filifolia, Acacia colletioides shrubland/tall shrubland over scattered low shrubs		
	FCM	Frankenia georgei, Frankenia pauciflora, Cratystylis subspinescens, Maireana amoena, Maireana pyramidata, Roycea divaricata, Tecticornia spp. open low heath		
	MpAn	Myoporum platycarpum low open woodland over Atriplex nummularia subsp. spathulata Scattered tall shrubs over Maireana sedifolia low shrubland		
Vegetation condition		ation survey recorded the vegetation to be in very good, good, poor, very poor, and vegraded condition (Outback Ecology, 2009a; Trudgen, 1991).		
	The full Tr	udgen (1991) condition rating scale is provided in Appendix C.		
Climate and landform	nearest we	e of the Eastern Goldfields subregion is described as arid to semi-arid, with the eather station recording an average rainfall of approximately 265.2 millimetres per year 4; CALM, 2002).		

Characteristic	Details						
	Database). Northcote of undulating valley plain	mapped at elevations of 300 metres Australian height datum (GIS et al. (1960-68) landform descriptions of the application are gently s, pediments, and plateau areas, with some outcrop of basic rock abrupt rocky ranges and hills (DPIRD, 2024).					
Soil description	The soils within the application area are mapped as (DPIRD, 2024; Northcote et al., 1960-68; GIS Database):						
	ATLAS SYSTEM	DESCRIPTION					
	BB5 (936.7 ha)	calcareous shallow loam, calcareous loamy earth, red loamy earth, self-mulching cracking clay					
	Mx43 (52.8 ha)	red loamy earth, red-brown hardpan shallow loam, calcareous loamy earth, self-mulching cracking clay, red sandy earth, brown sandy earth					
Land degradation risk	1960-68; GIS Databas	s are generally not susceptible to erosion (DPIRD, 2024; Northcote et al., e), recent satellite imagery (November 2023) suggests that the removal of egetation has led to soil erosion following rainfall events (GIS Database).					
Waterbodies	One minor non-perennial watercourse intersects the application area (GIS Database). This tributary begins to the north of the application area and flows south into an unnamed salt lake system to the south of the application area (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 Broad Arrow Dam Catchment Area, located approximately 97.5 kilometres northwest of the application area (GIS Database).						
	located within the Goldfields Groundwater Area proclaimed under the rigation Act 1914 (GIS Database). The mapped groundwater salinity is dissolved solids milligrams per litre, which is described hypersaline water).						
Flora	There are records of 26 priority flora species within 50 kilometres of the application area (GIS Database).						
Ecological communities	There are no known ecological communities within the application area (GIS Database). The nearest priority ecological community it the 'Mount Belches <i>Acacia quadrimarginea / Ptilotus obovatus</i> banded ironstone community' (P3), located approximately 9.7 hectares east of the application area (GIS Database). This PEC is primarily restricted to the Randall Timber Reserve (GIS Database).						
Fauna	There are records of 4 conservation significant fauna species within a 50 kilometre radius of the application area (GIS Database). Two of these species are listed as migratory, one as vulnerable, and one priority fauna species (GIS Database).						
Fauna habitat	 chenopod shr mallee woodl mallee woodl blackbutt (<i>Eu</i> salmon gum (abitats were recorded within the survey area (Outback Ecology, 2009b): rubland on river flat; and on greenstone hill; and over spinifex; calyptus lesouefii) over open shrubland; Eucalyptus salmonophloia) woodland over open shrub; and woodland over saltbush.					

A.2. 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 (Outback Ecology, 2009a; WAH, 1998-; GIS Database).

Species	Conservation status	Distance of closest record to application area (km)	Likelihood of occurrence	Habitat suitability	Surveys adequate to identify? [Y, N, N/A]
Allocasuarina eriochlamys subsp. grossa	P3	48.3	unlikely	limited suitable habitat	Y
Austrostipa turbinata	P3	42.4	possible	suitable habitat present	Υ
Calandrinia lefroyensis	P1	19.9	unlikely	no suitable habitat	Y
Chrysocephalum apiculatum subsp. norsemanense	P3	42.2	unlikely	limited suitable habitat	Υ
Cyathostemon divaricatus	P1	33.6	possible	limited habitat present	Υ
Eremophila arachnoides subsp. tenera	P3	10.5	possible	suitable habitat present	Y
Eremophila perglandulosa	P1	47.0	unlikely	suitable habitat present	Y
Eremophila praecox	P2	44.7	unlikely	suitable habitat present	Υ
Eremophila xantholaemus	P1	46.2	unlikely	suitable habitat present	Y
Eucalyptus kruseana	P4	4.0	possible	suitable habitat present	Y
Eucalyptus x brachyphylla	P4	25.8	possible	suitable habitat present	Υ
Frankenia glomerata	P4	47.9	unlikely	limited suitable habitat	Υ
Grevillea phillipsiana	P1	48.1	possible	suitable habitat present	Y
Lepidosperma sp. Kambalda (A.A. Mitchell 5156)	P2	48.3	unlikely	limited suitable habitat	Y
Melaleuca coccinea	P3	32.7	possible	suitable habitat present	Υ
Phlegmatospermum eremaeum	P3	39.9	possible	suitable habitat present	Y
Pityrodia scabra subsp. dendrotricha	P3	44.8	unlikely	no suitable habitat	Υ
Prostanthera splendens	P1	41.3	unlikely	limited suitable habitat	Y
Ptilotus rigidus	P1	42.8	unlikely	no suitable habitat	Υ
Ricinocarpos digynus	P1	36.3	possible	suitable habitat present	Υ
Sowerbaea multicaulis	P4	35.0	possible	suitable habitat present	Y
Styphelia rectiloba	P3	44.6	unlikely	limited suitable habitat	Y
Tecticornia flabelliformis	P2	13.3	unlikely	limited suitable habitat	Y
Tecticornia mellarium	P1	44.8	unlikely	limited suitable habitat	Y
Trachymene pyrophila	P2	49.9	unlikely	limited suitable habitat	Y
Xanthoparmelia xanthomelanoides	P2	34.0	unlikely	limited suitable habitat	Y

