Greater Meridian Project – Ecological Scouting and Reporting

Waddington Park – DR098

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Approval for Issue

Name	Position	Date
Mark Barnett	**Technical Director**	**07.04.2026**

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Acronyms, Abbreviations & Definitions

ALA	Atlas of Living Australia
AHT	Ancillary Habitat Tree
Biosecurity Act	(Queensland) *Biosecurity Act 2014*
BoM	Bureau of Meteorology
CROW	Construction Right of Way
DCCEEW	The Department of Climate Change, Energy, the Environment and Water
DES	Former Department of Environment and Science
DESI	Former Department of Environment, Science and Innovation
DETSI	Department of Environment, Tourism, Science and Innovation
DTMR	Department of Transport and Main Roads
EA	Environmental Authority
EA Act	*Environmental offsets Act 2014* (Queensland)
EP Act	*Environmental Protection Act 1994* (Queensland)
EDL	Ecologically Dominant Layer
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth)
ESA	Environmentally Sensitive Area
ESR	Ecological Survey Report
EVNT	Plant species listed as Endangered, Vulnerable or Near Threatened in the *Nature Conservation (Wildlife) Regulation 2006*
GIS	Geographic Information System
GPS	Global Positioning System
Ha	Hectare
HBA	Hansen Botanical Assessments
Km	Kilometre
LIKT	Locally Important Koala Tree
MLES	Matters of Local Environmental Significance
MNES	Matters of National Environmental Significance as defined under the *Environmental Offsets Act 2014* and *Environment Protection and Biodiversity Conservation Act 1999*
MSES	Matters of State Environmental Significance as defined under the *Environmental Offsets Act 2014*

MTL	Main Trunk Line
NC Act	*Nature Conservation Act 1992* (Queensland)
PMST	Protected Matters Search Tool
Site	The Site encompasses the Project footprint and immediately adjacent areas
QEOP	Queensland Environmental Offsets Policy 2024
RE	Regional Ecosystem
Sketch Area	The sketch area is the portions of DR098 at Waddington Park that were investigated at a desktop level and on site during the surveys.
SRI	Significant Residual Impact
TEC	Threatened Ecological Community
WoNS	Weeds of National Significance
WP	Well Pad

1. Introduction

1.1 Background

WestSide Corporation Pty Ltd (**WestSide**) are in the process of developing and operating gas fields in Greater Meridian, in central southern Queensland, in the vicinity of the township of Moura. As part of the development of wells, access and gathering lines for gas production, a number of investigations are required to; ensure compliance with existing permits and approvals, develop comprehensive land access agreements, refine and finalise design, engineering and construction components and apply for any additional or new permits and approvals.

28 South Environmental Pty Ltd (**28 South**) has been engaged to undertake specialist ecological investigations and prepare an Ecological Survey Report (**ESR**) to assist WestSide in developing the gas project; capturing relevant ecological constraints, refining layout of conceptual infrastructure components and demonstrating compliance with their existing Environmental Authorities (**EAs**) as well as Queensland and Commonwealth biodiversity legislation. The proposed development (**the Project**), located at Waddington Park (**the Site**), being investigated as part of this assessment involves the following components:

- DR098 well pad, each within a fenced well lease that encompasses a maximum area of 100 m x 150 m
- access routes
- gathering infrastructure (gas, water and electrical).

The EAs and legislation relevant to this assessment are outlined in Section **1.2**. The location of the Site is described in Section **1.3**.

1.1.1 Project Reports

WestSide within its existing petroleum lease (PL94) and existing EA (EPPG00783713) is looking to construct, operate and rehabilitate several gas production well-heads and ancillary linear infrastructure. Ecological surveys undertaken to-date have been conducted to inform the suitable locations for this infrastructure. This report, however, only focus on DR098 well-pad and associated infrastructure proposed at Waddington Park Site.

This report presents the findings of the specialist ecological investigations undertaken at Waddington Park in March 2026.

1.2 Relevant Legislation

In development of the Greater Meridian gas fields, WestSide are required by Queensland and Australian Governments to operate under a number of permits and approvals. The following sections outline the biodiversity legislation relevant to the Project and stipulated in the relevant EA (EPPG00783713). This assessment considers the matters protected under biodiversity legislation, and how the Project impacts these matters and complies with relevant legislation and statutory instruments.

1.2.1 Environment Protection and Biodiversity Conservation Act 1999 (Cth)

The *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) is the national environmental legislation that provides the framework to protect and manage Australia's unique plants, animals, communities, habitats and places, known as matters of national environmental significance (**MNES**). Significant impact to MNES requires approval under the EPBC Act. The MNES protected under the Act, includes:

- world heritage areas
- national heritage places

- wetlands of internal importance (listed under the Ramsar Convention)
- listed threatened species and ecological communities
- listed migratory species (protected under international agreements)
- Commonwealth marine areas
- Great Barrier Reef Marine Park
- nuclear actions (including uranium mines)
- water resources (that relate to coal seam gas development and large coal mining development).

The EPBC Act framework includes the provision of offsets to compensate for significant residual adverse impacts on MNES as a result of an action.

1.2.2 Environmental Protection Act 1994 (Qld)

The *Environmental Protection Act 1994* (Qld) (**EP Act**) lists obligations and offences to prevent environmental harm, nuisances and contamination. The Act establishes a list of industrial activities called environmentally relevant activities that must have development approval of an EA under the EP Act.

The EP Act also identifies categories of environmentally sensitive areas (**ESAs**), e.g. endangered and of concern vegetation[1], that must be considered when applying for development approval or an EA.

Environmental Authority

One EA (EPPG00783713) is relevant to the Project being investigated. Schedule F of the EA lists the approval conditions for protecting biodiversity values. The Project is required to be undertaken in compliance with these conditions. Conditions relate to understanding the biodiversity values that may be impacted by the Project; implementing the hierarchy of environmental management by avoiding disturbance; minimising and mitigating potential impacts to biodiversity values; restricting the types of activities which can be undertaken in areas of higher biodiversity value; and, ensuring the development does not result in a significant residual impact (**SRI**) to biodiversity values prescribed under Queensland legislation.

1.2.3 Nature Conservation Act 1992 (Qld)

The Queensland *Nature Conservation Act 1992* (Qld) (NC Act) provides for the creation and management of protected areas, and protection of native wildlife and threatened species, world heritage areas, nature refuges and conservation agreements in Queensland. Under the NC Act, permits and licences are required to take, kill, injure or trap protected wildlife or breeding places, including plants, access or undertake activities within or near protected areas. Protected wildlife is nominated a category of threat under the NC Act, including Extinct in the wild, critically endangered, endangered, vulnerable, hear threatened special least concern and least concern.

1.2.4 Environmental Offsets Act 2014 (Qld)

The environmental offsets framework in Queensland is underpinned by the *Environmental Offsets Act 2014* (Qld) (**EO Act**) and includes the *Queensland Environmental Offsets Policy* (Qld) (**QEOP**) (DESI, 2024), and *Significant Residual Impact Guidelines* (SRI Guideline) (DEHP, 2014).

The mitigation hierarchy of 'avoid – mitigate – offset' applies to the process of assessment and offsetting of impacts under the EO Act, and the EO Act is applied when it has been identified that an offset is required for a prescribed activity that has a significant residual impact on a prescribed environmental matter. A prescribed environmental

[1] Biodiversity Status under the EP Act

matter includes MNES, matters of state environmental significance (**MSES**) and matters of local environmental significance (**MLES**).

Prescribed MSES under the EO Act includes:

- regulated vegetation, including regulated watercourse vegetation and regulated wetland vegetation
- connectivity areas – comprising remnant areas
- wetlands and watercourses
- designated precincts in strategic environmental areas
- protected wildlife habitat – including flora and fauna and essential habitat
- highly protected zones of State marine parks
- fish habitat areas
- waterways providing for fish passage
- marine plants
- legally secured offset areas.
- The likelihood that an activity has a significant residual impact on the MSES listed above, is required to be assessed against the SRI Guideline.

1.2.5 Biosecurity Act 2014 (Qld)

The *Biosecurity Act 2014* (Qld) (Biosecurity Act) legislates the management of pest flora and fauna, diseases and environmental contaminants in Queensland to protect the agricultural sector, economy, environment and community from biosecurity risks. The Act requires a general biosecurity obligation by everyone to ensure that pests, diseases and contaminants are not spread. Under the Act, a number of pest plants and animals are recognised as presenting a particular agricultural or environmental risk and are specifically listed as prohibited or restricted matters under the Act, each requiring specific actions relating to reporting, containing, controlling, reducing and minimising the relevant biosecurity risk.

In relation to the Project, actions must not be taken that are reasonably likely to exacerbate the biosecurity threat posed by prohibited species and all sightings of prohibited species are to be reported to Biosecurity Queensland within 24 hours under the Act. All reasonable and practical measures must be taken to minimise the biosecurity risks associated with restricted species, as a general biosecurity obligation under the Act.

1.3 Project Context

The Project area within the Site comprises of 10.63 ha. The Site is contained within the lease area within the Petroleum Lease PL94. The Site comprises of three lots, details for each summarised in **Table 1** and presented in **Inset 1**. Site Context is mapped in **Figure 1**

The Site is in a rural, largely cleared area between the Dawson River and the Dawson Mine, south of the township of Moura. Land use in the region has typically been for coal mining, gas exploration and production, and cattle grazing and cropping (including irrigated cropping), particularly along the alluvial plains of the Dawson River and its tributaries.

Table 1: Lots and Registered Plans at Waddington Park (the Site)

Property Name	Relevant Lot and RPs	Lot Area (Ha)

Waddington Park	Lot 20 DW91	330.22
	Lot 21 DW91	496.55
	Lot 22 DW91	517.99

Inset 1: Relevant Lot and Plans within Waddington Park Site

2. Scope

The purpose of this assessment is to summarise the findings of the March 2026 ecological scouting survey undertaken at the Site to verify the findings of the desktop review and inform and refine the siting of the Project.

