GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	8414/2
Permit Holder:	WRS Bioproducts Pty Ltd
Duration of Permit:	From 10 June 2020 to 10 June 2030

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

PART I – CLEARING AUTHORISED

1. Clearing authorised (purpose)

The permit holder is authorised to clear *native vegetation* for the purpose of aquaculture (algae farm).

2. Land on which clearing is to be done

Lot 267 on Deposited Plan 93179, Gap Ridge
Lot 300 on Deposited Plan 49873, Gap Ridge

3. Clearing authorised

The permit holder must not clear more than 115.39 hectares of *native vegetation* native within the area cross-hatched yellow in Figure 1 of Schedule 1.

PART II – MANAGEMENT CONDITIONS

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

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

(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.

5. Weed 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*:

(a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;

(b) ensure that no known *weed*-affected soil, *mulch*, *fill*, or other material is brought into the area to be cleared; and

(c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

6. Directional clearing

The permit holder must conduct clearing activities in a slow, progressive manner, in one direction, to allow fauna to move into adjacent *native vegetation* ahead of the clearing activity.

7. Erosion management

The Permit Holder must commence construction activities no later than three (3) months after undertaking the authorised clearing activities to reduce the potential for wind and water erosion.

PART III - RECORD KEEPING AND REPORTING

8. 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, minimise, and reduce the impacts and extent of clearing in accordance with condition 4; and (f) actions taken to minimise the risk of the introduction and spread of *weeds* in accordance with condition 5

9. Reporting

The permit holder must provide to the *CEO* the records required under condition 8 of this permit when requested by the *CEO*.

DEFINITIONS

In this permit, the terms in

Table 2 have the meanings defined.

Table 2: Definitions

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the *Environmental*

Term	Definition
	Protection Act 1986.
clearing	has the meaning given under section 3(1) of the EP Act.
condition	a condition to which this clearing permit is subject under section 51H of the EP Act.
fill	means material used to increase the ground level, or to fill a depression.
department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
EP Act	*Environmental Protection Act 1986* (WA)
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
weeds	means any plant – (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or (c) not indigenous to the area concerned.

