

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number : CPS 7110/2

Duration of Permit : From 29 October 2016 to 11 November 2033

PERMIT HOLDER

Mr Kim George Smith

LAND ON WHICH CLEARING IS TO BE DONE

Lot 1678 on Deposited Plan 202987, Bow Bridge

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 1.544 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

CONDITIONS

1. Period in which clearing is authorized

The Permit Holder shall not clear any *native vegetation* after 24 February 2021.

2. Weed and dieback management

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

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared:
- (b) ensure that no known *dieback* or *weed*-affected soil, mulch, fill, or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

3. Retain vegetative material and topsoil, revegetation and rehabilitation

The Permit Holder must:

- (a) retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil in an area that has already been cleared.
- (b) Prior to 11 November 2028, *revegetate* and *rehabilitate* the area cross-hatched yellow in Figure 1 of Schedule 1 by:

- (i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land; and
- (ii) ripping the ground on the contour to remove soil compaction;
- (iii) ripping the pit floor and contour batters within the extraction site; and
- (iv) laying the vegetative material and topsoil retained under condition 3(a) on the cleared area.
- (c) Within 24 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 3(b) of this Permit:
 - (i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
 - (ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 3(c)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, *revegetate* the area by deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area and ensuring only *local provenance* seeds and propagating material are used.
- (d) Where additional *planting* or *direct seeding* of native vegetation is undertaken in accordance with condition 3(c)(ii) of this Permit, the Permit Holder must repeat condition 3(c)(i) and 3(c)(ii) within 24 months of undertaking the additional *planting* or *direct seeding* of native vegetation.
- (e) Where a determination by an *environmental specialist* that the composition, structure and density within areas *revegetated* and *rehabilitated* will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, as determined in condition 3(c)(i) and 3(c)(ii) of this Permit, that determination shall be submitted to the *CEO* within three months of the determination being made by the *environmental specialist*.
- (f) During the next *optimal time* occurring after receiving notice from the CEO:
 - (i) stating that the CEO disagrees with the determination submitted under condition 3(f); and
 - (ii) specifying the required further *planting* of *local provenance* propagating material and/or direct seeding of *local provenance* seeds that in the *CEO*'s reasonable opinion are necessary to ensure that the *native vegetation* will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, the Permit Holder must carry out the further *planting* and/or *direct seeding* specified in the notice.

4. Records that must be kept

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

Table 1: Records that must be kept

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

No.	Relevant matter	Specifications		
		Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings;		
		(c) the date that the area was cleared;		
		(d) the size of the area cleared (in hectares);		
		(e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 2; and		
		(f) actions taken to minimise the risk of the introduction and spread of <i>weeds</i> and <i>dieback</i> in accordance with condition 3.		
2.	In relation to the	(a) the size of the area revegetated and rehabilitated;		
	revegetation and rehabilitation of areas pursuant to condition 3	(b) the location of any <i>revegetated</i> and <i>rehabilitated</i> areas, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings or decimal degrees;		
		(c) a description of the <i>revegetation</i> and <i>rehabilitation</i> activities undertaken;		
		(d) a copy of the <i>environmental specialist's</i> monitoring report and determination; and		
		(e) a description of any remedial actions undertaken pursuant to conditions 3(c)(ii) and 3(d), where the <i>environmental specialist</i> indicates that the revegetation and rehabilitation will not result in a similar species composition, structure and density to that of preclearing vegetation type in that area(s).		

5. Reporting

- (a) The Permit Holder must provide to the *CEO* on or before 30 June of each year, a written report:
 - (i) of records required under condition 4 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 July and 30 June of the preceding calendar year.
- (b) If no clearing authorised under this Permit was undertaken between 1 July and 30 June of the preceding calendar year, a written report confirming that no clearing under this Permit has been carried out, must be provided to the *CEO* on or before 1 September of each year.
- (c) The Permit Holder must provide to the *CEO*, no later than 90 calendar days prior to the expiry date of the Permit, a written report of records required under condition 4, where these records have not already been provided under condition 5(a).

DEFINITIONS

In this Permit, the terms in Table 2 have the meanings defined.

