



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 10551/1
Permit Holder:	Shire of Esperance
Duration of Permit:	From 22 July 2024 to 22 July 2029

The permit holder is authorised to clear *native vegetation* subject to the following conditions of this permit.

PART I – CLEARING AUTHORISED

1. Clearing authorised (purpose)

The permit holder is authorised to clear *native vegetation* for the purpose of bushfire hazard reduction.

2. Land on which clearing is to be done

Lot 9002 on Deposited Plan 69443, Bandy Creek
Lot 9003 on Deposited Plan 69443, Bandy Creek

3. Clearing authorised

The permit holder must not clear more than 2.75 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

PART II – MANAGEMENT CONDITIONS

4. Avoid, minimise, and reduce impacts and extent of clearing

In determining the *native vegetation* authorised to be cleared under this permit, the permit holder must apply the following principles, set out in descending order of preference:

- avoid the clearing of *native vegetation*;
- minimise the amount of *native vegetation* to be cleared; and
- reduce the impact of clearing on any environmental value.

5. 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*, including but not limited to:

- (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.

6. Directional clearing

The permit holder must:

- (a) conduct clearing authorised under this permit from one direction to the other towards adjacent *native vegetation*; and
- (b) allow a reasonable time for fauna present within the areas being cleared to move into adjacent *native vegetation* ahead of the clearing activity.

PART III - RECORD KEEPING AND REPORTING

7. 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 activities generally	<ul style="list-style-type: none"> (a) the species composition, structure, and density of the cleared area; (b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to 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 4; (f) actions taken to minimise the risk of the introduction and spread of <i>weeds</i> and <i>dieback</i> in accordance with condition 5; and (g) actions taken in accordance with condition 6.

8. Reporting

The permit holder must provide to the *CEO* the records required under condition 7 of this permit when requested by the *CEO*.

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.
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.
dieback	means the effect of <i>Phytophthora</i> species on native vegetation.
EP Act	<i>Environmental Protection Act 1986</i> (WA)
fill	means material used to increase the ground level, or to fill a depression.
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.
weeds	means any plant – <ul style="list-style-type: none"> (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 Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or (c) not indigenous to the area concerned.