END OF CONDITIONS

J Burton

Jessica Burton
MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

10 February 2025

Schedule 1

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

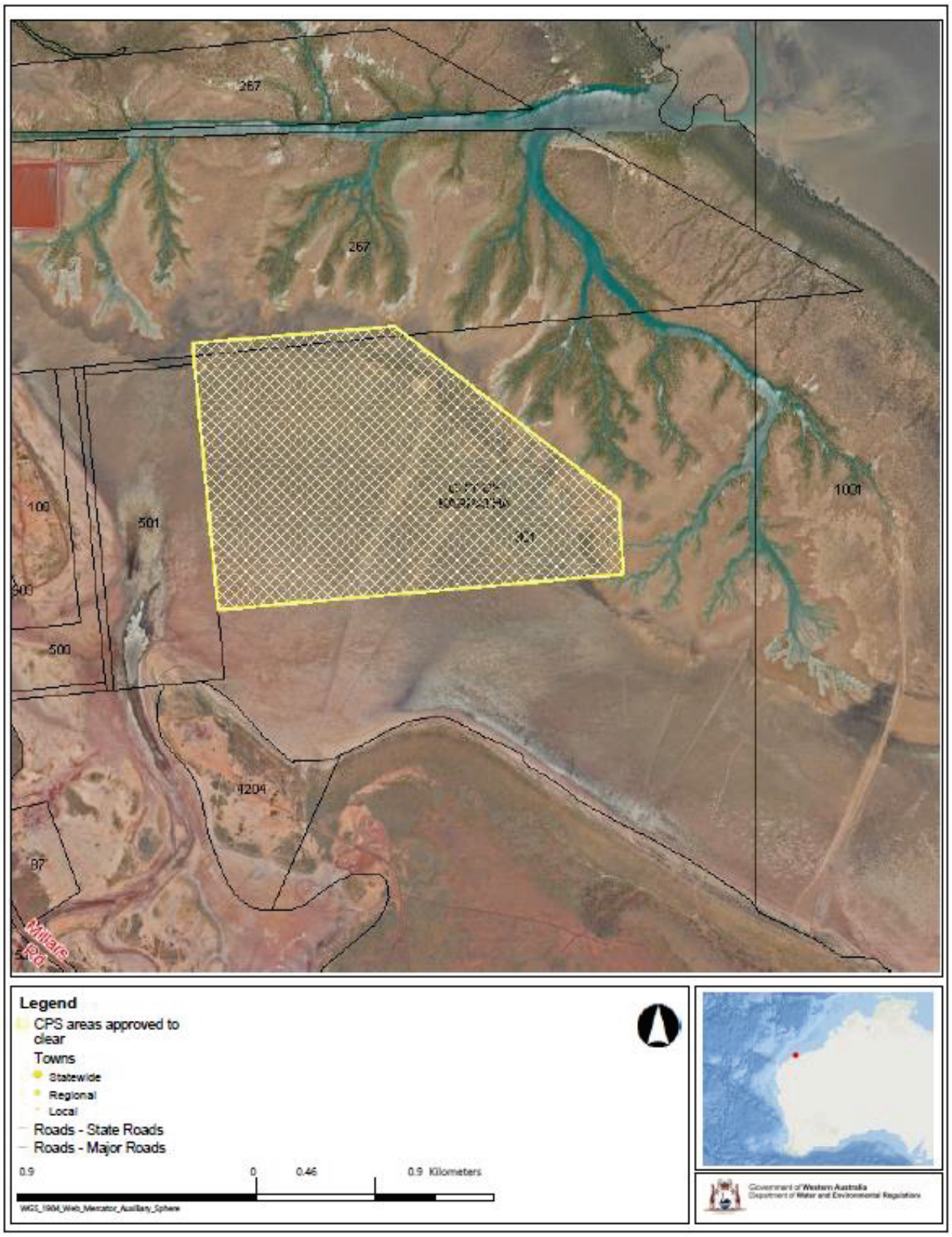

Figure 1: Map of the boundary of the area within which clearing may occur

Government of Western Australia
Department of Water and Environmental Regulation

Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 8414/2
Permit type:	Purpose permit
Applicant name:	WRS Bioproducts Pty Ltd
Application received:	5 August 2024
Application area:	115.39 hectares of native vegetation
Purpose of clearing:	Construction of an algae farm
Method of clearing:	Mechanical
Property:	Lot 267 on Deposited Plan 93179, Gap Ridge Lot 300 on Deposited Plan 49873, Gap Ridge
Location (LGA area/s):	City of Karratha

1.2. Description of clearing activities

This amendment is to extend the duration of the permit by five years by amending the expiry date from 30 June 2025 to 30 June 2030. CPS 8414/1 allowed for the clearing of 115.39 hectares of native vegetation for the construction of a commercial scale algae farming operation and associated infrastructure. No additional clearing is proposed and the application area for this amendment is the same approved clearing area for CPS 8414/1. Records indicate that no clearing has been undertaken under CPS 8414/1 since the commencement of the permit on 10 June 2020.

The vegetation proposed to be cleared is represented in Figure 1, Section 1.5. The application area largely consists of cleared mud tidal flats and open water associated with those tidal flats (MBS Environmental, 2022).

1.3. Decision on application

Decision:	Granted
Decision date:	10 February 2025
Decision area:	115.39 hectares of native vegetation, as depicted in Section 1.5, below.

1.4. Reasons for decision

This clearing permit amendment 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 7 days and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix A), relevant datasets (see Appendix E.1), the findings of a targeted flora, vegetation and fauna habitat assessment (see Appendix D), the clearing principles set out in Schedule 5 of the EP Act , relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). The Delegated Officer also took into consideration that the amendment application:

- is to extent the duration of the permit by 5 years. The area of clearing and footprint of the proposal is to stay the same; and

- the applicant holds a Development Approval (DA) for the proposed development issued by the City of Karratha.

