GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 10922/1

File Number: DWERVT17641

Duration of Permit: From 7 October 2025 to 7 October 2032

PERMIT HOLDER

Evan Rutherford

LAND ON WHICH CLEARING IS TO BE DONE

Lot 162 on Deposited Plan 202726, Hopeland

AUTHORISED ACTIVITY

The permit holder must not clear more than 4.98 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

CONDITIONS

1. Clearing not authorised

The permit holder must not clear the following species within the area cross-hatched yellow in Figure 1 of Schedule 1:

(a) *Eucalyptus rudis* (flooded gum);

(b) *Eucalyptus marginata* (jarrah);

(c) *Eucalyptus todtiana* (blackbutt); and

(d) *Melaleuca sp. trees* (paperbark).

2. Period during which clearing is authorised

The permit holder must not clear any *native vegetation* after 7 October 2027.

3. 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.

4. 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.

5. Fauna management – directional clearing

The permit holder must conduct *clearing* activities in a slow, progressive manner from north to south toward adjacent *native vegetation* to allow fauna to move into adjacent *native vegetation* ahead of the *clearing* activity and away from the adjacent road.

6. Soil management - wind erosion

The permit holder must ensure pasture is sown no later than three (3) months after undertaking the *clearing* authorised under this permit.

7. Water quality and phosphorus export mitigation

The permit holder must ensure that any *clearing* of *native vegetation* done under this permit is undertaken in *dry conditions*, and outside of the peak rainfall period of June to August.

8. Rehabilitation - mitigation planting

The permit holder must, within 12 months of undertaking *clearing* authorised under this permit:

(a) undertake *planting* of at least 180 *native tubestock* within the area cross-hatched green in Figure 2 of Schedule 1.

(b) in undertaking the *planting* required under *condition* 8(a), the permit holder must:

  (i) ensure only *local provenance* propagating material is used;

  (ii) undertake *planting* at an *optimal time*;

  (iii) undertake *weed* control and watering of the *plantings* for at least three years post *planting*;

  (iv) install plant guards around each *planting*;

  (v) install fencing around the perimeter of the *plantings* to exclude livestock, at least until *plantings* are established.

(c) within 24 months of *planting* the 180 *native tubestock* in accordance with *condition* 8(a), the permit holder must engage an *environmental specialist* to determine whether the 180 *native tubestock planted* under *condition* 8(a) will survive;

(d) if the determination made by the *environmental specialist* under *condition* 8(c) is that less than 180 *native tubestock* will survive, the permit holder must undertake additional *native tubestock planting* in accordance with *condition* 8(b), that will result in 180 *native tubestock* persisting within the area cross-hatched green in Figure 2 of Schedule 1; and

(e) where additional *planting* of *native tubestock* is undertaken in accordance with *condition* 8(d), the permit holder must repeat the activities required by c*ondition* 8(c) and *condition* 8(d).

9. 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, 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 the species not authorised to clear under *condition* 1; (f) actions taken to avoid, minimise, and reduce the impacts and extent of *clearing* in accordance with *condition* 3; (g) actions taken to minimise the risk of *weed* and *dieback* spread in accordance with *condition* 4; and (h) actions taken in accordance with *condition* 5, *condition* 6 and *condition* 7.
2.	In relation to mitigation *planting* pursuant to *condition* 8	(a) the date(s) on which *planting* was undertaken; (b) a description of the *planting* activities undertaken, including actions taken to implement *weed* control and watering; (c) the locations of each *planting,* recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia

		2020 (GDA 2020), expressing the geographical coordinates in Eastings and Northings or decimal degrees; (d) the total number of *native tubestock planted*; (e) a list of the species *planted*; (f) a copy of the *environmental specialists* monitoring report and determination; and (g) a description of any remedial actions undertaken in accordance with *condition* 8(d) and *condition* 8(e).

10. Reporting

(a) The permit holder must provide to the *CEO*, on or before 30 June of each calendar year, a written report containing:

(i) the records required to be kept under *condition* 9; and

(ii) records of activities done by the permit holder under this permit between 1 January and 31 December of the preceding calendar year.

(b) If no *clearing* authorised under this permit has been undertaken, a written report confirming that no *clearing* under this permit has been undertaken must be provided to the *CEO* on or before 30 June of each calendar year.

(c) The permit holder must provide to the *CEO*, no later than 90 days prior to the expiry date of the permit, a written report of records required under *condition* 9, where these records have not already been provided under *condition* 10(a).

DEFINITIONS

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

Table 2: Definitions

Term	Definition
Bassendean Complex Central and South (44)	described as *Eucalyptus marginata – Allocasuarina fraseriana – Banksia* sp. woodland, to low woodland of *Melaleuca* sp., and sedgelands on the moister sites.
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(s)	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 *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
dieback	means the effect of *Phytophthora* species on *native vegetation*.
dry conditions	a period during which there is no rainfall occurring.
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 50 kilometres and the same IBRA subregion of the area cleared.
Melaleuca sp trees	means native trees species from the genus *Melaleuca.*
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 tubestock	means young plants grown in forestry tubes or cells which are representative of the B*assendean Complex-Central and South (44)*. Plants must include shrubs and tree species.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
optimal time	means the period from May to July for undertaking *planting*.

Term	Definition
planted / planting(s)	means the re-establishment of *native vegetation* by creating favourable soil conditions and planting seedlings of the desired species.
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

Ray Carvalho
MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

12 September 2025

Schedule 1

The boundary of the area authorised for *clearing* is shown in Figure 1. The boundary of the area subject to rehabilitation requirements is shown in Figure 2.

Figure 1: Map of the boundary of the area (cross-hatched yellow) within which clearing may occur, subject to conditions.

Figure 2: Map of the boundary of the area (cross-hatched green) within which *condition* 8 applies.

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 10922/1
Permit type:	Area permit
Applicant name:	Mr Evan Rutherford
Application received:	20 January 2025
Application area:	4.98 hectares of native vegetation
Purpose of clearing:	Grazing, pasture and hazard reduction
Method of clearing:	Mechanical
Property:	Lot 162 on Deposited Plan 202726
Location (LGA area/s):	Shire of Serpentine-Jarrahdale
Localities (suburb/s):	Hopeland

1.2. Description of application

The applicant proposes to clear 4.98 hectares of native vegetation for grazing, pasture and fire hazard reduction. The vegetation to be cleared is distributed across two separate areas and largely comprises stands of *Kunzea glabrescens* (spearwood) (see Figure 1, Section 1.5).