END OF CONDITIONS



Mathew Gannaway
MANAGER
NATIVE VEGETATION REGULATION

*Officer delegated under Section 20
of the Environmental Protection Act 1986*

28 June 2024

Schedule 1

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

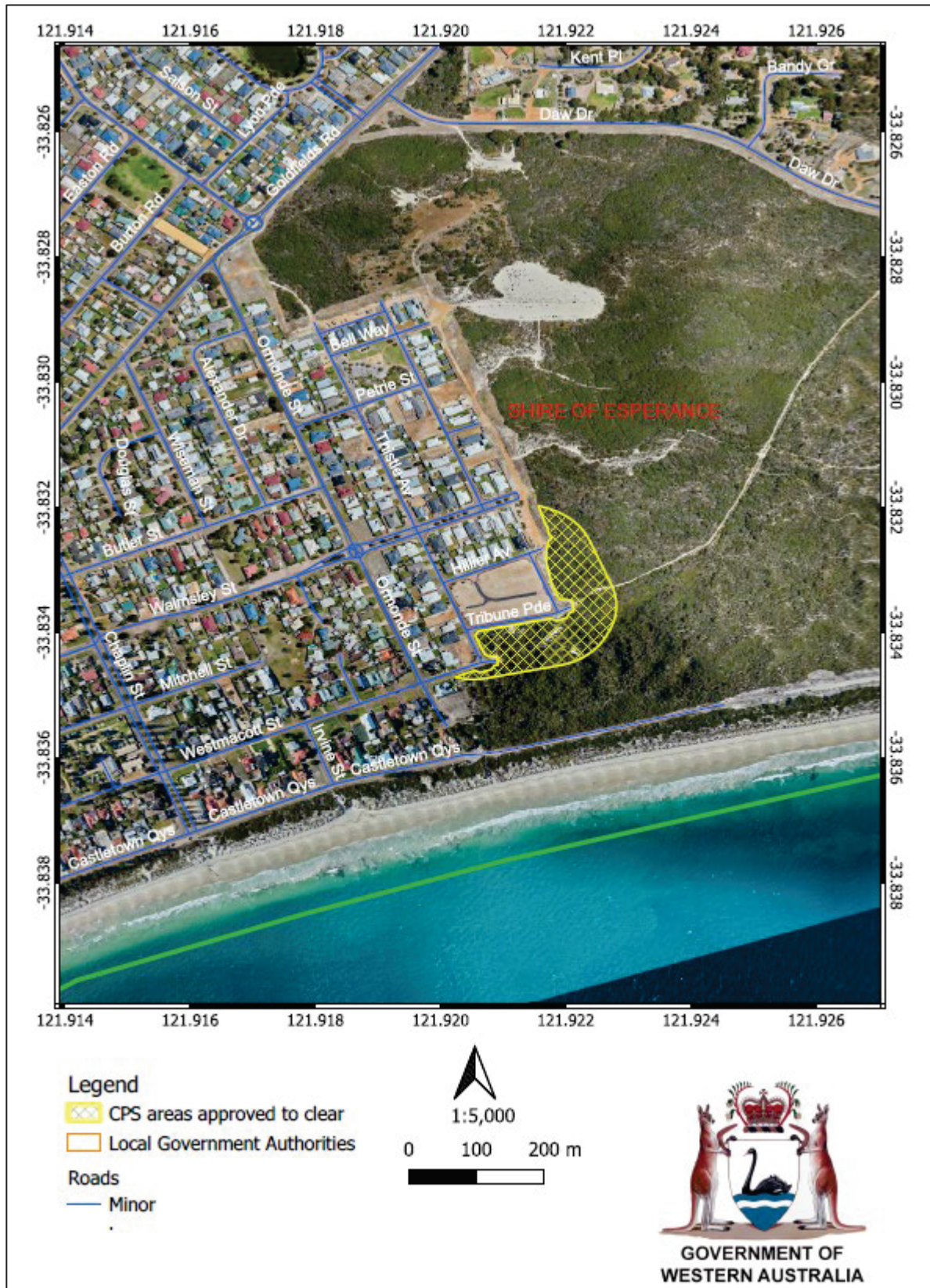


Figure 1: Map of the boundary of the area within which clearing may occur



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 10551/1
Permit type:	Purpose permit
Applicant name:	Shire of Esperance
Application received:	8 March 2024
Application area:	2.75 hectares of native vegetation
Purpose of clearing:	Bushfire hazard reduction
Method of clearing:	Mechanical clearing
Property:	Lot 9002 on Deposited Plan 69443 Lot 9003 on Deposited Plan 69443
Location (LGA area/s):	Shire of Esperance
Localities (suburb/s):	Bandy Creek

1.2. Description of clearing activities

The application is for clearing native vegetation to create a 100-metre buffer around the proposed State 4 Flinders Estate subdivision to lower the Bushfire Assessment Level (BAL) of the subdivided blocks to BAL-LOW (Shire of Esperance, 2024a). The vegetation proposed to be cleared is contained within a single contiguous area (see Figure 1, Section 1.5).

1.3. Decision on application

Decision:	Granted
Decision date:	28 June 2024
Decision area:	2.75 hectares of native vegetation, as depicted in Section 1.5, below.

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (DWER) advertised the application for 21 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 I.1), the findings of a biological survey (see Appendix E), 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 the clearing purpose is to reduce the fire hazard and the proposed clearing area will be cleared in the future under an approved development.

The assessment identified that the proposed clearing will result in:

- the loss of native vegetation that is suitable habitat for southern death adder (*Acanthophis antarcticus*), Quenda (*Isoodon fuscivente*) and peregrine falcon (*Falco peregrinus*);
- the potential impacts on fauna individuals should they be present at the time of clearing; and
- the potential introduction and spread of weeds and dieback into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values.

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 loss of habitat is not going to significantly impact resources for the above-mentioned fauna species in the local area. The above potential impacts can be minimised and managed to unlikely 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 and dieback.
- Undertake slow, progressive one directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity.