Table 2: Definitions

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the <i>Environmental Protection Act 1986</i> .
clearing	has the meaning given under section 3(1) of the EP Act.
condition	a condition to which this clearing Permit is subject under section 51H of the EP Act.
department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
direct seeding	means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;
environmental specialist	means a person who holds a tertiary qualification in environmental science or equivalent, and has a minimum of 2 years work experience relevant to the type of environmental advice that an environmental specialist is required to provide under this permit, or who is approved by the CEO as a suitable environmental specialist;
EP Act	Environmental Protection Act 1986 (WA)
fill	means material used to increase the ground level, or to fill a depression.
local provenance	means native vegetation seeds and propagating material from natural sources within 200 kilometres and the same IBRA subregion of the area cleared;
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
optimal time	means the period from April to May for undertaking planting and direct seeding;
planting	means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;
regeneration	means revegetation that can be established from in situ seed banks contained either within the topsoil or seed-bearing mulch;
rehabilitate/ rehabilitation /rehabilitation	
Revegetate/ revegetated/ revegetation	means the re-establishment of a cover of native vegetation in an area such that the species composition, structure, density and condition is similar to pre-clearing vegetation types in that area, and can involve regeneration, direct seeding and/or planting;
weeds	means any plant – (a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i> ; or (b) published in a Department of Biodiversity, Conservation and

OFFICIAL

Term	Definition
	Attractions species-led ecological impact and invasiveness
	ranking summary, regardless of ranking; or
	(c) not indigenous to the area concerned.

END OF CONDITIONS

Meenu Vitarana MANAGER

NATIVE VEGETATION REGULATION

Officer delegated under Section 20 of the Environmental Protection Act 1986

20 December 2023

Schedule 1

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

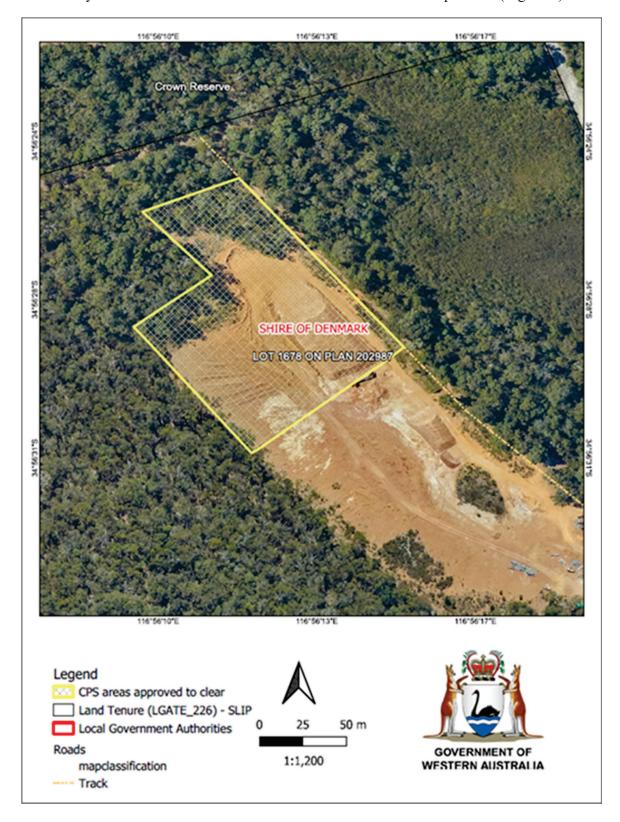


Figure 1: Map of the boundary of the area within which clearing may occur.



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number: CPS 7110/2

Permit type: Area permit

Applicant name: Kim George Smith

Application received: 30 August 2023

Application area: 1.544 hectares of native vegetation

Purpose of clearing: Gravel extraction

Method of clearing: Mechanical Removal

Property: Lot 1678 on Deposited Plan 202987, Bow Bridge

Location (LGA area/s): Shire of Denmark

Localities (suburb/s): Bow Bridge

1.2. Description of clearing activities

For CPS 7110/1, the vegetation proposed to be cleared was contained within a single contiguous area (see Figure 1, Section 1.5). The application CPS 7110/1 was to clear up to 1.544 hectares of native vegetation for the purpose of gravel extraction. The original application to clear 3.32 hectares of native vegetation was amended to 1.544 hectares to align with the areas subject to an extractive industry licence (EIL) granted by the Shire of Denmark.

On 24 October 2023, the applicant request to extend the duration of the clearing permit and vary permit condition 3 to extend the timeframe for revegetation and rehabilitation of the clearing area.