It has been concluded that the assessment against the clearing principles is unchanged since the assessment for clearing permit CPS 8414/1 and that the proposed clearing is not likley to be at variance to any of the clearing principles.

The Delegated Officer determined that the proposed clearing can be managed to be environmentally acceptable with the existing clearing permit (8414/1) conditions including avoid and minimise, weed control and staged clearing. However, the Delegated Officer has determined that a fauna management condition, requiring the Permit Holder to undertake slow, progressive one directional clearing to allow fauna to move into adjacent habitat ahead of the clearing activities, is required. This is consistent with the current clearing permit conditions that have been placed on the related clearing permits CPS 9926/1 and CPS 10294/1.

Given the above, the Delegated Office has decided to grant the amended clearing permit.

1.5. Site map

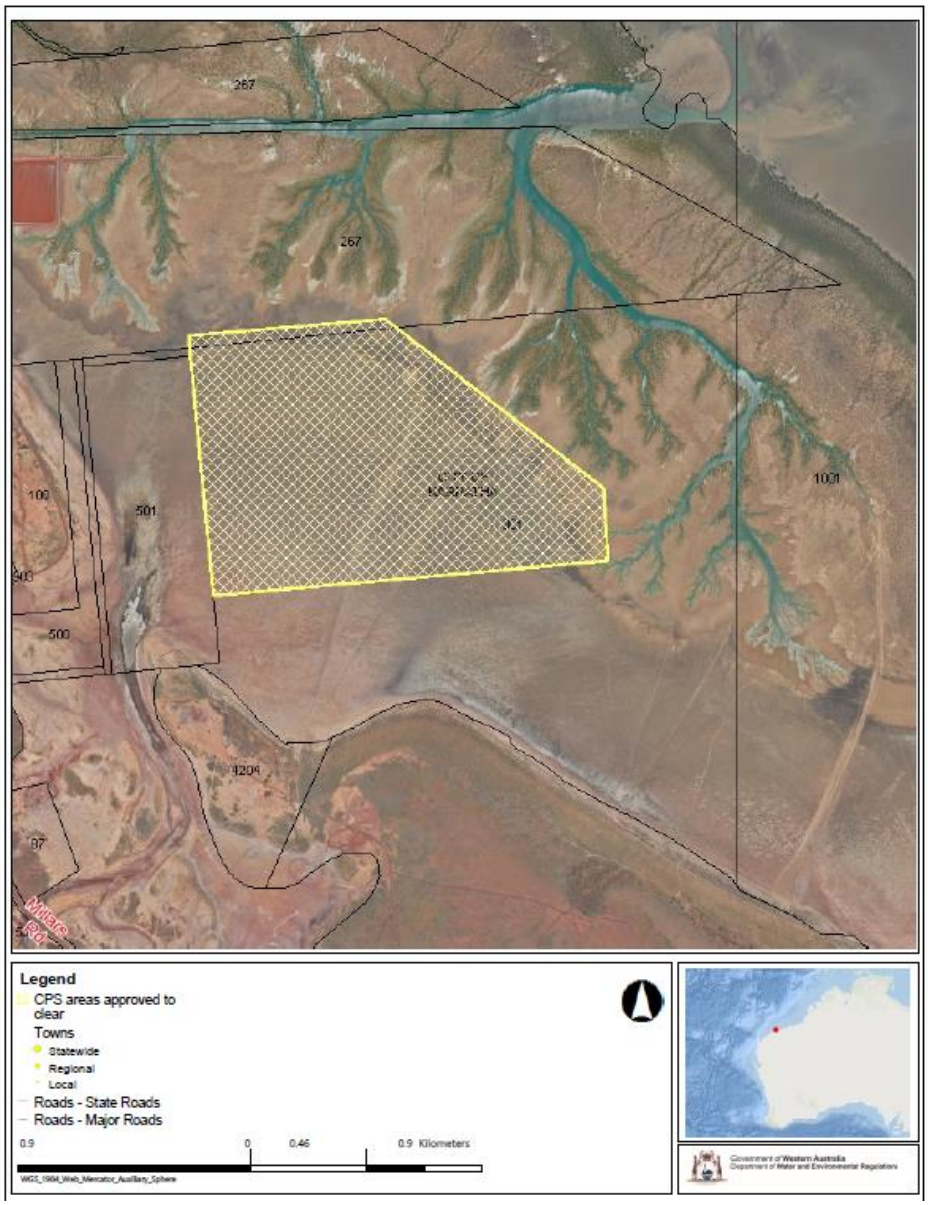

Figure 1: Map of the application area. The area crosshatched yellow indicate the area authorised to be cleared under the granted clearing permit.

2 Legislative context

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

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

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

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Planning and Development Act 2005* (WA) (P&D Act)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

The avoidance and minimisation measures implemented by the Permit Holder are unchanged and can be found in the Decision Report prepared for Clearing Permit CPS 8414/1. 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

Since the initial clearing permit (CPS 8414/1) was granted, an additional two permits have been applied for and granted (CPS 9926/1, from 22 December 2023 to 22 December 2028; and CPS 10294/1, from 20 June 2024 through to 20 June 2029), expanding the potential operational area of the project.

The applicant has advised that the construction of the proposed algae ponds will take around six months which is required to occur during the dry season around May to November each year, with that construction window being missed for 2024. At present, it is expected that construction for the algae farm to commence by May 2025, or within six weeks of the expiry of CPS 8414/4.

The applicant advised that as the area to which CPS 8414 applies is the larger of the permitted clearing areas (out of CPS 9926, CPS 10294 and CPS 8414), it represents a key project location and demonstrates the need for a clearing permit with sufficient time for utilisation as planned. Therefore, the amendment to the expiry date of CPS 8414/1, is required.