1.5. Site map

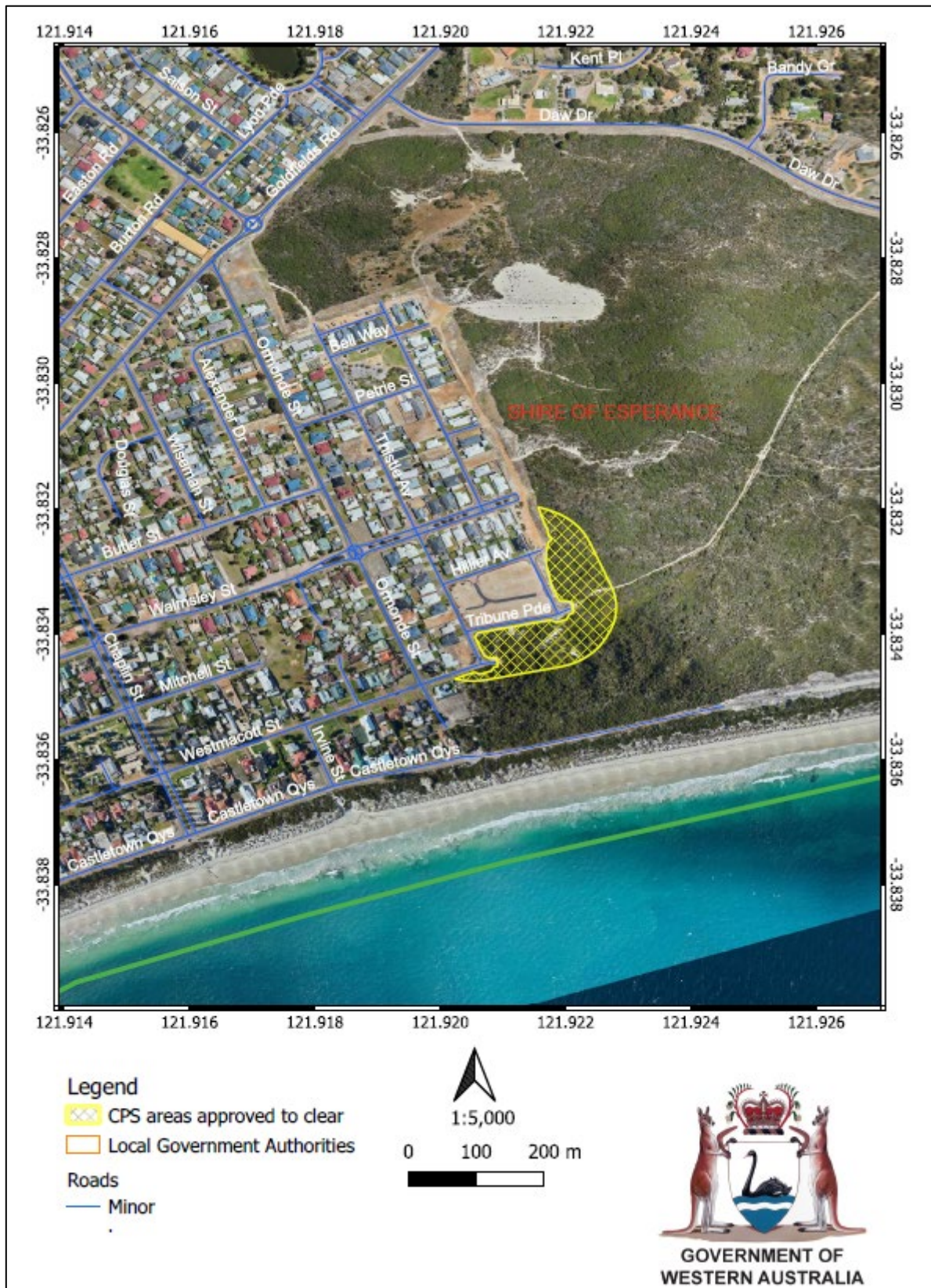


Figure 1. Map of the application area

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 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)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Planning and Development Act 2005* (WA) (P&D Act)

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

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

Supporting document (Shire of Esperance, 2024b) showed that the following measures have been committed to be applied to mitigate the impacts of the proposed clearing:

- All vehicles and construction equipment to be cleaned prior to start of the clearing;
- Clearing debris within degraded areas that contains a large number of weeds to be contained within degraded areas;
- Follow up spraying of emergent weeds to prevent weeds coming into the weed free areas.

The applicant also stated that the application area is located within an area that has been planned for the Flinders Development and will be cleared within the next 10 years (Shire of Esperance, 2024c). Noting this and the above mitigation measures, the Delegated Officer was satisfied that that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix B) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles (see Appendix C) identified that the impacts of the proposed clearing present a risk to biological values (biodiversity, fauna and flora). The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

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

Assessment

The desktop assessment identified 42 conservation significant fauna species within the local area (20-kilometres from the application area, excluding the ocean), including 34 bird species, five mammal species, one invertebrate species and two reptile species. Of which, five species are associated with ocean and/or freshwater habitat not present within the application area.

In determining the likelihood of conservation significant fauna occurring within the application area, consideration was given to the results of the preferred habitat types, number of records within the local area, proximity of records to the application area, and the type and condition of the vegetation within the application area. Based on these factors, two conservation significant fauna species may possibly occur within the application area (See B.4 for fauna analysis table), including:

- Southern death adder (*Acanthophis antarcticus*)
- Quenda (*Isoodon fuscivente*)
- Peregrine falcon (*Falco peregrinus*)

Southern death adder (*Acanthophis antarcticus*)

The southern death adder (Priority 3) is one of the most venomous land snakes in Australia and known to occur in a variety of habitats including forests, woodlands, grassland and heath (Australian Museum, 2020). This species prefers undisturbed habitat with thick leaf litter or forest debris for hiding (Australian Geographic, 2024). There are two records of this snake species mapped within the local area, with the closest approximately five kilometres from the application area. Noting the vegetation identified in the survey (Shire of Esperance, 2024b), the application area may provide suitable habitat for the southern death adder.