The application area is situated in Hopeland, approximately 15 kilometres southeast of Rockingham, in an area classified as rural under the Shire of Serpentine-Jarrahdale's town planning scheme. The purpose of the proposed clearing is consistent with local zoning. The applicant has obtained development approval for the proposed clearing and end land use from the Shire of Serpentine-Jarrahdale.

1.3. Decision on application

Decision:	Granted
Decision date:	12 September 2025
Decision area:	4.98 hectares of native vegetation, as shown in Section 1.5, below.

1.4. Reasons for decision

This 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 one submission was received. Consideration of matters raised in the public submission is summarised in Appendix B

In undertaking their assessment and in accordance with section 51O of the EP Act, the Delegated Officer considered the:

- site characteristics (see Appendix C)
- relevant datasets (see Appendix G)

- findings of DWER's site inspection (see Appendix F)
- the clearing principles set out in Schedule 5 of the EP Act (see Appendix D)
- planning instruments and relevant other matters (see Section 3), including the applicant obtaining:
    - development approval from the Shire of Serpentine-Jarrahdale, subject to conditions; and
    - a bed and banks permit from DWER under the *Rights in Water and Irrigation Act 1914*, subject to conditions.

The assessment identified that the vegetation within the application area is largely a monoculture of *Kunzea glabrescens* (spearwood) with scattered isolated individuals of *Eucalyptus* sp. (largely *Eucalyptus rudis*) and *Melaleuca* sp., trees. The application area has been historically cleared, resulting in the dominance of stands of *Kunzea glabrescens* in a degraded (Keighery, 1994) condition (DWER, 2025a).

The assessment identified the proposed clearing will result in:

- potential impacts to north-south ecological linkage values
- potential land degradation
- potential water quality impacts to the artificial drainage line and wetland mapped on site.

After considering the available information as outlined above, and the applicant's avoidance and mitigation measures (see Section 3.1), the Delegated Officer determined the impacts to environmental values from the proposed clearing can be managed and minimised to be environmentally acceptable, and that on balance it was appropriate to grant a clearing permit subject to management conditions.

The Delegated Officer therefore decided to grant a clearing permit subject to the following conditions:

- no clearing of the following flora species:
    - *Eucalyptus rudis* (flooded gum);
    - *Eucalyptus marginata* (jarrah);
    - *Eucalyptus todtiana* (blackbutt); and
    - *Melaleuca sp*. trees (paperbark).
- undertake measures to avoid, minimise and reduce the impacts and extent of clearing
- undertake 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
- sow pasture no later than three months after clearing, to minimise erosion
- undertake clearing in dry conditions only, outside of the peak rainfall period of June to August, to mitigate the risk of impacts to water quality and resulting from phosphorus export
- revegetation actions involving the planting of a minimum 180 native tubestock (trees and shrubs), representative of the Bassendean Complex – Central and South, to be undertaken within 12 months of clearing.

1.5. Site maps

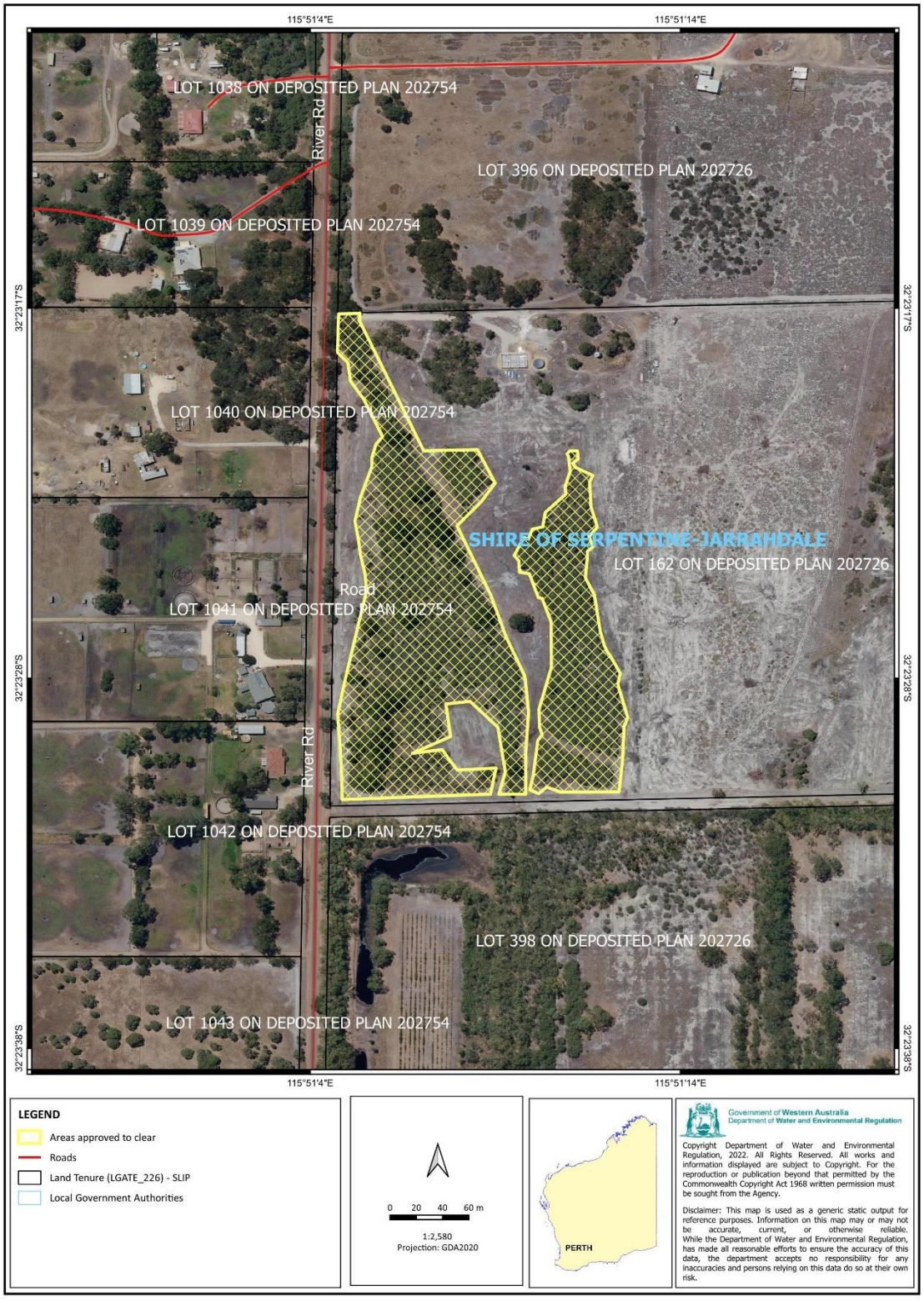


Figure 1 Map of the application area

The areas cross-hatched yellow indicate the areas authorised to clear under the granted clearing permit.