Scope of March 2026 surveys involved surveys to help refine the Project impact areas and avoid mapped/identified environmental values as far as practicable. The outcomes of these surveys have been used to identify environmental constraints within the Site and to inform iterative design refinements aimed at avoiding or minimising impacts on identified environmental values.

Previously scouting surveys done on the Site (undertaken in 2024, and 2025) have assisted with identification and finalisation of suitable Investigation Areas across the Site, in which the drilling of wells is to occur. Additional to the Investigation Areas, nominal alignments have been identified for construction access and gathering infrastructure.

The assessment of ecological constraints involved:

- a desktop assessment of ecological constraints across the three properties, with particular focus on the Investigation Areas and linear infrastructure alignments
- a multi-disciplinary constraints survey to field-validate ecological values (also known as a scout) and refine the Project 'sketch' or footprint in consideration of the following key ecological constraints:
    - regional ecosystems (**REs**) and habitats
    - identify the presence or potential for MNES
    - identify the presence or potential for MSES
    - identify and map exotic weeds and pests
    - confirm the presence and buffers of the ESAs.
- presenting a refined Site that results in the least impact to ecological values considering all site-based constraints, i.e. ecological values (identified and mapped during the field survey), landowner requirements, other infrastructure, engineering and safety requirements
- describing and illustrating (through Geographical Information Systems (**GIS**) analysis) the field-validated ecological values and constraints within and adjacent to the final Site
- providing recommendations about avoiding and minimising impacts to ecological values further, as part of construction and operation of the Project
- assessing the significance of residual impacts to MNES and MSES that could not be avoided in the design phase
- summary and conclusions about how the proposed Project meet the requirements of the relevant state and Commonwealth biodiversity legislation, required in EA conditions.

Environmental constraints are one of several factors that WestSide will consider during the construction of the investigation, extraction, and gathering infrastructure across the Site.

3. Methods

The following methodology was used to assess and map the ecological values for specific areas of potential development interest within the broader Site, hereafter referred to as 'sketch' areas. This assessment commenced with an initial proposed Project sketch of well pads, access, water and gathering lines prepared by WestSide that met a series of desktop and engineering constraints. The field method applied to this assessment aimed to refine the sketch areas within the Site, where necessary and possible, in response to identified on-ground ecological constraints and other on-ground physical, engineering and safety constraints.

3.1 Desktop Assessment

Several database searches and mapping tools were used to identify potential ecological values in the vicinity of the sketch areas within the Site for further investigation in the field. Database searches were conducted using a 20 km buffer around the properties on which the Project is proposed and included:

- EPBC Act Protected Matters Search Tool (PMST) (DCCEEW, 2025a) (refer Attachment 1)
- Wildlife Online (WildNet database) (DETSI, 2025c) (refer Attachment 1)
- Atlas of Living Australia (ALA) spatial portal (Belbin, 2011)
- Matters of state environmental significance – Queensland Series (DETSI, 2025c)
- Vegetation management regional ecosystem map, Version 13 (Department of Resources, 2025b)
- Essential habitat mapping, Version 12.04 (Department of Resources, 2025a)
- Vegetation management wetlands map, Version 9.06 (DETSI, 2025b)
- Vegetation management watercourse and drainage feature map – Queensland except South-east Queensland, Version 6.00 (Department of Resources, 2023)
- Protected Plants Flora Survey Trigger Map – Version 10.0 (DETSI, 2025e) (refer Attachment 1)
- Maps of environmentally sensitive areas – non-mining resources activities (DETSI, 2025d).

3.1.1 Likelihood of Occurrence Assessment

A high-level assessment of the likelihood for MNES, MSES[2] and ESAs to occur in the sketch area has been undertaken based on available information, including preferred habitat characteristics; known contemporary species distribution and records; regional vegetation mapping; Queensland and Australian Government criteria; and information about vegetation, habitats and underlying soils and geology collected in the field during the ecological survey.

More specifically, in assessing the presence or likely presence of EPBC Act listed Threatened Ecological Communities (**TECs**), the key diagnostic criteria and condition thresholds published by the Commonwealth Department of Climate Change, Energy, the Environment and Water (**DCCEEW**) for the relevant TEC, were used. Vegetation communities in or near the sketch areas within the Site were surveyed in the field, using a series of ecological condition parameters and compared against the relevant criteria.

When assessing the likelihood for threatened, migratory or otherwise significant flora and fauna (including near threatened and special least concern) to occur in the Site, the following attributes were considered:

[2] MLES are not specifically defined for the Banana Shire Council area. Planning scheme biodiversity overlays depict mapping of wetlands, waterways and regulated vegetation drawn from Queensland Government mapping that correlates with MSES.

- published information about the species habitat, distribution and resource requirements
- distribution of published (publicly available) records
- results of field surveys, including identifications, presence and quality of habitat
- extent and availability of connective habitats within the local (i.e. within 5 km) and regional (i.e. within 20 km) area surrounding the Site.

Table 2 provides the criteria used to assess likelihood of threatened migratory and significant species to occur in within Site locality.

Table 2: Likelihood of occurrence assessment criteria for significant flora and fauna

Likelihood	Criteria for occurrence
Present	The species is known to occur and use habitats within the Site, i.e. it was detected as part of the current ecological survey or has previously been recorded in the Site. This does not necessarily include species that were recorded overflying the Site.
Possible	The species was not recorded in the Site during the ecological survey. There are records of the species in the region, there is sufficient connectivity between records and the Site, and potentially suitable habitat of sufficient quality is present within the Site.
Unlikely	The species was not recorded in the Site during the ecological survey. The presence of the species is unlikely because; the Site is beyond the current known distribution of the species, and/or there are no recent records in the region, and/or suitable habitats (i.e. preferred vegetation, underlying geology, soils, landform, other micro-habitat features or key food/prey resources) are either absent or of low quality. While the species may occur within or near the Site at some point in the future, its presence is likely to be transient.

3.2 Field Survey

A key objective of the field surveys undertaken to date was to refine the proposed impact areas while undertaking the ecological survey, using an initial proposed sketch area prepared by WestSide. The original sketch areas that were investigated as part of this assessment are larger than the Site and impacts presented in this report.

As such the methods described in this section addressed a larger area of interest that was refined in response to the results of this assessment. The survey sites are illustrated in **Attachment 2.** The following sections describe the survey effort undertaken to capture the ecological constraint data and refine the Site to avoid and minimise ecological values identified in the Site, as far as practical. The results and impacts presented in Sections 4 and **0** have been tailored to the final Site within the Site.

3.2.1 Suitably Qualified Ecologist

Ecology surveys for the Project was undertaken by specialist principal ecologist Chris Hansen of Hansen Botanical Assessments who was accompanied by a WestSide Project Engineer (and other disciplines such as but not limited to cultural heritage, construction, surveying and land access). Chris Hansen is a suitably qualified person with the required knowledge and experience to develop and perform the field methods conducted for this assessment as outlined in **Table 3**.

Table 3: Details of suitably qualified person

Name	Title	Organisation	Qualifications	Years of Experience in the relevant field
Chris Hansen	Principal Consultant (Botany)	HBA	B. Sc (Honours) B. BioMedSc	23 years

3.2.2 Survey Conditions

The region in which the Site is located is characterised by generally mild weather conditions, with a mean annual rainfall of 655.1 mm (according to the Thangool Airport Weather Station 039089) and temperatures ranging from mean lows of 13.3°C during winter to mean highs of 29.2°C during summer months (recorded Thangool Airport Weather Station 039089) (Bureau of Meteorology, 2025).

3.2.3 Vegetation and Flora Assessment

The following vegetation survey sites were conducted over the survey period to validate the extent and condition of vegetation communities in the sketch areas, identify the presence of TECs through collection of specific condition data, and identify the presence or potential habitat for threatened plants.

The vegetation and flora survey was conducted in accordance with the Queensland Government's *Methodology for surveying and mapping regional ecosystems and vegetation communities in Queensland, Version 7.0* (Methodology for Surveying and Mapping) (Neldner et al., 2023). The sketch areas were traversed on foot during which a series of vegetation survey sites were conducted and ecological attributes recorded, including:

- vegetation survey site data
- the remnant status of vegetation (confirmed by comparing the existing predominant canopy with the undisturbed predominant canopy, wherein the predominant canopy is defined within the Methodology for Surveying and Mapping as the ecologically dominant layer (**EDL**), which is the layer that contains the greatest amount of above-ground vegetation biomass)
- protected plant locations and populations
- significant landscape features and feature trees.

3.2.3.1 Vegetation Survey Sites

A total of 5 quaternary survey sites were stratified within along the Site based on review of Queensland Government RE mapping, on-ground observations and conditions, and access constraints.

Photo points were captured, whereby a particular ecological value (such as a large tree), constraint or other notable feature was recorded and a series of photos taken. The location of these survey sites is shown in **Figure 2** and the floristic, structural and abundance information collected for each type of site is described below and provided in **Attachment 2**. Photo points that were collected in or near these sketch areas during these survey efforts were also referenced.

The following attributes were recorded at each tertiary site:

- date and precise location (using a hand-held geographic positioning system (GPS)
- soils, slope, aspect and landform observations
- ground-layer, mid-stratum and canopy species composition and abundance

- structural characteristics of all layers (i.e. height range, median height, cover intercept)
- basal area of vegetation
- condition and evidence of disturbance of existing vegetation (including notes on weed, fire, grazing, and historical clearing)
- photographs of the community (north, east, south, west aspects, groundcover and soils).

The following attributes were recorded at each quaternary site:

- precise location (using a hand-held GPS)
- ground-cover, mid-stratum and canopy species composition and abundance
- structural characteristics of the EDL
- condition and evidence of disturbance
- photographs of the community (generally north, east, south, west aspects, groundcover and soils).

Photo points involved collection of the following site information:

- precise location (using a hand-held GPS)
- a description of the vegetation community, habitat values or feature of interest
- photographs of the vegetation community, habitat values or feature of interest.

The vegetation community data collected at each site was compared with Queensland Government RE mapping and regional geology mapping to confirm the RE present in the field.

