



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 9978/1
Permit type:	Area permit
Applicant name:	Lovegrove Investments Pty Ltd
Application received:	23 November 2022
Application area:	8.20 hectares of native vegetation
Purpose of clearing:	Pasture and grazing
Method of clearing:	Mechanical
Property:	Lot 1 on Diagram 37195
Location (LGA area/s):	Shire of Harvey
Localities (suburb/s):	Cookernup

1.2. Description of clearing activities

The vegetation proposed to be cleared is distributed across two large areas with additional small, scattered areas of vegetation areas contained within a paddock (see Figure 1, Section 1.5). The area is proposed to be cleared for use as pasture.

1.3. Decision on application

Decision:	Refused
Decision date:	24 June 2024
Decision area:	8.20 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:

- supporting information supplied by the applicant (see Appendix A);
- site characteristics (see Appendix B);
- relevant datasets (see Appendix F.1);
- photographs and weed management plan provided by Accendo Environmental (2022) (see Appendix E);
- the clearing principles set out in Schedule 5 of the EP Act (see Appendix C); and
- relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). Consideration of planning instruments and other relevant matters when making a decision on a clearing permit application is a requirement under section 51O(4) of the EP Act.

The Delegated Officer also noted that the Shire of Harvey (the Shire) advised that the proposed activities require planning approvals under the Shire's local town planning scheme (Shire of Harvey, 2023). To date, the applicant has

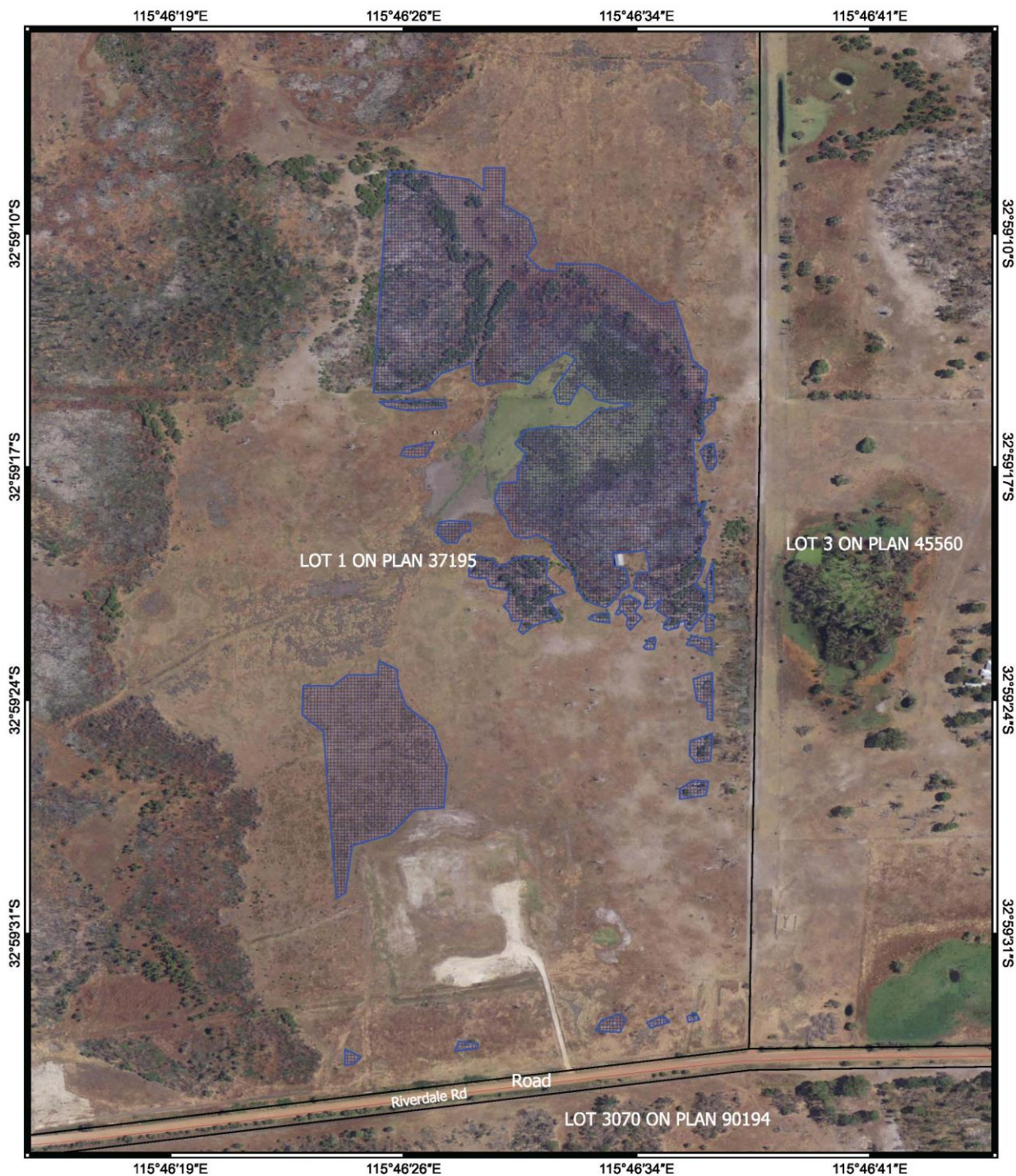
not obtained a valid development approval (DA) for the proposed clearing activities. The Delegated Officer determined that the absence of a valid DA from the Shire is a relevant consideration since if no approval is obtained, there would be no reason for the clearing to occur.