Figure 2 Map of the area subject to conditions

The area cross-hatched green indicates the area within revegetation actions are required.

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)
- *Planning and Development Act 2005* (WA) (P&D 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

Evidence was submitted by the applicant, demonstrating avoidance and mitigation measures including:

- commitment to clear solely *Kunzea glabrescens* (spearwood) and retain trees on site
- undertake weed removal
- plant native trees along the drainage line
- plant pasture post clearing to stabilise soils and maintain pasture ground cover above 70%
- utilise a no-till approach to maintain soil integrity and minimise erosion
- avoid spreading fertiliser during wet months and annually test soil to monitor levels and adjust as necessary
- fertiliser application to adhere to the Peel-Harvey catchment area limits of 45kg of Nitrogen per hectare cleared per year and 6.5kg of Phosphorus per hectare cleared per year
- ensure compliance with the Peel-Harvey catchment zone concentration targets of 1.2mg/L Nitrogen and 0.1mg/L of Phosphorus
- prevent erosion and overgrazing by excluding animals until pasture is sufficient, and move animals on as pasture declines
- apply Iron Man Gypsum (IMG) at a rate of 10-20 tonnes per hectare after clearing, as a soil amendment to mitigate phosphorus export associated with grazing cattle.

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

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 D) identified that the impacts of the proposed clearing present a risk to biological values (fauna), significant remnant vegetation, and land and water resources. 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 values (Fauna) - Clearing Principle (b)

Assessment

Photographs provided by the applicant and site inspections conducted by the DWER (2025a) the Commissioner of Soil and Land Conservation **(**CSLC, 2025a) and the Shire of Serpentine Jarrahdale (2025) indicate the application area is in a degraded condition (Keighery, 1994).

The application area primarily comprises a monoculture of *Kunzea glabrescens* (spearwood), with occasional scattered *Eucalyptus rudis* (flooded gum), and *Melaleuca* tree species. One small jarrah tree (*Eucalyptus marginata*) and one small blackbutt tree (*Eucalyptus todtiana*) were also identified within the application area (DWER, 2025a).

The largest trees on site were an eastern states *Eucalyptus* species, that had previously been planted along the drainage line, these trees are not native, however the applicant has advised that they will be retained.

DWER's desktop assessment identified 30 conservation significant fauna species have been recorded in the local area (10-kilometre radius from the centre of the application area). In determining the likelihood of each species occurring in the application area, the following was considered:

- the preferred habitat and vegetation types of the species
- the records proximity to the application area; and
- the date of record.

The fauna likelihood of occurrence analysis identified that *Isoodon fusciventer* (quenda, P4) is likely to occur within the application area and *Zanda latirostris* (Carnaby's cockatoo; EN) had the potential to occur.

Quenda

The application area is within the known distribution of quenda. According to available databases, the closest record is 2.14 kilometres from the application area. There are 338 quenda records in the local area.

Quenda inhabit areas of dense vegetation cover, often in wet environments (DBCA, 2012). Quenda forage amongst leaf litter for invertebrates, fungi and plant material. During DWERs site inspection no conservation significant fauna were identified. Quenda diggings were searched for; and one possible digging was identified, however additional evidence such a scats or sightings were not observed (DWER, 2025a).

The site inspection observed a fox within the application area along with several fox burrows, and fox prevalence may be contributing to the minimal quenda activity observed (DWER, 2025a).

The application area contains suitable habitat for quenda, however noting that minimal evidence of quenda was observed within the application area, and presence of foxes on site, the proposed clearing is not likely to impact on significant quenda habitat. This is also noting the larger native vegetation remnants that occur north and south of the application area, including Lowlands Nature Reserve (173 hectares) (3.4 km north) and Government owned freehold comprising mapped wetlands (2250 hectares) (3 km south), which provide high quality habitat for quenda.

The proposed clearing may however impact on any quenda using the application area at the time of clearing. Slow, one directional clearing practices would assist in minimising this risk. The requirement to plant native trees and shrubs along the drainage line on site, will also help to maintain north-south linkage vales for quenda in this area.

Carnaby's cockatoo

The application area is within the known distribution of Carnaby's cockatoo. According to available databases, the closest known record is 1.78 kilometres from the application area. There are 187 known records in the local area.

The DWER (2025a) site inspection identified one isolated young jarrah and one young blackbutt tree, which provide a foraging resource for black cockatoos. The application area also includes several scattered *Eucalyptus rudis* trees (largely towards the northern section of the drainage line within Lot 162) which are a known roosting habitat for Carnaby's cockatoo (Bancroft & Bamford, 2023).

The referral guidelines for black cockatoos specifies that habitat critical for their recovery includes foraging habitat, night roosting habitat and nesting trees for breeding (DAWE, 2022). The inspection identified the jarrah and blackbutt trees were juveniles and did not provide value for breeding or roosting. These trees currently provide a minor foraging resource for black cockatoos. The *Eucalyptus rudis* may provide some value as roosting habitat. The applicant has committed to retaining these *Eucalyptus* trees, and this commitment will be conditioned on the clearing permit.

Ecological linkage values

The application area is within an extensively cleared landscape (see section 3.2.2), and aerial imagery indicates the application area may contribute to north-south fauna linkage values. While the application area is in a degraded (Keighery, 1994) condition and used by foxes, it provides shrubland cover through its spearwood stands and the

proposed clearing may impact on linkage values and may expose terrestrial native fauna currently using this vegetation to an increased predation risk. To mitigate this impact, the applicant will be required to undertake the planting of native trees and shrubs along the drainage line, and avoid native *Eucalyptus* species and *Melaleuca* tree species that exist in the application area, as a condition of the clearing permit.