Field data was collected using a GPS with a positional accuracy of 2 to 5 m and map datum WGS 84 in Zone 56J applies to all positional data. Vegetation boundaries were mapped through a combination of walking the edge of relevant vegetation in the field and review of aerial photography.

3.2.3.2 Protected Plant Survey

Survey for protected plants, including threatened and near threatened plants, was undertaken in consideration of the Queensland Government *Flora Survey Guidelines – Protected Plants* (Flora Survey Guidelines) (DETSI, 2025a). Areas of suitable habitat were searched in their entirety using a combination of the 'random meander' technique (Cropper, 1993) and the 'educated walk' technique (Garrard et al., 2008). Both methods are referenced in the Flora Survey Guidelines as recognised survey methods. All flora species encountered during these surveys were recorded and the Site was thoroughly traversed on foot as part of the flora survey methods. Direct counts of smaller populations were undertaken, and population estimates were recorded for larger or excessively dense populations.

3.2.4 Habitat and Fauna Assessment

A detailed fauna survey was not undertaken as part of this assessment and instead potential fauna habitat has been considered in relation to the Project. The fauna habitat assessment focussed on threatened, migratory and otherwise significant fauna and was based on a combination of desktop information, including nearby and recent records, field-validated vegetation and on-site habitat observations, identification and mapping of specific habitat and micro-habitat features (e.g. gilgai, hollow-bearing limbs/trees etc.) and the experience of the specialist ecologists involved in the preparation of this assessment. Specific habitat features observed within or near the Site were recorded.

The types of notable fauna habitat feature recorded, where present, included:

- evidence of fauna, including nests, scratches, tracks, diggings, and/or scats
- large tracts or corridors of forested habitats providing connectivity of habitats
- waterways, wetlands or soaks providing habitat and prey habitat
- hollows, stags, and decorticating bark that may provide roosting and nesting habitat
- soils, particularly the availability of cracking clay soils and gilgai (or 'melon-holes') to provide refuge, foraging, and/or breeding habitat
- particularly good examples of large or old landscape trees that provide refuge and fecundity
- dense leaf litter, fallen timber, or rocky outcrops providing shelter and refuge habitats.

Desktop information and field data were combined to inform an assessment of the likelihood of threatened, migratory, and significant fauna to occur in the vicinity of the Site, as described in Section **3.1.1**.

3.2.5 Exotic Flora and Pest Species

Weed and pest species were recorded during the ecology survey and focussed on prohibited or restricted matters under Queensland's *Biosecurity Act* and Weeds of National Significance (WoNS), identified as being significant due to their invasiveness, potential for spread, and environmental, social and economic impacts at a national level. Point records were taken for small or individual occurrences and polygons mapped where infestations were observed within the Site.

3.2.6 Survey Limitations

The timing of the ecological survey was optimal for the detection of most threatened and significant flora species that potentially occur in the region as well as grasses and herbaceous graminoids, given the preceding above average wet season experienced in the region and warm diurnal and nocturnal temperatures (refer Section **3.2.2**). The survey was conducted during the flowering period of a number of threatened flora known to occur in the region (refer Section **3.2.3**).

The flora survey was comprehensive and involved detailed traverses to refine the proposed Site. Where access was not permitted for some locations outside the Site, adjacent vegetation, and habitats could only be assessed from a distance in these locations, using binoculars in the field and supplemented with aerial photo interpretation.

Furthermore, ecological survey often fails to record all species of flora present in any location for a variety of reasons, including seasonal absence, or reduced flowering during certain seasons, temporal survey periods or population fluctuations. It is also noted that the ecology surveys did not involve detailed fauna survey, and instead a fauna habitat assessment was undertaken in consideration of field data and desktop information and was restricted to the Site, with predictive habitat assessment of adjacent areas from a distance, using binoculars and aerial photography.

Botanical and fauna habitat assessments undertaken for this Project have overcome some of these limitations by identifying those species that were not recorded but still considered to have a potential of being present.

3.3 MNES Habitat Mapping

As part of the EPBC assessment process, Westside undertook habitat mapping for MNES within the broader lease area. This was informed by multiple lines of evidence, including targeted field surveys conducted across multiple seasons in representative locations, predicted significant species and ecological community distribution mapping, publicly available species records, and relevant State mapping. These datasets were used collectively to inform likelihood of occurrence assessments.

For each MNES species and ecological community, where relevant habitat was identified, habitat was further categorised into distinct habitat-use types (see **Table 4**). Mapping of MNES habitat present in the Site is mapped in Figures 5, 6 and 7.

Table 4: MNES habitat mapping categories

MNES	EPBC Status	Habitat Category
TEC		
Brigalow (*Acacia harpophylla* dominant and co-dominant) TEC	Endangered	-
Coolibah-Black Box Woodlands of the Darling Riverine Plains TEC	Endangered	-
Poplar Box Grassy Woodlands on Alluvial Plains TEC	Endangered	-
Threatened flora		
Xerothamnella herbacea	Endangered	-
Solanum dissectum	Endangered	-
Solanum johnsonii	Endangered	-
Threatened fauna		
Painted honeyeater	Vulnerable	Foraging and dispersal
Australian painted snipe	Endangered	Seasonal breeding, foraging and dispersal
Squatter pigeon	Vulnerable	Breeding, Foraging, Dispersal
Ornamental snake	Vulnerable	Suitable
Koala	Endangered	Climate refugia; Breeding and foraging; Shelter; Dispersal
Greater glider (southern and central)	Endangered	Denning; Foraging and dispersal
Yellow-bellied glider	Vulnerable	Breeding, foraging and dispersal
White-throated snapping turtle	Critically Endangered	Breeding, foraging and dispersal
Fitzroy River turtle	Endangered	Breeding, foraging and dispersal
Yakka skink	Vulnerable	Breeding, foraging and dispersal
Boggomoss snail	Critically Endangered	Breeding, foraging and dispersal

3.4 Significant Impact Assessment

An assessment of the significance of residual impacts to MNES and MSES, for which impacts could not be avoided, was undertaken. This significant impact assessment was undertaken in accordance with the following guidelines:

- *Queensland Environmental Offsets Policy Significant Residual Impact Guideline* (SRI Guideline) (DEHP, 2014)
- *Commonwealth Significant Impact Guidelines 1.1. – Matters of National Environmental Significance* (Significant Impact Guidelines) (DOE, 2013).

A number of species considered as part of this assessment are dual listed, i.e. they are protected under both the EPBC Act and NC Act.

The QEOP (DESI, 2024) acknowledges the need to avoid duplication of assessment and offsets for the same or substantially the same matter listed under both legislations. Therefore, the significance of impacts to these dual listed species has been assessed once, as part of this assessment, using the Commonwealth Significant Impact Guidelines.

4. Results

The final Site presented in this assessment, and which was used to undertake the impact assessment in Section **5**, was derived through refinement of the sketch area to avoid or minimise disturbance to biodiversity values. However, not all ecological values and constraints identified in the Site could be avoided. The ecological constraints identified in the broader sketch area are presented in **Attachment 2**. The final Site and associated ecological constraints are presented in **Figure 4**.

4.1 Desktop Assessment

The desktop assessment provides an overview of the ecological values known and potentially occurring in a given area of interest. The desktop assessment ensures that all relevant or potentially relevant matters are considered and reduces the risk of 'missing' ecological values that may not be evident in a targeted field survey due to their broader relevance. Nonetheless, the on-ground field-validated ecological values may differ to those indicated through a review of desktop information and are therefore, most relevant in assessing impacts of a Project. This is reiterated in the conditions within Schedule F of the EA for the Project, whereby field-survey by a suitably qualified person is required to confirm on-ground biodiversity values and the Project may proceed based on the on-ground values. Therefore, greater emphasis is placed on the field-validated results of the ecology survey rather than the desktop information in this assessment.

4.1.1 Surface Hydrology

The Site is located within the Dawson River catchment of the Fitzroy Basin. The Site is also within the Fitzroy Great Barrier Reef catchment boundary. The Site sits within the catchment of Huon Creek, and small tributaries of the Dawson River. A number of 1st and 2nd order streams are intersected by the Site, including Huon Creek (**Figure 1**). Numerous small permanent and ephemeral dams are also present in the local landscape.

4.1.2 Vegetation Communities

The Site forms part of the Dawson River Downs Subregion of the Brigalow Belt Bioregion. Queensland Government RE mapping for the Site shows remnant and high-value regrowth vegetation communities, primarily associated with drainage features and watercourses, as well as isolated patches on the edges of paddocks and in local road corridors.

Table 5 lists the REs mapped by the Queensland Government in and within 300 m of the Site and provides a short description of the RE.

Table 5: Regional ecosystems mapped by the Queensland Government in the Site

RE Code	Short Description (Queensland Herbarium, 2023)	NC Act Status	Biodiversity Status	EPBC Act Status
11.3.4	*Eucalyptus tereticornis and/or Eucalyptus spp. woodland on alluvial plains*	Of concern	Of concern	Potentially contributes to a TEC
11.3.17	*Eucalyptus populnea woodland with Acacia harpophylla and/or Casuarina cristata on alluvial plains*	Of concern	Endangered	Potentially contributes to a TEC
11.3.25	*Eucalyptus tereticornis* or *E. camaldulensis* woodland fringing drainage lines	Least concern	Of concern	N/A

RE Code	Short Description (Queensland Herbarium, 2023)	NC Act Status	Biodiversity Status	EPBC Act Status
11.4.9a	*Acacia harpophylla* shrubby woodland with *Terminalia oblongata* on Cainozoic clay plains	Endangered	Endangered	Potentially contributes to a TEC

4.1.3 Significant Flora and Fauna

Database searches returned threatened, migratory and otherwise significant flora and fauna species as known to occur or potentially occurring in the search area. Database search results are provided in **Attachment 1**.

Upon initial consideration of these results, a number of species are highly unlikely to occur in the Site due to lack of records, the Site being outside the known distribution of the species, and a lack of generally suitable habitats, including vegetation assemblages; underlying soils and geology; condition of habitat features and vegetation; and/or the absence of permanent aquatic, wetland and/or marine areas. However, a number of species will be considered further as part of the likelihood of assessment undertaken in Section **4.2.1** and **Attachment 3**.

