

Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number: CPS 10392/1

Permit type: Area permit

Applicant name: Kim Le Nominees Pty Ltd

Application received: 26 October 2023

Application area: 4.67 hectares of native vegetation (revised)

Purpose of clearing: Horticulture

Method of clearing: Mechanical clearing

Property: Lot 500 on Deposited Plan 74108

Location (LGA area/s): Shire of Carnarvon

Localities (suburb/s): North Plantations

1.2. Description of clearing activities

Kim Le Nominees Pty Ltd is proposing to undertake the clearing of native vegetation within Lot 500 on Deposited Plan 74108, North Plantations. The clearing is proposed to facilitate horticulture by planting an annual crop. The vegetation proposed to be cleared is contained within a single contiguous area (see Figure 1, Section 1.5).

The application was revised during the assessment process, in response to a request for further information sent by the Department. The changes included a reduction in the amount of clearing from 5.47 hectares to 4.67 hectares to avoid and minimise the clearing impacts (see Section 3.1 for further details).

1.3. Decision on application

Decision: Refused

Decision date: 28 March 2025

Decision area: 4.67 hectares of native vegetation, as depicted in Section 1.5, below.

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (DWER) advertised the application for 21 days and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix B), relevant datasets (see Appendix F.1), a Department of Primary Industries and Regional Development (DPIRD) site inspection (see Appendix E), the clearing principles set out in Schedule 5 of the EP Act (see Appendix C), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). The Delegated Officer also took into consideration advice given by DPIRD via the Office of the Commissioner of Soil and Land Degradation (CSLC).

In particular, the Delegated Officer considered the CSLC's (2023; 2024) advice that:

- In its present uncleared state, the application area mimics an island with surface water flows directed to open pathways on the east and west sides of the Lot. Following clearing, the site will likely be levelled for annual horticultural production, therefore, exposing the soils to a high risk of soil erosion.
- Historically, erosion and soil loss during flooding events have been greatest on areas with annual crops and a 1:10 year flooding event in the region is expected to inundate the site and cause soil loss and damage.
- Due to the annual nature of the proposed horticulture, the soils within the application area will present an ongoing high risk of land degradation resulting from wind erosion, salinity, and flooding.

After consideration of the available information and CSLC advice, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the proposed clearing is likely to lead to appreciable land degradation in the form of soil erosion and cannot be appropriately minimised and managed through the avoidance and mitigation measures proposed by the applicant. Given this, the Delegated Officer determined that the risk of appreciable land degradation resulting from the proposed clearing represents an unacceptable risk to the environment and that it would not be appropriate to manage this environmental impact through conditions on a clearing permit. Consequently, the Delegated Officer decided to refuse Kim Le Nominees Pty Ltd's application.

1.5. Site map

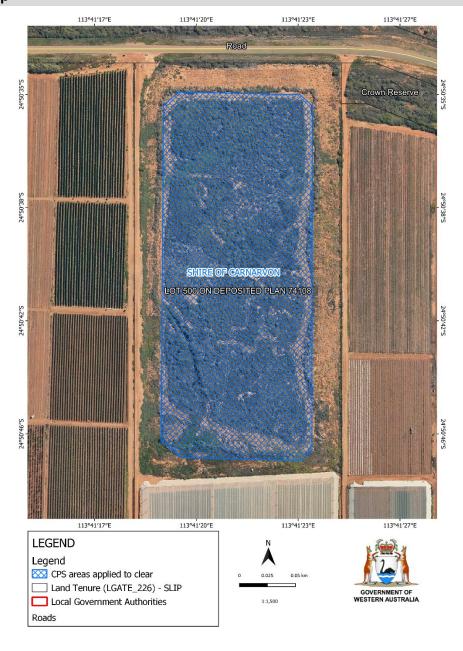


Figure 1 Map of the application area.