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

A.3. Fauna analysis table

The following conservation significant fauna species have records within a 50 kilometre radius of the application area (GIS Database). Habitat suitability, likelihood of occurrence, and impact was determined utilising biological survey information (Outback Ecology, 2009b; GIS Database).

Species name	s name		Distance of closest record Likelihood of to application occurrence	Habitat suitability	Surveys adequate to identify?	
	WA	EPBC	area (km)			[Y, N, N/A]
BIRD						
Calidris acuminata sharp-tailed sandpiper	МІ	МІ	38.2	possible	limited habitat, vagrant visitors to surrounding regional salt lakes	Y
Calidris ruficollis red-necked stint	МІ	МІ	22.1	possible	limited habitat, vagrant visitors to surrounding regional salt lakes	Y
Leipoa ocellata malleefowl	VU	VU	23.3	possible	some suitable habitat, not ideal for breeding	Y
Platycercus icterotis xanthogenys western rosella (inland)	P4		within	possible	suitable habitat present	Y

Species name		rvation tus	Distance of closest record to application	Likelihood of occurrence	Habitat suitability	Surveys adequate to identify?
	WA	EPBC	area (km)			[Y, N, N/A]
Thinornis cucullatus hooded plover, hooded dotterel	P4		45.8	possible	limited habitat, vagrant visitors to surrounding regional salt lakes	Y

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

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): "Native vegetation should not be cleared if it comprises a high level of biodiversity."	Not likely to be at variance	No
Assessment: While there is some suitable habitat present for a number of priority flora species, no priority flora were identified during the field assessment within the application area (Outback Ecology, 2009a). The habitats and vegetation units are common in the surrounds and the proposed clearing is unlikely to significantly reduce available habitat (Outback Ecology, 2009a).	as per CPS 8519/1	
Principle (b): "Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."	May be at variance	Yes Refer to Section
Assessment: The mapped fauna habitats are widespread and extend beyond well beyond the application area (Outback Ecology, 2009b). These habitats have been degraded through previous mining activity and extensive grazing from feral herbivores (Outback Ecology, 2009b). The available habitats may support conservation significant fauna species but are not considered critical habitat.	as per CPS 8519/1	3.2.1, above.
Principle (c): "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."	Not likely to be at variance	No
Assessment: There are no known records of threatened flora within the application area or within a 50 kilometre radius (GIS Database).	as per CPS 8519/1	
The flora and vegetation survey did not identify any threatened flora species (Outback Ecology, 2009a). Many of the vegetation types recorded within the application area are common and widespread within the region and is unlikely to provide suitable habitat for threatened flora species (Outback Ecology, 2009a).		
Principle (d): "Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community."	Not likely to be at variance	No
Assessment: 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 federally listed 'Proteaceae dominated kwongkan shrublands of the southeast coastal floristic province of Western Australia' (EN), located approximately 210 kilometres south of the application area (GIS Database).	as per CPS 8519/1	
The flora and vegetation survey of the application area and surrounds did not record vegetation that could be representative of a TEC (Outback Ecology, 2009a).		
Environmental value: significant remnant vegetation and conservation areas		
Principle (e): "Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."	Not at variance	No
Assessment: The application area falls within the Coolgardie bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 97% of the pre-European vegetation still exists in the IBRA Coolgardie Bioregion (Government of Western Australia, 2018). The application area is broadly mapped as Beard vegetation association 468: Medium woodland; salmon gum and goldfields blackbutt (GIS Database). Approximately 98% of the pre-European extent of this vegetation association remains uncleared at both the state and bioregional level (Government of Western Australia, 2018).	as per CPS 8519/1	
The application area is not representative of a significant remnant of native vegetation n an area that has been extensively cleared.		
	1	1

CPS 8519/2 Page 9

Not likely to be

at variance

as per CPS

8519/1

No

Principle (h): "Native vegetation should not be cleared if the clearing of the vegetation

is likely to have an impact on the environmental values of any adjacent or nearby

Assessment: The application area is not located within any legislated conservation

areas (GIS Database). The nearest legislated conservation area is Randell Timber Reserve, located approximately 7.7 kilometres northeast of the application area (GIS

conservation area."