A review of current environmental information (Appendix C) reveals that the assessment against the clearing principles has not changed significantly from the Clearing Permit Decision Report CPS 8414/1.

However, it is noted that the assessment for clearing permit 8414/1 and for this amendment, identified the presence of tidal mud flats within the application area which are also well-represented in the vicinity of the application area and provides suitable habitat for migratory bird species. Given the extent of suitable habitat in the local area, extending well beyond the boundaries of the application area, the proposed clearing of tidal mud flats is unlikely to represent a significant fauna habitat for migratory bird species which have a scattered distribution across northern Australia. Due to the presence of suitable habitats within the application area, migratory bird species may be present at the time of the clearing activities (refer to decision report for CPS 8414/1).

To be consist with the more recent clearing permits granted for this project (CPS 9926/1 and 10294/1) a fauna management condition is required on the amended permit. This condition will require the permit holder to undertake the authorised clearing in a slow, directional manner to allow fauna, that may be present, to move into adjacent vegetation ahead of the clearing activity. This management measure will mitigate any potential impacts to fauna.

3.3. Relevant planning instruments and other matters

The Applicant is in the process of developing a commercial scale algae farm along with associated processing facilities. The project involves cultivation of unicellular green microalgae in open ponds filled with hypersaline water sunlight, nutrients and trace elements. The pond water is pumped to the harvesting facility where algae is separated and harvested. The algal concentrate is then sent to offsite processing facilities where it will be formulated into products including food colourant or protein rich biomass suitable for animal and fish feed (WRS Bioproducts Pty Ltd, 2023b).

Development Approval (DA) under the *Planning and Development Act 2005* (issued by the City of Karratha) is a relevant authorisation required for the proposed clearing. WRS Bioproducts Ltd was issued with the DA on the 28 November 2023 for an Algae farm, subject to number of conditions. The conditions of the DA requires that the WRS Bioproducts provide the following management plans:

- Stormwater management plan
- Construction environmental management plan
- Operational environmental management plan

The total area of the proposed clearing area is consistent with the area approved under the DA.