4.1.4 Summary of MNES, MSES and ESAs

A summary of the review of desktop information in relation to MNES, MSES and ESAs is provided in **Table 6**. Associated mapping and database results are provided in **Figure 3** and **Figure 4** and **Attachment 1**.

Table 6: Summary of MNES, MSES and ESAs derived from desktop information

Matter	Details
MNES (EPBC Act)	
World Heritage and National Heritage Places	None are mapped near the Site, and none were returned from the protected matters search tool (PMST) report for the search area.
TECs	Five TECs were returned from the PMST as known or likely to occur in the search area. Three Queensland Government mapped REs listed in Table 5, have the potential to represent one or more of these four TECs (refer Attachment 1).
Threatened flora	Database search results included eight endangered or vulnerable plants (refer Attachment 1).
Threatened and migratory fauna	Database search results included the following (refer Attachment 1): ▪ 1 critically endangered bird ▪ 11 endangered or vulnerable bird species ▪ 7 endangered or vulnerable mammals ▪ 1 critically endangered reptile ▪ 6 endangered or vulnerable reptiles ▪ 10 migratory birds ▪ 1 critically endangered snail.
Nationally and internationally important wetlands	None are mapped near the Site, and none were returned from the PMST for the search area.
Marine areas	None are mapped near the Site, and none were returned from the PMST for the search area. The Site is at least 140 km west of the coast of Queensland.

MSES (NC Act/EO Act)	
Protected areas	▪ Willawa Nature Refuge – approximately 10 km south of the Site ▪ Highworth Bend Conservation Park – ±10 km south west of the Site ▪ Roundstone Conservation Park – ±31 km north west of the Site ▪ Dawson River Conservation Park - ±330 km north west of the Site ▪ Isla Gorge National Park and Shankeen Nature Refuge – ±40 km south of the Site ▪ Oxtrack Nature Refuge - ±40 km south east of the Site ▪ Palmgrove National Park - ±55 km south west of the Site
Regulated vegetation (endangered, of concern, watercourse and wetland vegetation)	As outlined in Table 5 remnant and high-value regrowth REs are mapped by the Queensland Government within and near the Site. One of these has an endangered VM Act status (11.4.9a) and two have an of concern VM Act status (11.3.4 and 11.3.17). Two of these are high-value regrowth vegetation areas under the VM Act (11.3.17/11.4.9a and 11.3.25/11.3.4). There are a number of vegetation management wetlands mapped by the Queensland Government in the local area; however, none are mapped within or proximate to the Site.
Protected wildlife habitat (flora and fauna)	In addition to the dual listed EPBC Act and NC Act listed flora and fauna captured in the above MNES section, the following flora and fauna listed under the NC Act (only) were returned from database searches for the search area (Attachment 1): ▪ 8 special least concern plants ▪ 1 special least concern mammals.
High value ecological waters and wetlands	Great Barrier Reef Wetland Protection Areas are mapped in the broader region, but none within proximity to the Site.
Designated precincts in strategic environmental areas	There are no strategic environmental areas within 50 km of the Site.
Legally secured offset areas	There are no legally secured offset areas within 50 km of the Site.
Connectivity areas	All remnant areas within the Site and broader landscape are considered ‘connectivity areas’ as a MSES.
Waterways providing for fish passage	Waterways providing for fish passage are mapped by the Queensland Government within the local area. However, none of these waterways are traversed by the Site.
Marine parks and marine plants	The Site is at least 150 km west of the nearest marine park, being sections of the Great Barrier Reef Marine Park. No marine plants were detected in the Site due to the lack of marine environments.
Declared fish habitat areas	There are no declared fish habitat areas within 150 km of the Site.
ESA (EP Act)	
Category A, B and C	Queensland Government mapping indicates only Category B and C ESAs occur within the Site and surrounding areas. These are generally associated with endangered remnant and regrowth REs as Category B and C ESAs, and of concern remnant REs and essential habitat (**Figure 4**). The Project impacts 0.29 ha primary protection zone, and 0.95 ha secondary protection zone ESA area.

4.2 Ecology Survey Results

The following sections describe the ecological values and constraints identified within or near the Site during the field survey. An overview of the vegetation and habitat identified in the field is provided in Section **4.2.1** and impacts provided in Section **5**. This mapping in relation to the broader sketch is provided in **Attachment 2**.

4.2.1 Overview of Ecology Values

Overall, the Sites is cleared and have undergone intense historical disturbance for grazing and cropping. However, small, isolated patches and strips of vegetation remain and commonly represent regrowth brigalow vegetation, particularly RE 11.4.9a. A number of significant environmental weeds listed under the Biosecurity Act and WoNS were identified in the Site, with Parthenium weed (*Parthenium hysterophorus**) most encountered, followed by Rubber Vine (*Cryptostegia grandiflora**) and Velvet Tree Pear (*Opuntia tomentosa**) Further details about significant weeds recorded is provided in Section **5.**

Despite continued pressure through disturbance for infrastructure, grazing and property tracks, regrowth and remnant patches also provide habitat for a number of threatened flora and fauna. **Table 7** provides a description of the MNES, MSES and ESAs identified in the Site during in-field surveys. Section **5** describes the location of these values and constraints in relation to the Site and the potential impacts to these values.

Table 7: MNES, MSES and ESAs validated during the ecology field survey

Matter	Details
MNES (EPBC Act)	
World Heritage and National Heritage Places	None were identified during the ecology field survey.
TECs	Vegetation representing the Brigalow TEC (RE 11.4.9a) was identified near the Site during the field survey (Figure 4). These areas are mapped outside of the Site boundary and will not be impacted. No TECs were identified in the Site, and none are considered likely to occur due to the lack of native vegetation communities present.
Threatened flora	No threatened flora was identified within the Site.
Threatened and migratory fauna	No EPBC Act listed fauna were identified in the Site during the field survey and there is limited habitat available for these species, due to: ▪ lack of suitable vegetation assemblages ▪ unsuitable soils and underlying geology ▪ degraded quality of vegetation and particularly ground-layer composition ▪ limited micro-habitat availability, in the form of leaf litter, fallen timber, rocky outcrops, abundant hollows ▪ lack of wetland habitat of sufficient quality. Many species returned in searches are included because of predictive modelling; however, lack of preferred habitat and an absence of nearby records indicate these species are highly unlikely to occur. A handful of species are known from the region and potentially suitable, although marginal quality habitat was identified near the Site. A brief outline of why these species are unlikely to occur in the Site is provided in Attachment 3. Gilgai mounds and depressions were identified within in the broader area, however, none are mapped closer to the Site. The deep clay cracks that tend to form in the depressions provide refuge habitat for Ornamental Snake and the seasonally moist conditions that are formed and persist in these gilgai provide prey

	(frog) habitat for Ornamental Snake, and temporary wetland habitat for Australian painted snipe and Latham's snipe. Gilgai habitat was identified in the broader sketch area during the field survey (Figure 5). While Category B and Category C ESA are located within or adjacent to the Site, none are located within the disturbance footprint (Figure 4). 16 Locally important habitat trees (**LIKT**) (Eucalyptus genera) and seven ancillary habitat trees (**AHT**) (Acacia genera) are located within the Site. The vegetated areas near the disturbance footprint are fragmented and therefore any occurrence of Koala in the Site or local area is likely to be infrequent and as part of dispersal activities. The impacts to these species are discussed in Section 5. No other EPBC Act listed threatened or migratory species are considered likely to occur in the Site.
Nationally and internationally important wetlands	None occur within or adjacent to the Site.
Marine areas	Marine areas are not relevant to the Site.
MSES (NC Act/EO Act)	
Protected areas	The Highworth Bend Conservation Park is located to the west of the Site. However, this conservation park is more than 10 km west of the Site and largely cleared paddocks separate the Site and this park.
Regulated vegetation (endangered, of concern, watercourse and wetland vegetation)	No areas of remnant vegetation were confirmed in the Site during the field survey, however, scattered vegetation and a number of patches of endangered and REs were identified adjacent to the Site at a number of locations. Regrowth REs are not listed MSES under the EO Act. Quaternary site surveys undertaken adjacent to the disturbance footprint indicate that vegetation is predominantly non-remnant, comprising paddock areas of improved pasture. Woody vegetation is sparse and largely limited to isolated shrubs scattered throughout the paddock, with a slightly higher density occurring on lower slopes. The vegetation community is primarily improved pasture, which has responded strongly to the 2026 wet season. Near the southern end of the gathering line, at the intersection with the proposed well pad, native species are more prevalent. Groundcover at this location is classified as EDL and is dominated by Aristida latifolia, with associated native species present. Several small clumps of Brigalow (*Acacia harpophylla*) have been retained in the north-western corner of the paddock, likely for stock shade, although the original purpose of retention is uncertain. Separation between Brigalow clumps ranges from approximately 5 to 50 metres. Vegetation features identified in the Site during the field survey is described in relation to the Quaternary site data provided in Attachment 2. Overall, historic clearing and land use practices have resulted in a highly modified landscape, with limited and highly fragmented tree cover. None of the vegetation management watercourses that occur in the Site, were identified as supporting remnant vegetation and many of the watercourses that are mapped by the Queensland Government as supporting high-value regrowth do not exhibit the characteristics defined for high-value regrowth in the Methodology for Surveying and Mapping, i.e. 50% crown cover described for that RE (Neldner, V.J. et al., 2023). No vegetation management wetlands were identified within or near the Site.
Protected wildlife habitat (flora and fauna)	No EPBC Act and NC Act listed flora was identified in the Site as discussed above in the MNES section.

