GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 9686/1

File Number: DWERVT9952

Duration of Permit: From 11 June 2024 to 11 June 2029.

PERMIT HOLDER

Forshaw Pastoral Company Pty Ltd

LAND ON WHICH CLEARING IS TO BE DONE

Lot 39 on Deposited Plan 238417, Eighty Mile Beach

AUTHORISED ACTIVITY

The permit holder must not clear more than 351.83 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

CONDITIONS

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

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

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

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

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

2. Weed 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;

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

3. Fauna management

The permit holder must:

(a) restrict clearing activities to day-light hours to avoid the possibility of injury to native fauna; and

(b) conduct clearing activities in a slow, progressive manner in a single direction towards adjacent native vegetation to allow native fauna to move into adjacent native vegetation ahead of the clearing activity.

4. Wind erosion management

The permit holder must ensure that the planting of crop species occurs no later than three (3) months after undertaking the clearing authorised under this permit.

5. Fauna management - pre clearance survey

(a) Within fourteen (14) days prior to undertaking any clearing authorised under this permit, the permit holder shall engage a *fauna specialist* to undertake clearance surveys using transects spaced at a maximum 100 metres on average within the areas cross-hatched yellow on Figure 1 of Schedule 1 for the northern brushtail possum (*Trichosurus vulpecula arnhemensis*), greater bilby (*Macrotis lagotis*) and mulgara (*Dasycercus cristicauda* or *Dasycercus blythi*), including the identification and inspection of burrow/s and/or tree hollow/s, and determination of whether burrow/s and/or tree hollow/s are being utilised.

(b) Where evidence of an active/potentially active burrow or tree hollow used by northern brushtail possum, greater bilby and/or mulgara is identified under condition 5(a) of this permit, the permit holder must:

(i) engage a *fauna specialist* to flag the location of the burrow/s and/or tree hollow/s;

(ii) not clear within ten metres of the flagged burrow/s and/or tree hollow/s;

(iii) engage a *fauna specialist* to monitor with cameras, the flagged burrow/s and/or tree hollow/s for a maximum of five days, or until such time that northern brushtail possum, greater bilby and/or mulgara have been observed to independently move on from the burrow/s and/or tree hollow/s; and

(iv) immediately prior to clearing, engage a *fauna specialist* to re-inspect any flagged burrow/s and/or tree hollow/s for the presence of northern brushtail possum, greater bilby and/or mulgara.

(c) If northern brushtail possum, greater bilby and/or mulgara are identified utilising any flagged burrow/s under condition 5(b)(iv) of this permit, the permit holder shall engage a *fauna specialist* to remove and relocate the identified northern brushtail possum, greater bilby and/or mulgara to an area of *suitable habitat*, in accordance with a section 40 authorisation under the *Biodiversity Conservation Act 2016*.

(d) where active/potentially active burrow or tree hollow are identified under condition 5(a) of this permit, and/or any northern brushtail possum, greater bilby and/or mulgara are relocated under condition 5(c) of this permit, the permit holder

must include the following in a report to be submitted to the *CEO* within two months of undertaking any clearing authorised under this permit:

(i) the location of any active burrow or tree hollow identified, using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings or decimal degrees;

(ii) a description of the camera monitoring measures undertaken under condition 5(b)(iii) of this permit;

(iii) the date and time the northern brushtail possum, greater bilby and/or mulgara are recorded as independently moving from a flagged burrow;

(iv) the location of any northern brushtail possum, greater bilby and/or mulgara, as referred to under condition 5(a) of this Permit, captured using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings or decimal degrees;

(v) the date, time, vegetation type and weather conditions at each location where northern brushtail possum, greater bilby and/or mulgara are captured under condition 5(c) of this permit;

(vi) the location of any northern brushtail possum, greater bilby and/or mulgara, identified in accordance with condition 5(a) of this permit, relocated using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings or decimal degrees;

(vii) the date, time, vegetation type and weather conditions at each location where northern brushtail possum, greater bilby and/or mulgara are relocated under condition 5(c) of this permit;

(viii) the name of the *fauna specialist* that relocated fauna under condition 5(c) of this permit; and

(ix) a copy of the fauna licence authorising the relocation of fauna under condition 5(c) of this permit.

6. 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 Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings;

No.	Relevant matter	Specifications
		(c) the date that the area was cleared; (d) the size of the area cleared (in hectares); (e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 1; (f) actions taken to minimise the risk of the introduction and spread of *weeds* in accordance with condition 2; and (g) actions taken in accordance with condition 3 and 4;
2.	In relation to fauna management pursuant to conditions 5.	(a) results of the pre-clearance surveys undertaken in accordance with condition 5 of this permit; and (h) a copy of the *fauna specialist's* report.

7. Reporting

The permit holder must provide to the *CEO* the records required under condition 6 of this permit when requested by the *CEO*.

DEFINITIONS

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

Table 2: Definitions

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*.
clearing	has the meaning given under section 3(1) of the EP Act.
condition	a condition to which this clearing permit is subject under section 51H of the EP Act.
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)
fauna specialist	means a person who holds a tertiary qualification specialising in environmental science or equivalent, and has a minimum of 2 years work experience in fauna identification and surveys of fauna native to the region being inspected or surveyed, or who is approved by the *CEO* as a suitable fauna specialist for the bioregion, and who holds a valid fauna licence issued under the *Biodiversity Conservation Act 2016*.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.

Term	Definition
suitable habitat	means habitat known to support the greater bilby, brush tailed mulgara and northern brush tailed possum within the known current distribution of the species.
weeds	means any plant – (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or (c) not indigenous to the area concerned.

END OF CONDITIONS

J Burton

Jessica Burton
A/MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

17 May 2024

SCHEDULE 1

The boundary of the area authorised to be cleared is shown in the map below.