Conclusion

Based on the above assessment, the application area contains suitable habitat for quenda, potential fauna linkage values and potential foraging and night roosting habitat for black cockatoos (in low density). While this habitat is not significant to these species (given the vegetation present and site context), impacts to these values require management, as specified in the conditions below.

Conditions

The following management measures will be required as conditions on the clearing permit:

- slow, one directional clearing towards adjacent vegetation, to allow ground dwelling fauna to move ahead of the clearing into adjacent habitat
- the applicant must undertake native flora planting of a minimum 180 tubestock to occur along the drainage line with species representative of the Bassendean *C*omplex-Central and South, to maintain fauna linkage values
- native *Eucalyptus* and *Melaleuca* trees are not authorised to be cleared.

3.2.2. Significant vegetation in an extensively cleared landscape - Clearing Principle (e)

Assessment

The national objectives and targets for biodiversity conservation in Australia, has a target to prevent the clearance of ecological communities with an extent below 30 per cent of that present pre-1750 (i.e., pre-European settlement), below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

The application area is situated on the Swan Coastal Plain IBRA Bioregion which retains about 39 per cent of the pre-European vegetation extent (Government of Western Australia, 2019). The mapped vegetation complex of the application area is the Bassendean Complex-Central and South (44) which retains about 27 per cent of its original extent. While the remaining extent of this complex is below national standards, the vegetation contained within the application area is not truly representative of this complex, given it largely comprises a monoculture of *Kunzea glabrescens*, which has re-grown post historical clearing (DWER, 2025a). It is acknowledged this species may form part of the above vegetation complex, but as part of a suite of other native riparian species with a defined vegetative structure (*Melaleuca* trees, over other native shrubs and sedges), rather than as a monoculture.

According to available databases, the local area retains around 28 per cent vegetative cover (see Appendix C.2). Given this, the application area is situated within an extensively cleared landscape. The application area has not been formally mapped as an ecological linkage, however it may contribute to north-south fauna linkage values within the landscape.

While the significance of linkage values is lessened by the degraded (Keighery, 1994) condition of the application area which lacks a defined vegetation structure (upperstorey, midstorey, understorey), it does provide shrubland cover for terrestrial fauna moving through the landscape. The Delegated Officer therefore considered it appropriate to require the applicant to plant native tubestock along the drainage line on site to maintain north-south fauna linkage values. The Delegated Officer also had regard for the Development Approval issued by the Shire of Serpentine-Jarrahdale which requires the applicant to fence the drainage line and its vegetation from stock, which will also facilitate natural regeneration in this area.

Conclusion

The application area is within an extensively cleared landscape. *Kunzea glabrescens* has recolonised the application area post historical clearing, and while it lacks the pre-clearing vegetation structure, it provides cover for terrestrial fauna and may contribute to fauna linkage values.

Conditions

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

- the applicant must undertake native flora planting of a minimum 180 tubestock to occur along the drainage line with species representative of the Bassendean Complex-Central and South, to maintain fauna linkage values
- native *Eucalyptus* and *Melaleuca* trees are not authorised to be cleared.

3.2.3. Land and water resources (Land degradation) - Clearing Principles (g)

Assessment

Available datasets and advice received from the CSLC as part of this application (including a site inspection report) (CSLC, 2025a), indicate the application area includes three soil types:

- Bassendean B1 phase (212Bs_B1): which comprises extremely low to very low dunes, and sandplains with deep grey sands.
- Bassendean B3 phase (212Bs_B3): which comprises shallow depressions and poorly defined drainage. Soils are sandy with clay or iron-organic layers and the surface is dark grey sand or loam.
- Bassendean B3 phase (212Bs_B4): which comprises poorly drained sandplain with deep grey or bleached sands over clay or hardpan.

The CSLC's report (CSLC, 2025a) concluded that the application area consists of deeps sands which are vulnerable to wind erosion, waterlogging and phosphorus export.

Evidence of wind erosion exists outside the application areas in cleared areas. These cleared areas consist of areas where there is little to no groundcover and deep white sands are exposed to the surface. Without appropriate management the application area will likely result in further wind erosion.

The risk of waterlogging and inundation within these soil types, is also high due to the poorly drained wet and semi wet soils. The surface water drainage line running through the application area, which traverses multiple properties in the local area, also indicates waterlogging and inundation has been an issue within the area.

Additionally, the pale deeps sands within the application area have poor nutrient retention properties which increases the risk of eutrophication. Given the final land use is grazing, eutrophication may be exacerbated without management.

Given the above, the CSLC concluded that the removal of native vegetation within the application area will increase the likelihood of land degradation, without management strategies to address these impacts (CSLC, 2025a).

The applicant provided additional management measures to mitigate the land degradation risks. The applicant has committed to (Rutherford, 2025a; Rutherford, 2025b):

- avoid clearing trees to assist with waterlogging mitigation
- revegetate the drainage line with trees, to assist with soil erosion
- apply Iron Man Gypsum (IMG) at a rate of 10-20 tonnes per hectare as a soil amendment after clearing, to assist with phosphorus export associated with cattle grazing
- plant kikuyu, forage rye grass, clover and serradella for grazing and to mitigate soil erosion, no stock introduced in the area until this pasture is established
- apply a no till approach to maintain the integrity of the soil
- selective spearwood removal nearby the drainage line will be by chainsaw and by hand
- flora root systems along the drainage bank will not be removed, to stabilise the bank
- fertilizer will not be spread during wet months to prevent phosphorus export
- annual soil testing to monitor soil condition and adjust fertilizer rates accordingly will be undertaken.

Advice received from the CSLC (2025b) and DWER's Aquatic Science Branch (DWER, 2025c) confirmed the above management measures are appropriate to mitigate impacts to land degradation in this instance. Several of the measures committed to above relate to the end land use rather than the proposed clearing itself. The applicant has obtained development approval for the proposed clearing and end land use which includes conditions to minimise erosion, including the requirement to construct suitable fencing to prevent livestock impacting the drainage line, and non-spearwood vegetation within the drainage line.

As a conditions of the clearing permit, the applicant is required to sow pasture no later than three months after clearing has occurred, and the permit holder must only clear in dry conditions outside the peak rainfall periods of

June to August. The permit is also subject to conditions to require the retention of tree species as outlined below, and mitigation planting along the drainage line to assist with wind erosion, water erosion and waterlogging. The Delegated Officer deemed that these measures would appropriately manage the erosion risks resulting from the proposed clearing.