Koala habitat in South-east Queensland	This matter is not relevant to the Site.
High value ecological waters and wetlands	No wetlands were identified in the Site.
Designated precincts in strategic environmental areas	There are no strategic environmental areas within 50 km of the Site.
Legally secured offset areas	There are no legally secured offset areas within 50 km of the Site.
Connectivity areas	There are no remnant areas within the Site. Therefore, connectivity areas are not relevant to the Site.
Waterways providing for fish passage	While a number of these waterways extend into the Site, some of these are unlikely to provide any aquatic habitat values due to the absence of vegetation and natural form.
Marine parks and marine plants	There are no marine environments near the Site, and no marine plants were detected in the Site due to the lack of marine habitats.
Declared fish habitat areas	There are no declared fish habitat areas within 130 km of the Site.
ESA (EP Act)	
Category A, B and C	Field survey confirmed the presence of several Category B and C ESAs within 100 m of the Site, including: ▪ remnant and regrowth endangered REs ▪ remnant of concern REs ▪ essential habitat for Ornamental Snake As a result of the proximity of these ESAs, portions of the Site fall within either the primary or secondary protection zones (Figure 4). The Project impacts 0.29 ha primary protection zone, and 0.95 ha secondary protection zone ESA area. The Site is not proposed to be located within any ESAs. Potential ESAs are mapped extensively throughout the region by the Queensland Government, including numerous small and isolated patches. However, many of these patches near the Site were observed, from the Site, not to represent ESAs because: ▪ with regard to endangered and of concern REs, the patch was markedly fragmented and significantly degraded in parts and therefore did not meet remnant or high-value regrowth status or were not of the minimum size to be a mappable entity in accordance with the Methodology for Surveying and Mapping; and/or ▪ with regard to habitat for threatened species, particularly the Ornamental Snake, did not exhibit the structural, species, specific habitat requirements or connectivity that would be reasonably suitable to sustain the species.

5. Impacts and Mitigation

The following section describes the ecological values and impacts in relation to the Site for logistical purposes, which is to benefit the future detailed design, access and property owner negotiations components of the Project development. The MNES, MSES and ESA matters are tabulated and correspond with a figure depicting these matters. Where a particular matter is absent, this is noted previously in Table 7 and has not been discussed further in these sections. While some matters may form MNES or MSES they may not also be ESAs under the legislation.

The impacts described in the following sections are the result of a process of refinement in the field in response to identified constraints, i.e. endangered vegetation, watercourses, TECs or significant habitat features. In most cases, impacts to threatened species and communities has been avoided or substantially mitigated through this process, by:

- moving pad locations or dimensions
- changing the alignment of the construction right of way (CROW)
- narrowing the CROW in specific areas
- abandoning initial proposed access for a more sensitive alternative.

For some matters, impacts could not be entirely avoided, particularly in relation to pruning and clearing of some large trees within the CROW. It is worthwhile noting that several other constraints have restricted the ability to avoid or minimise impacts to ecological values, including existing road and pipeline infrastructure.

5.1 Species and Communities

Only small areas within the Site support vegetation on Waddington Park. This is restricted to an endangered category B ESA (RE 11.4.9a) at the South of the Site boundary and fragmented regrowth along Huon Creek. Several larger trees occur within the Site, including *Eucalyptus coolabah*, *Eucalyptus populnea, Eucalyptus tetericornis, Acacia salicina and Acacia harpophylla.*

This broader site supports few koala habitat trees, however, there is limited connectivity of these trees with other potentially suitable patches in the surrounding landscape. Connectivity to the north, south and west towards the Dawson River, is limited due to the extent of clearing and cropping and dominance of brigalow in other patches of vegetation Tree surveys along the Site were undertaken in April 2025.

A number of patches of endangered regrowth REs occur within 200 m of the Site, some of which are also mapped as essential habitat for Ornamental Snake (**Figure 4**). These areas represent Category B ESAs. No impacts to these areas are proposed.

Groups of trees are present across that the Site with *Amyema* (mistletoe) in them, providing suitable habitat for Painted Honeyeater. However, none of these trees are being impacted by the Project.

5.2 Waterways for Fish Passage

The Site is present with three waterways for barrier works with low, medium and high risk-order. However, none of these will be impacted by the Project.

5.3 General Ecological Values

Several significant landscape trees were identified during previous surveys within the Site on Waddington Park and will be retained.

5.4 Weeds

Parthenium weed and Velvety Tree Pear were regularly recorded on Waddington Park, and numerous rubber vine were observed within Huon Creek in the Site (**Figure 4**).

5.5 Matters Requiring Impact Management

Table 8 lists the MNES, MSES and/or ESAs that will require impact management on Waddington Park. The table also provides a list of mitigation measures proposed to manage and further minimise impacts to the relevant matters as part of detailed design, construction and operation of the Project.

Table 8: MNES, MSES and ESA management measures proposed on Waddington Park

Matter	Proposed Mitigation
▪ Australian Painted Snipe habitat ▪ Koala ▪ Ornamental Snake habitat	▪ Earthworks in the CROW will be restricted to the easement. No disturbance of gilgai habitat will take place. ▪ Construction will not cause filling or modification of gilgai depression. ▪ Construction and maintenance activities will be restricted to dry periods, where possible ▪ The presence of a spotter/catcher to rescue Koala individuals, potentially trapped in excavations ▪ Construction of the pipeline in tranches and where possible, completing the tranche in a day to ensure that barriers to Koala movement are limited ▪ Parthenium weed outbreaks will be treated and vehicle and equipment hygiene protocols will be maintained. ▪ Water management, sediment erosion and pollution control / monitoring will be put in place. ▪ Gas well/head cellars will be covered to prevent reptiles from falling and becoming trapped ▪ Pipeline trenches will be checked regularly for trapped reptiles, every three days as a minimum.

5.6 Significant Residual Impact Assessment

Habitat mapping for MNES identified suitable habitat for several species in the vicinity of the Site. Area of MNES habitat being impacted by the Project is detailed in **Table 9** and presented in **Figure 6.** Impacts to Brigalow TEC and ESAs will be avoided within the Site.

The location of the infrastructure and the finalisation of the proposed disturbance footprint has been underpinned by an iterative design process, based on results of ecological surveys and agreements with the landholders. WestSide have also relocated the CROW and finalised the well-pad (DR098) location so as to avoid impacts to matters of environmental significance. (**Figure 4**). The presence of this habitat in the Site triggered the need for a significance assessment for the Koala, which is provided in the sections that follow.

As Koalas are dual-listed MNES and MSES, the significance assessment has been completed in accordance with the Commonwealth Significant Impact Guidelines only, to avoid duplication, consistent with the QEOP.

Further information about the likelihood for other MNES and MSES species is provided in Section **4.2.1** and **Attachment 3**. Near threatened species and special least concern migratory species are not listed as MSES and have not been assessed in this section. Species listed under the marine provisions of the EPBC Act have also not been considered in this section, as there are no marine areas within or near the Site.

Table 9: Impact to MNES habitat within Site

MNES	Habitat Presence (Yes/No)	Impact Area
TEC		
Brigalow (*Acacia harpophylla* dominant and co-dominant) TEC	Yes (Confirmed)	0 ha
Coolibah-Black Box Woodlands of the Darling Riverine Plains TEC	No	0 ha
Poplar Box Grassy Woodlands on Alluvial Plains TEC	Yes (Potential)	0 ha
Threatened Flora		
Xerothamnella herbacea	Yes (Potential)	0 ha
Solanum dissectum	Yes (Potential)	0 ha
Solanum johnsonii	Yes (Potential)	0 ha
Threatened Fauna		
Painted Honeyeater	Yes (Breeding, foraging and dispersal)	0 ha
Australian Painted Snipe	Yes (Seasonal breeding, foraging and dispersal)	0 ha
Squatter Pigeon	Yes (Breeding and Dispersal)	0 ha
Ornamental Snake	Yes (Breeding and foraging, Dispersal)	0 ha
Koala	Yes (Breeding and foraging, Dispersal)	4.15 ha of Dispersal Habitat
Greater Glider (southern and central)	No	0 ha
Yellow-bellied Glider	No	0 ha
White-throated Snapping Turtle	No	0 ha
Fitzroy River Turtle	No	0 ha
Yakka Skink	Yes (Breeding and foraging)	0 ha
Boggomoss Snail	No	0 ha

5.6.1 Koala

The Koala is listed as endangered under both the EPBC Act and NC Act and as such is a MNES and MSES.

5.6.1.1 Potential to occur in the Site

This species was not recorded in the region and has not been regularly or recently recorded in the region. No evidence of this species was observed on potential food or habitat trees that occur in the vicinity the Site. However, the species is known from the broader region and potentially suitable small patches of forested habitats occur in

the region, including near the Site. Due to the highly fragmented nature of vegetated areas near the Site any occurrence of this species in the local area is likely to be infrequent and as part of dispersal activities, as more intact and refuge habitats occur further west associated with the Dawson River and in elevated landforms to the east and beyond the Dawson Mine. Additionally, limited foraging habitat for this species in the Site.

5.6.1.2 Importance of the population

For conservation of the Koala, important populations are those that:

- have the potential to act as source populations to adjacent areas of suitable, or potentially suitable, habitat
- exist in areas of climatically suitable refugia during periods of environmental stress including droughts, heatwaves, and long-term climate change
- are genetically diverse
- are disease free and/or exhibit low rates of infection with important pathogens
- contain genes which may confer adaptation to current and future environmental stressors
- are geological or environmental outliers within the species range (DAWE, 2022a).

It is difficult to ascertain the importance of a population that may occupy the region surrounding the Site as there are so few recent records of the species in the region compared with more densely populated areas. However, given this species is listed as endangered any population or sub-population is likely to be important for the conservation of the species.

5.6.1.3 Habitat critical to the survival of the species

Habitat critical to the survival of a species includes areas that are relied upon by a species to avoid or halt decline and promote recovery. For the koala, the following factors should be considered:

- whether the habitat is used during periods of stress (examples: flood, drought or fire)
- whether the habitat is used to meet essential life cycle requirements (examples: foraging, breeding, nesting, roosting, social behaviour patterns or seed dispersal processes)
- the extent to which the habitat is used by important populations
- whether the habitat is necessary to maintain genetic diversity and long-term evolutionary development
- whether the habitat is necessary for use as corridors to allow the species to move freely between sites used to meet essential life cycle requirements
- whether the habitat is necessary to ensure the long-term future of the species through reintroduction or re-colonisation
- any other way in which habitat may be critical to the survival of the listed species (DAWE, 2022a)

Over the longer-term habitat critical to the survival of the Koala includes climate refugia, such as drainage lines, riparian zones and patches that are resilient to drying conditions due to favourable hydrological systems (DAWE, 2022a).