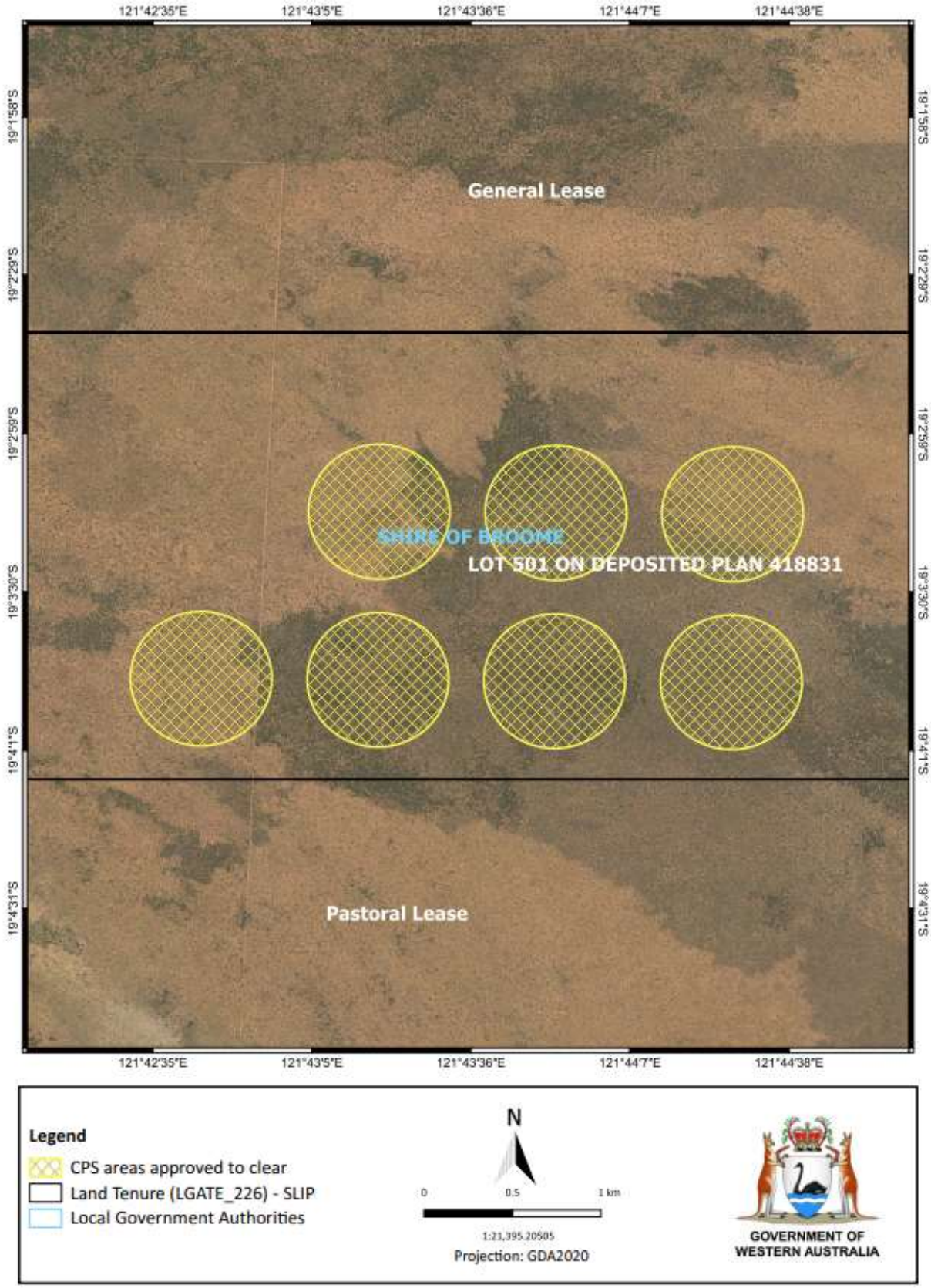

Figure 1: Map of the boundary of the area within which clearing may occur

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 9686/1
Permit type:	Area permit
Applicant name:	Forshaw Pastoral Company Pty Ltd
Application received:	6 April 2022
Application area:	351.83 hectares of native vegetation
Purpose of clearing:	Irrigation agriculture
Method of clearing:	Mechanical
Property:	Lot 39 on Deposited Plan 238417
Location (LGA area/s):	Shire of Broome
Localities (suburb/s):	Eighty Mile Beach

1.2. Description of clearing activities

The vegetation proposed to be cleared is required for pivot irrigation development on Nita Downs Station, approximately 200 kilometres southwest of Broome. The purpose of the development is to provide an alternative source of feed for cattle on the station. The development will comprise seven 50-hectare pivots (see Figure 1, Section 1.5).

The applicant advised that development has been identified through the La Grange project. The La Grange project was established in 2012 to investigate the opportunities for Irrigated Agricultural development in the La Grange region, south of Broome, Western Australia. The feasibility project involved researching soil, water, land tenure, markets, investment opportunities, cultural and environmental areas of significance and regional landholder aspirations. The state has made a considerable investment in identifying that the application area is highly suitable for irrigation and opportunity for economic development, providing potential income to the state and the region. Furthermore, the Shire of Broome area of the Kimberley is currently recognised as being in drought. This development will provide needed hay and fodder, alleviating pressures on the country as livestock potentially degrades poor land (from no rain) due to lack of feed in drought (Forshaw, 2024).

1.3. Decision on application

Decision:	Granted
Decision date:	17 May 2024
Decision area:	351.83 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 one submission was received. Consideration of matters raised in the public submission is summarised in Appendix A.

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix C), relevant datasets (see Appendix H.1), the findings of a biological surveys (see Appendix F), the clearing principles set out in Schedule 5 of the EP Act (see Appendix D), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). The Delegated Officer also took into consideration that the proposed clearing area has been identified through the State's La Grange project as highly suitable for irrigation and that the project will contribute to reducing the impact of drought on the operations of Nita Downs Station.