The Delegated Officer noted that these planning matters remain unresolved and that Lovegrove Investments has not provided the Department with a clear timeline as to when a DA may be obtained. Furthermore, the Delegated Officer noted that as of 11 March 2024, the Shire of Harvey had confirmed to the Department that while an application for a development approval is now in progress, this application had been extended indefinitely, and in subsequently responding to the Department's notice advising that it intended to refuse the application, the Applicant provided no further update as to the timely acquisition of the development approval. The Delegated Officer considered that the applicant has been afforded a reasonable amount of time to obtain the required approvals and was of the view that the Department is unable to hold the application indefinitely.

Accordingly, the Delegated Officer determined to refuse to grant a clearing permit. In the absence of the above planning approvals, it would be unnecessarily harmful to the environment for the Department to authorise the clearing of native vegetation when such clearing may not be required.

1.5. Site map

CPS 9978/1 - Map



Legend

- CPS areas applied to clear
- LANDTENURE_LGATE_226
- Local Government Authorities

Road Centrelines

- Local Rd - Other

Scale

0 100 200 300 m

1:3,000

Projection: GDA 94

Figure 1 - Map of the application area. The area cross-hatched blue indicates the areas proposed to be cleared.

2 Legislative context

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

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Planning and Development Act 2005* (WA) (P&D Act)
- *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 proposed clearing area was selected having regard to environmental values on the property, including avoiding resource enhancement wetlands and better-quality vegetation on the property (Accendo, 2022).

The applicant has committed to implementing a flora and vegetation management plan and a weed and pathogen management plan.

Vegetation management actions include (Accendo, 2022):

- site inductions for clearing controls;
- demarcating the areas to be cleared and daily checks to make sure the markers are visible;
- no vehicle and personnel movement within vegetation retention areas;
- no stockpiling of topsoil and other materials outside of the clearing boundary; and
- daily inspections of cleared areas.

Weed and pathogen management actions include (Accendo, 2022):

- training for personnel on proper dieback management actions;
- earthmoving and ground engaging equipment will be inspected and cleaned prior to entry and exit of the clearing site;
- access to the clearing site is restricted to proposed roads and driveways and will be clearly signposted for inspection points; and
- reduce vehicle movement into and within the site as much as possible, particularly during wet conditions.

Additional information regarding the management plans can be found in Appendix F.

During the assessment, it was identified that the proposed clearing may have an appreciable impact on land degradation through nutrient export and may have indirect impacts on the resource enhancement wetlands on the property. In response the applicant advised the following (Accendo, 2023):

- the implementation of management practices in line with the Department's *Nutrient best management practices guideline* (DWER, 2023);
- annual soil testing to determine nutrient deficiencies to reduce need for fertiliser application and using water-soluble P fertilisers;
- no clearing of vegetation within 30 m of a resource enhancement wetland boundaries;
- clearing will occur during dry periods with seeding prior to winter to avoid erosion and sedimentation.

The assessment also identified that the proposed clearing is considered to be remnant vegetation within a highly cleared landscape with the mapped vegetation complex (Bassendean – Central and South) currently retaining 26.87 per cent of its original extent and the vegetation within the local area (10-kilometre radius from the proposed clearing area) has only 26.67 per cent of its original extent remaining.