No aboriginal sites of significance occur 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.

The proposed activities occur within the proclaimed Pilbara groundwater and surface water areas and are subject to licensing requirements under the *Rights in Water and Irrigation Act 1914*. The proponent has stated that RiWi licences are not required. However, if the proponent needs to utilise groundwater or surface water for dust suppression or any other purposes, they will need to apply for a 5C licence to take water and a 26D licence to construct any new water supply bores.

End

Appendix C. Site characteristics

C.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is part of an expansive track of native vegetation within a tidal mudflat, located in the extensive land use zone of WA. The application area is situated to the immediate west of Nickol Bay, in the Pilbara region of WA. Spatial data indicates the local area (50-kilometre radius from the centre of the area proposed to be cleared, excluding areas intercepting the ocean) retains approximately 96.8 per cent of the original native vegetation cover.
Ecological linkage	No formal ecological linkages are mapped within the local area or the application area.
Conservation areas	Murujuga National Park is located approximately 3.8 kilometres north of the application area. An Unallocated Crown Land is located approximately 26 kilometres from the application area. No other conservation areas are mapped within the local area.
Vegetation description	Mapped vegetation types within the application area are: • Beard Vegetation Association 127, which is described as a Tidal Mud Flat (Shepherd et al, 2001). The mapped vegetation types retain approximately 89 per cent of the original extent respectively (Government of WA, 2019).
Vegetation condition	Site consultation provided by MBS Environmental on behalf of the applicant and a review of the aerial photography of the application area, suggest that the vegetation condition ranges from Degraded to Completely degraded (Trudgen, 1991) in the application area due to previous disturbance.

Characteristic	Details
	The full Trudgen (1991) condition rating scale is provided in Appendix D. The full survey descriptions are available in Appendix E.
Climate and landform	An arid, semi-desert climate characterises Karratha with distinct wet- and dry seasons on an annual cycle. The proposed clearing area experiences average maximum temperatures ranging from 26.5°C to 36.2°C, while average minimum temperatures range between 13.9°C to 26.9°C. The area experiences an annual average rainfall of 297.5 mm, most of which occurs during the wet season between December and March. Cyclones occur in the area between November and April. The dominant winds are typically easterlies or westerlies. The proposed clearing area is characterised by quaternary alluvial as well as older colluvial coastal and subcoastal planes.
Soil description	The application area is mapped as occurring within the Littoral Land System (DPIRD, 2019). This land system is defined as comprising bare coastal mudflats with mangroves on seaward fringes, samphire flats, sandy islands, coastal dunes and beaches.
Land degradation risk	Approximately 70 per cent of the Littoral system are highly susceptible to wind erosion if vegetation cover is disturbed. There is also potential for water erosion if soils are disturbed. The application area is located within an area with a high to moderate risk of acid sulphate soils occurring within 3 metres of the natural surface.
Waterbodies	The desktop assessment and aerial imagery indicated that mad flats intersects the application area.
Hydrogeography	The application area is mapped within the Pilbara surface water area and ground water area, proclaimed under the RIWI Act. Groundwater salinity level (Total Dissolved Solids) is mapped as 1,000-3,000 milligrams per litre (fresh to brackish).
Flora	According to the desktop assessment, 20 priority flora species were identified within the local area with the most abundant being *Terminalia supranitifolia* (41 recordings in the local area).
Ecological communities	Priority Ecological Communities (PECs) – Horseflat Land System, and Roebourne Plains gilgai grasslands are mapped within the local area. Neither of these PECs are mapped within the application area. The Roebourne Plains gilgai grasslands is the closest PEC mapped from the application area, approximately 150 metres away from the application area.
Fauna	Primary fauna habitats in proximity to the proposed clearing area consist of mangroves, intertidal areas and mudflats. According to the desktop assessment, 56 conservation significant fauna species were recorded within the local area, which comprise of 44 bird species, 7 mammal species and 5 reptiles. The Northern quoll (*Dasyurus hallucatus*) has the highest number of fauna records within the local area. The application area does not contain suitable habitat for the northern quoll

C.2. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix H.1), impacts to the following conservation significant flora required further consideration.