The habitats in the Site are not unique, rare or limited in the landscape, they are unlikely to provide climate refugia due to lack of larger watercourses and associated riparian vegetation and unlikely to be essential or necessary for any life cycle requirements due to the limited availability of suitable vegetation and food trees. Therefore, habitats in the Site are unlikely to be critical to the survival of the species. No Critical Habitat has been identified for this species under the EPBC Act or included in the Register of Critical Habitat.

An assessment of the significance of impacts of the Project on the Koala is provided in **Table 10** and draws on mitigation outlined in **Table 8**.

Table 10: Assessment of significance of impacts for the Koala

Significance Criteria	Assessment
An action is likely to have a significant impact on an endangered species if there is a real chance or possibility that it will:	
lead to a long-term decrease in the size of a population	The species has not recently or regularly recorded in the region and most likely does not occur densely in available habitats near the Project. Nonetheless, clearing of a small number of potential food trees for the Project is unlikely to lead to a long-term decrease in the size of a population.
reduce the area of occupancy of the species	The Koala is known from the region, however, removal of 4.15 ha of dispersal habitat within the Site will not reduce the area of occupancy of this species. Additionally, any potential indirect impacts to adjacent habitat areas, in the form of light, dust, noise, vibration, erosion and sedimentation are highly unlikely as these types of impacts will be small in scale in any one area, temporary in duration during progressive construction activities and will be avoided, minimised and mitigated using industry best practice measures, such as implementing dust suppression activities, restricting activities to dry periods where possible and day time only, and maintaining vehicles and equipment in good working order.
fragment an existing population into two or more populations	The proposed clearing for the Project is unlikely to fragment a population into two or more populations, given the maximum clearing width along the ROW in any given location will be 30 m. This is a highly mobile species for which this clearing is unlikely to cause a barrier or disrupt movement opportunities. As any pipelines will be placed underground, they will not form a permanent barrier to movement across the CROW and potential barriers created by trenching and construction activities will be temporary. Where works may result in impact to habitat, a qualified spotter / catcher will be engaged in accordance with the requirements of the Queensland NC Act. Therefore, a local population will continue to move throughout the landscape and between the habitats elsewhere in the region and fragmentation of the local population will not occur.
adversely affect habitat critical to the survival of a species	The habitats on the Site, or adjacent areas, are unlikely to be critical to the survival of the Koala given their common and widespread nature and unlikely to provide essential resources or refugia for this species. Therefore, the Project will not adversely affect this type of habitat.
disrupt the breeding cycle of a population	Works will be conducted in line with Division 3, Part 3, 10 & 11 of the Nature Conservation (Koala) Conservation Plan 2017. Where works may result in impact to habitat, a qualified spotter/ catcher will be engaged in accordance with the requirements of the Queensland NC Act. As such, the risk of disturbance to the breeding cycle of this species is reduced. Furthermore, should a Koala be identified within or adjacent to the Site, works will cease until the individual has moved on of its own accord.
modify, destroy, remove, isolate or decrease the availability or quality of habitat to that the extent the species is likely to decline	Clearing one 4.15 ha of dispersal habitat is unlikely to modify, destroy, remove, isolate or decrease the availability of quality of habitat to the extent the species is likely to decline. This is because preferred intact and refuge habitat occurs more extensively elsewhere in the region and the vegetation in and adjacent to the Site is unlikely to contribute substantially to dispersal corridors.
result in invasive species that are harmful to an endangered species becoming	Environmental weeds occur in the landscape surrounding the Site and were recorded in the Site during the field survey. Feral animals that pose a threat to the Koala, including the European red fox and feral cats, are also likely to be present in the landscape.

established in the endangered species' habitat	The Project is unlikely to introduce new species or exacerbate the existing pressure of exotic species on this species or its habitat, particularly as weed hygiene measures will be implemented for the Project.
introduce disease that may cause the species to decline, or	Koalas are susceptible to disease, particularly the Koala retrovirus and Chlamydia (*Chlamydia pecorum*). These diseases are naturally occurring in wild populations whereby testing has shown that infection can range from 21% to 88%. These diseases can be fatal, causing cancers, blindness, urinary tract disorders, pneumonia and infertility in females (DAWE, 2022b). The impacts of these diseases can be compounded by other stressors, including habitat loss (DAWE, 2022a). The Project will not introduce these diseases to a population that may occupy the Site and the extent of habitat tree clearing proposed is unlikely to cause stress to a local sub-population that would exacerbate the spread or effects of disease in a local sub-population.
interfere with the recovery of the species.	Clearing is unlikely to interfere with the recovery of the species given the availability of better quality habitat elsewhere in the region and limited dispersal value of vegetation within and adjacent to the Site.
Conclusion	It is unlikely that the minimal habitat tree clearing proposed for the Project would cause a significant impact to this species.

6. Compliance Summary

Table 11 provides a summary of how the EAs conditions in Schedule F have been met in the scouting, design and refinement of the Project.

Table 11: Summary of compliance with Schedule F-Biodiversity EA conditions

EA EPPG00783713	Evidence of compliance
Confirming biodiversity values	
(F1) Prior to undertaking activities that will result in significant disturbance to land in areas of native vegetation, confirmation of on-the-ground biodiversity values at that location must be undertaken by a suitably qualified person.	A field survey was undertaken to validate the on-ground biodiversity values within the proposed disturbance area (refer Section 2).
(F2) A suitably qualified person must develop and certify a methodology so that condition (F 1) can be complied with and which is appropriate to confirm on-the-ground biodiversity values.	A field survey was undertaken by a suitably qualified ecologist throughout the Site to validate the one-ground biodiversity values (refer Section 3.2.1).
(F3) Except for condition (F10), where mapped biodiversity values differ from those confirmed under conditions (F1) and (F2), the authorised resource activities may proceed in accordance with the conditions of the environmental authority based on the confirmed on-the-ground biodiversity value.	The on-ground biodiversity values have been used to map biodiversity constraints and refine design (refer Section 4.2 and Figure 4).
Planning for Land Disturbance	
(F4) The location of the authorised resource activities must be selected in accordance with the following site planning principles: ▪ maximise the use of areas of pre-existing disturbance ▪ in order of preference, avoid, minimise or mitigate any impacts, including cumulative impacts, on areas of native vegetation or other areas of ecological value ▪ minimise disturbance to land that may result in land degradation ▪ in order of preference, avoid then minimise isolation, fragmentation, edge effects or dissection of tracts of native vegetation; and ▪ in order of preference, avoid then minimise clearing of native mature trees.	The Site is disturbed through past land use, but the design of the Project has involved siting, reducing, refining and co-locating the footprint in existing disturbed areas where possible, to avoid and minimise the extent of disturbance to biodiversity values. As a result, no remnant or high-value regrowth vegetation is proposed to be impacted. This is described in Section 5 and presented in Figure 4.
Planning for Land Disturbance—Linear Infrastructure	
(F5) Linear infrastructure construction corridors must: ▪ maximise co-location ▪ be minimised in width to the greatest practicable extent; and ▪ for linear infrastructure that is an essential petroleum activity authorised in an	The proposed Project has been designed to concentrate impacts to existing cleared areas, while complying with property owner operational and production constraints. The CROWs have been restricted to a maximum of 30 m in width (refer Section 5 and Figure 4).

environmentally sensitive area or its protection zone, be no greater than 40 m in total width.	
Authorised disturbance to Environmentally Sensitive Areas	
(F6) Where authorised resource activities are authorised to be carried out in Environmentally Sensitive Areas or their protection zones, the petroleum/authorised resource activities must be carried out in accordance with Schedule F, Protection Biodiversity Values, Table 1 – Authorised petroleum/authorised resource activities in Environmentally Sensitive Areas and their protection zones.	As per Table 1 in Schedule F no activities are proposed in an ESA, but Project components are located within the primary / secondary protection zones of Category B endangered RE ESAs. As per Table 1 in Schedule F, only - low impact petroleum activities[3] are permitted in primary protection zone of Category B ESA - essential petroleum activities[4] are permitted in secondary protection zone of Category B ESA.
(F7) Despite condition (F6) of this environmental authority, the infrastructure (and associated activities necessary for construction, operation and maintenance purposes) specified in Schedule F, Protecting Biodiversity Values, Table 2 – Authorised Resource Activity(ies) Disturbance are permitted in the locations specified in Schedule F, Protecting Biodiversity Values, Table 2 – Authorised Resource Activity(ies) Disturbance.	The locations prescribed in Table 2 of Condition F7, do not correlate with the Site. These locations do not appear to relate to this Project.
(F8) A report must be prepared for each annual return period for all authorised resource activities that involved clearing of any Environmentally Sensitive Area or protection zone which includes: ▪ records able to demonstrate compliance with conditions (F4), (F5) and (F6) ▪ a description of the works ▪ a description of the area and its pre-disturbance values (which may include maps or photographs, but must include GPS coordinates for the works); and ▪ based on the extent of Environmentally Sensitive Areas and primary protection zones on the relevant resource authority(ies), the proportion of native vegetation cleared per Environmentally Sensitive Area and primary protection zone, including regional ecosystem type, over the annual return period.	This report provides the 2026 pre-disturbance values within the Site and demonstrates how the Project intends to comply with conditions (F4), (F5) and (F6). However, no clearing been undertaken for the Project so far. These reports will be provided at a later phase of the Project.
Impacts to Matters of State Environmental Significance	
(F9) Authorised resource activities are not permitted within areas containing matters of State environmental significance, unless the activity is authorised in condition (F10) of this environmental authority.	Protected wildlife habitat for a number of MSES was identified within the Broader Site, including Ornamental Snake and Australian Painted Snipe. Impact to MSES has been substantially avoided through reduction and refinement of the Site.
(F10) Despite condition (F9) of this environmental authority, low impact petroleum activities are authorised to occur within all types of matters of State environmental significance.	