Noting the above, the Department requested additional measures to avoid and/or mitigate the requirement for clearing within an extensively cleared landscape. The applicant noted that one of the factors in selecting the proposed

clearing area was that it was not representative of the 'Bassendean – Central and South' vegetation complex and therefore would not contribute to the loss of the complex (Accendo, 2022).

Despite the above, the native vegetation within the local area is still extensively cleared and measures to avoid and/or mitigate the impacts of clearing on this value are still required. No avoidance and mitigation measures have been proposed by the applicant.

The proposed clearing is also located near an axis line of the South West Regional Ecological Linkages dataset, where it has been assigned a proximity value of 1(a) (see Section 3.2.2.), meaning that the proposed clearing may have a significant impact on ecological linkage values. Additional measures to avoid and mitigate impacts from the proposed clearing on linkage values would be required prior to any potential clearing authorisation being issued.

Given the rationale for the refusal of this permit is due to the lack of Local Government approvals, no additional avoidance and mitigation measures for impacts on ecological linkage values have been requested as these would not influence the outcome of the assessment.

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 (flora and ecological communities), significant remnant vegetation, conservation areas 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 (ecological community) - Clearing Principles (a) and (d)

Assessment

The majority of the proposed clearing area is mapped within the 'Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region' (Banksia Woodlands) ecological community listed as Priority 3 (PEC) in Western Australia and Endangered (TEC) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

This community is characterised by a prominent layer of Banksia species with other trees such as eucalypts either amongst or emerging above the Banksia canopy and a rich understorey (DoEE, 2016). This community is considered significant due to the community's capacity to support a diverse range of fauna and flora species and is considered to be critical habitat for a number of threatened species such as black cockatoos (DoEE, 2016).

The Department of Agriculture, Fisheries and Forestry (DAFF) have a published list of characteristics and criteria that can be used when assessing whether the community is present within a given area (DoEE, 2016). The proponent provided an assessment against these criteria (Accendo Australia, 2022) and concluded that the community was not present for the following reasons:

- the vegetation condition within the site is considered to be in 'degraded' to 'completely degraded' condition (Keighery, 1994), and the criteria states that the minimum condition for a patch over two hectares is 'good' condition (DoEE, 2016); and
- no Banksia species were identified within the application area during a site visit according to the Environmental Report (Accendo Australia, 2022). Photographs and descriptions provided within the report described the vegetation as largely composed of *Kunzea ericifolia* (spearwood) and *Juncea* spp. Lacking both upper and understorey species (Accendo Australia, 2022).

The proposed clearing is within farmland with a history of livestock grazing, firewood collection and logging which can account for the lack of overstorey and understorey species.

It is noted that this community is mapped within the land neighbouring the proposed clearing which may be impacted through the introduction and spread of weeds and dieback.

Conclusion

Based on the information provided, it is not likely that the vegetation proposed to be cleared would represent the 'Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region' Ecological Community. Clearing activities may introduce and spread weeds and dieback into neighbouring native vegetation that may represent this community. It is considered that potential impacts to adjacent native vegetation can be managed by implementing management measures to minimise the risk of introduction and spread of weeds and dieback.

3.2.2. Significant remnant vegetation and conservation areas - Clearing Principles (e) and (h)

Assessment

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

The application falls within the Swan Coastal Plain IBRA which currently retains approximately 38.62 per cent of the pre-European vegetation (Government of Western Australia, 2019). The application is mapped as Heddle-Mattiske associated Bassendean Complex – Central and South which is extensively cleared and currently retains approximately 26.87 per cent of pre-European vegetation (Government of Western Australia, 2019). Furthermore, a review of available databases determined that the local area retains approximately 26.67 per cent of the original extent. The local area and mapped vegetation type is inconsistent with the national target of biodiversity conservation of Australia (Commonwealth of Australia, 2001).

The Bassendean Complex – Central and South is described as vegetation ranges 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 (Government of Western Australia, 2019). The environmental assessment notes that the vegetation within the proposed clearing area is primarily composed of *Kunzea ericifolia* (spearwood) and *Juncea* spp. lacking both upper and understorey species (Accendo, 2022). Noting this, the application is not likely to be representative of the mapped vegetation complex.

Despite the above and the degraded condition of the proposed clearing area, the native vegetation within the local area is still below the 30 per cent target and it is considered that any loss of native vegetation within an extensively cleared landscape constitutes a significant residual impact.

Ecological linkage

The application area forms part of a larger (but now highly cleared) patch of remnant vegetation, which contributes to regional and local ecological linkage values. The clearing of the application area may further act to sever the ecological linkage corridor.