Species name	Conservation status	Suitable habitat features ? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Eragrostis lanicaulis	Priority 3	N	N	Y	40.33	2	N/A
Stackhousia clementii	Priority 3	N	N	Y	3.64	4	N/A
Tephrosia rosea var. Port Hedland (A.S. George 1114)	Priority 1	N	N	Y	30.30	10	N/A

Species name	Conservation status	Suitable habitat features ? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Terminalia supranitifolia	Priority 3	N	N	Y	4.17	41	N/A

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

C.3. Fauna analysis table

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Calidris ferruginea (Curlew Sandpiper)	CR	Y	Y	0.57	23	N/A
Limosa lapponica (Bar-tailed godwit)	VU	Y	Y	1.76	48	N/A
Numenius madagascariensis (Eastern curlew)	CR	Y	Y	1.76	39	N/A
Calidris canutus (Red Knot)	EN	Y	Y	4.29	10	N/A

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

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: A review of available databases determined 23 priority flora and no threatened flora species of conservation significance have been recorded within the 50-kilometre radius of the application area. No occurrences of the above species have been recorded within the application area. A review of these species' habitat requirements determined that the application area does not comprise suitable habitat for the flora species of conservation significance. The Priority one Priority Ecological Community, that is the Roebourne Plains coastal grasslands with gilgai microrelief on deep cracking clays (Roebourne Plains gilgai grasslands) is mapped approximately 200 metres to the west of the application area. Given the works within the application area are undertaken in accordance with construction/environmental management plans, it is unlikely that the proposed work will impact on this PEC. A weed management condition has been placed on the permit to manage potential impact of the introduction of weeds into adjacent vegetation.	Not likely to be at variance as per CPS 8414/1	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."* Assessment: The area proposed to be cleared may provide foraging habitat for some bird species and serve as a stopover for some migratory birds. However, the habitat within the application area is not considered significant given the abundance of	Not likely to be at variance as per CPS 8414/1	Yes *Refer to Section 3.2 above.*

Assessment against the clearing principles	Variance level	Is further consideration required?
suitable habitat outside of the application area and the lack of previous records occurring within the application area.		
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: The area proposed to be cleared is unlikely to contain habitat for flora species listed under the BC Act. No threatened flora was identified within the local area.	Not likely to be at variance as per CPS 8414/1	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 area proposed to be cleared does not contain species that can indicate a threatened ecological community (TEC) and does not contain suitable habitat for TEC's that have been mapped within the local area.	Not likely to be at variance *as per CPS 8414/1*	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 extent of the mapped vegetation types and the 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.	Not likely to be at variance *as per CPS 8414/1*	No
Principle (h): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area."* Assessment: Given the distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of conservation areas that are mapped within the local area.	Not likely to be at variance *as per CPS 8414/1*	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: Given that there is a stormwater management plan, environmental management plan and a construction management plan are prepared for the proposed work, the proposed work is unlikely to impact on- or off-site hydrology and water quality.	Not likely to be at variance *as per CPS 8414/1*	No
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 are highly susceptible to wind and water erosion. Noting the location of the application area and the management measures that are implemented by the applicant, the proposed clearing is not likely to cause appreciable land degradation.	Not likely to be at variance *as per CPS 8414/1*	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (i): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."* Assessment: Given that the proposed clearing and construction activities are unlikely to intercept groundwater, as well as the implementation of mitigation measures with regard to land degradation, the proposed clearing is unlikely to significantly impact surface or ground water quality. However, there may be a minor short-term impact to surface water quality through sedimentation during clearing. These impacts can be mitigated through management conditions imposed on the permit.	Not likely to be at variance *as per CPS 8414/1*	No
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment: The application area occurs within a tidal mudflat and therefore is susceptible to natural intermittent inundation. The proposed clearing is not considered to exacerbate the existing potential for flooding or water logging given the limited amount of native vegetation occurring within the application area.	Not likely to be at variance *as per CPS 8414/1*	No