Assessment against the clearing principles	Variance level	Is further consideration required?
Database). Despite the proximity, it is not expected that the proposed clearing will impact the conservation values of Randell Timber Reserve.		
Environmental value: land and water resources		
<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."	At variance as per CPS	No
<u>Assessment:</u> The flora and vegetation survey recorded one vegetation type growing in association with the non-perennial watercourse that intersects the application area (Outback Ecology, 2009a):	8519/1	
FCM : Frankenia georgei, Frankenia pauciflora, Cratystylis subspinescens, Maireana amoena, Maireana pyramidata, Roycea divaricata, Tecticornia spp. open low heath.		
Potential impacts to vegetation growing in association with this drainage line may be minimised by the continued implementation of a watercourse management condition.		
<u>Principle (g):</u> "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."	May be at variance	No
<u>Assessment:</u> The mapped soils are generally not susceptible to erosion; however recent satellite imagery (November 2023) indicates that the clearing of fringing watercourse vegetation has led to water erosion during high rainfall events (GIS Database). Given the proximity of clearing to the drainage line, the proposed clearing may cause appreciable land degradation if all vegetation within the drainage line were cleared. To minimise erosional impacts, a staged clearing condition is recommended to be implemented on the permit.	changed from CPS 8519/1	
<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."	Not likely to be at variance	No
<u>Assessment:</u> 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).	as per CPS 8519/1	
<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."	Not likely to be at variance	No
<u>Assessment:</u> There are no permanent water courses or waterbodies within the application area (GIS Database). Seasonal drainage lines are common in the region and temporary localised flooding may occur briefly following very high rainfall events (Outback Ecology, 2009a). The proposed clearing is unlikely to increase the incidence or intensity of natural flooding events.	as per CPS 8519/1	

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.

Condition	Description
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):

- 10 Metre Contours (DPIRD-073)
- Contours (DPIRD-073)
- 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)
- Environmentally Sensitive Areas (DWER-046)
- Groundwater Salinity Statewide (DWER-026)
- Hydrographic Catchments Catchments (DWER-028)
- Hydrography Inland Waters Waterlines
- Hydrography, Linear (DWER-031)
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Pre-European Vegetation Statistics
- Interim Ramsar Sites (DBCA-010)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping Best Available (DPIRD-027)
- Soil Landscape Mapping Rangelands (DPIRD-064)
- WA Now Aerial Imagery

Restricted GIS Databases used:

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

D.2. References

Australian Biological Resources Study (ABRS) (2020) Australian Faunal Directory. Australian Biological Resources Study, Canberra. https://biodiversity.org.au/afd/ (Accessed 9 September 2024).

Bureau of Meteorology (BoM) (2024) Bureau of Meteorology Website – Climate Data Online, Kalgoorlie-Boulder Airport. Bureau of Meteorology. https://reg.bom.gov.au/climate/data/ (Accessed 2 September 2024).

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 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 Heritage Inquiry System. Department of Planning, Lands and Heritage. https://espatial.dplh.wa.gov.au/ACHIS/index.html?viewer=ACHIS (Accessed 5 September 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://dpird.maps.arcgis.com/apps/webappviewer/index.html?id=662e8cbf2def492381fc915aaf3c6a0f (Accessed XX)

https://dpird.maps.arcgis.com/apps/webappviewer/index.html?id=662e8cbf2def492381fc915aaf3c6a0f (Accessed XX Month 2024).

Department of Water and Environmental Regulation (DWER) (2021) Procedure: Native vegetation clearing permits. Joondalup. https://dwer.wa.gov.au/sites/default/files/Procedure Native vegetation clearing permits v1.pdf

Environmental Protection Authority (EPA) (2016) 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) (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

Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68) Atlas of Australian Soils, Sheets 1 to 10, with explanatory data. CSIRO and Melbourne University Press: Melbourne.

Outback Ecology (2009a) Salt Creek level 2 and Maxwells /Cockeyed Bob Level 1 Vegetation and Flora Surveys. Prepared for Integra Mining Limited, by Outback Ecology, April 2009.

Outback Ecology (2009b) Terrestrial Vertebrate Fauna Assessment. Prepared for Integra Mining Limited, by Outback Ecology Services, January 2009.

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.

Silver Lake (2021) Environmental Management Plan - Santa Open Pit. Prepared by Silver Lake Resources Limited, January 2021.

Silver Lake (2023) Annual Clearing Report CPS 8519/1, 1 July 2022 to the 30 June 2023. Prepared by Silver Lake Resources, September 2023.

Silver Lake (2024) Clearing permit amendment application form, CPS 8519/2, received 17 May 2024.

Western Australian Herbarium (1998-) FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions, Western Australia. https://florabase.dpaw.wa.gov.au/ (Accessed 10 September 2024).

4. Glossary

Acronyms:

BC Act Biodiversity Conservation Act 2016, 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 Environmental Protection Act 1986, Western Australia **EPA** Environmental Protection Authority, Western Australia

EPBC Act Environment Protection and Biodiversity Conservation Act 1999 (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 Rights in Water and Irrigation Act 1914, 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.

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.

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.