Conclusion

The proposed clearing and end land use will increase the risk of wind and water erosion, waterlogging, and phosphorus export. The conditions placed on the clearing permit, together with those conditions on the Shire of Serpentine-Jarrahdale development approval, and the applicants commitments, are considered appropriate to manage this risk.

Conditions

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

- native *Eucalyptus* and *Melaleuca* trees are not authorised to be cleared
- pasture must be planted within three months of clearing
- clearing is only authorised during dry periods, outside the peak rainfall period of June to August
- the applicant must plant 180 native tubestock representative of the Bassendean Complex Central and South.

3.2.4. Land and water resources (Water) - Clearing Principles (f, i and j)

Assessment

Available datasets indicate the application area is within a mapped wetland and includes a watercourse (labelled as a 'manmade drain'). The drainage line forms part of a system which connects surrounding properties and eventually connects to the Serpentine River. The application area is situated within the Serpentine River System Surface Water Area and Serpentine Groundwater Area proclaimed under the *Rights in Water and Irrigation Act 1914* (RIWI Act).

The Department of Biodiversity, Conservation and Attractions (DBCA) Geomorphic Wetlands, Swan Coastal Plain dataset indicates the application area is contained within a Multiple Use category palusplain wetland system. Multiple use wetlands are those with few remaining important attribute functions, and the use, development and management of these systems should be considered in the context of ecologically sustainable development and best management practice catchment.

Palusplain wetlands occur on flat plains consisting of low-lying areas with poor drainage and are typically seasonally waterlogged (DBCA, 2025). This is consistent with the site characteristics of the application area. Available contour information shows that the natural surface elevation of the application area is between 7 metres Australian Height Datum (AHD) to 9 meters AHD, which is considered low lying, and likely to be subject to inundation during wet periods.

DWER's site inspection, identified that the drainage line was flooded, and the area was consistent with the description of a palusplain (DWER, 2025a). This inspection confirmed the presence of riparian vegetation (spearwood dominated, with occasional *Eucalyptus rudis* and *Melaleuca* tree species) (DWER, 2025a).

The application area has been historically completely cleared, and the regrowth vegetation largely comprises a monoculture of *Kunzea glabrescens* in a degraded (Keighery, 1994) condition, lacking species diversity or a clearly defined structure. This is inconsistent with the vegetation complex mapped over the application area (see Section 3.2.2). Therefore, while the proposed clearing will impact on riparian vegetation, it is not likely to impact on significant wetland values, or on the wetland values present in the broader area.

Noting the application area is situated within a wetland, and a seasonally flowing drainage line, the proposed clearing is likely to impact on water quality through sedimentation. Given the nature of the highly modified wetland and drainage line that occurs on site, and extent and nature of clearing proposed, it is considered that this impact can be appropriately managed through the retention of trees on site, mitigation planting along the watercourse, sowing pasture soon after clearing, and avoiding clearing in winter months.

The proposed clearing is not likely to impact on groundwater given that *Kunzea glabrescens* is generally shallow to moderately deep rooted and that existing trees will be retained on site, and additional trees will planted along the drainage line.

Regarding water quality impacts associated with the end land use, DWER obtained RIWI advice from its Kwinana-Peel Region. The regions advice identified high nutrient loads fromm pasture and grazing have the potential to be exported into the Peel-Harvey Estuary System if not managed appropriately (DWER, 2025b). The applicant provided appropriate water quality management measures relating to this impact. These measures are outlined in section 3.3, given that this impact relates to the end land use rather than the act of clearing itself. Subject to the applicant's management commitments, it is considered that this impact will be appropriately managed (DWER, 2025c; CSLC, 2025b).

Given the application area is situated within a mapped wetland, is relatively low lying and becomes seasonally inundated during wet periods, the proposed clearing may exacerbate the intensity or incidence of flooding. Around 15% of the application area is considered to have a high flood risk, the remaining areas are mapped as having a low flood risk. The applicant has committed to retaining any trees that exist on site (including deep rooted *Eucalyptus rudis*) and to planting additional trees (including *Eucalyptus rudis*) along the drainage line, which will minimise the flooding risk. Noting this, and that *Kunzea glabrescens* is generally shallow to moderately deep rooted, flooding is unlikely to significantly increase.

Conclusion

The proposed clearing will result in the removal of vegetation associated with a wetland and a watercourse and without appropriate management may impact water quality and exacerbate flooding. Noting the vegetation present within the application area, and wetland category mapping (multiple use), the proposed clearing is not likely to impact on significant wetland values.

It is considered that the water quality impacts associated with the proposed clearing can be appropriately managed through the conditions set out below.

The proposed end land use may also lead to water quality impacts through eutrophication. The applicant has proposed several management measures to address this risk. Noting this impact is associated with the end land use rather than the clearing, the appropriateness of these measures has been discussed further under section 3.3.

Conditions

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

- native *Eucalyptus* and *Melaleuca* trees are not authorised to be cleared
- pasture must be planted within three months of clearing
- clearing is only authorised during dry periods, outside the peak rainfall period of June to August
- the applicant must plant 180 native tubestock representative of the Bassendean Complex Central and South.

3.3. Relevant planning instruments and other matters

Other Approvals

Local Government Authority

The Shire of Serpentine-Jarrahdale advised DWER that local government approvals are required, and that the proposed clearing is consistent with the Shire's Local Planning Scheme (Shire of Serpentine-Jarrahdale, 2025).

The Shire conducted a site visit of the application area to facilitate the development approval application. The Shire confirmed there were no objections to the removal of the spearwood, subject to other species not being impacted (Shire of Serpentine-Jarrahdale, 2025).

The Shire granted development approval (under the *Planning and Development Act 2005*) to the applicant on 20 August 2025, for the application area to be utilised as 'Agriculture-Extensive', subject to conditions. These conditions include the requirement to retain non-spearwood trees, undertake minimal disturbance to the drainage line, and stabilise banks following any clearing and erect suitable fencing to prevent stock access along the drainage line. It is the applicant's responsibility to comply with the conditions of the Development Approval.

DWER

DWER obtained RIWI Act advice from its Kwinana-Peel Region (the Region), given the application area is located within the Serpentine River System Surface Water Area and Serpentine Groundwater Area, proclaimed under the RIWI Act.