The assessment identified that the proposed clearing will result in:

- the loss of native vegetation that is suitable habitat for greater bilby (*Macrotis lagotis*), northern brushtail possum (*Trichosurus vulpecula arnhemensis*) and brush-tailed mulgara (*Dasycercus blythi*, P4),
- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values, and
- potential land degradation in the form of wind.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined that the following requirements will be conditioned on the clearing permit to manage and address the impacts of clearing:

- avoid, minimise to reduce the impacts and extent of clearing,
- take hygiene steps to minimise the risk of the introduction and spread of weeds,
- undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity,
- conducting a pre-clearance survey for the greater bilby, northern brushtail possum and the brush-tailed mulgara,
- relocate any greater bilby, mulgara and/or northern brushtail possum recorded during the pre-clearance survey,
- clearing restricted to daylight hours,
- undertake irrigation activities within three months of clearing to reduce the exposure time of bare sandy soils and minimise the risk of wind erosion.

The Delegated Officer determined that the proposed clearing is unlikely to lead to an unacceptable risk to the environment, noting that the above conditions will manage and address the environmental impacts of clearing.

1.5. Site map

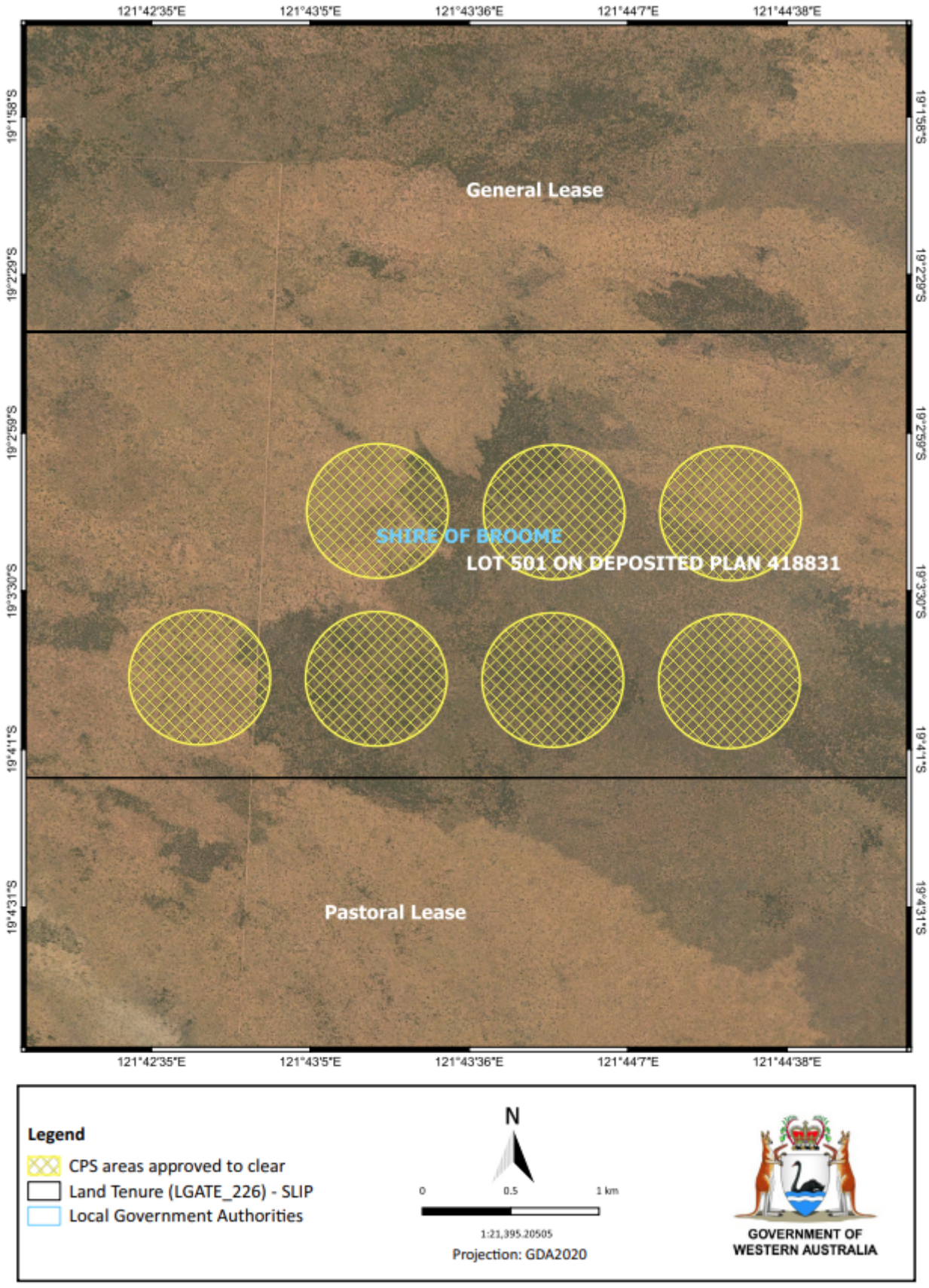

Figure 1 Map of the application area

The areas crosshatched yellow indicate the areas authorised to be cleared under the granted clearing permit.

2 Legislative context

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

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

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

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Biosecurity and Agriculture Management Act 2007*

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)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016)

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

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.

The applicant advised that the pivots have been designed with sufficient distance in between to allow vegetation to remain and provide nature corridors for wildlife (Forshaw, 2022).

Furthermore, the applicant advised that the location of the proposed clearing has been determined through the La Grange project. The La Grange project was established in 2012 to investigate the opportunities for Irrigated Agricultural development in the La Grange region, south of Broome, Western Australia. The project identified that the application area is highly suitable for irrigation and opportunity for economic development, providing potential income to the state and the region (Forshaw, 2024).