2 Legislative context

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

In addition to the matters considered in accordance with section 510 of the EP Act (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

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

Other legislation of relevance for this assessment include:

- Biodiversity Conservation Act 2016 (WA) (BC Act)
- Planning and Development Act 2005 (WA) (P&D Act)
- Rights in Water and Irrigation Act 1914 (RIWI 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 applicant did not submit information regarding consideration of avoidance and mitigation measures with the original application. The applicant advised that the entirety of the application area was proposed to be cleared to be cultivated for annual crops and therefore, no avoidance or mitigation was proposed (Kim Lee Nominees Pty Ltd, 2023).

Following a request for further information from DWER, the applicant proposed to reduce the amount of clearing from 5.47 hectares to 4.67 hectares (Figure 2) to avoid and minimise the clearing impacts on land degradation (see Section 3.2.1). The proposed reduction included the following considerations (Figure 3):

- A 3-metre-wide firebreak (as required by the Shire of Carnarvon) proposed along and inside the northern and eastern boundaries of Lot 500, adjacent to the proposed clearing area;
- A slightly reduced width (to 3.5 metres) of the existing access driveway along the western boundary of Lot 500:
- A proposed perimeter planting of a 1.75-hectare tree crop (pawpaw and mangoes), ranging in width from approximately 7 metres to 20 metres wide, inside the aforementioned fire break, access driveway, and the existing cropped area to the south;
- Retention and revegetation of a proposed 0.9-hectare strip of remnant native vegetation (Currant Bush Mixed Shrubland) between 7 metres 13 metres wide bordering the proposed clearing area;
- A revised clearing area of approximately 4.67 hectares, within which annual crop production will occur; and
- A proposed 3-metre-wide access track extending from the existing juncture of the access driveway and the service track extending along the northern boundary of the currently cropped area, to the proposed cleared area (Dowling, 2024).

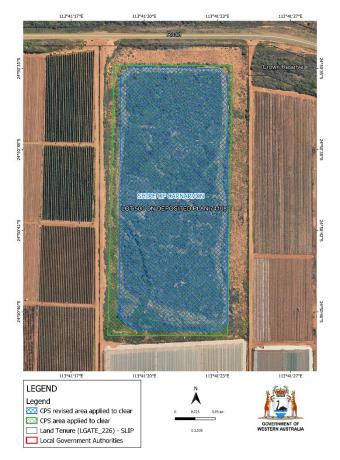


Figure 2. Map of the original application area (crosshatched green) and the revised application area (crosshatched blue).



Figure 3. Map of the revised application area (Dowling, 2024).

Based on the above response and further advice received from CSLC (2024) (see Section 3.2.1), the Delegated Officer was not satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on land degradation. The above information did not adequately demonstrate that all reasonable efforts have been taken to avoid and minimise potential impacts of the proposed clearing on environmental values.

3.2. Assessment of impacts on environmental values

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

The assessment against the clearing principles (see Appendix C) identified that the impacts of the proposed clearing will significantly impact 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. Land and water resources (land degradation) - Clearing Principles (g) and (j)

Assessment

According to available databases, the soil in the application area is mapped as Gascoyne-Coburn intergrade type 1 phase (235De_2GC1) which is described as backplains and outer levee areas (flat with soils exhibiting features of both Gascoyne and Coburn soil associations and with some salt tolerant vegetation). The soil is mainly hard-setting red duplex soils (apedal or pedal) and less commonly gradational red earths and reddish-brown earthy loams on level terrace plains or alluvial backplains. The south-western corner of the application area also intersects the River loamy terrace subsystem (235Ri_2) which is described as a level alluvial plain developed on the upper terraces of the Gascoyne River and carrying Acacia shrubland with an understorey including buffel grass (*Cenchrus ciliaris).

A site inspection was undertaken by officers from the CLSC on 28 April 2022 to assess land degradation impacts of the proposed clearing as applied for under CPS 9652/1. The application area for CPS 9652/1 covered the entirety of Lot 500 (approximately 7.44 hectares) and included the entirety of the application area under CPS 10392/1 (see Section 3.3).