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:

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.
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 F. Biological survey information excerpts (MBS Environmental, 2022)

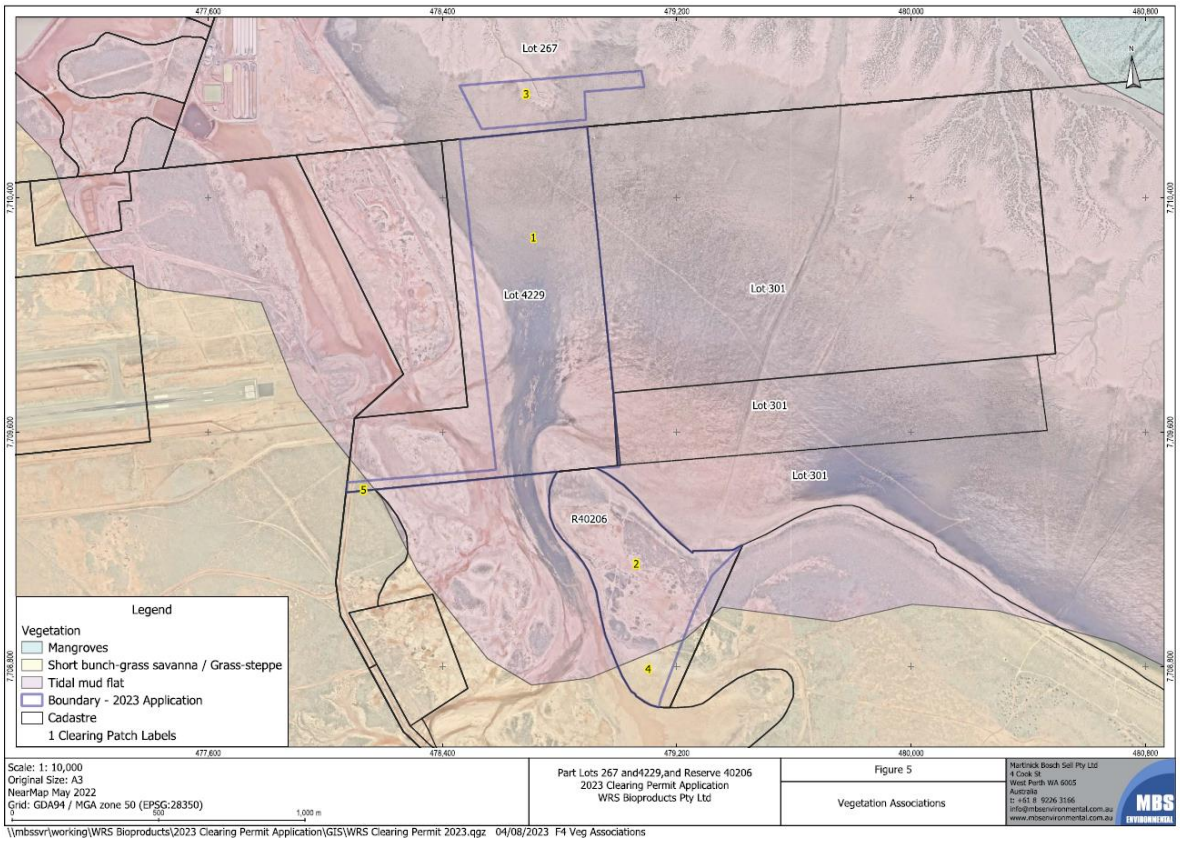

Figure 2: A map representing the vegetation mapping within the application area and its surroundings.