In particular, the proposed clearing is mapped in proximity to an axis line from the South West Regional Ecological Linkages (SWREL) dataset. Ecological linkage axis lines are used to identify the whole of patches of remnant vegetation that have edges which touch or come in close proximity of the linkage. Having used the ecological linkage axis line to identify patches of remnant vegetation with connectivity or linkage values, value can be identified and assigned (in consideration of other conservation planning initiatives and values) (Molloy et al, 2009).

Remnant vegetation within the SWREL boundary can be assigned a 'proximity analysis' group. The remnant vegetation within the application area is considered to have a proximity value of 1(a) (the highest proximity value) as the vegetation is touching the edge of the ecological linkage (Molloy et al, 2009). Areas within proximity group 1 are considered to be the highest value in terms of contributing to ecological linkage function. This is because many small mammals, insects and amphibians often avoid venturing into cleared areas with the exception of crossing small gaps into other patches of vegetation (Molloy et al., 2009). The proposed clearing area may also provide linkage value to Riverdale Nature Reserve.

Whilst the application area may not sever the linkage corridor, the reduction in vegetation (especially width wise) and edge effect of continued clearing will in the long-term impact negatively on the viability and resilience of the vegetation corridor. Over time the edge effect of proposed land use (pasture and grazing) may lead to the further loss of the integrity of the ecological linkage.

Conclusion

Based on the information above, the proposed clearing will result in the loss of native vegetation that is significant as a remnant within an extensively cleared landscape and impact on a significant ecological linkage.

In response to a request for information, the applicant noted that the proposed clearing area was selected due to the degraded condition and lack of affinity with the mapped vegetation complex (Accendo, 2023), however, no avoidance and/or mitigation measures regarding the loss of native vegetation within an extensively cleared landscape have been proposed by the applicant.

3.2.3. Land and water resources - Clearing Principles (f), (g), (i) and (j)

Assessment

The desktop assessment and site inspection conducted by the Commissioner for Soil and Land Conservation (CSLC) on February 27, 2023, identified that the proposed clearing is at high risk of nutrient export (CSLC, 2023). In summary, the CSLC identified that the assessed soils have a very high risk of waterlogging and very high to extreme risk of nutrient export. The report concluded that the proposed clearing and subsequent land use were likely to increase the risk of land degradation in the form of waterlogging and phosphorous export.

During the site visit, CSLC noted that a soak within the proposed clearing area exhibited signs of eutrophication which is often a symptom of poor nutrient retention capabilities within soil (CSLC, 2023) (Figure 2). CSLC advised that the soils mapped within the proposed clearing area are generally considered to be unsuitable for irrigated horticulture because of waterlogging and high risk of nutrient export.



Figure 2. Soak within the property with excess algae growth from eutrophication (CSLC, 2023)

The majority of the proposed clearing area is mapped within a multiple use category wetland classified as palusplain (UFI 3823) and sumpland (UFI 3789). Multiple use category wetlands have few remaining important attributes and functions and the protection of these wetlands is the lowest priority. In addition, the proposed clearing is also mapped approximately 0.03 km from a resource enhancement category wetland and 0.11 km from a conservation category wetland. *Kunzea ericifolia* is a species known to grow in habitats associated with wetland environments. Given that this is the dominant species within the proposed clearing area (Accendo, 2022) can be assumed that the mapped wetlands are present within the application.

The presence of a wetland over the majority of the application area indicates the proposed clearing may increase sedimentation within the wetland seasonally. Given the wetland system is likely to be hydrologically connected to the extensive systems surrounding the application area, the proposed clearing is likely to impact on surface water quality and alter the hydrology of surrounding wetlands.

Conclusion

Based on the information above, the proposed clearing is considered likely to cause appreciable land degradation in the form of waterlogging and eutrophication and may impact the surface water quality and hydrology of the surrounding wetlands. As such, DWER issued a request for further information inviting the applicant to address the impacts of land degradation and to detail the proposed purpose of clearing. Details of the Applicant's proposed mitigation measures are outlined in Section 3.1.

3.3. Relevant planning instruments and other matters

Development Approval

The Shire of Harvey advised DWER that the applicant had applied for a Development Approval – Clearing of Vegetation for the purpose of pasture (Shire of Harvey, 2023). On 4 September 2023, the Shire advised that they had requested additional information for the Approval on 9 May 2023, to which no response had been received. On 19 February 2024, the Shire provided the Applicant a four-week timeframe to provide the requested information or the Development Application would be cancelled (Shire of Harvey, 2024a).