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 **Error! Reference source not found.**) identified that the impacts of the proposed clearing present a risk to biological values (fauna, adjacent flora and vegetation), 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 (flora and fauna) - Clearing Principles (a) and (b)

Assessment

The proposed clearing area is located within the Dampierland IBRA region of Western Australia. Biological surveys (Bamford, 2023; Emerge, 2023) undertaken for the project indicate the vegetation within the proposed clearing area consists of a tall *Acacia* spp. shrubland over hummock grassland *Triodia* spp. The vegetation was determined to be in Excellent (Trudgen, 1991) condition (Emerge, 2023).

Conservation significant flora

According to available databases, nine species of conservation significant flora occur within the local area (50 kilometers of the application area), none of which have been recorded previously within the application area. A likelihood of occurrence assessment of conservation significant flora within the local area was undertaken for the proposed clearing area. Noting the distribution and preferred habitat types, including soil and vegetation types

mapped over the application area, the likelihood analysis concluded that the application area may provide suitable habitat for four conservation significant flora species: *Bonamia oblongifolia* (P3), *Polymeria* sp. Broome (P3), *Tephrosia andrewsii* (P3) and *Tribulopis marliesiae* (P3) (see appendix C.C.2).

A targeted flora survey was undertaken in September 2023 across the application area. On review of the survey methodology in accordance with the technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016), the department determined that the targeted flora survey effort was insufficient to identify the occurrence of conservation significant flora within the proposed clearing area. Given this, advice was sought advice from the Department of Biodiversity Conservation and Attractions (DBCA) on the potential impacts on priority flora.

Advice received from DBCA noted that the survey effort (two person days 5-6 September, across a study area of 935 ha) is unlikely to be adequate, particularly noting that the traverse lines were spaced widely apart (approximately 200- 400m apart) for the targeted survey. However, DBCA concluded that even if the above-mentioned species were found to occur within the proposed clearing area, any resulting impact is unlikely to be significant to the conservation of these species (DBCA, 2024a). Reasons for this finding is outlined below.

***Bonamia oblongifolia* (P3)**

Bonamia oblongifolia is a herbaceous perennial found on sandy or gravelly soils. This species is known from seven records across the Dampierland IBRA region (WA Herbarium, 1998-). Advice sought from DBCA noted that the species is widespread across the La Grange area (DBCA, 2024a). Surveys carried out by DBCA staff in 2017 recorded *Bonamia oblongifolia* growing on deep sands in a wide range of pindan vegetation types, including the widespread *Acacia monticola* / *Acacia eriopoda* shrublands, sparse open Corymbia woodlands over Acacia shrubland and Triodia/Chrysopogon grasslands (DBCA, 2024a).

One record occurs within the local area, approximately 41 kilometres from the application area (Appendix C.C.2). The application area is considered to contain suitable habitat given the vegetation is described as tall Acacia spp. shrubland over hummock grassland of *Triodia* spp. (Emerge, 2023) and the area falls within the center of the species' known distribution. However, according to the advice received from DBCA, even if this species does occur within the proposed clearing area, any potential impact is unlikely to be significant at a local or regional extent (DBCA, 2024a).

***Polymeria* sp. Broome (P3)**

Polymeria sp. Broome is found to be widespread in Pindan habitats across the La Grange area, including on Nita Downs Station (DBCA, 2024a). DBCA has previously recorded this species growing on deep red soils on pindan sandplains, in a range of typical pindan vegetation communities that include open Corymbia woodlands over Acacia and Triodia / Chrysopogon grasslands and *A. monticola* / *A. eriopoda* shrublands. DBCA noted that the species appears to be restricted to the La Grange region and southern coastal part of the Dampier peninsula with its distribution coinciding with optimal areas for irrigated agriculture (DBCA, 2024a).

The application area is considered likely to provide suitable habitat for this species given the application area falls around the centre of the known distribution of this species, which has been previously recorded on Nita Downs station. One record occurs within the local area, approximately 41 kilometers from the application area. Advice received from DBCA noted that even if this species does occur within the proposed clearing footprint, any potential impact is unlikely to be significant (DBCA, 2024a).

***Tephrosia Andrew* (P3)**

Tephrosia andrewii is known from eight herbarium specimens from three locations across the Shire of Broome. According to advice received from DBCA, this species grows in open savanna woodland or shrublands on red pindan sandplain. It is known to recover well after mechanical disturbance and fire; it can be very abundant in recently burnt sites (3-5 years post burn) and can be found in high densities along road edges where plants resprout vigorously after grading (DBCA, 2024a).

According to available databases, four records of this species occur within the local area, with the closest being recorded 49.8 kilometres from the proposed clearing area (Appendix C.C.2). The application area is located within the centre of the current distribution of this species and contains suitable soil and vegetation types for this species to occur. DBCA's advice noted that the targeted flora surveys (Emerge, 2023) of the application area did not locate any records of *T. andrewii* despite it having previously been recorded in the area. However, DBCA concluded that even if this species does occur within the proposed clearing footprint, any potential impact is unlikely to be significant at the regional scale, or to the conservation of this species.

***Tribulopis marliesiae* (P3)**

Tribulopis marliesiae is a slender perennial herb known from nine herbarium specimens and five widely dispersed locations across the Dampierland and Great Sandy Desert IBRA regions (WA Herbarium, 1998-). The application area falls within the known distribution of this species. According to available databases, one record occurs within the local area, 17.5 kilometres from the proposed clearing area (Appendix C.C.2). The targeted flora survey recorded a single sterile specimen within the southern survey site, outside of the application area (Emerge 2023). Advice received form DBCA noted that given its wide distribution, even if this species does occur within the proposed clearing footprint, it is unlikely to be significant (DBCA, 2024a).