The applicant further advised on 15 December 2023 that 1.3 hectares (out of 1.544 hectares authorized under the Permit CPS 7110/1 – Figure 1) of clearing has approximately been undertaken, since the commencement of the permit CPS 7110/1 in 2016 and that the clearing was complete by early 2017.

The applicant has been advised that no clearing is authorised after 24 February 2021. Noting the applicant advised no further clearing is required under the amendment application, the duration for authorised clearing (condition 1) has not been extended under this amendment. Therefore, the extension of the permit duration will only allow for the revegetation and rehabilitation to be undertaken post extraction.

1.3. Decision on application

Decision: Granted

Decision date: 20 December 2023

Decision area: 1.544 hectares of native vegetation, as depicted in Section 1.5, below.

1.4. Reasons for decision

This clearing permit amendment application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (DWER) advertised the application for 14 days and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix B), relevant datasets (see Appendix E.1), the clearing principles set out in Schedule 5 of the EP Act (see Appendix C), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). The Delegated Officer also took into consideration that all required clearing has been undertaken and no further is authorised under the amended permit. The Delegated Officer also had regard to the fact that the requested extension to the permit is to enable revegetation and rehabilitation to commence post extraction, to ensure compliance with permit conditions.

The assessment has not changed since the assessment for CPS 7110/1.

Noting the above, the Delegated Officer determined to issue a revised permit with the following amendments:

- Amend condition 3(b) of the clearing permit to extend the duration for revegetation and rehabilitation to commence to 11 November 2028, allowing a year for the extraction activities to conclude and the revegetation and rehabilitation to commence.
- The duration of the permit has been extended to 11 November 2033, allowing five years to undertake revegetation and rehabilitation and comply with condition 3, including monitoring and contingency actions to commence where the revegetation and rehabilitation is not successful.
- Additional conditions on record keeping and reporting have been included in the amendment permit to align
 with current departmental practices, however noting record keeping was not a requirement of the previous
 permit, applicant is only required to comply with these conditions from the date of the amendment.

1.5. Site map

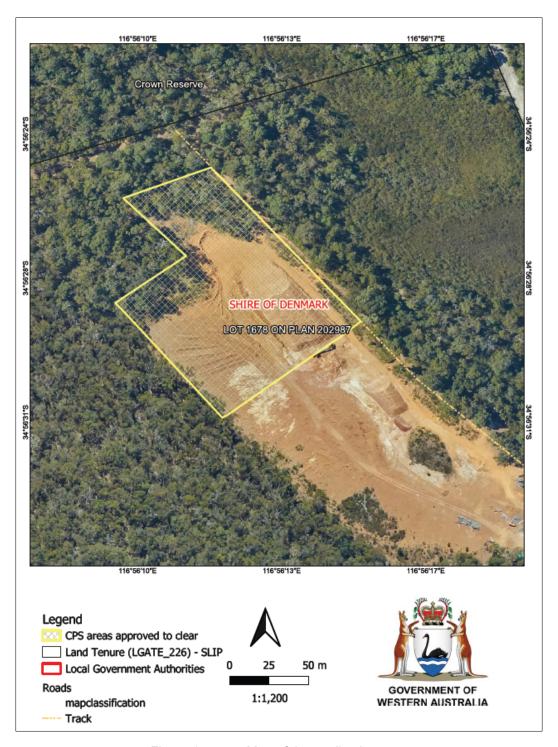


Figure 1 Map of the application area

The area crosshatched yellow indicates the area authorised to be cleared under the granted clearing permit.

2 Legislative context

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

In addition to the matters considered in accordance with section 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)
- Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act)
- Soil and Land Conservation Act 1945 (WA)

The key guidance documents which inform this assessment are:

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

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

Under CPS 7110/1, the applicant has demonstrated avoidance, minimisation, and mitigation measures, including, implementation of weed and dieback hygiene measures, restricting the use of the machinery to the application area only. The applicant confirmed that the trees on the north-east of the application area (see Figure 1) have been retained, the topsoil has been stockpiled and contains enough seed bank for revegetation (Smith, 2023b).

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

All clearing required under the permit has already been undertaken. Noting this and based on a review of current environmental information (Appendix B) which did no reveal any new environmental values for further consideration, the assessment against the clearing principles remains unchanged from the Clearing Permit Decision Report CPS 7110/1.

Given the above, the Delegated Officer considered that the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values, and the conditions to mitigate potential impacts also remains unchanged from the original assessment and can be found in the Clearing Permit Decision Report CPS 7110/1 (DER, 2016).

