GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 10376/1

File Number: DWERVT13781

Duration of Permit: From 23 February 2025 to 23 February 2027

PERMIT HOLDER

Mr Reginald Lang and Ms Sally Lang

LAND ON WHICH CLEARING IS TO BE DONE

Lot 100 on Diagram 84277, West Coolup

AUTHORISED ACTIVITY

The permit holder must not clear more than 3.23 hectares of *native vegetation* comprising only of Spearwood *(Kunzea glabrescens)* within the area cross-hatched yellow in Figure 1 of Schedule 1.

CLEARING NOT AUTHORISED

In relation to the area cross-hatched yellow in Figure 1 of Schedule 1, the permit holder is not authorised to clear:

(a) any riparian vegetation;

(b) any live or dead trees.

CONDITIONS

1. 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:

(a) avoid the clearing of *native vegetation*;

(b) minimise the amount of *native vegetation* to be cleared; and

(c) reduce the impact of clearing on any environmental value.

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. Wind erosion management

The permit holder must commence activities related to the purpose of the clearing, no later than three (3) months after undertaking the authorised clearing activities to reduce the potential for wind erosion.

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 activities generally	(a) the species composition of the cleared area; (b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to 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 1; and (f) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with condition 2 (g) actions taken in accordance with condition 3.

5. Reporting

The permit holder must provide to the *CEO* the records required under condition 4 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 *Environmental Protection Act 1986*.
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.
dieback	means the effect of *Phytophthora* species on native vegetation.
department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
EP Act	*Environmental Protection Act 1986* (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 – (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; 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