The Region confirmed that a bed and banks permit (under the RIWI Act) is required to interfere with the drainage line situated within the application area. On 11 July 2025, the applicant obtained a bed and banks permit under the RIWI Act. The permit is subject to conditions and requires the applicant to cause minimal disturbance to the bed and banks of the drainage line, and to ensure that the works do not act as an artificial barrier or levee, causing water to pond upstream.

The Region also advised that the applicant has been issued two licences to take groundwater, from the Leederville resource, and the superficial resource for irrigation, respectively (DWER, 2025b).

Other

Given the application area is situated within the Peel Harvey Environmental Protection Policy area, where pasture has the potential to export significant nutrient loads to the Peel-Harvey Estuary System, proposals within this area are subject to the following policies:

- Environmental Protection Peel Inlet - Harvey Estuary Policy (EPP) (EPA,1992);
- State Planning Policy 2.1 (SPP 2.1) Peel Harvey Coastal Plain Catchment (WAPC, 2003).
- Draft State Planning Policy 2.9 (SPP 2.9) Planning for Water (WAPC, 2021).

Given the location of the application area, the applicants stocking rates are required to align with Department of Primary Industries and Regional Developments 'Stocking rate guidelines for rural small holdings, Swan Coastal Plain and Darling Scarp and surrounds, Western Australia' (2000) (DWER, 2025b).

The Peel Harvey Catchment Councill was invited to comment on this application however no comments were received.

End land use water impacts

Through the assessment it was identified that the proposed end land use (rather than the proposed clearing) has the potential to result in land degradation and water quality impacts through eutrophication. The applicant has provided a commitment to undertake the following measures to manage these risks (Rutherford, 2025a; Rutherford, 2025b):

- avoid clearing trees on site
- revegetate the drainage line with trees, to assist with soil erosion
- Apply Iron Man Gypsum (IMG) at a rate of 10-20 tonnes per hectare as a soil amendment after clearing, to assist with phosphorus export associated with cattle grazing
- plant kikuyu, forage rye grass, clover and serradella for grazing and to mitigate soil erosion
- apply a no till approach to maintain the integrity of the soil
- fertilizer will not be spread during wet months to prevent phosphorus export
- annual soil testing to monitor soil condition and adjust fertilizer rates accordingly will be undertaken.

Advice received from the CSLC (2025b) and DWER's Aquatic Science Branch (DWER, 2025c) confirmed the above management measures are appropriate to mitigate impacts to land degradation in this instance.

Cultural Heritage

No Aboriginal Sites of significance have been mapped within the application area. It is the applicant'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
Applicant identified trees will be retained on site and solely *Kunzea glabrescens* is to be removed. Maintaining large trees will assist with erosion mitigation.	DWER's assessment considered this as an additional avoidance and mitigation measure (see section 3.1) and was considered when assessing against clearing principles (b), (e) and (g) (See section 3.2.3). These commitments have been condition on the clearing permit.
Applicant intends to plant a minimum of 50 native trees along the drainage line, to maintain a corridor of vegetation for native fauna and prevent drainage bank erosion.	DWER's considered this additional information relevant when considering fauna impacts, linkage values and land degradation mitigation (relevant to the assessment against clearing principles (b), (e) and (g)). As a condition of the permit, the applicant will be required to plant 180 native tubestock along the drainage line.
To mitigate soil erosion the applicant proposes to plant forage rye-corn at a rate of 70kg per hectare as green manure to add organic matter to the soil. Kikuyu will be planted during the appropriate season as well as ryegrass, clover and serradella for grazing. Soil erosion will also be mitigated through a no-till approach to maintain the integrity of the soil.	This additional information was considered in the assessment against clearing principle (g), and in the assessment of planning and other relevant matters.
Tea tree along the bank of the drainage line will be cut by chainsaw and removed by hand to avoid soil disturbance. Roots will remain within the soil to stabilise the bank until planted vegetation is established.	This additional information was considered in the assessment against clearing principle (g).
To prevent erosion and overgrazing, livestock will be excluded from the area until pasture is sufficient.	This additional information was considered in the assessment against clearing principle (g).
Application of Iron Man Gypsum (IMG) at a rate of 10-20 tonnes per hectare after clearing as a soil amendment to mitigate phosphorus exports associated with grazing cattle.	This additional information was considered in the assessment against clearing principles (g) and (i), and in the assessment of planning and other relevant matters.
The applicant intends to avoid spreading fertilizers during wet months to prevent leaching into groundwater and adhere to the Peel-Harvey catchment limits of 45kg of nitrogen per cleared hectare per year and 6.5kg of Phosphorus per cleared hectare per year	This additional information was considered in the assessment against clearing principles (g) and (i), and in the assessment of planning and other relevant matters.
Annual soil testing will occur to monitor soil condition and fertilizer rates will be adjusted accordingly to comply with the Peel-Harvey Catchment zone concentration targets	This additional information was considered in the assessment against clearing principles (g) and (i), and in the assessment of planning and other relevant matters.

Appendix B. Details of public submissions

Summary of comments	Consideration of comment
Concerns raised that the proposed clearing occurs within an extensively cleared landscape.	DWER's assessment against clearing principle (e) is outlined in section 3.2.2
Clearing purpose for fire hazard reduction is overstated noting the extensively cleared landscape	Whilst DWER's assessment does consider that clearing for hazard reduction is one of the application purposes, the primary purpose of the application, as assessed by DWER, is for grazing and pasture.
The proposed clearing impacts on a vegetative corridor. Proposed revegetation of *Eucalyptus* trees is not a like for like replacement of the habitat which currently exists. The proposed revegetation does not mitigate habitat for ground dwelling fauna or to linkage values. The proposed clearing should be reduced in size and revegetation should be strengthened to provide continuous vegetation cover.	DWER's assessment considered this comment when assessing against clearing principles (b) and (e). DWER has conditioned the clearing permit to require the applicant to plant 180 native tubestock representative of the Bassendean Complex Central and South (44) vegetation complex, which will include shrubs and trees. It is considered that this measure, when combined with the retention of the existing scattered *Eucalyptus* and *Melaleuca* trees along the drainage line, will maintain north-south vegetative cover. This is also noting that the applicants Development Approval from the Shire of Serpentine-Jarrahdale, requires the applicant to fence the drainage line and its vegetation from stock, which will also facilitate natural regeneration in this area.