Conservation significant fauna

According to available databases, 53 conservation significant fauna species occur within the local area, including 47 bird species, four mammals and two reptiles (Appendix C). No records occur within the application area; the nearest record is a greater bilby, located approximately 3.38 kilometres from the application area. In determining the likelihood of conservation significant fauna occurring within the proposed clearing area, the department considered the results of the preferred habitat types, frequency and proximity of records to the application area (Appendix C.3).

A Level 1 fauna assessment was completed for the application area (Bamford, 2023) and an additional area 20 kilometres south. Taking into account the findings of the fauna survey and the likelihood assessment, the application area is considered to comprises suitable habitat for five conservation significant fauna species:

- Greater bilby (*Macrotis lagotis*, VU),
- Northern Brushtail Possum (*Trichosurus vulpecula arnhemensis*, VU),
- Dampierland plain slider (*Lerista separanda*, P2),
- Brush-tailed mulgara (*Dasycercus blythi*, P4), and
- Spectacled hare-wallaby (mainland) (*Lagorchestes conspicillatus leichardti*, P4).

Greater Bilby

This species is known from the Gibson and Great Sandy Desert bioregions, inhabiting open tussock grassland, mulga woodland/shrubland, and hummock grasslands on sand plains and dunes. The distribution of the greater bilby is highly fragmented in Western Australia (Commonwealth of Australia, 2019). According to available databases, 26 records of this species occur within the local area with the closest record 3.39 kilometres from the application area (Appendix C).

The presence of Bilbies is detected by evidence such as tracks, foraging holes and scats. During the fauna survey, evidence was found in the southern survey area approximately 20 kilometres south of the application area (Bamford, 2023). The evidence identified in the survey consisted of recent and old foraging holes, with some faint tracks and a few scats. While no evidence was recorded within the application area, it was identified as providing potential habitat for the Bilby (Bamford, 2023).

Surveys undertaken in support of the applicant's clearing permit CPS 8511, located two kilometres west of the application area recorded secondary evidence (inactive burrow and scat) of the Greater Bilby. Numerous diggings were found outside the application area in an open *Senna notabilis* shrubland.

While evidence of use by this species was not identified within the application area, it is considered likely to be a transient visitor given the proximity of known records, high mobility of the species and habitat suitability of the application area.

Northern Brushtail Possum

The northern brushtail possum is a nocturnal semi-arboreal marsupial. It occurs mainly in tall eucalypt open forests with large hollow-bearing trees, particularly where the understorey includes some shrubs that bear fleshy fruits. However, the subspecies is also known to occur in some mangrove communities, rainforests and some semi-urban areas. The species occurs discontinuously from the Gulf of Carpentaria hinterland near Borroloola, Northern Territory (TSSC, 2021).

According to available databases, no records of the northern brushtail possum occur within the local area, with the closest known record 129 kilometres north of the application area. However, the results of the fauna survey undertaken for the application area (Bamford, 2023) noted that the species has been recorded on the adjacent Shelamar Station, less than 5 kilometres form the application area, and therefore considered that it is likely to be

present in the application area on Nita Downs. The fauna survey identified scattered eucalypts which may provide hollows in which northern brushtail possums could shelter (Bamford, 2023). Given this it is considered that the application area may provide suitable habitat for the northern brushtail possum.

Dampierland plain slider

This small lizard is known to occur in sandy soils of the western Kimberley as far south as Nita Downs. According to available databases, this species is known from 37 records across the Dampierland, Northern Kimberley, Pilbara and Great Sandy Desert IBRA regions. One record occurs within the local area, located 32 kilometres from the application area (Appendix C).

Targeted searches were not undertaken for this species during the fauna survey. The Survey report noted that the current survey effort was not sufficient to conclude the absence of this species. Given the application area occurs within the species' known distribution and contains soil considered suitable for the species, on a precautionary basis it is considered that the species may be present within the application area (Bamford, 2023).

Brush-tailed mulgara

Brush-tailed mulgara inhabit a range of habitat types, but primarily occur in mature hummock grasslands of spinifex, especially *Triodia basedowii* and *Triodia pungens*. The occurrence of this species may be influenced by the presence of better watered areas such as paleo-drainage systems or drainage lines in sandplain/dune habitats. They are a nocturnal species, sheltering in burrows during the day (CALM, 2002). According to available databases, no records occur within the local raea, with the closest 135 kilometres south of the application area.

While no evidence of mulgara was recorded during the fauna survey, the species was considered likely but at a low density to occur on the adjacent Shelamar station (Bamford, 2023). The fauna survey noted that spinifex on sandy to sandy loam soils is typical habitat for the species, so it may be present at a very low density on Nita Downs (Bamford, 2023).

Spectacled Hare-wallaby

This species is known to inhabit open woodlands, shrublands and hummock grasslands, typically relying on dense tussocks to shelter in during the day. This species has a wide distribution across northern Western Australia, occurring from the Gascoyne IBRA region through to the Northern Kimberley IBRA region and as far east as the Tanami IBRA region. According to available databases, five records occur within the local area with the closest 5.37 kilometres from the application area. The application area occurs roughly within the centre of the species' known distribution.

No evidence of this species, such as tracks or scats, was recorded during the fauna survey (Bamford, 2023).The survey report noted that while the survey effort was not extensive enough to confirm the species' presence, if present it is likely to only be in small numbers due to the lack of large hummocks of unburnt spinifex (Bamford, 2023). Given this, and the large number of records of the species across a wide distribution, the impacts of the proposed clearing are not considered to be significant to the species.

Night parrot

The current distribution of the night parrot (*Pezoporus occidentalis*, CR) is not well known. Despite numerous unverified sightings, several dedicated searches and public campaigns there have been only two areas (western Queensland and the Pilbara in Western Australia) where reliable records indicate that populations may persist (DAWE, 2008).