Quenda (*Isoodon fuscivente*)

The quenda (Priority 4 species) typically prefers scrubby, swampy vegetation with low, dense understorey, located nearby water courses, pasture, or forest/woodland that is regularly burnt and is in areas of pasture and cropland lying close to dense cover (DEC, 2012). This species has a wide coastal distribution from Guilderton to east of Esperance with a patchy distribution within the jarrah and karri forests and the Swan Coastal Plain. It is understood that individuals have overlapping home ranges between 1-2 hectares (DEC, 2012). This species is known from three records within the local area occurring as close as 7.1 kilometres from the application area. The vegetation within the application area may provide suitable habitat for this species.

Peregrine falcon (*Falco peregrinus*)

The peregrine falcon (Other Specially Protected Fauna) is found in most habitats, from rainforests to the arid zone and at most altitudes, from the coast to alpine areas (DAWE, 2020). It requires abundant prey and secure nest sites and prefers coastal and inland cliffs or open woodlands near water and may even be found nesting on high city buildings (Australian Museum, 2019). Sixteen records of this falcon species are mapped within the local area, and the closest record is approximately 2.5 kilometres from the proposed clearing area. It is considered that the habitat present within the application area may also provide suitable transient foraging habitat for this species as individuals migrate through the landscape.

Noting the extent of the application area and its location within a broader remnant vegetation in proximity to the area proposed to be cleared, as well as the extent of remnant vegetation in the local area, the application area is unlikely to be significant for the survival of the above fauna species or be necessary for the maintenance of their significant habitat.

The proposed clearing may increase the risk of weed and dieback spreading into the adjacent native vegetation which comprises suitable habitat for fauna.

Conclusion

Based on the above assessment, the proposed clearing will not impact significant habitat for peregrine falcon, quenda and southern death adder, however impacts to individuals of these species may occur at the time of clearing. Undertaking slow, progressive clearing towards adjacent native vegetation will minimise impacts to individuals present at the time of clearing.

The proposed clearing also increases the risk of spreading weeds and dieback to adjacent remnant vegetation and impact fauna habitat associated with this vegetation. This risk can be managed and minimised by weed and dieback control measures.

Conditions

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

- Slow directional clearing to allow fauna to move into adjacent vegetation ahead of the clearing activity will minimise impact to individuals.
- Weed and dieback management.

3.2.2. Environmental value: biological values (priority flora) – Clearing Principle (a)

Assessment:

No threatened flora species are mapped within the local area (GIS database) and none were identified in the biological survey (Shire of Esperance, 2024b).

The desktop assessment identified 34 conservation significant flora records within the local area. Based on a review of current environmental information, site characteristics, habitat preferences, and the distribution and extent of existing records, two conservation significant flora species recorded in the local area have the potential to occur within the application area (refer to Appendix B.3).

- *Banksia prolata* subsp. *calcicola*
- *Leucopogon corymbiformis*

Banksia prolata subsp. *calcicola* (Priority 4) is known to occupy white sand over limestone in coastal areas and flowers from July to September (Western Australian Herbarium, 1998-). The survey did not identify any individuals of *Banksia* species within the application area (Shire of Esperance, 2024b). Even though the survey was not conducted during the flowering period of this species, it is unlikely that the *B. prolata* subsp. *calcicola* occurs within the application area and would not have been overlooked during the survey. Therefore, the proposed clearing is not likely to impact on this flora taxon.

Leucopogon corymbiformis (Priority 2) is an erect shrub and flowers from July to September (ALA, 2024). Its habitat is poorly known but based on the historical records of this species, *L. corymbiformis* seems to be associated with *Banksia* woodland/shrubland/heathland (Western Australian Herbarium, 1998-). No *L. corymbiformis* was observed during the survey (Shire of Esperance, 2024b). There are six records of this flora species mapped within the local area, with the closest approximately 3.9 kilometres away which was recorded in 1962. The remaining and more recent records are mapped more than 12 kilometres from the application area (QGIS database). Even though the timing of the survey (October) was not optimal for this taxon, noting that no *Proteaceous* species were recorded in the clearing footprint (Shire of Esperance, 2024b), and the record in proximity was long time ago, the possibility of *L. corymbiformis* occurring within the application area is considered low and the proposed clearing is unlikely to impact this flora species.