Ryan Mincham
MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

31 January 2025

SCHEDULE 1

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

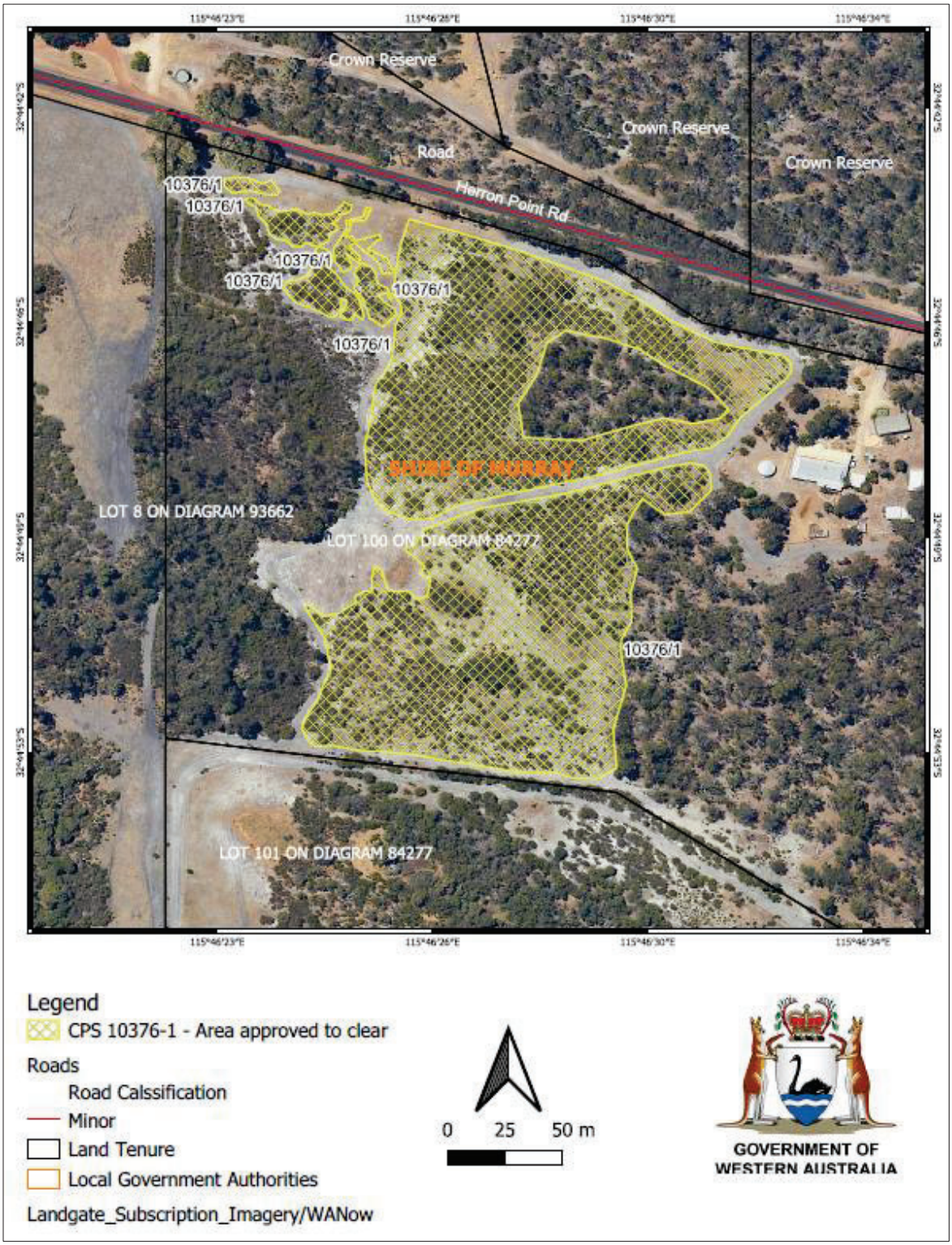

Figure 1: Map of the boundary of the area within which clearing may occur

Government of Western Australia
Department of Water and Environmental Regulation

Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 10376/1
Permit type:	Area permit
Applicant name:	Mr Reginald Lang and Ms Sally Lang
Application received:	12 October 2023
Application area:	3.55 hectares of native vegetation
Purpose of clearing:	Horticulture and beekeeping
Method of clearing:	Mechanical clearing
Property:	Lot 100 on Diagram 84277
Location (LGA area/s):	Shire of Murray
Localities (suburb/s):	West Coolup

1.2. Description of clearing activities

The vegetation proposed to be cleared is distributed across multiple areas within Lot 100 on Diagram 84277, West Coolup (see Figure 1, Section 1.5). The application is to selectively clear regrowth of shrubs. The regrowth has been identified as Spearwood (*Kunzea glabrescens*) (Shire of Murray, 2024). No mature trees are proposed to be cleared.

The size of the application area was revised during the assessment process, in response to the preliminary assessment provided to the applicant which indicated that the application area intersects with the portion of the Vegetation Conservation Covenant (VCC) on the western boundary of the application area. The changes included:

- reduction in the amount of clearing from 3.55 hectares to 3.23 hectares to avoid and minimise the clearing impacts (see Section 3.1 for further details)
- removal of the portion of the application area that intersects the VCC

1.3. Decision on application

Decision:	Granted
Decision date:	31 January 2025
Decision area:	3.23 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 F.1), findings from a site inspection (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 the applicant's commitment to only clear the Spearwood shrubs and that no riparian vegetation would be impacted by the clearing.

The assessment identified that the proposed clearing will result in:

- the potential introduction and spread of weeds and dieback into adjacent vegetation protected under a conservation covenant which could impact on the quality of the vegetation
- potential land degradation in the form of wind erosion.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the proposed clearing is unlikely to lead to appreciable land degradation or have long-term adverse impacts on any environmental values such as threatened flora, conservation significant fauna, riparian vegetation or adjacent conservation areas. The impacts to these environmental values can be minimised and managed to unlikely lead to an unacceptable risk to environmental values. The applicant has suitably demonstrated avoidance and minimisation measures.

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 measures to minimise wind erosion,
- no clearing of any riparian vegetation,
- no clearing of any live or dead trees,
- only allow the clearing of Spearwood (*Kunzea glabrescens)* shrubs.