The site inspection report (CLSC, 2022) noted the following:

Vegetation:

The dominant vegetation represented within the application area is a mixture of Currant Bush (Scaevola spinescens), saltbush (Atriplex spp.), and buffel grass (*Cenchrus ciliaris) on undulating soils varying from thin red sand or loam A horizon and a clay B horizon at varying depths. Saline soil is evident due to areas containing Tecticornia spp. and scalding visible in small patches.

Land degradation risk:

- The soil surface is undulating, and areas of water ponding and water flow are evident through the application area.
- The area proposed to be cleared is currently acting as an island with channelled flow occurring down the east and west sides of the Lot.
- o During flood events, the application area will be inundated, and the cover of native vegetation is currently preventing water erosion.
- The risk of soil erosion post-clearing is high, given leveling of the site for annual vegetable/fruit production will expose soils a high risk of wind and water erosion and salinity long-term.

The CSLC (2022) noted that previous reviews have concluded that erosion risk is elevated with the removal of native vegetation, particularly if replaced with annual crops. Historically, erosion and soil loss during flooding events have been greatest on areas with annual crops. If the site is cleared of native vegetation and replaced with annual crops, a 1:10 year flooding event in the region is expected to inundate the site and cause soil loss and damage.

Advice received from CSLC (2022; 2023) noted that the risk of soil erosion has the potential to be mitigated by planting a perennial tree crop, that should be widely spaced to allow for a perennial grass cover to stabilise the soil, avoiding bare soils that will exacerbate land degradation. In response to this advice and a request for further information from DWER, the applicant reduced the application area and advised on further mitigation measures such as retaining a strip of native vegetation along the border of the clearing area and planting a perennial tree perimeter (See Section 3.1). However, the majority of the application area (4.67 hectares) was still proposed to be cleared for annual cropping.

Further advice from CLSC (2024) was received and indicated that the proposed mitigation measures were insufficient to mitigate the risk of appreciable land degradation. CSLC (2024) advised that, due to the annual nature of the proposed horticulture, the soils within the application area will present an ongoing high risk of land degradation resulting from wind erosion, salinity, and flooding. There is the potential that erosion risk may be reduced if the proposal was revised to involve the planting of perennial crops only. However, a detailed assessment would be required to determine whether such a proposal would be acceptable in relation to land degradation impacts.

Conclusion

Based on the above assessment, the proposed clearing will result in a high risk of land degradation resulting from salinity, water and wind erosion, and flooding. For the reasons set out above, it is considered that the risk of appreciable land degradation is unlikely to be reduced through onsite mitigation measures currently proposed or permit conditioning, given the annual nature of the proposed horticulture. Given this, the Delegated Officer determined that the risk of appreciable land degradation resulting from the proposed clearing represents an unacceptable risk to the environment.

3.3. Relevant planning instruments and other matters

The clearing permit application was advertised on DWER's website on 20 December 2023, inviting submissions from the public within a 21-day period. No submissions were received.

The applicant had previously applied for a clearing permit for the proposed clearing of 7.44 hectares of native vegetation within Lot 500, for the purpose of horticulture (CPS 9652/1), which encompassed the current application area under CPS 10392/1. The department had undertaken a preliminary assessment against the Clearing Principles contained in Schedule 5 of the EP Act. Among the maters taken into consideration was the necessity for Kim Le Nominees Pty Ltd to obtain Development Approval from the Shire of Carnarvon. At the time of the assessment of CPS 9652/1, it was noted that the purpose of the clearing was in contravention of the Shire of Carnarvon's Local Planning Scheme No 13 (LPS13) as the subject land was zoned as Environmental Conservation reserve and not zoned for agricultural purposes. It was advised that an amendment to LPS13 would be required before Development Approval could be considered by the Shire of Carnarvon. Consequently, clearing permit application CPS 9652/1 was withdrawn.

On 7 March 2023, the Shire of Carnarvon proposed to amend LPS13 to rezone Lot 500, from 'Environmental Conservation' to 'Priority Agriculture', to facilitate the expansion of horticultural activities on the Lot. On 29 March 2023, the Environmental Protection Authority (EPA) determined not to assess the proposed scheme amendment under Part IV of the EP Act.