Appendix C. Site characteristics

C.1. Site characteristics

Characteristic	Details
Local context	The application area is a 4.98-hectare patch of native vegetation in the intensive land use zone of Western Australia. It is surrounded by rural properties and agricultural practices. Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 27.88 per cent of the original native vegetation cover.
Ecological linkage	The application area is not mapped within any formal linkages, however is situated approximately one to two kilometres from the Perth Regional Ecological Linkage 72, 74, 82 and 84. Whilst the application area does not contribute to the formal ecological linkages it does provide vegetative cover for fauna moving north-south through the landscape.
Conservation areas	The application area is not mapped within any conservation areas. The closest conservation area is Bush Forever site 378 located 920 metres away.
Vegetation description	Photographs supplied by the applicant and the DWER site inspection (DWER, 2025a) indicate the vegetation within the application area consists of *Kunzea glabrescens* (spearwood) shrubland, with occasional Melaleuca sp., trees, *Eucalyptus rudis* and weed dominated groundcover, where present (DWER, 2025a). This is inconsistent with the mapped vegetation type(s): • Bassendean complex – Central and South (44), which is described as: a range in vegetation from woodland of *Eucalyptus marginata* (Jarrah) - *Allocasuarina fraseriana* (Sheoak) - *Banksia* species to low woodland of *Melaleuca* species, and sedgelands on the moister sites. This area includes the transition of *Eucalyptus marginata* (Jarrah) to *Eucalyptus todtiana* (Pricklybark) in the vicinity of Perth. (Heddle, 1980).

Characteristic	Details
Vegetation condition	Photographs supplied by the applicant and the DWER site inspection indicate the vegetation within the application area is in degraded (Keighery, 1994) condition. The full Keighery (1994) condition rating scale is provided in Appendix E.
Climate and landform	The application area is situated in Hopeland which has a Mediterranean climate of hot dry summers and mild wet winters. The average annual rainfall is 718 millimetres with the heaviest falls in July.
Soil description	The soil within the application area is mapped as three soil units: • Bassendean B1 Phase (212Bs_B1) - Extremely low to very low relief dunes, undulating sandplain and discrete sand rises with deep bleached grey sands sometimes with a pale yellow B horizon or a weak iron-organic hardpan at depths generally greater than 2 m; banksia dominant. • Bassendean B3 Phase (212Bs_B3) - Closed depressions and poorly defined stream channels with moderately deep, poorly to very poorly drained bleached sands with an iron-organic pan, or clay subsoil. Surfaces are dark grey sand or sandy loam. • Bassendean B4 Phase (212Bs_B4) - Broad poorly drained sandplain with deep grey siliceous sands or bleached sands, underlain at depths generally greater than 1.5 m by clay or less frequently a strong iron-organic hardpan.
Land degradation risk	The soil units present within the application area are susceptible to wind erosion, water logging, water repellence, subsurface acidification and phosphorus export. The mapped soils are moderately susceptible to water erosion.
Waterbodies	The desktop assessment and aerial imagery indicated that the application area is located within a palusplain multiple use wetland system. The application area also consists of a 'man-made' drainage line which runs from north to south within the application area.
Hydrogeography	The application area is situated within the Serpentine River System Surface Water Area, Serpentine Groundwater Area and the Peel Harvey Catchment system.
Flora	The local area includes 103 conservation listed flora records consisting of 31 different species. The nearest mapped record is 2.4 kilometres from the application area. Of the 31 species mapped within the local area, eight species are threatened, two are priority 1, three are priority 2, 10 are priority 3 and seven are priority 4. The degraded application area, which is largely a monoculture of *Kunzea glabrescens* with minimal understorey vegetation, is unlikely to include suitable habitat for conservation listed flora species.
Ecological communities	The local area (10-kilometre radius surrounding the application area) includes 13 mapped conservation listed ecological communities of which seven are threatened ecological communities and six are priority ecological communities. The application area is mapped within the Priority 3 Banksia Woodland of the Swan Coastal Plain ecological community. The vegetation within the application area is largely a monoculture of *Kunzea glabrescens* and is not representative of this community.
Fauna	Within the local area, there are 837 conservation listed fauna records comprising 30 different species. The nearest mapped record is located 1.39 kilometres from the application area.

C.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	38.45
Vegetation complex					
Bassendean Complex-Central and South (44)	87,476.26	23,508.66	26.87	4,377.36	5
Local area					
10km radius	31,068.87	8,662.95	27.88	-	-

*Government of Western Australia (2019a)

C.3. Land degradation risk table

Risk categories	*Bassendean B1 Phase (212Bs_B1)*	*Bassendean B3 Phase (212Bs_B3)*	*Bassendean B4 Phase (212Bs_B4)*
Wind erosion	H1: 50-70% of the map unit has a high to extreme wind erosion risk	L2: 3-10% of the map unit has a very high to extreme wind erosion risk	M1: 10-30% of the map unit has a high to extreme wind erosion risk
Water erosion	L1: <3% of the map unit has a very high to extreme water erosion risk	M2: 30-50% of the map unit has a high to extreme water erosion risk	L1: <3% of the map unit has a very high to extreme water erosion risk
Water logging	L2: 3-10% of the map unit has a moderate to very high water logging risk	H2: >70% of map unit has a moderate to very high waterlogging risk	H2: >70% of map unit has a moderate to very high waterlogging risk
Water Repellence	H2: >70% of map unit has a high water repellence risk	M1: 10-30% of the map unit has a high water repellence risk	M1: 10-30% of the map unit has a high water repellence risk
Subsurface Acidification	H2: >70% of map unit has a high subsurface acidification risk or is presently acid	H2: >70% of map unit has a high subsurface acidification risk or is presently acid	H2: >70% of map unit has a high subsurface acidification risk or is presently acid
Phosphorus export risk	H2: >70% of map unit has a high to extreme phosphorus exports risk.	H2: >70% of map unit has a high to extreme phosphorus exports risk.	H2: >70% of map unit has a high to extreme phosphorus exports risk.
Salinity	L1: <3% of the map unit has a moderate or high salinity risk or is presently saline	L1: <3% of the map unit has a moderate or high salinity risk or is presently saline	L1: <3% of the map unit has a moderate or high salinity risk or is presently saline
Flood risk	L1: <3% of the map unit has a moderate to high flood risk	M2: 30-50% of the map unit has a moderate to high flood risk	L1: <3% of the map unit has a moderate to high flood risk