1.5. Site map

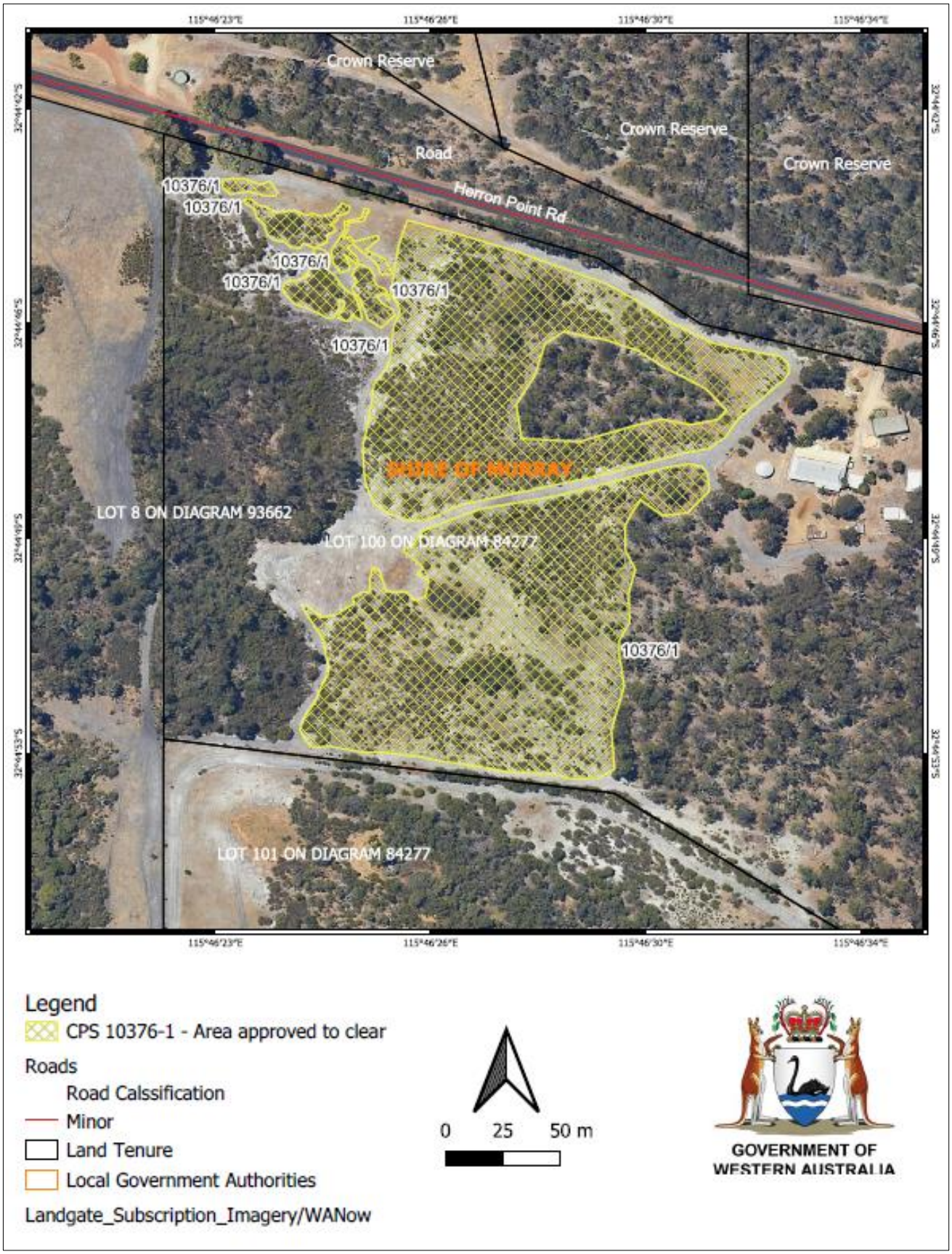

Figure 1 Map of the application area

The areas cross-hatched yellow indicate the areas 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:

- *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

The applicant will only clear regrowth identified as Spearwood (*Kunzea glabrescens)* shrubs and has committed to not clear any trees within the application area (see Appendix E). The applicant has also reduced the size of application area and removed an area mapped as wetland vegetation which is secured under a VCC. The Delegated Officer was satisfied that the applicant has undertaken reasonable measures 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 C) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles (see Appendix C) identified that the impacts of the proposed clearing are limited and able to be managed to be environmentally acceptable with standard avoid and minimise, hygiene and erosion management conditions.