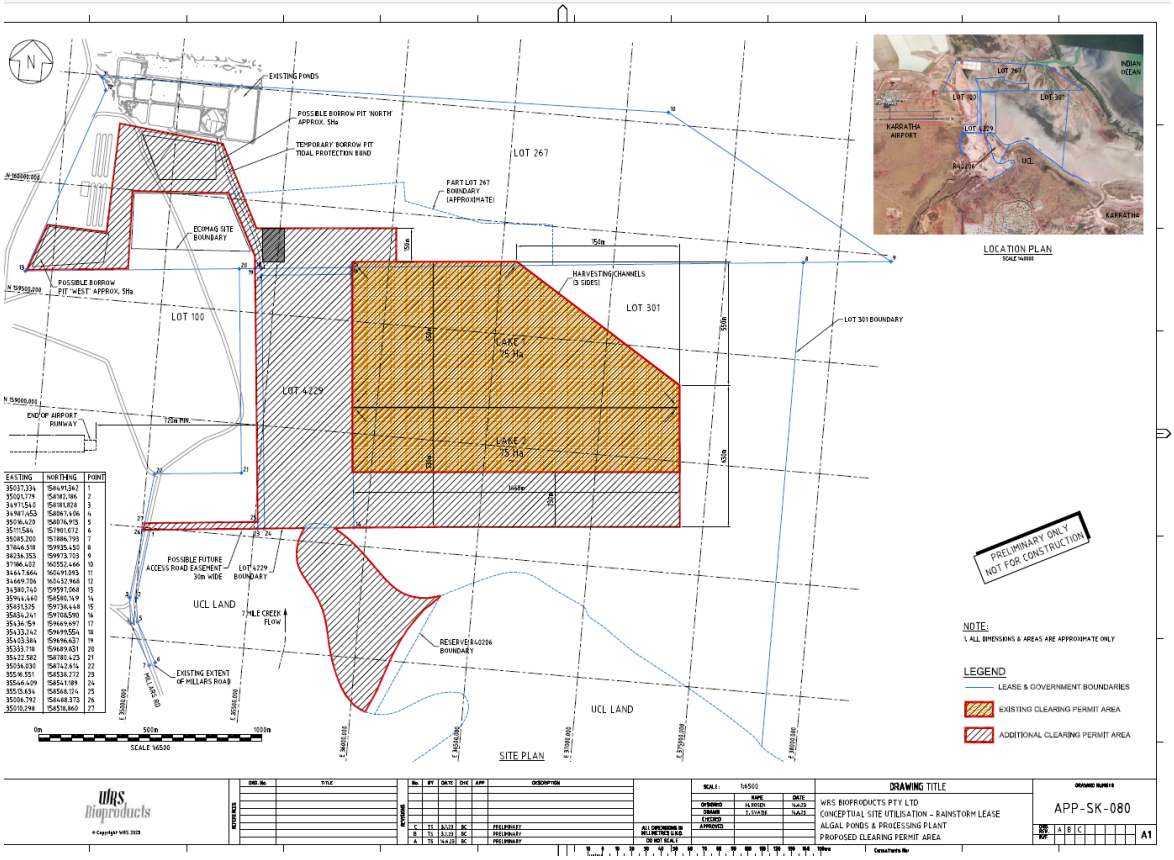

Figure 3: A map representing the extent of the proposed work.

Appendix H. Sources of information

H.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
- 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

H.2. References

City of Karratha (2023) Development approval for Lots 267 and 300 Gap Ridge, Karratha. Approved 28 November 2023. (DWER ref: DWERDT873176)

Department of Environment Regulation (DER) (2013). *A guide to the assessment of applications to clear native vegetation*. Perth. Available from: https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf.

Department of Primary Industries and Regional Development (DPIRD) (2019). *NRInfo Digital Mapping. Department of Primary Industries and Regional Development.* Government of Western Australia. URL: https://maps.agric.wa.gov.au/nrm-info/

Department of Water and Environmental Regulation (DWER) (2019). *Procedure: Native vegetation clearing permits*. Joondalup. Available from: https://dwer.wa.gov.au/sites/default/files/Procedure_Native_vegetation_clearing_permits_v1.PDF.

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