On 11 March 2024, DWER received correspondence from the Shire of Harvey advising that the Development Application has been extended indefinitely since the Applicant intends to amend the application to include additional area proposed for clearing (Shire of Harvey, 2024b). The applicant had not indicated to DWER that they intended to increase the clearing footprint under this application.

Under section 51O(4) of the EP Act the CEO must also have regard to any planning instrument or other matter that the CEO considers relevant. 'Other matters' are not defined in the EP Act, and consequently are any matters the CEO considers relevant. If the approval for the identified purpose is not granted, it would be unnecessarily harmful to the environment for DWER to authorise native vegetation clearing when such clearing may not be required.

Given the Applicant has been afforded extensive time to obtain a Development Approval and has been provided an indefinite extension by the Shire to provide information for their consideration in assessing the DA, the Delegated Officer has determined to refuse to grant a clearing permit application. In making this determination, the Delegated Officer has formed the view that there is a low likelihood that the requisite planning approval will be obtained within the short-term. The Department considers that the Applicant has already been afforded a reasonable amount of time to obtain the required planning approvals in support of the clearing permit application.

Planning Policy

The Peel-Harvey Estuarine System Policy aims to set out environmental quality objectives for the estuary to rehabilitate and protect the estuary from further degradation. The basis of this policy is that certain land uses and the clearing of native vegetation has resulted in the nutrient enrichment of the estuary, particularly phosphorous, and properties located within the catchment of the Peel-Harvey Estuary System and development proposals are subject to the following policies:

- *Draft State Planning Policy 2.9 (SPP 2.9) Planning for Water (WAPC, 2021);*
- *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).*

In SPP 2.9, Section 7.6 *Specific area measures: Peel-Harvey coastal plain catchment* states:

- proposals should, in accordance with the Guidelines: a) have regard to the water quality objectives contained in *Environmental Protection (Peel Inlet – Harvey Estuary) Policy Approval Order 1992* for the Peel Harvey estuarine system;
- protect remnant vegetation and maintain or increase deep-rooted perennial vegetation coverage to improve water quality;
- there is a presumption against non-closed agricultural systems on sites with low or very low capability land for the intended land use or sites prone to nutrient export; – in all other instances, applicants should demonstrate that nutrient export will be managed within acceptable levels.

The Applicant would need to demonstrate that the land use could be supported by fertiliser and land management regimes that operate within the above nutrient targets, and ongoing monitoring may also be required.

Water Licence

The proposed clearing is mapped within the South West Coastal Groundwater Area proclaimed under the *Rights in Water and Irrigation Act 1914* (RIWI Act).

If the Applicant intends to abstract water for livestock, there is an exemption from requiring a water licence to construct a well and take groundwater, however, to use the exemption, the Applicant must only take from the water table (non-artesian) aquifer, and the livestock must not be raised under intensive conditions as defined in section 21(4) of the RIWI Act (DWER, 2023). It is recommended that Lovegrove Investments Pty Ltd consult with the Department to determine their obligations under the RIWI Act.

Aboriginal Heritage

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

End

Appendix A. Additional information provided by applicant

Summary of comments	Consideration of comment
Response to request for information: <ul style="list-style-type: none"> extensively cleared vegetation land degradation wetlands development approval 	See Section 3.2. for vegetation, land degradation and wetlands. See Section 3.3. for Development Approval.