3.3. Relevant planning instruments and other matters

Other relevant authorisations required for the proposed land use include:

- Extractive Industry Licence (issued by the Shire of Denmark)
- Licence issued under Part V Division 3 of the EP Act.

The Shire of Denmark (2023) advised DWER that it supports the proposed extension of time for this clearing permit and associated conditions for rehabilitation/ revegetation. This proposed time period is within the current planning approval period granted by the Shire.

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

End

Appendix A. Additional information provided by applicant.

During the assessment, the applicant provided information on the area which has been cleared under the original Permit 7110/1 as per DWER's request. The cleared area is shown in Figure 1.

Appendix B. Site characteristics

B.1. Site characteristics

Characteristic	Details			
Local context	The area proposed to be cleared (CPS 7110/1) is a 1.54-hectare isolated patch of native vegetation in the intensive land use zone of Western Australia. It is part of a large area of vegetation and is adjacent to an unsealed track. Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 73.14 per cent of the original native vegetation cover.			
Ecological linkage	There are no formal ecological linkages mapped within the application area.			
Conservation areas	The nearest mapped conservation area is the Mount Frankland South National Park, approximately 0.04 kilometres north of the application area.			
Vegetation description	 The Mattiske vegetation type mapped over the application area is: Beard vegetation association 3, which is described as mainly jarrah and marri Eucalyptus marginata, Corymbia calophylla (Shepherd et al, 2001) Keystone (Ky), which is described as an open forest of Eucalyptus marginata subsp. marginata-Corymbia calophylla-Banksia grandis on mild slopes of hills in perhumid zone and open forest to tall open forest of Eucalyptus brevistylis on slopes below outcrops in hyperhumid and perhumid zones (Mattiske and Havel, 1998). DWER site inspection conducted by officers from the Department of Environment Regulation (DER) on 29 June 2016 found that the vegetation within the application area was mostly representative of the mapped Mattiske vegetation complex (DER, 2016).			
Vegetation condition	 DWER site inspection (DER, 2016) indicated the vegetation within the proposed clearing area to be in Completely degraded to Very good (Keighery, 1994) condition, described as: Very good: Vegetation structure altered, with obvious signs of disturbance. Good: Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. Degraded: Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. Completely degraded: The structure of the vegetation is no longer intact, and the area is completely or almost completely without native species. The full Keighery (1994) condition rating scale is provided in Appendix D. 			

Characteristic	Details			
Climate and landform	Climate: Mean maximum temperature is 20.3 degrees Celsius.			
	Mean minimum temperature is 11.6 degrees Celsius.			
	Rainfall: Mean annual rainfall is 1065.3 millimetres.			
	Landform: Hills and ridges 60 to 100 m high			
Soil description	The soil is mapped as Keystone yellow duplex Phase (254WhKYy), described as, loamy gravel, duplex sandy gravel and gmiirey deep sandy duplexes.			
Land degradation risk	The soil types within the application area are mapped as having a low risk of land degradation resulting from water logging, salinity, and flooding, but as having a high risk of wind erosion, phosphorus export, and subsurface acidification (DPIRD, 2023).			
Waterbodies	The desktop assessment and aerial imagery indicated that no wetlands or waterbodies transecting the application area. The closest waterline is a nonperennial minor river located approximately 0.11 kilometres north-east of the application area.			
Hydrogeography	Groundwater salinity within the application area is mapped as from 500 to 1000 milligrams per litre total dissolved solids.			
Flora	There are records of 26 threatened and priority flora species in the local area (10 kilometres), including two species listed as threatened. There is only one conservation significant species, <i>Andersonia redolens</i> (Priority 2), mapped in the same soil type and vegetation type as the application area.			
Ecological communities	The nearest ecological community is Southwest Coastal Grassland (priority 1), approximately 7.6 kilometres south of the application area.			
Fauna	The desktop assessment identified that a total of 32 threatened or priority fauna species have been recorded within the local area (10-kilometre radius), including 19 threatened fauna species, five priority fauna species, and eight specially protected fauna species.			
	Geospatial data indicates no records of black cockatoo (BC) roosting sites or breeding sites within the local area. The DWER site inspection (CPS 7110/1) did record some evidence of foraging by black cockatoo within the application area.			