Conclusion

Based on the above assessment, the proposed clearing is unlikely to result in impacts on conservation significant flora.

Conditions:

No management conditions required.

3.3. Relevant planning instruments and other matters

The proposed establishment of the bushfire hazard reduction area is associated with the Flinders Development which has been authorized for future development by the Western Australian Planning Commission (WAPC) (Shire of Esperance, 2024c). This future development is reflected in the Shire of Esperance Local Planning Scheme No.24 (Shire of Esperance, 2024c).

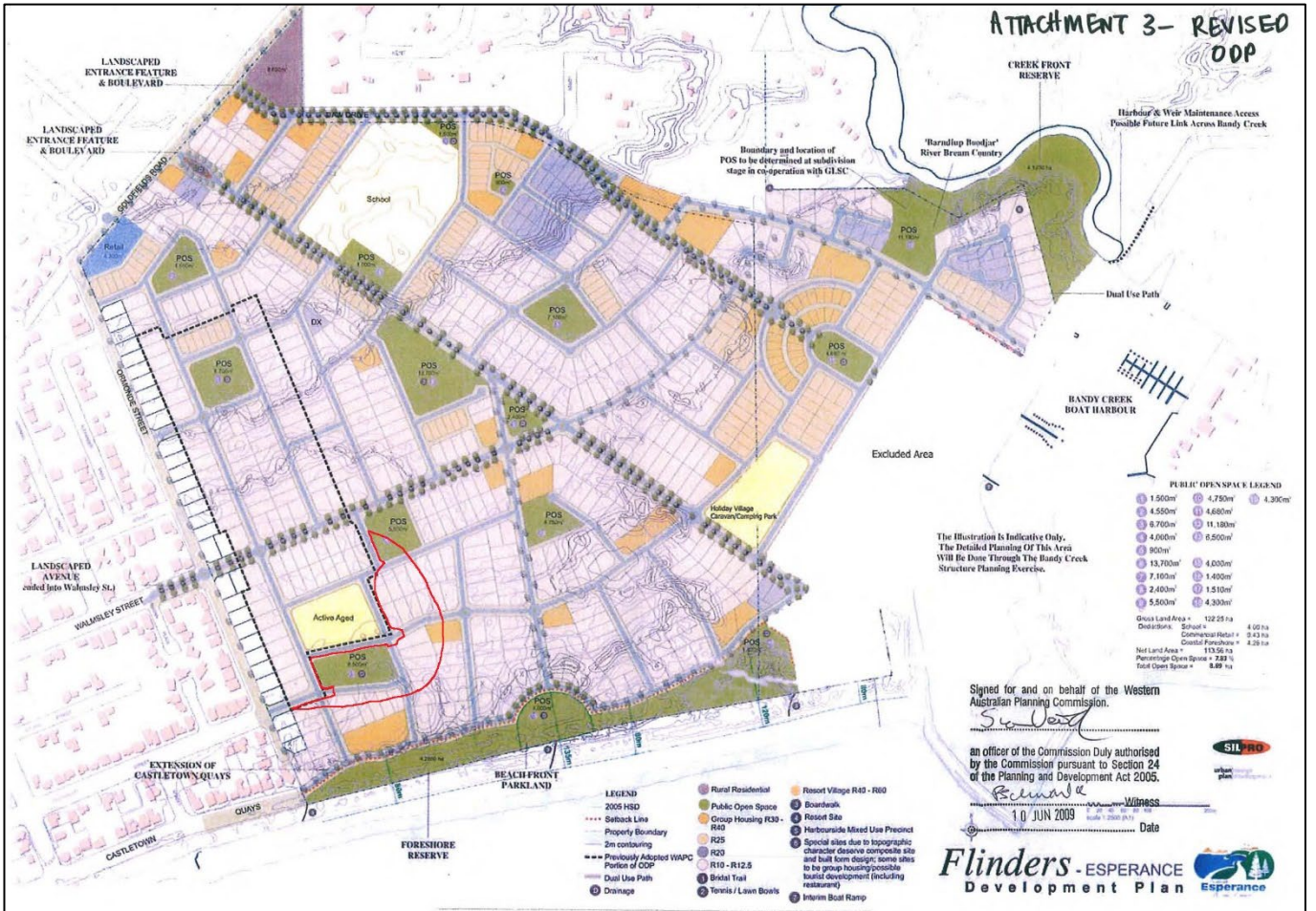


Figure 2. Location of the proposed clearing area (red polygon) within the Outline Development Plan of the Flinders Development approved by WAPC (Shire of Esperance, 2024c).