The Shire of Carnarvon (2023) advised DWER that the subject land is zoned 'Priority Agriculture' and local government approvals are not required. The proposed clearing is consistent with LPS13, and as such, horticultural activities are permitted and do not require development approval (Shire of Carnarvon, 2023).

The application area is located within the Gascoyne Groundwater and Gascoyne River and Tributaries Area proclaimed under the RIWI Act. Advice received from DWER's North West Licencing branch indicates the applicant holds a groundwater licence for 29,000kL for its locations and that the recorded use for this licence is nil to very low (DWER, 2023). The applicant also indicated that, in addition to the licenses under the RIWI Act, they hold a current water supply allocation of 56,000KL from the Gascoyne Water Cooperative Ltd and therefore, has sufficient water allocation to undertake additional irrigation operations.

Several Aboriginal sites of significance have been mapped within the local 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
Additional information provided by the applicant on 16 August 2024 in response to the Department's request for further information.	The additional information provided was considered in Avoidance and mitigation measures (Section 3.1) and Assessment of impacts on environmental values (Section 3.2).
Applicant's response to DWER's letter advising of intent to refuse the application (Dowling, 2025): - The southern portion of Lot 500 and adjoining Lots do not suffer from soil erosion, it is 'merely' an extension of current cropping, - Lot 500 is not located within any flood ways, - The zoning of the area is 'Priority Agriculture' under the Shire of Carnarvon's Local Planning Scheme 13, and it is an expectation that the land be used as such, - Under the rezoning of the land, in accordance with State Planning Policy 2.5-Rural Planning, it should be noted that 'Existing and/or potential for irrigated agriculture' recognises the world-wide demand for food is increasing and the land required for intensive agriculture should be used as such. - The retention of the border of remnant bush around Lot 500 is sufficient to control erosion, - The State should have retained all land that is not suitable for horticulture and the land should not have been rezoned in the first instance.	 Considered as below: DWER sought advice from CSLC (2022), in which a high wind erosion, salinity and flooding hazard was identified. A site inspection noted the soil surface was undulating, and areas of water ponding and water flow are evident through the application area. Further advice was sought from the CSLC (2024) in which the retention of a border of remnant bush was not adequate to control against erosion as the crop type had not changed. As discussed in Section 3.2.1. DPIRD made comments on the amendment proposal to rezone Lot 500 to Priority Agriculture in which they objected to the proposed scheme due to the ongoing flood, salinity and erosion risk (CSLC, 2024). For this application DWER has based its decision to refuse a permit on the basis of the land degradation risk that remains high with the annual nature of the crop. DWER considers that it has sufficient evidence to make this decision and that the clearing would result in significant environmental impacts. DWER's decision to refuse is based on the advice from CSLC and the utilisation of annual crops and is still in accordance with Shire of Carnarvon's Local Planning Scheme 13 for 'Priority Agriculture'. DWER and CSLC have provided advice that the utilisation of perennial crops and continual cover of vegetation will likely reduce the risks, which still permit the area to be used for agriculture.

Appendix B. Site characteristics

B.1. Site characteristics

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

Characteristic	Details
Local context	The area proposed to be cleared is part of a 4.67-hectare isolated patch of native vegetation in the extensive land use zone of Western Australia. It is surrounded by plantations and the Gascoyne River.
	Spatial data indicates the local area (50-kilometre radius from the centre of the area proposed to be cleared) retains approximately 98.68 per cent of the original native vegetation cover.
Ecological linkage	There are no formal ecological linkages mapped within the application area.