B.2. Vegetation extent

	Pre- European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre- European extent in all DBCA managed land	
IBRA bioregion*	IBRA bioregion*					
Warren	833,985.56	659,432.21	79.07	558,485.38	66.97	
Vegetation complex						
Beard vegetation association 3 *	250,262.10	195,318.18	78.05	170,135.22	67.98	
Mattiske vegetation complex Keystone (ky) **	15,012.58	13,482.12	89.81	12,332.76	82.15	
Local area						
10km radius	305276393.3	223286021.1	73.14	-	-	

^{*}Government of Western Australia (2019a)

B.3. Land degradation risk table

Risk categories	Land Unit 1		
Wind erosion	H1: 50-70% of map unit has a high to extreme wind erosion risk		
Water erosion	M2: 30-50% of map unit has a high to extreme water erosion risk		
Salinity	L1: 30-50% of map unit has a moderate to high salinity risk or is presently saline		
Subsurface Acidification	H2: >70% of map unit has a high subsurface acidification risk or is presently acid		
Flood risk	L1: <3% of the map unit has a moderate to high hazard		
Water logging	L1: <3% of map unit has a moderate to very high waterlogging risk		
Phosphorus export risk	H1: 50-70% of map unit has a high to extreme phosphorus export risk		

Appendix C. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): "Native vegetation should not be cleared if it comprises a high level of biodiversity." Assessment:	Not likely to be at variance	No
The amendment application area does not contain significant flora, fauna, habitats, assemblages of plants.	(as per CPS 7110/1)	
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."	Not likely to be at variance	No
Assessment: The amendment application area does not contain significant habitat for conservation significant fauna.	(as per CPS 7110/1)	
Principle (c): "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora." Assessment:	Not likely to be at variance.	No
The amendment application area is unlikely to contain habitat for flora species listed under the BC Act.	(as per CPS 7110/1)	

^{**}Government of Western Australia (2019b)

Assessment against the clearing principles	Variance level	Is further consideration required?
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:	(as per CPS	
The amendment application area does not contain species that can indicate a threatened ecological community.	7110/1)	
Environmental value: significant remnant vegetation and conservation ar	eas	1
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 likely to be at	No
Assessment:	variance	
The extent of the mapped vegetation type is consistent with the national objectives and targets for biodiversity conservation in Australia. No mapped vegetation association within the application area occurs at below the 30 per cent threshold.	(as per CPS 7110/1)	
Principle (h): "Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area."	Not likely to be at variance	No
Assessment:	(as per CPS	
Given the distance to the nearest conservation area (Mount Frankland South National Park), the amendment application area is not likely to have an impact on the environmental values of nearby conservation areas.	7110/1)	
Environmental value: land and water resources		
Principle (f): "Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."	Not likely to be at	No
Assessment:	variance	
Given no watercourses or wetlands are recorded within the application area, the amendment application area is unlikely to impact on- or off-site hydrology and water quality.	(as per CPS 7110/1)	
Principle (g): "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."	May be at variance	No
Assessment: The amendment application area is not likely to cause land degradation in the form of salinity, waterlogging or eutrophication. While the soil type within the application area is not prone to wind or water erosion, the application area occurs on a steep slope, and some water erosion may occur following heavy rainfall if the end land use of gravel extraction is not implemented immediately following clearing activities.	(as per CPS 7110/1)	
Given the above, the proposed clearing may be at variance to this Principle.		
Land degradation via soil erosion may be minimised by ensuring topsoil is appropriately stripped and stockpiled in a timely manner following clearing activities.		
Principle (i): "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."	Not likely to be at variance	No
Assessment:	(as per CPS 7110/1)	

Assessment against the clearing principles	Variance level	Is further consideration required?
Given no watercourses are recorded within the application area, the amendment application area is unlikely to impact surface or ground water quality.		
Principle (j): "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."	Not likely to be at variance	No.
Assessment:	(as per CPS	
The mapped soils and topographic contours in the surrounding area indicate the amendment application area is unlikely to contribute to increased incidence or intensity of flooding.	7110/1)	
Given no watercourses are recorded within the application area, the proposed clearing is unlikely to contribute to waterlogging.		

Appendix D. Vegetation condition rating scale

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

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

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

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

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

Appendix E. Sources of information

E.1. GIS databases

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

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

Restricted GIS Databases used:

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

E.2. References

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

Department of Environment Regulation (DER) (2013). *A guide to the assessment of applications to clear native vegetation*. Perth. Available from: https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2 assessment native veg.pdf.

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