3.2.1. Biological values - Clearing Principles (a) and (d)

Assessment

The Banksia Woodland Threatened Ecological Community (TEC) is mapped over a portion of the application area. The dominant canopy of this TEC includes *Banksia attenuata* and/or *Banksia menziesii* (Department of the Environment and Energy (DotEE), 2016). Other trees of a medium height that may be present and co-dominant with the above Banksia species include *Eucalyptus todtiana, Nuytsia floribunda, Allocasuarina fraseriana, Callitris arenaria, Callitris pyramidalis and Xylomelum occidentale* (DotEE, 2016). The proposed clearing will only comprise of Spearwood shrubs, which are not the dominant/key species associated with the Banksia Woodland TEC. Therefore, the proposed clearing is not likely to impact on this TEC.

It is noted that there are various records of black cockatoos (mainly forest red-tailed black cockatoos and Carnaby's cockatoos) in the local area (with the closest record 0.65 kilometres from the application area).

According to available datasets, the application area is mapped within the known distribution area for these black cockatoo species and the applicant has confirmed that these species visit the property for foraging within the jarrah and banksia dominant sections of the property. There are no confirmed breeding sites for black cockatoos within the local area, while the nearest record for a confirmed roost site is over 1.8 kilometres away. A site inspection of the application area by officers from the Department of Primary Industries and Regional Development (DPIRD) (CSLC, 2024a) identified dominant vegetation species as banksia, ti-tree, and sheoaks, with some more established jarrah trees throughout the application area, which may provide habitat for black cockatoos.

It is acknowledged that Banksia Woodland TEC provides foraging habitat for threatened black cockatoo species. However, noting that the applicant only proposes to selectively clear Spearwood shrubs which are not likely to provide foraging value for black cockatoos, the proposed clearing is not likely to be at variance with clearing principle (b).

Conclusion
While the proposed clearing will not directly impact on native vegetation that is representative of the Banksia Woodland TEC, the proposed clearing will increase the risk of weeds and dieback spreading through these areas, unless specific hygiene measures are adhered to.

It is considered that the impacts of the proposed clearing on Banksia Woodland TEC can be managed by taking steps to minimise the risk of the introduction and spread of weeds and dieback.

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

- the clearing of native vegetation identified only as Spearwood (*Kunzea glabrescens)* is authorised
- avoid and minimise measures to reduce the impacts and extent of clearing
- weed and dieback hygiene management measures
- no clearing of any live or dead trees within the application area

3.2.2. Land degradation - Clearing Principle (g)

Assessment

The application area lies within Map Units 212Bs_B1 and 212Bs_B2 of the Bassendean B1 and B2 Phase Soil Landscape System and rises from approximately 10m AHD in the northwest to 13m AHD in the southeast. The vegetation of banksia, marri and Ti-tree and sheoak ranges from good condition to degrades with evidence of disturbance.

Based on the available risk mapping and the advice received from DPIRD (CSLC, 2024a), the Map Units 212Bs_B1 and 212Bs_B2 have a moderate to high risk of wind erosion and phosphorus export when cleared of vegetation and may pose a risk of land degradation in the form of soil erosion and nutrient export.

The risk of wind erosion can be mitigated with careful management during the clearing period and the rapid establishment of ground cover. Additionally, particular attention should be made to the application of water and nutrients to prevent any off-site impact of eutrophication. Maintenance of surface water drainage to avoid runoff of water and sediment into the surrounding environment may mitigate the potential impacts associated with wind erosion and nutrient export.