Appendix B. Site characteristics

B.1. Site characteristics

Characteristic	Details
Local context	<p>The area proposed to be cleared comprises several patches of native vegetation in the intensive land use zone of Western Australia. It is surrounded by largely previously cleared paddocks and is adjacent to a large remnant of native vegetation. The proposed clearing area is remnant vegetation within a highly cleared landscape.</p> <p>Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 24.40 per cent of the original native vegetation cover.</p>
Ecological linkage	The area proposed to be cleared is mapped adjacent to an axis line associated with the South-West Regional Ecological Linkages dataset that is used to connect the coast to inland forests.
Conservation areas	<p>The application area is not mapped within a conservation area.</p> <p>Two conservation areas are mapped in close proximity to the proposed clearing, namely:</p> <ul style="list-style-type: none"> Myalup State Forest – 0.28 km; and Riverdale Nature Reserve – 0.58 km
Vegetation description	<p>Photographs supplied by the applicant indicate the vegetation within the proposed clearing area consists of shrubland and grassland largely dominated by monocultures of <i>Kunzea ericifolia</i> (Accendo, 2022). Representative photos are available in Appendix F.</p> <p>This is inconsistent with the mapped vegetation type(s):</p> <ul style="list-style-type: none"> Bassendean Complex – Central and South, which is described as vegetation ranges from woodland of <i>Eucalyptus marginata</i> (Jarrah) - <i>Allocasuarina fraseriana</i> (Sheoak) - Banksia species to low woodland of Melaleuca species, and sedgelands on the moister sites. This area includes the transition of <i>Eucalyptus marginata</i> (Jarrah) to <i>Eucalyptus tottiana</i> (Pricklybark) in the vicinity of Perth (Government of Western Australia, 2019). <p>The mapped vegetation type retains approximately 26.87 per cent of the original extent (Government of Western Australia, 2019).</p>
Vegetation condition	<p>Photographs supplied by the applicant indicate the vegetation within the proposed clearing area is in degraded to completely degraded (Keighery, 1994) condition, described as:</p> <ul style="list-style-type: none"> 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 <p>The full Keighery (1994) condition rating scale is provided in Appendix E. Representative photos are available in Appendix F.</p>
Climate and landform	The application is located between Preston Beach and Myalup. The climate in the region is mild with average maximum temperatures reaching 23.1 degrees Celsius and

Characteristic	Details
	<p>minimum temperatures of 11.5 degrees Celsius. The average rainfall for the area is approximately 980.90 millimetres.</p> <p>Landform within the proposed clearing area varies between swamp and poorly draining sandplains.</p>
Soil description	<p>Three soil types belonging to the Bassendean system are mapped within the application area:</p> <ul style="list-style-type: none"> • Bassendean B4 Phase - 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 – 50 per cent of area • Bassendean B6 Phase - Sandplain and broad extremely low rises with imperfectly drained deep or very deep grey siliceous sands – 30 per cent of area • Swamp (Bassendean) – Swamp – 20 per cent of area
Land degradation risk	The proposed clearing has mapped high risk of wind erosion, waterlogging, subsurface acidification, and phosphorous export. The application is at low risk of water erosion, salinity, and flooding.
Waterbodies	<p>The proposed clearing is mapped within a palusplain wetland within the multiple use management category.</p> <p>Additionally, the proposed clearing is mapped in close proximity to both a resource enhancement (0.03 km) and conservation category wetland (0.11 km).</p>
Hydrogeography	The area proposed to be cleared is within the South West Coastal Groundwater Area which is Proclaimed under the RIWI Act and is at low risk from water erosion.
Flora	<p>A total of 79 records across 31 species of conservation significant flora are recorded within the local area (10-kilometre radius). Five of these species are recorded within one kilometre of the proposed clearing, namely:</p> <ul style="list-style-type: none"> • <i>Stylidium paludicola</i> (P3) • <i>Acacia semitrullata</i> (P4) • <i>Dillwynia dillwynioides</i> (P3) • <i>Diuris purdiei</i> (T) • <i>Boronia capitata</i> subsp. <i>gracilis</i> (P3) • <i>Pterostylis frenchii</i> (P2)
Ecological communities	The proposed clearing is partially mapped within the 'Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region', which is listed as Priority 3 in Western Australia and Endangered under the EPBC Act.
Fauna	A total of 248 records across 20 species of conservation significant fauna are recorded within the local area (10-kilometre radius). No records were identified within one kilometre of the proposed clearing, the nearest being <i>Zanda latirostris</i> (Carnaby's cockatoo) located 1.76 km from the proposed clearing.

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	38.45
Vegetation complex**					
Bassendean – Central and South	87,476.26	23,508.66	26.87	4,377.36	5.00
Local area					
10km radius	31,100.41	8,294.17	26.67	-	-

	Pre-European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre-European extent in all DBCA managed land
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*Government of Western Australia (2019a)

**Government of Western Australia (2019b)

B.3. Ecological community analysis table

Community name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Banksia Woodlands of the Swan Coastal Plain ecological community	P3 (WA) Endangered (EPBC Act)	N	Y	Y	0	750	Y

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

B.4. Land degradation risk table

Risk categories	Proportion of application area	Land Unit 1
Water logging	71.07%	H2: >70% of map unit has a moderate to very high waterlogging risk
	28.93%	M2: 30-50% of map unit has a moderate to very high waterlogging risk
Phosphorus export risk	100%	H2: >70% of map unit has a high to extreme phosphorus export risk