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

Summary of comments	Consideration of comment
Further information on the Flinders Development approval of WAPC.	This information is presented in Section 3.3.

Appendix B. Site characteristics

B.1. Site characteristics

The information provided below describes the key characteristics of the area proposed to be cleared and is based on the best information available to DWER at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix C.

Characteristic	Details
Local context	<p>The area proposed to be cleared is part of an expansive tract of native vegetation in the intensive land use zone of Western Australia. It is adjacent to an existing residential area to the west and north, and remnant vegetation to the east and south. The application area is approximately 240 metres from the ocean.</p> <p>Aerial imagery indicates the local area (20-kilometre radius from the centre of the area proposed to be cleared) retains approximately 38.4 per cent of the original native vegetation cover.</p>
Ecological linkage	The application area is not within any mapped linkages and is unlikely to be part of any local ecological linkage.
Conservation areas	The application area is not mapped within a conservation area. The closest conservation area is a DBCA covenant area ID K655332, located approximately two kilometres north of the application area.
Vegetation description	<p>Biological report (Shire of Esperance, 2024b) indicates the vegetation within the proposed clearing area consists of <i>Acacia cyclops</i> and <i>Spyridium globulosum</i> dominated closed tall shrubland with dense <i>Lepidosperma gladiatum</i> dominated sedge layer. The representative photos of the vegetation are available in Appendix E.</p> <p>Vegetation within the application area is consistent with the mapped vegetation type:</p> <ul style="list-style-type: none"> Beard 42, which is described as Scrub, open scrub or sparse scrub. Wattle, teatree and other species <i>Acacia</i> spp., <i>Melaleuca</i> spp. (Shepherd et al., 2001). <p>The mapped vegetation type retains approximately 96.9 per cent of the original extent (Government of Western Australia, 2019).</p>
Vegetation condition	<p>Biological report (Shire of Esperance, 2024b) indicates the vegetation within the proposed clearing area is varied from excellent to completely degraded (Keighery, 1994) condition.</p> <p>The full Keighery (1994) condition rating scale is provided in Appendix D. The mapping of vegetation condition is available in Appendix E.</p>
Climate	<p>Climate: Mean maximum temperature is 21.9 degrees Celsius.</p> <p>Mean minimum temperature is 12.1 degrees Celsius.</p> <p>Rainfall: Mean annual rainfall is 617.1 millimetres.</p> <p>(Esperance station, BOM, 2024)</p>
Landform and soil description	Landform: Level plain with moderately inclined dune ridges and associated swales with occasional swamps (DPIRD, 2022).

Characteristic	Details
	The soil is mapped as Tooregullup 5 subsystem (245To_5), calcareous deep sands associated pale deep sands and minor calcareous shallow sands (DPIRD, 2022).
Land degradation risk	The soil types within the application area are mapped as having a low risk of land degradation resulting from water erosion, salinity, flooding, and water logging; and as having medium risk of wind erosion, subsurface acidification and phosphorous export (See Appendix B.5).
Waterbodies	The desktop assessment and aerial imagery indicated that no wetlands or waterbodies transect the application area. The closest waterbody is a perennial lake located approximately 870 metres from the proposed clearing area.
Hydrogeography	The application area falls within the Esperance Groundwater Area, as proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (RIWI Act). Groundwater salinity within the application area is mapped as from 500 to 1000 milligrams per litre total dissolved solids.
Flora	No threatened flora species are mapped and there are records of 34 priority flora species within the local area (excluding the ocean). None of these is recorded within the application area. There are eight species found in the same vegetation type, of which six species also found on the same soil type as the application area (Appendix B.3). The closest recorded priority species is <i>Grevillea baxteri</i> , located approximately 3.4 kilometres from the application area. No threatened or priority flora species were recorded during the biological survey (Shire of Esperance, 2024b).
Ecological communities	A portion of the application area is mapped within the Commonwealth listed threatened ecological community 'Proteaceae dominated kwongan shrublands of the southeast coastal floristic province of Western Australia' (Kwongan TEC). However, the biological survey (Shire of Esperance, 2024b) did not observe any <i>Proteaceous</i> species which are indicative for this TEC, within the application area.
Fauna	The desktop assessment identified that a total of 42 threatened or priority fauna species have been recorded within the local area (excluding the ocean), including 16 threatened fauna species, eight priority fauna species, and 18 specially protected fauna species. The application area is mapped within the distribution range of Carnaby's black cockatoos (BC). There are seven roosting sites identified in the local area with the closest one recorded approximately 4.7 kilometres from the application area. No evidence of conservation significant fauna species was observed during the survey (Shire of Esperance, 2024b).