The Applicant has committed to utilise a water truck to suppress any dust created by the proposed clearing to manage any risks of wind erosion and has further confirmed that no fertilisers will be utilised for horticultural purposes.

Conclusion

For the reasons set out above, it is considered that the impacts of the proposed clearing on land degradation can be managed through careful management during the clearing period with rapid establishment of ground cover

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

- The permit holder must commence activities related to the purpose of the clearing, no later than three (3) months after undertaking the authorised clearing activities to reduce the potential for wind erosion.

3.3. Relevant planning instruments and other matters

The Shire of Murray conducted a site inspection to assess the vegetation proposed to be cleared. Based on the outcome of the site inspection, the Shire advised DWER that it did not have any objections to the proposed clearing given that the conservation wetland area (protected under a VCC) and mature trees are to be left untouched (Shire of Murray, 2024).

DPIRD conducted a site visit of the application area which indicated that there is a risk of wind erosion and phosphorus export at the site. DPIRD advised that careful management during the clearing period with rapid establishment of ground cover would reduce the likelihood of wind erosion and phosphorus export risks (CSLC, 2024a).

DWER's Regulatory Services (Water Licensing branch) advised that the proposal for a market garden or other in-ground horticulture would not be supported noting the site constraints, and resultant potential for significant nutrient export to the Peel-Harvey Estuary System (DWER, 2024). The department further advised that construction of a well and take of groundwater for non-domestic purposes, such as irrigation of vegetables of an area greater than 0.2 hectares, would require a licence from the DWER. The applicant has confirmed that the crops are planned to be grown in winter, and where crops are grown in summer, they will be hand watered via a vehicle with a tank (CSLC, 2024a).

An Aboriginal site 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
Explanation of changes to application area	See section 1.2 and section 3
Management of risks of wind erosion and eutrophication	See section 3

Appendix B. Site characteristics

B.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is a 3.23-hectare patch of native vegetation within the intensive land use zone of Western Australia. The area proposed to be cleared is approximately 725 metres west of the intersection of Old Bunbury and Herron Point Road. Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 17 per cent of the original native vegetation cover.
Ecological linkage	Application area is not a part of any formal or informal ecological linkages.
Conservation areas	Application area is adjacent to an area under a vegetation conservation covenant.
Vegetation description	Photographs supplied by the applicant and the advice received from DPIRD (CSLC, 2024a) indicate the vegetation within the proposed clearing area consists of banksia (*Proteaceae)*, Ti-tree (*Leptospermum)* and sheoak (*Casuarina*) species. There are some mature jarrah trees throughout the application area (CSLC,2024a). Representative photos are available in Appendix E. This is broadly consistent with the mapped vegetation type: • Southern River Complex, which is described as "Open woodland of *Corymbia calophylla* (Marri) - *Eucalyptus marginata (*Jarrah) - Banksia species with fringing woodland of *Eucalyptus rudis* (Flooded Gum) - *Melaleuca rhaphiophylla (*Swamp Paperbark) along creek beds."
Vegetation condition	Photographs supplied by the applicant and the DPIRD advice indicate vegetation within the proposed clearing area is generally in a good to degraded condition (Keighery, 1994), with some areas of obvious disturbance. The clearing zone appears to retain basic vegetation structure. The conditions are described as: • 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.

<table>
<tr><th>Characteristic</th><th>Details</th></tr>
<tr><td></td><td>The full Keighery (1994) condition rating scale is provided in Appendix D.

Representative photos are available in Appendix E.</td></tr>
<tr><td>Climate and landform</td><td><u>Rainfall:</u>
The property receives an approximate average annual rainfall between 450 - 750mm (2012-2023). The DPIRD weather station at Pinjarra, 14.2 km north-east of the site has recorded an annual average rainfall of 718 mm between 2012 and 2023 (CSLC, 2024a).