Appendix C. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<p><u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity."</p> <p><u>Assessment:</u></p> <p>The proposed clearing is partially mapped within the Banksia Woodland of the Swan Coastal Plain Priority 3 ecological community. An environmental assessment provided (Accendo, 2023) states that the proposed clearing is not likely to be representative of this community due to the lack of banksia species within the proposed clearing area.</p> <p>Much of the property is dominated by monocultures of <i>Kunzea ericifolia</i> with pasture grasses and given the property has a history of livestock grazing, firewood collection and logging (Accendo, 2022), the proposed clearing area is not likely to comprise a high level of biodiversity.</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.1, above.</i>
<p><u>Principle (b):</u> "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."</p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared is not likely to contain significant habitat for conservation significant fauna, given the historical and ongoing disturbance within the property from agriculture.</p>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
<p><u>Principle (c):</u> <i>“Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</i></p> <p><u>Assessment:</u></p> <p>The proposed clearing area is not likely to support individuals of or suitable habitat for flora listed as threatened under the BC Act due to ongoing a history of grazing and wildfire on the property.</p>	Not likely to be at variance	No
<p><u>Principle (d):</u> <i>“Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.”</i></p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared is mapped within the Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region which is listed as Endangered under the EPBC Act. The Environmental Assessment (Accendo, 2022) indicates that the proposed clearing area is not likely to represent this community.</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.1, above.</i>
Environmental value: significant remnant vegetation and conservation areas		
<p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u></p> <p>The extent of the mapped vegetation type and native vegetation in the local area is inconsistent with the national objectives and targets for biodiversity conservation in Australia.</p> <p>The vegetation proposed to be cleared is mapped adjacent to the axis line on the South West Regional Ecological Linkages dataset.</p>	At variance	Yes <i>Refer to Section 3.2.2, above.</i>
<p><u>Principle (h):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.”</i></p> <p><u>Assessment:</u></p> <p>Despite the proposed clearing’s proximity to Myalup State Forest, the application is located in an area subject to ongoing disturbance from agricultural activities it is not likely the proposed clearing will have a significant impact on the nearby conservation areas.</p>	Not likely to be at variance	No
Environmental value: land and water resources		
<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u></p> <p>The majority of the proposed clearing is mapped within a multiple use wetland and is in close proximity to both resource enhancement and conservation category wetlands and therefore the proposed clearing may impact on- or off-site hydrology and water quality.</p>	At variance	Yes <i>Refer to Section 3.2.3, above.</i>
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p> <p>The mapped soils are highly susceptible to wind erosion, subsurface acidification, and phosphorous export. Noting that the surrounding land is largely previously cleared and subject to ongoing disturbance, the proposed</p>	May be at variance	Yes <i>Refer to Section 3.2.3, above.</i>

Assessment against the clearing principles	Variance level	Is further consideration required?
clearing is not likely to have a significant impact on wind erosion and subsurface acidification. Given the purpose of the application, the proposed clearing is likely to contribute to nutrient export.		
<u>Principle (i):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.”</i> <u>Assessment:</u> Given that the application is mapped within a groundwater area and within a wetland, the proposed clearing may impact groundwater and surface water quality.	May be at variance	Yes <i>Refer to Section 3.2.3, above.</i>
<u>Principle (j):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</i> <u>Assessment:</u> The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding. Given a wetland is mapped within the application area and the large number of wetlands in the local area, the proposed clearing may contribute to waterlogging.	Not likely to be at variance	Yes <i>Refer to Section 3.2.3, above.</i>

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. Environmental Report excerpts



Plate 1: *Juncus* spp. with occasional Spearwood (*Kunzea ericifolia*) in south-western corner of clearing footprint.



Plate 2: Spearwood (*Kunzea ericifolia*) monoculture in northern portion of the site.



Plate 3: Juvenile Spearwood (*Kunzea ericifolia*) monoculture in eastern portion of subject site.



Plate 4: Mature Spearwood (*Kunzea ericifolia*) monoculture in northern portion of subject site.