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*					
Esperance Plains	2,899,941	1,494,451	51.5	836,336	28.4
Vegetation complex					
Beard vegetation association 42	306,506	296,842	96.9	136,896	44.7
Local area					
20 km radius	81,542	31,301	38.4	-	-

	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
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*Government of Western Australia (2019)

B.3. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix F.1), and biological survey information (Shire of Esperance, 2024b), impacts to the following conservation significant flora required further consideration.

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records within the combined local area	Are surveys adequate to identify? [Y, N, N/A]
<i>Austrostipa mundula</i>	P3	N	Y	N	15.2	1	Y
<i>Banksia prolata</i> subsp. <i>calicicola</i>	P4	Y	Y	Y	4.2	11	Y
<i>Corysanthes limpida</i>	P4	N	Y	Y	5.6	1	Y
<i>Cyathostemon</i> sp. Esperance (A. Fairall 2431)	P1	N	Y	N	4.2	1	Y
<i>Grevillea baxteri</i>	P4	N	Y	Y	3.4	1	Y
<i>Hopkinsia adscendens</i>	P3	N	Y	Y	4.2	1	Y
<i>Lepidium fasciculatum</i>	P3	N	Y	Y	4.2	1	Y
<i>Leucopogon corymbiformis</i>	P2	Unknown	Y	Y	3.8	6	Y

P: priority

B.4. Fauna analysis table

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records within the combined application area	Are surveys adequate to identify? [Y, N, N/A]
Southern death adder (<i>Acanthophis antarcticus</i>)	P3	Y	Y	4.9	2	Y
Quenda (<i>Isodon fuscivente</i>)	P4	Y	Y	7.1	3	Y
Peregrine falcon (<i>Falco peregrinus</i>)	OS	Y	Y	16.3	3	Y

P: priority; OS: Other Specially Protected

B.5. Land degradation risk table

Risk categories	Land Unit 245To_5
Wind erosion	M1: 10-30% of the map unit has a high to extreme hazard
Water erosion	L2: 3-10% of the map unit has a very high to extreme hazard
Salinity	L1: <3% of the map unit has a moderate or high hazard or is presently saline
Subsurface Acidification	M1: 10-30% of the map unit has a high susceptibility
Flood risk	L1: <3% of the map unit has a moderate to high hazard
Water logging	L1: <3% of the map unit has a moderate to very high risk
Phosphorus export risk	M1: 10-30% of the map unit has a high to extreme hazard

Appendix C. 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> <i>“Native vegetation should not be cleared if it comprises a high level of biodiversity.”</i></p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared contains habitat for conservation significant fauna species. According to biological survey report (Shire of Esperance, 2024b), the area proposed to be cleared contains 57 vascular plant taxa, including 34 native species and 23 introduced species. No threatened or priority flora species were identified, and no evidence of significant fauna species was observed within the clearing footprint during the survey (Shire of Esperance, 2024b). Noting the above, the native vegetation is unlikely to comprise a high level of biodiversity.</p>	May be at variance	Yes <i>Refer to Section 3.2.1 and 3.2.2, above.</i>
<p><u>Principle (b):</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 significant habitat for fauna.”</i></p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared contains suitable habitat for quendas, peregrine falcon and southern death adders. However, noting the relatively small clearing extent and the existence of a large area of remnant vegetation adjacent to the application area, the proposed clearing area is unlikely to be a significant habitat for these species.</p>	At variance	Yes <i>Refer to Section 3.2.1, above.</i>
<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 species.</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.2, above.</i>
<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>Even though a part of the application area is mapped within an occurrence of Kwongan TEC (QGIS database), the vegetation proposed to be cleared does not contain proteaceous species that indicate this TEC (Shire of Esperance, 2024b). Therefore, the area proposed to be cleared is unlike to be the whole or part of a TEC.</p>	Not likely to be at variance	No
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 extent of the mapped vegetation type and native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.</p>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
<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, the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.</p>	Not likely to be at variance	No
Environmental value: land and water resources		
<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment</u></p> <p>Given no water courses or wetlands are recorded within the application area, the proposed clearing is unlikely to be associated with a watercourse or wetland.</p>	Not likely to be at variance	No
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p> <p>The mapped soils are not susceptible to wind/water erosion, nutrient export, salinity, flooding, water logging and subsurface acidification. Noting this and that the area to be cleared will be mulched, the proposed clearing is not likely to have an appreciable impact on land degradation.</p>	Not likely to be at variance	No
<p><u>Principle (i):</u> <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.”</i></p> <p><u>Assessment:</u></p> <p>Given no water courses are recorded within the application area, the proposed clearing is unlikely to impact surface or ground water quality.</p>	Not likely to be at variance	No
<p><u>Principle (j):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</i></p> <p><u>Assessment:</u></p> <p>The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding.</p> <p>Given no water courses are recorded within the application area, the proposed clearing is unlikely to contribute to waterlogging.</p>	Not likely to be at variance	No