<u>Topography:</u>
The northwestern portion of the proposed clearing located at approximately 10-metre Australian Height Datum (AHD), inclining 3 metres to 13 metres AHD to the southeastern portion of the application area.

<u>Landform:</u>
Application area is mapped within extremely low to very low relief dunes, undulating sandplains, and discrete sand rises.</td></tr>
<tr><td>Soil description</td><td>The soil is mapped as:
<table>
<tr><th colspan="2">Map unit name and area</th><th>Landforms, soils, and vegetation</th></tr>
<tr><td colspan="2">Bassendean B1 phase (212Bs_B1)</td><td rowspan="3">Landform: extremely low to very low relief dunes, undulating sandplains, and discrete sand rises.
Soils: dominated by deep bleached grey sands sometimes with a pale-yellow B horizon.
Vegetation: banksia (Proteaceae), ti-tree (Leptospermum), and she-oak (Casuarina) dominant.</td></tr>
<tr><td>Area of proposed clearing in map unit</td><td>2.48</td></tr>
<tr><td>Proportion of proposed clearing in map unit</td><td>70%</td></tr>
<tr><td colspan="2">Bassendean B2 phase (212Bs_B2)</td><td rowspan="3">Landform: extremely low to very low relief dunes
Soils: dominated by deep bleached grey sands with a pale-yellow B horizon or weak iron organic hardpan.
Vegetation: banksia (Proteaceae), ti-tree (Leptospermum), and she-oak (Casuarina) dominant.</td></tr>
<tr><td>Area of proposed clearing in map unit</td><td>1.07</td></tr>
<tr><td>Proportion of proposed clearing in map unit</td><td>30%</td></tr>
</table></td></tr>
<tr><td>Land degradation risk</td><td>There is a risk of wind erosion and phosphorus export at the application area (CSLC, 2024a).</td></tr>
<tr><td>Waterbodies</td><td>The desktop assessment and aerial imagery indicated that no waterbodies transect the area proposed to be cleared.</td></tr>
<tr><td>Hydrogeography</td><td>The application area is located within the Murray Groundwater Area proclaimed under the Rights in Water and Irrigation Act 1914 (RIWI Act).</td></tr>
<tr><td>Flora</td><td>There are records of 27 conservation significant flora species within 10-kilometre radius of the application area, five of which are found on the same soil and vegetation type as the application area.</td></tr>
<tr><td>Ecological communities</td><td>A portion of the application area is mapped as Banksia Woodlands of the Swan Coastal Plain threatened ecological community (Banksia Woodland TEC).</td></tr>
</table>

Characteristic	Details
Fauna	There are records of 46 fauna species of conservation significance within the local area and seven black cockatoo roosts within the 10-kilometre radius with the closest roosting record approximately 1.8 kilometres from 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*					
Swan Coastal Plain	1,501,221.93	579,813.47	38.62	222,916.97	14.85
Vegetation complex					
Bassendean_1000	94,175.31	24,869.20	26.41	4,769.48	5.06
South River Complex	58,781.48	10,832.18	18.43	940.36	1.60
Local area					
10km radius	29,542.77	5,148.84	17.42	-	-

*Government of Western Australia (2019a)

**Government of Western Australia (2019b)

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: A portion of the application area is mapped as the Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region (Banksia Woodland) threatened ecological community (TEC). The applicant has committed to only clearing Spearwood, which is not representative of the dominant species described for the Banksia Woodland TEC. As per conditions on the clearing permit, the applicant is required to retain live and dead trees, which will ultimately mitigate impacts to the Banksia Woodland TEC and associated black cockatoo habitat.	Not likely to be at variance	Yes Refer to Section 3.2.1, above.