Figure 3. Photographs of the vegetation within the proposed clearing area (Accendo, 2022)

Vegetation Clearing	
Responsibility	
<ul style="list-style-type: none"> • Project Manager. • Contractors. 	
Objectives	
<ul style="list-style-type: none"> • Prevent clearing outside of the designated clearing boundaries. • Minimise soil erosion and sedimentation. 	
Potential Impacts	
<ul style="list-style-type: none"> • Clearing native vegetation. • Inadvertent additional clearing of vegetation. • Impacts on fauna species. • Weed and disease invasion. 	
Management Strategies	Timing
<ul style="list-style-type: none"> • All site personnel will be inducted on the clearing controls for this project. • Vegetation required to be removed will be marked with white flagging tape to avoid any unnecessary disturbance to adjacent vegetation. • The flagging tape which demarcates subject site will be checked on a daily basis to ensure that the clearing requirements remain clearly visible. • No movement of vehicles or personnel within the vegetation retention areas will be allowed. • No stockpiling of topsoil or other material is to occur outside of the clearing boundary. • The location and area of vegetation cleared will be checked on a daily basis. 	<ul style="list-style-type: none"> • Prior to clearing. • Prior to clearing. • During clearing. • During clearing. • During clearing. • During clearing.
Performance Indicators	
<ul style="list-style-type: none"> • No unauthorised clearing is undertaken. • No fauna is directly impacted during clearing. 	
Monitoring	
<ul style="list-style-type: none"> • Daily checks to ensure that clearing is consistent with the approved clearing boundaries. • Daily checks to ensure that no fauna have been impacted. 	
Reporting	
<ul style="list-style-type: none"> • The DWER will be notified immediately if clearing beyond the approved clearing boundaries occurs, or if any fauna is directly impacted. Work may be stopped and the site inspected by DWER or LGA and a remedy determined before work restarts. • A review of the performance indicators will be undertaken upon completion of clearing to determine the success of the vegetation clearing management measures. Where non-compliances are identified the DWER will be notified accordingly. 	

Figure 4. Vegetation Management Plan (Accendo, 2022)

<i>Phytophthora</i> dieback and weed management	
Responsibility	
<ul style="list-style-type: none"> • Project Manager. • Contractors. 	
Objectives	
<ul style="list-style-type: none"> • To prevent the introduction and spread of <i>Phytophthora</i> dieback and weeds within the subject site. 	
Potential Impacts	
<ul style="list-style-type: none"> • Introduction and spread of disease (<i>Phytophthora</i> spp.) and weeds. 	
Management Strategies	Timing
<ul style="list-style-type: none"> • Training will be provided to all personnel during the safety and environment induction course. This will include an explanation of the specific requirements relating to <i>Phytophthora</i> dieback management. • All earthmoving and ground engaging equipment will be inspected and cleaned of vegetation and soil prior to entry and exit of the subject site. • Access to the subject site during clearing will be restricted to the proposed roads and driveways. No other access points should be 	<ul style="list-style-type: none"> • Prior to clearing. • Prior to clearing. • Prior to and during clearing.
<ul style="list-style-type: none"> • established. The access location and vehicle inspection point should be clearly sign posted. • Reduce vehicle and plant movement into and within the site as much as possible, particularly during wet conditions. 	<ul style="list-style-type: none"> • Prior to and during clearing.
Performance Indicators	
<ul style="list-style-type: none"> • Hygiene procedures are adopted during clearing activities. 	
Monitoring	
<ul style="list-style-type: none"> • Project Manager will ensure disease hygiene and control measures are implemented during clearing activities. 	
Reporting	
<ul style="list-style-type: none"> • Contractors to confirm that <i>Phytophthora</i> dieback and weed management measures have been implemented. 	

Figure 5. Weed and Pathogen Management Plan (Accendo, 2022)

Appendix F. Sources of information

F.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Contours (DPIRD-073)
- 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

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)

F.2. References

- Accendo Australia (Accendo) on behalf of the applicant (2022) *Clearing permit application CPS 9978/1*, received 23 November 2022 (DWER Ref: DWERDT690506).
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- Accendo Australia (Accendo) on behalf of the applicant (2023) *Additional Supporting information for clearing permit application CPS 9978/1 – Response to request for information*, received 2 June 2023 (DWER Ref: DWERDT800810).
- Commissioner of Soil and Land Conservation (CSLC) (2023) *Land Degradation Advice and Assessment Report for clearing permit application CPS 9978/1*, received 1 March 2023, Department of Primary Industries and Regional Development, Western Australia (DWER Ref: DWERDT744005).
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- Schoknecht, N., Tille, P. and Purdie, B. (2004) *Soil-landscape mapping in South-Western Australia – Overview of Methodology and outputs* Resource Management Technical Report No. 280. Department of Agriculture.
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