Appendix D. Vegetation condition rating scale

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. Biological survey information excerpts



Figure E.1. Representative photos of vegetation within the application area (Shire of Esperance, 2024b)

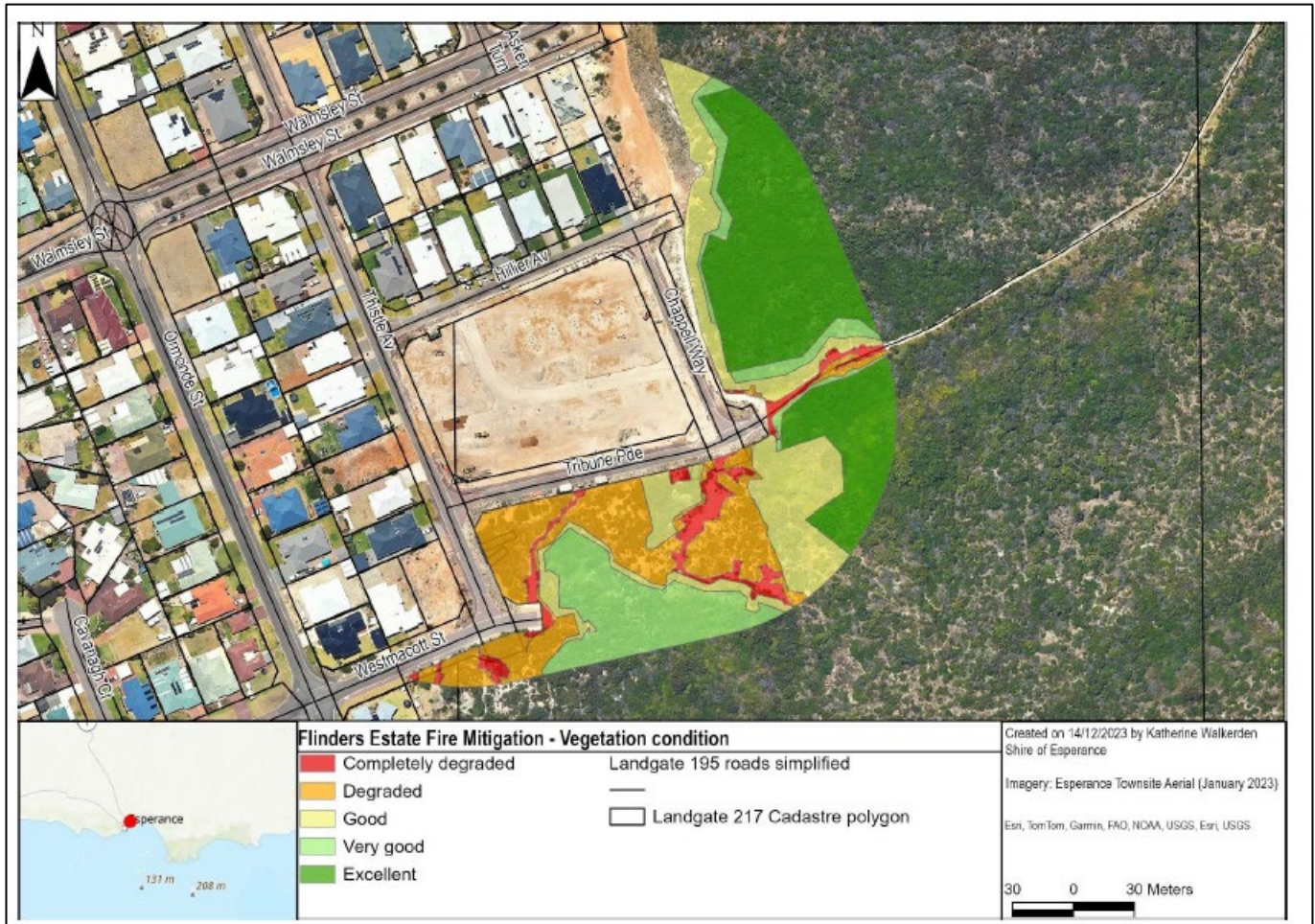


Figure E.2. Mapping on vegetation condition within the application area (Shire of Esperance, 2024b)

Appendix F. Sources of information

F.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)
- Contours (DPIRD-073)
- 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
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)

- 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
- Soil Landscape Mapping – Systems

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
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F.2. References

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