[3] Schedule K - EA EPPG00783713
[4] Schedule K - EA EPPG00783713

(F11) Significant residual impacts to prescribed environmental matters are not authorised under this environmental authority or the *Environmental Offsets Act 2014*.	As demonstrated in Section 5.6, a significant impact to MNES or MSES is not proposed because of the Project. EPBC approval condition 3(n) for the Project (EPBC 2021/9117) allows for clearing of 400 ha of Koala dispersal habitat. This ecological survey report provides a record demonstrating compliance with this condition and has been prepared by a team of appropriately qualified consultants at 28 South Environmental.

7. References

Belbin, L. (2011). The Atlas of Living Australia's Spatial Portal. In M. B. Jones & C. Gries (Eds.), *Proceedings of the Environmental Information Management Conference 2011* (pp. 39–43).

Bureau of Meteorology. (2025). *Climate Data Online*. http://www.bom.gov.au/qld/

Cropper, S. C. (1993). *Management of endangered plants*. CSIRO Publishing.

DAWE. (2022a). *Conservation Advice for Phascolarctos cinereus (Koala) combined populations of Queensland, New South Wales and the Australian Capital Territory*.

DAWE. (2022b). *National Recovery plan for the koala: Phascolarctos cinereus (combined populations of Queensland, New South Wales and the Australian Capital Territory)*. Department of Agriculture, Water and the Environment.

DCCEEW. (2023). *Draft Referral guidelines for the nationally listed Brigalow Belt reptiles*. www.environment.gov.au/epbc/.

DCCEEW. (2025a, April 14). *Protected Matters Search Tool*. https://www.dcceew.gov.au/environment/epbc/protected-matters-search-tool

DEHP. (2014). *Queensland Environmental Offsets Policy: Significant Residual Impact Guideline*.

Department of Resources. (2023). *Vegetation management watercourse and drainage feature map (1:100000 and 1:250000) - Queensland except South East Queensland Version 7.00*. QSpatial.

Department of Resources. (2025a). *Vegetation management essential habitat map no attribute - version 12.04.* QSpatial.

Department of Resources. (2025b). *Vegetation management regional ecosystem map - version 13.00 - By Area Of Interest*. QSpatial.

DESI. (2024). *Queensland Environmental Offsets Policy*.

DETSI. (2025a). *Flora Survey Guidelines-Protected Plants*.

DETSI. (2025b). *Vegetation management wetlands map - version 9.04.* QSpatial.

DETSI. (2025c, April 16). *Environmental Reports Online*. https://www.qld.gov.au/environment/management/environmental/environmental-reports-online

DETSI. (2025d, April 16). *Maps of environmentally sensitive area*. https://environment.desi.qld.gov.au/management/maps-of-environmentally-sensitive-areas

DETSI. (2025e, April 16). *Protected plants flora survey trigger map*. https://apps.des.qld.gov.au/map-request/flora-survey-trigger/

DOE. (2013). *Matters of National Environmental Significance Significant impact guidelines 1.1 Environment Protection and Biodiversity Conservation Act 1999*.

Garrard, G. E., Bekessy, S. A., McCarthy, M. A., & Wintle, B. A. (2008). When have we looked hard enough? A novel method for setting minimum survey effort protocols for flora surveys. *Austral Ecology*, *33*(8), 986–998.

Neldner, V. J., Wilson, B. A., Dillewaard, H. A., Ryan, T. S., Butler, D. W., McDonald, W. J. F., Addicott, E. P., & Appelman, C. N. (2023). *Methodology for surveying and mapping regional ecosystems and vegetation communities in Queensland. V7.0*. Department of Environment, Science and Innovation.

Figures

Waddington Park, Westside

Legend

Figure 1 - Project Locality

28 South Project Ref: 2026 - 049

Source: C:\Users\Neha\Dropbox\(d) Projects\2026\2026049_WestSide-Kirralee-Surveys\03_Working\01_GIS\2026049_WestSide_Enviro_Services.qg

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Links to data sources can be provided upon request.

28ºS ENVIRONMENTAL

- Waddington Park Site Boundary
- Road
- Rail Network (Decommissioned)
- QLD Vegetation Management Watercourse
- QLD Protected Areas

Issue Date	Dwg No.	Author
24-03-2026		NC
Approved	**Revision Note**	
MB		

GDA2020 MGA 56

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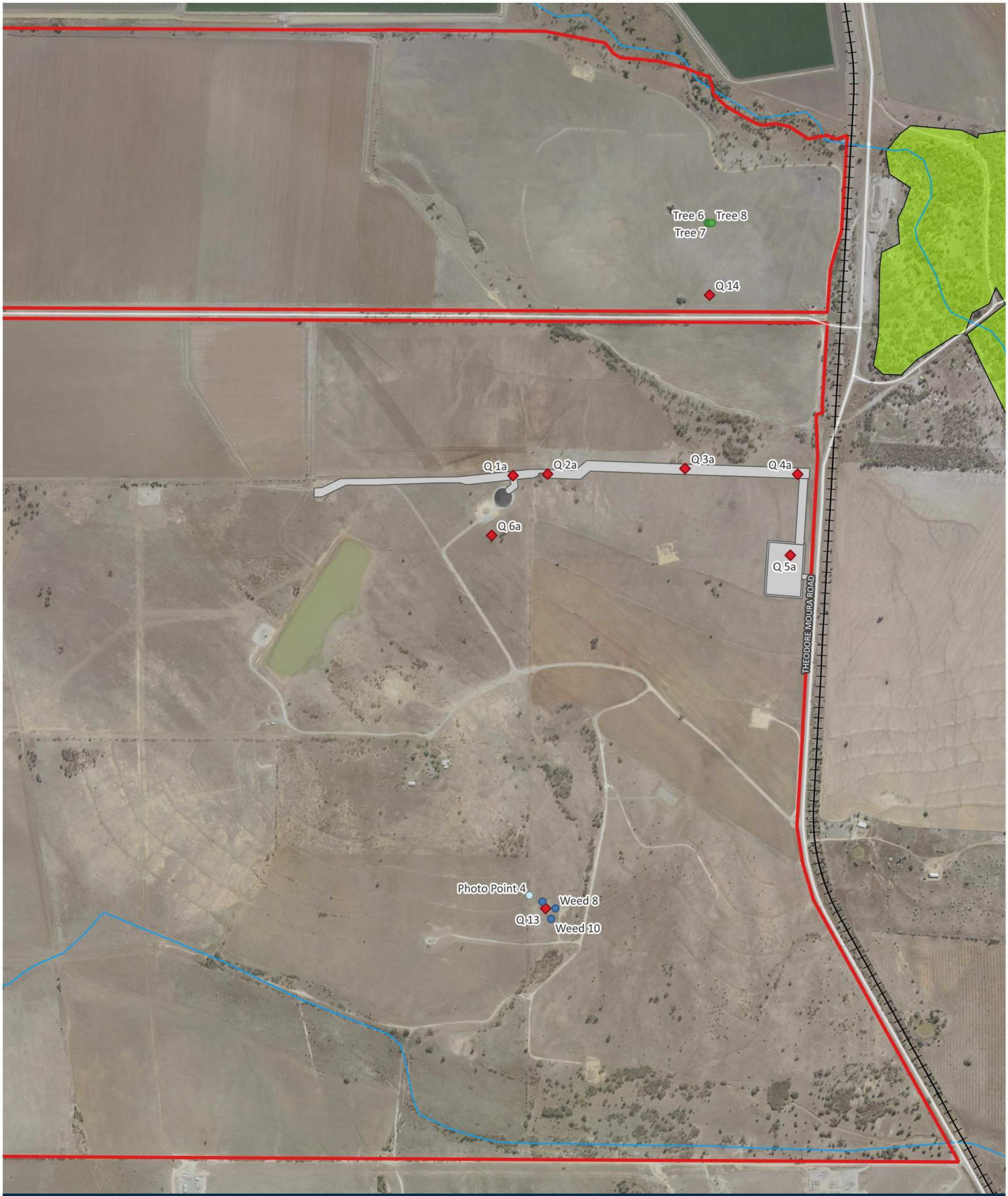

Waddington Park, Westside

Figure 2 - 2026 Ecology Field Survey Sites

28 South Project Ref: 2026 - 049

Source: C:\Users\Neha\Dropbox\(d) Projects\2026\2026049_WestSide-Kirralee-Surveys\03_Working\01_GIS\2026049_WestSide_Enviro_Services.qg

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Links to data sources can be provided upon request.