Characteristic	Details
Conservation areas	No conservation areas are mapped within the application area. The closest conservation area is Chinaman's Pool Nature Reserve which is located approximately 1.6 kilometres southwest of the application area.
Vegetation description	Photographs supplied by the applicant and a DPIRD site inspection (2022) indicate the vegetation within the proposed clearing area consists of <i>Scaevola spinescens</i> (Currant Bush) Mixed Shrubland, with the major species present being currant bush, *Cenchrus ciliaris (Buffel grass), Rhagodia eremaea (climbing saltbush), Atriplex bunburyana (silver saltbush), Atriplex paludosa (marsh saltbush), and Acacia tetragonophylla (currara).
	Representative photos are available in Appendix E.
	This is broadly consistent with the mapped vegetation type: • Beard 308, which is described as a Mosaic: Shrublands; <i>Acacia sclerosperma</i> sparse scrub / Succulent steppe; saltbush and bluebush (Shepherd et al, 2001)
	The mapped vegetation type retains approximately 99.22 per cent of the original extent (Government of Western Australia, 2019).
Vegetation condition	Photographs supplied by the applicant and a DPIRD site inspection (2022) indicate the vegetation within the proposed clearing area is in Good (Trudgen, 1991) condition.
	The full Trudgen (1991) condition rating scale is provided in Appendix D.
	Representative photos are available in Appendix E.
Climate and landform	Carnarvon experiences an arid climate with an average annual rainfall of 224.6 millimetres. Rainfall may occur at any time of year; however, most occurs in winter.
	The topography of the application area is relatively flat, reaching 10 metres Australian Height Datum (AHD).
Soil description	 The soils in the application area are mapped as (DPIRD, 2024): Gascoyne-Coburn intergrade type 1 phase (235De_2GC1) which is described as backplains and outer levee areas (flat with soils exhibiting features of both Gascoyne and Coburn soil associations and with some salt tolerant vegetation River loamy terrace subsystem (235Ri_2), which is described as a level alluvial plain developed on the upper terraces of the Gascoyne River and carrying acacia shrubland with an understorey including buffel grass (Cenchrus ciliaris)
Land degradation risk	On the 28 April 2022, the application area was surveyed by the office of the CSLC. A high wind erosion, salinity and flooding hazard was identified (CSLC, 2023).
Waterbodies and hydrogeography	The desktop assessment and aerial imagery indicated that no wetlands or waterbodies transect the application area. The closest waterbody to the application area is the Gascoyne River which is located 437 metres south of the application area.
	The application area is mapped within the Carnarvon Irrigation District and Gascoyne River and Tributaries Surface Water Area proclaimed under the RIWI Act.
	The mapped groundwater salinity is approximately 500-100 milligrams per litre total dissolved solids.
Flora	The desktop assessment identified that a total of 18 conservation significant flora species have been recorded within the local area, comprising 18 priority flora species (Western Australian Herbarium, 1998-). None of these existing records occur within the application area, with the closest record being an occurrence of <i>Schoenia filifolia</i> subsp. <i>arenicola</i> (P1) approximately 2.9 kilometres from the application area.

Characteristic	Details
	With consideration for the relevant datasets (see Appendix F.1), the habitat preferences and conservation statuses of the aforementioned species, the distribution and extent of existing records, the application area is unlikely to provide significant habitat for threatened or priority flora species.
Ecological communities	The desktop assessment identified that there are no conservation significant ecological communities within the application area. The closest mapped ecological community is the Lyall Land System community which is listed as a Priority 3 ecological community (PEC) by DBCA in Western Australia, which is located 18 kilometres north of the application area.
	With consideration for the site characteristics and relevant datasets (see Appendix F.1), the application area is not considered likely to contain vegetation representative of a Threatened Ecological Community or PEC.
Fauna	The desktop assessment identified that a total of 69 conservation significant fauna species have been recorded within the local area including 17 threatened fauna species, seven priority fauna species and 45 other specially protected fauna species (DBCA, 2007-). None of these existing records occur within the application area, with the closest record being an occurrence of <i>Tringa nebularia</i> (Common greenshank) approximately 0.46 kilometres from the application area
	With consideration for the site characteristics set out above, relevant datasets (see Appendix F.1) and the habitat preferences of the aforementioned species, the application area is unlikely to provide significant habitat for conservation significant fauna species.