Appendix D. 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: The application area is in a degraded condition, largely comprising a monoculture of *Kunzea glabrescens*.	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
The application area is not representative of any known conservation listed ecological communities, and noting its degraded condition and lack of native understorey vegetation, the proposed clearing is not likely to impact on any threatened or priority ecological communities, or threatened or priority flora. Given the above, the application area is unlikely to comprise of a high level of biodiversity.		
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 application area contains suitable habitat for conservation significant fauna. Management measures as conditioned on the clearing permit are required to address this risk.	May be at variance	Yes *Refer to Section 3.2.1, above.*
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: The degraded application area is unlikely to include suitable habitat for flora species listed under the BC Act, noting the presence of minimal understorey native vegetation.	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: The application area is mapped as the 'Banksia Woodlands of the Swan Coastal Plain' Threatened Ecological Community (TEC) (EPBC Act, state listed as Priority 3). The vegetation within the application area is not representative of this community noting the absence of Banksia species on site (DWER, 2025a), and is unlikely to be representative of any other known threatened ecological communities.	Not likely to be at variance	No
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 an extensively cleared area and contains vegetation that may contribute to fauna linkage values.	May be at variance	Yes *Refer to Section 3.2.2, above.*
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."* Assessment: 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.	Not likely to be at variance	No
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:	At variance	Yes *Refer to Section 3.2.4, above.*

Assessment against the clearing principles	Variance level	Is further consideration required?
The application area intersects a wetland and a watercourse, and the proposed clearing will impact on riparian vegetation.		
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The mapped soils within the application area are highly susceptible to wind erosion, water logging, nutrient export, and moderately susceptible to water erosion, and without appropriate management, the proposed clearing is likely to result in appreciable land degradation.	At variance	Yes *Refer to Section 3.2.3, above.*
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: The application area is situated within a wetland and includes an artificial drainage line. The proposed clearing may therefore impact on the quality of surface water through sedimentation.	May be at variance	Yes *Refer to Section 3.2.4, above.*
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 proposed clearing may exacerbate flooding, given the application area is mapped as a Palusplain wetland (seasonally waterlogged), and one of the mapped soil types in the application area are at high risk of flooding.	May be at variance	Yes *Refer to Section 3.2.4, above.*

Appendix E. 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

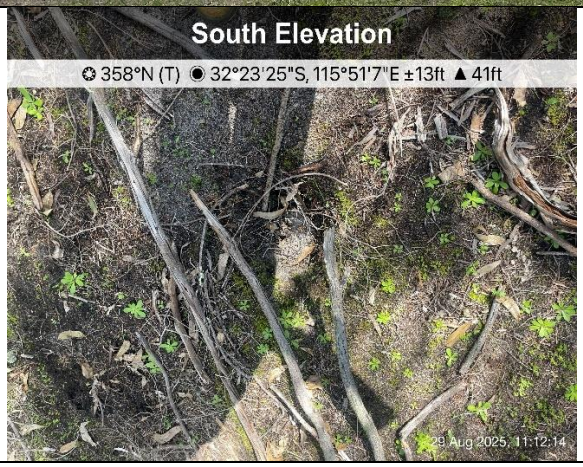
Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

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.

Condition	Description
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.

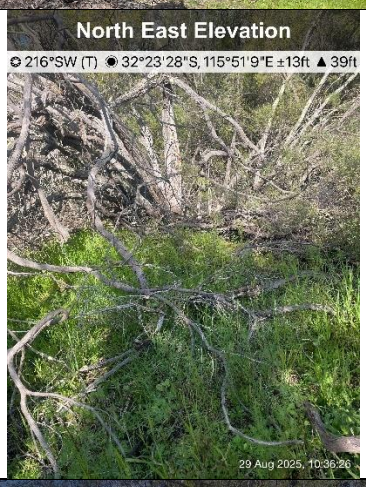
Appendix F. Application area photographs




South West Elevation
23°NE (T) 32°23'17"S, 115°51'4"E ±13ft ▲ 34ft
29 Aug 2025, 11:01:45

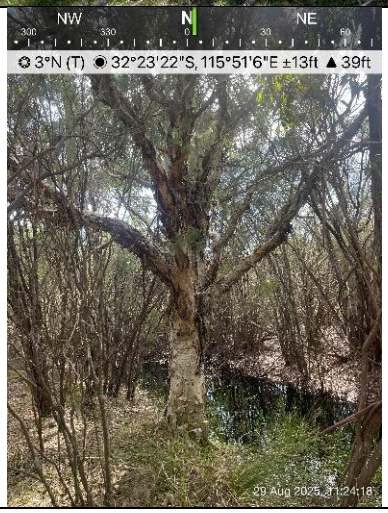

North Elevation
197°S (T) 32°23'19"S, 115°51'4"E ±13ft ▲ 35ft
29 Aug 2025, 11:03:07


North West Elevation
115°SE (T) 32°23'18"S, 115°51'4"E ±13ft ▲ 34ft
29 Aug 2025, 11:02:45


North East Elevation
216°SW (T) 32°23'28"S, 115°51'9"E ±13ft ▲ 39ft
29 Aug 2025, 10:36:26


North Elevation
194°S (T) 32°23'28"S, 115°51'8"E ±13ft ▲ 38ft
29 Aug 2025, 11:18:49


West Elevation
97°E (T) 32°23'27"S, 115°51'8"E ±13ft ▲ 37ft
29 Aug 2025, 11:17:10


NW
N
NE
3°N (T) 32°23'22"S, 115°51'6"E ±13ft ▲ 39ft
29 Aug 2025, 11:24:18

Appendix G. Sources of information

G.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
- 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)

G.2. References

Bancroft, W. & Bamford, M. (2023) *Plants known to be used for foraging, roosting and nesting by black-cockatoos in south-western Western Australia.*

Commissioner of Soil and Land Conservation (CSLC) (2025a) *Land Degradation Advice and Assessment Report for clearing permit application CPS 10922/1,* received 27 March 2025, Department of Primary Industries and Regional Development, Western Australia (DWER Ref: A2350552).

Commissioner of Soil and Land Conservation (CSLC) (2025b) *Additional advice from Buddy Wheaton for clearing permit application CPS 10922/1*, received 19 May 2025. Department of Primary Industries and Regional Development, Western Australia (DWER Ref: DWERDT1126372

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