According to current guidance, night parrots require two distinct habitats: patches of low, dense vegetation in which they roost during the day, and nearby floodplains or other low-lying areas supporting diverse assemblages of native grasses and herbs in which to feed at night. The roosting habitat is commonly large spinifex hummocks that form in the long absence of fire (DAWE, 2008).

The application area lies within the priority (but not high priority) survey area for the night parrot (DBCA, 2024b). Advice from DBCA was sought regarding the likelihood of the night parrot occurring within the application area and the necessity of fauna surveys to be undertaken. DBCA advised that while targeted surveys are only recommended, if the application area is determined to contain suitable habitat for the night parrot. DBCA noted that suitable habitat for this species is oldgrowth spinifex (*Triodia* spp.) for roosting and nesting, together with foraging habitats that are likely to include various native grasses and herbs (DBCA, 2024).

The fauna survey identified that the application area does not contain roosting nor foraging habitat, and therefore concluded that the likelihood of the species being present is very low. Given limited old growth Triodia was identified during the surveys (Bamford, 2023; Emerge, 2023), the application area is not considered to contain significant habitat for the night parrot. This species may however be a transient visitor to the application area as it move through the landscape.

Migratory birds

A number of records within the local area are associated with migratory bird species that may be transient visitors of the application area after rains. Habitat requirements for these species primarily consist of swamps, flooded areas and coastal wetland habitats. Given no wetland or creekline habitat was recorded during the biological surveys (Bamford, 2023; Emerge, 2023), habitat for these species is not considered to be present within the application area.

Ecological linkage

The area comprises *Acacia* spp. shrubland over hummock grassland *Triodia* spp. Noting the available native vegetation between each pivot (150-200 metres) and that there are extensive areas of native vegetation within the local area (which retains 99 per cent native vegetation cover), the proposed clearing is unlikely to have a significant impact on ecological linkage and dispersal values of the local area.

The proposed clearing is considered to have the potential to introduce and spread weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values.

Conclusion

There are no records of conservation significant flora or vegetation within the application area. Based on the above assessment, the proposed clearing is not likely to impact on conservation significant habitat for conservation significant flora.

While no conservation significant fauna species were recorded in the application area, suitable habitat for several conservation significant fauna species was identified within the application area. Noting the extent of proposed clearing (351.83 hectares) the proposed clearing may impact on suitable habitat for mulgara, northern brushtail possum and bilby. The habitat is not deemed to be significant for the survival of the species, however individuals may be present at the time of clearing. Pre-clearing surveys will mitigate any potential impacts to individuals that may be present at the time of clearing.

Given this, fauna management conditions, including pre-clearance surveys will be conditioned on the permit. In addition, the proposed clearing may impact on any fauna species utilising the application area at the time of clearing. To mitigate this, slow, directional clearing, restricted to day light hours, will be conditioned, to allow for dispersal of species into other areas of remnant vegetation.

The proposed clearing has the potential to facilitate the spread of weeds into the surrounding adjacent vegetation.

Conditions

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

- conduct pre-clearance surveys to identify greater bilby, mulgara and northern brushtail possum within the application area,
- relocate any greater bilby, mulgara and/or northern brushtail possum recorded during the pre-clearance survey,
- clearing restricted to daylight hours,
- slow directional clearing to allow fauna to move into adjacent vegetation ahead of the clearing activity,
- weed control and vegetation management.

3.2.2. Land and water resources - Clearing Principles (g) and (i)

Assessment

The application area is located within the Nita and Yeeda sandplain soil systems, given this and the large area proposed to be cleared, the risk of wind erosion occurring as a result of the proposed clearing is considered to be

moderate to high. To minimise the risk of wind erosion, the applicant will be required to plant the intended crops over the cleared areas within three months of the date of clearing, which will prevent prolonged exposure of bare sandy soils.

The proposed clearing area is located within the Canning-Kimberley Groundwater Area proclaimed under the *Rights in Water and Irrigation Act 1914* (RIWI Act). Advice received from the department's North West Planning team (DWER, 2022) advised that the proposed clearing and development may reduce freshwater inputs to wetlands associated with the Eighty Mile Beach system, the Maneri and Warrapa groundwater-dependent wetlands. Monitoring requirements associated with the take of water for each of these wetlands are outlined within the Groundwater Licence Operating Strategy (DWER, 2021) for both surface water and groundwater, together with a regional monitoring network to address potential impacts on this wetland system. The water licence assessment also identified the potential impacts of irrigated agriculture. As part of the groundwater licence, water quality monitoring is also required to detect salinity and nutrient change and a water quality management plan is in place if trigger levels are exceeded (DWER, 2022).

Conclusion

Based on the above, it is considered that the proposed clearing may increase the risk of wind erosion. The impacts on the quality of surface or underground water can be managed through monitoring requirements of the required licences under the RIWI Act.

Conditions

To minimise the risk of wind erosion, the applicant will be required to plant the intended crops over the cleared areas within three months of the date of clearing, which will prevent the prolonged exposure of bare sandy soils.

3.3. Relevant planning instruments and other matters

The Shire of Broome advised the department that local government approvals are not required, and that the proposed clearing is consistent with the Shire's Local Planning Scheme. The Shire did not have any objections to the proposed clearing (Shire of Broome, 2022).

The application area occurs within the Canning-Kimberley Groundwater Area proclaimed under the RIWI Act. In this area, a RIWI Act section 5C licence to take groundwater and a RIWI Act section 26D licence to construct or alter a well are required for any groundwater supply bores. The applicant holds an existing groundwater license over this site (GWL206322). Advice received from the department's water licencing team noted that the applicant's current groundwater licence under the RIWI Act was required to be amended from 250 Ha to 600 Ha (no change to take of water), to align with the clearing permit application (DWER, 2022).