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*					
Carnarvon	8382890.35	8360801.46	99.74	1020434.08	12.2
Vegetation complex*					
Beard vegetation association 308	446976.92	443483.90	99.22	3874.35	0.87
Vegetation complex in IBRA biore	gion*				
Beard vegetation association 308 (Carnarvon)	446976.92	443483.90	99.22	3874.35	0.87
Local area					
50km radius	453048.05	447057.96	98.68	-	-

^{*}Government of Western Australia (2019)

Appendix C. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): "Native vegetation should not be cleared if it comprises a high level of biodiversity." Assessment: The area proposed to be cleared is not likely to contain locally or regionally significant flora, fauna, habitats, or unique assemblages of plants.	Not likely to be at variance	No
Principle (b): "Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."	Not likely to be at variance	No
<u>Assessment:</u> The area proposed to be cleared does not contain permanent habitat for conservation significant fauna, however multiple migratory bird species may be transient within the area.		
Principle (c): "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."	Not at variance	No
<u>Assessment:</u> The area proposed to be cleared is unlikely to contain habitat for threatened flora species.		
Principle (d): "Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community."	Not at variance	No
<u>Assessment:</u> The area proposed to be cleared does not contain species that can indicate a threatened ecological community.		
Environmental value: significant remnant vegetation and conservation ar	eas	
<u>Principle (e):</u> "Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."	Not at variance	No
Assessment: The extent of native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.		
Principle (h): "Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area."	Not at variance	No
<u>Assessment:</u> 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.		
Environmental value: land and water resources		
Principle (f): "Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."	Not likely to be at	No
<u>Assessment:</u> Given no water courses or wetlands are recorded within the application area, the proposed clearing is unlikely to impact on- or off-site hydrology and water quality.	variance	
Principle (g): "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."	At variance	Yes Refer to Section 3.2.1, above.

Assessment against the clearing principles	Variance level	Is further consideration required?
Assessment: Advice from the CSLC (2023; 2024) is that the proposed clearing is likely to cause appreciable land degradation in the form of wind and water erosion, salinity. and flooding.		
Principle (i): "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."	Not likely to be at variance	No
Assessment: Given no water courses or wetlands are recorded within the application area, the proposed clearing is unlikely to impact surface or ground water quality.		
Principle (j): "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."	May be at variance	Yes Refer to Section 3.2.1, above.
Assessment: Advice from the CSLC (2023; 2024) is that the removal of native vegetation is expected to facilitate inundation of the application area, which will result in soil loss damage. However, it is not expected that the proposed clearing will contribute to the incidence or intensity of flooding events.		

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 Trudgen, M.E. (1991) *Vegetation condition scale* in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.

Measuring vegetation condition for the Eremaean and Northern Botanical Provinces (Trudgen, 1991)

Condition	Description
Excellent	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
Very good	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
Good	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.
Poor	Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
Very poor	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.

Condition	Description
Completely degraded	Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.

Appendix E. Photographs of the vegetation (CSLC, 2022)



Figure 4. Driveway to property, area proposed to be cleared is on the passenger side of vehicle (CSLC, 2022).



Figure 5. Currant bush vegetation complex with mature Mesquite (*Prosopis spp*) C1 declared plant. (CSLC, 2022).



Figure 6. Area of scalding and water ponding, a number of these areas occur within the proposed clearing proposal (CSLC, 2022).



Figure 7. Stubble pre-flood has been laid down due to overland flow of water (CSLC, 2022).



Figure 8. Water flow is occurring along driveway (CSLC, 2022).



Figure 9. Samphire (*Tecticornia spp*) surrounding a scald (CSLC, 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)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography Inland Waters Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Pre-European Vegetation Statistics
- 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

Commissioner of Soil and Land Conservation (CSLC) (2022) Land Degradation Advice and Assessment Report for clearing permit application CPS 9652/1, received 17 May 2022, Department of Primary Industries and Regional Development, Western Australia (DWER Ref: DWERDT604531).

Commissioner of Soil and Land Conservation (CSLC) (2023) *Additional advice for clearing permit application CPS* 10392/1, received 12 January 2023. Department of Primary Industries and Regional Development, Western Australia (DWER Ref: DWERDT891780).

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