Assessment against the clearing principles	Variance level	Is further consideration required?
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."* Assessment: The area proposed to be cleared is within the known distribution of forest red-tailed cockatoos, Baudin's cockatoos and Carnaby's cockatoos. However, the clearing of Spearwood is not likely to provide foraging value for these conservation significant species. The conditions on the clearing permit will require the applicant to retain live and dead trees, which will mitigate impacts to the black cockatoo habitat.	Not likely to be at variance	No
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: While threatened flora species have the potential to occur within the application area based on habitat suitability and known nearby records, the proposed targeted clearing of Spearwood is not necessary for the continued existence of threatened flora.	Not likely to be at variance	No
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." Assessment: According to available datasets, Banksia Woodland TEC is mapped within the application area. The proposed clearing is not likely to impact on the Banksia Woodland TEC, noting that the proposed clearing comprises one specific shrub species – Spearwood (*Kunzea glabrescens*) which is not considered one of the four key species for this TEC. The proposed clearing will not impact on trees that provide an important fauna habitat component of this TEC.	Not likely to be at variance	Yes *Refer to Section 3.2.1, above.*
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."* Assessment: The application area is within the Swan Coastal Plain IBRA Bioregion which retains approximately 38.6 per cent of its pre-European extent (Government of Western Australia, 2019) which is above the 30 per cent threshold for the retention of native vegetation outlined in the National objectives and targets for biodiversity conservation in Australia. The local area and the vegetation complex (see Appendix B.2) retain less than 30 per cent native vegetation, and are hence inconsistent with the National objectives and targets. Noting the application area is predominantly to clear Spearwood shrub species and the vegetation identified is identified as good to degraded condition, with some areas of obvious disturbance, the clearing area is not considered a significant remnant.	May be at variance	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 conservation area."*	Not likely to be at variance	No.

Assessment against the clearing principles	Variance level	Is further consideration required?
Assessment: The application area is located adjacent to a Vegetation Conservation Covenant (VCC). Noting that the application area is not intersecting with the VCC and given the applicant's commitment to only clear Spearwood shrub within the revised application area, it is unlikely that the environmental values of the adjacent conservation area will be impacted. The weed and dieback management measures conditioned in the permit would mitigate impacts to the adjacent VCC.		
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."* Assessment: According to the available datasets, there is one wetland mapped west of the application area. The applicant has specified that only one shrub species – Spearwood will be cleared within the application area. Spearwood is often found along watercourses and wet depressions, however, it has a broader distribution and does not only occur as fringing vegetation of a watercourse which is characteristic of riparian vegetation.	Not likely to be at variance	No
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The application area has moderate to high risk of wind erosion and phosphorus export when cleared of vegetation (CSLC, 2024a). With careful management during the clearing period with rapid ground cover and good management of crops once established can mitigate the risk of wind erosion and nutrient export. Noting the applicant's commitment to manage the risks of land degradation (see Section 3), the vegetation condition and location of the application area, the proposed clearing is not likely to have an appreciable impact on land degradation.	Not likely to be at variance	No
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."* Assessment: Given no watercourses or wetlands are recorded within the application area, the proposed clearing is unlikely to impact surface or ground water quality.	Not likely to be at variance	No
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."* Assessment: The surveyed 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. Site inspection conducted by DPIRD indicate that the risk of waterlogging is low (CSLC, 2024a).	Not likely to be at variance	No

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. Photographs of the vegetation

E.1: Vegetation marked in red is the regrowth that the applicant intends to clear

E.2: Photographs provided by the applicant. Area marked in black are the trees that the applicant will retain. Vegetation marked in red is the regrowth that the applicant intends to clear

E.3: Vegetation marked in red is the regrowth that the applicant intends to clear

E.4: Vegetation marked in red is the regrowth that the applicant intends to clear

E.5: Vegetation marked in red is the regrowth that the applicant intends to clear

E.6: Vegetation marked in red is the regrowth that the applicant intends to clear

E.7: Photographs of regrowth provided by the Shire (Shire of Murray, 2024)

E.8: Photographs of regrowth from Shire's site inspection (Shire of Murray, 2024)

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)
- 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)
- Offsets Register – Offsets (DWER-078)
- 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)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- 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
- Wheatbelt Wetlands Stage 1 (DBCA-021)

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)

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