The department is currently assessing the groundwater license associated with the proposed increase in groundwater uptake within Nita Downs Station under the RIWI Act and is in the process of issuing an amendment to the current licence for irrigation of 600ha of agriculture with a take of 6,000,000kL (DWER, 2024).

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. Details of public submissions

Summary of comments	Consideration of comment
Insufficient fauna surveys	At the request of the department, the applicant undertook targeted fauna surveys across the application area. This is discussed in Section 3.2.1 of the decision report.
Potential impacts to Night Parrot and lack of surveys	Advice received from DBCA noted that as the application area is outside of the medium- high priority survey area for this species, DBCA does not consider that there is sufficient evidence available to justify a targeted survey (DBCA, 2023). See Section 3.2.1 of the decision report.
Insufficient information regarding Cane toad management	Under the Biosecurity and Agriculture Management Act 2007, it is the landowner's responsibility to manage pests: *"The owner or other person in control, in an area for which an organism is a declared pest, of an organism or thing infected or infested with the declared pest must take the prescribed control measures to control the declared pest."*

Appendix C. Site characteristics

C.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 the department at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix D. The 'local area' is considered a fifty-kilometre radius of the application area.

Characteristic	Details
Local context	The area proposed to be cleared is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia. Spatial data indicates the local area (50-kilometre radius from the centre of the area proposed to be cleared) retains approximately 99 per cent of the original native vegetation cover.
Ecological linkage	The application area is not mapped within any formal ecological linkages and is not considered likely to form part of any informal linkage due to the extent of remnant vegetation remaining in the local area.
Conservation areas	No conservation reserves occur within the local area.
Vegetation description	Biological surveys (Bamford, 2023; Emerge, 2023) indicate the vegetation within the proposed clearing area consists of a tall *Acacia* spp. shrubland over hummock grassland *Triodia* spp. Representative photos and survey descriptions and maps are available in Appendix F. This is consistent with the broad vegetation association mapped over the application area: • Beard vegetation association 699, which is described as Acacia thicket with scattered low trees over spinifex *Acacia eriopoda, Corymbia dichromophloia, Triodia pungens, T. bitextura* The mapped vegetation type retains approximately 99.93 per cent of the original extent (Government of Western Australia, 2019).
Vegetation condition	Biological survey (Bamford, 2023; Emerge, 2023) indicate the vegetation within the proposed clearing area is in Excellent (Trudgen, 1991) condition. The full Trudgen (1991) condition rating scale is provided in Appendix E. Representative photos and survey descriptions are available in Appendix F.

Characteristic	Details
Climate and landform	The Broome area has a tropical climate and is characterised by hot wet summers (December to March) and a dry season (April to November). Rainfall is generally received during the summer via unpredictable tropical downpours and cyclonic low pressure systems.
Soil description	Two soil types are mapped across the application area: • 117Ye - Yeeda System: Red sandplains supporting pindan vegetation with dense acacia shrubs, scattered bloodwood and grey box trees and curly spinifex and ribbon grass. • 117Nt – Nita System: Sandplains supporting shrubby spinifex grasslands with occasional trees.
Land degradation risk	The area has a high risk of phosphorous loss through leaching (CSLC, 2023). Given the sandy nature of the soils, the proposed clearing has a moderate risk of wind erosion.
Waterbodies and Hydrogeography	The desktop assessment and aerial imagery indicated that no watercourses transect the area proposed to be cleared. The proposed clearing site is within the Canning-Kimberley Groundwater Area proclaimed under the *Rights in Water and Irrigation Act 1914* (RIWI Act).
Flora	According to available databases, nine flora records occur in local area. The nearest record is *Atriplex eremitis*(P3) recorded 7.48 kilometres from the application area.
Ecological communities	The closest TEC/PEC is Kimberley Vegetation Association 37 (Priority 3) located 9.4 kilometres north west of the application area.
Fauna	According to available databases 53 fauna records in the local area, including 47 bird species, 4 mammals and 2 reptiles. The nearest record is a Bilby, located 3.38 kilometres from the application area.

C.2. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix H.1), and biological survey information, 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]
Bonamia oblongifolia	3	Y	N	Y	41.1	1	Y
Polymeria sp. Broome (K.F. Kenneally 9759)	3	Y	N	Y	41.1	1	Y
Tephrosia andrewii	3	Y	Y	Y	49.8	4	Y
Tribulopis marliesiae	3	Y	Y	Y	17.5	1	Y

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

C.3. Fauna analysis table

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

Species name	Conservation status	Class	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Macrotis lagotis (Bilby)	VU	Mammal	Y	3.39	26	Y

Species name	Conservation status	Class	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Lagorchestes conspicillatus leichardti (spectacled hare-wallaby (mainland)	P4	Mammal	Y	5.37	5	Y
Numenius madagascariensis (eastern curlew)	CR	Bird	Y	20.25	27	Y
Lerista separanda (Dampierland plain slider)	P2	Reptile	Y	32.32	1	Y
Limosa lapponica menzbieri (Bar-tailed godwit (northern Siberian)	CR	Bird	N	33.95	1	Y

Appendix D. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): *"Native vegetation should not be cleared if it comprises a high level of biodiversity."* Assessment: The area proposed to be cleared contains suitable habitat for conservation significant fauna, however, it is not considered to contain locally or regionally significant flora, fauna, habitats, or assemblages of plants.	Not likely to be at variance	Yes *Refer to Section 3.2.1, above.*
Principle (b): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."* Assessment: The area proposed to be cleared is considered to contain habitat for conservation significant fauna, however the habitat is not considered to contain critical foraging, roosting, breeding habitat.	May be at variance	Yes *Refer to Section 3.2.1, above.*
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: No Threatened flora were recorded within 50 kilometres from the application area and no Threatened flora were recorded during the targeted flora survey. Given this, the area proposed to be cleared is considered unlikely to contain threatened flora or habitat necessary for the continued existence of, Threatened flora.	Not likely to be at variance	No
Principle (d): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community."* Assessment: The area proposed to be cleared does not contain species that represent a threatened ecological community.	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation areas		

Assessment against the clearing principles	Variance level	Is further consideration required?
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 type and 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	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 nearby conservation areas.	Not at variance	No
Environmental value: land and water resources		
Principle (f): *"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."* Assessment: Given no water courses or wetlands are recorded within nine kilometres of the application area, and no riparian vegetation was recorded within the application area (Emerge, 2023), the proposed clearing is unlikely to impact on- or off-site hydrology and water quality.	Not likely to be at variance	No
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The application area is located within the Yeeda and Nita soil system. These soil systems are mapped as having a moderate risk of wind erosion and a high risk of phosphorous loss through leaching.	Not likely to be at variance	Yes *Refer to Section 3.2.2, above.*
Principle (i): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."* Assessment: The proposed clearing area is located within the Canning-Kimberley Groundwater Area proclaimed under the RIWI Act. Advice received from the department's North West Planning team advised that the proposed clearing and development may reduce freshwater inputs to wetlands associated with the Eighty Mile Beach system, the Maneri and Warrapa groundwater-dependent wetlands.	May be at variance	Yes *Refer to Section 3.2.2, above.*
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment: The proposed clearing may increase the risk of localised flooding following periods of heavy rainfall, which is commonly experienced by the region. However, the impacts are considered likely to be short term and are not likely to have a significant environmental impact, particularly given that portions of remnant vegetation would remain between the proposed pivot areas.	Not likely to be at variance	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 / photographs of the vegetation (Bamford, 2023; Emerge 2023)

Figure 2. Representative photo of the vegetation (Bamford, 2023)

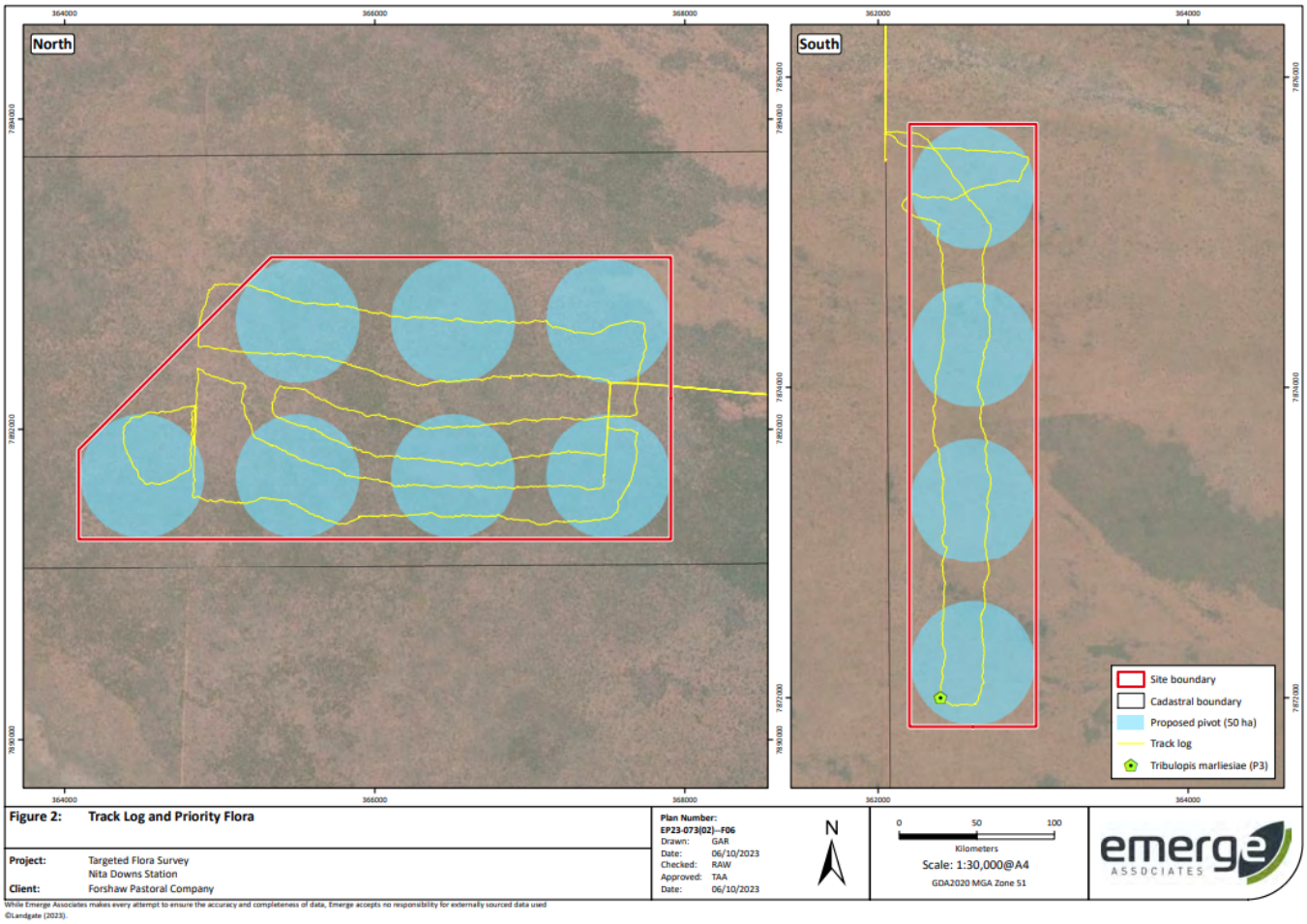

Figure 3. Track log and priority flora (Emerge, 2023)

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)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)

- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems
- Wheatbelt Wetlands Stage 1 (DBCA-021)

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

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