28ºS ENVIRONMENTAL

Legend

- Waddington Park Site Boundary
- Project Area
- Road
- Rail Network (Decommissioned)
- QLD Vegetation Management Watercourse
- Protected Plants Flora Trigger Map

Survey Sites

- Quaternary Sites
- Tree Points
- Weed Points
- Photo Points

Issue Date	Dwg No.	Author
26-03-2026		NC
Approved	**Revision Note**	
MB		

GDA2020 MGA 55

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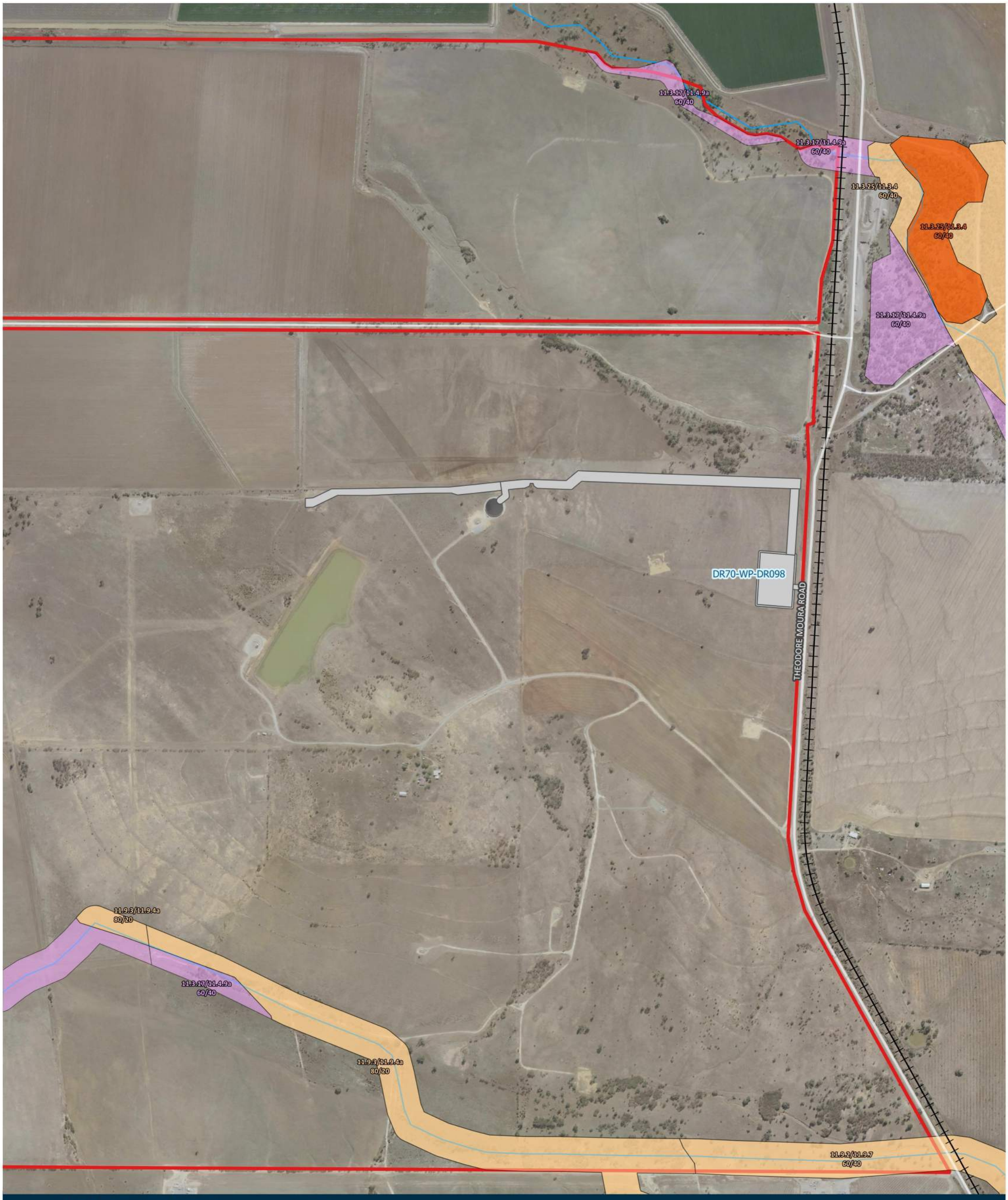

Waddington Park, Westside

Legend

Figure 3 - Regional Ecosystem Mapping

28 South Project Ref: 2026 - 049

Source: C:\Users\Neha\Dropbox\(d) Projects\2026\2026049_WestSide-Kirralee-Surveys\03_Working\01_GIS\2026049_WestSide_Enviro_Services.qgz

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Links to data sources can be provided upon request.

28ºS ENVIRONMENTAL

- Waddington Park Site Boundary
- Project Area
- Road
- Rail Network (Decommissioned)
- Disturbance Footprint

Regional Ecosystems (QLD)

- High Value Regrowth Endangered
- High Value Regrowth Of Concern
- Remnant Of Concern

Issue Date	Dwg No.	Author
26-03-2026		NC
Approved	**Revision Note**	
MB		

GDA2020 MGA 55

1:10,000

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N

- Cat C ESA (of concern remnant RE 11.3.25/11.3.4)
- Cat C ESA (essential habitat)

- Cat C ESA (of concern regrowth RE 11.3.25/11.3.4)
- Cat C ESA (essential habitat)

- Cat B ESA (endangered RE 11.4.9a)
- Potential Brigalow TEC

- Cat B ESA (endangered high value regrowth RE 11.3.17/11.4.9)
- Cat C ESA (essential habitat)
- Potential Brigalow TEC (in part)

Tree 6
Tree 8
Tree 7
Q 14
Q 1a
Q 2a
Q 3a
Q 4a
Q 6a
Q 5a
DR70-WP-DR098
THEODORE MOURA ROAD
11.3.25/11.3.4 60/40
11.3.17/11.4.9a 60/40

Waddington Park, Westside

Figure 4 - Ecological Constraints

28 South Project Ref: 2026 - 049

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Links to data sources can be provided upon request.

28ºS ENVIRONMENTAL

Legend

- Waddington Park Site Boundary
- Disturbance Footprint
- Road
- Rail Network (Decommissioned)
- QLD Vegetation Management Watercourse
- MSES Essential Habitat

Environmentally Sensitive Areas
- (Apr 25) Cat B ESA Area
- (Apr 25) Cat C ESA Area
- ESA Primary Protection Zone (200m)
- ESA Secondary Protection Zone (+100m)

Regional Ecosystems
- High Value Regrowth Endangered
- High Value Regrowth Of Concern
- Remnant Of Concern

Survey Sites
- Quatenary Sites
- Weed Infestation

QLD Waterway for Waterway Barrier Works
- 1 - Low
- 2 - Moderate
- 3 - High
- 4 - Major

Issue Date	Dwg No.	Author
27-03-2026		NC
Approved	**Revision Note**	
MB		

GDA2020 MGA 56

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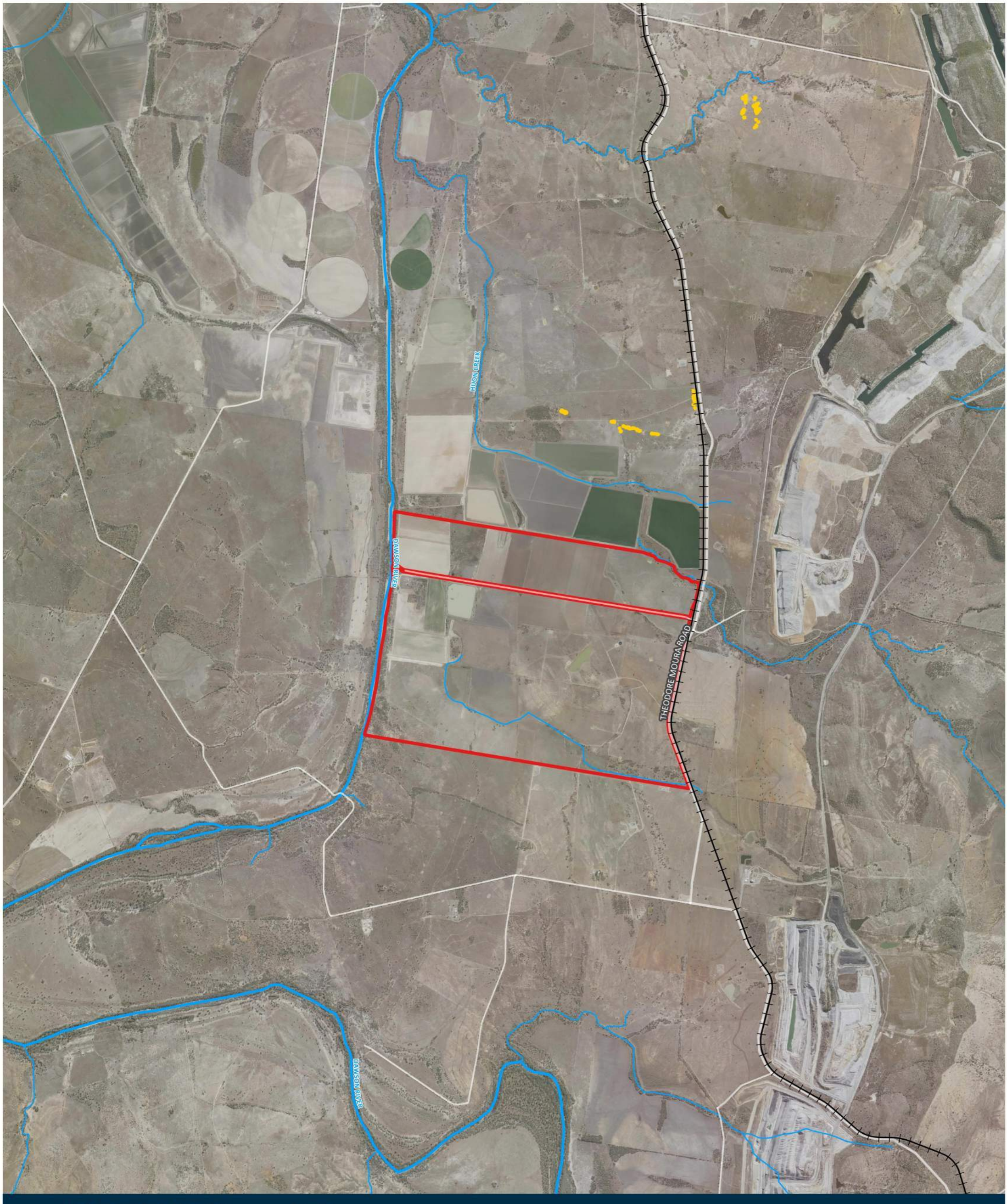

Waddington Park, Westside

Figure 5 - Gilgai Mapping

28 South Project Ref: 2026 - 049

Source: C:\Users\Neha\Dropbox\(d) Projects\2026\2026049_WestSide-Kirralee-Surveys\03_Working\01_GIS\2026049_WestSide_Enviro_Services.qg

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Links to data sources can be provided upon request.

28ºS ENVIRONMENTAL

Legend

- Waddington Park Site Boundary
- Road
- Rail Network (Decommissioned)
- QLD Vegetation Management Watercourse
- Gilgai Areas

Issue Date	Dwg No.	Author
26-03-2026		NC
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MB		

GDA2020 MGA 56

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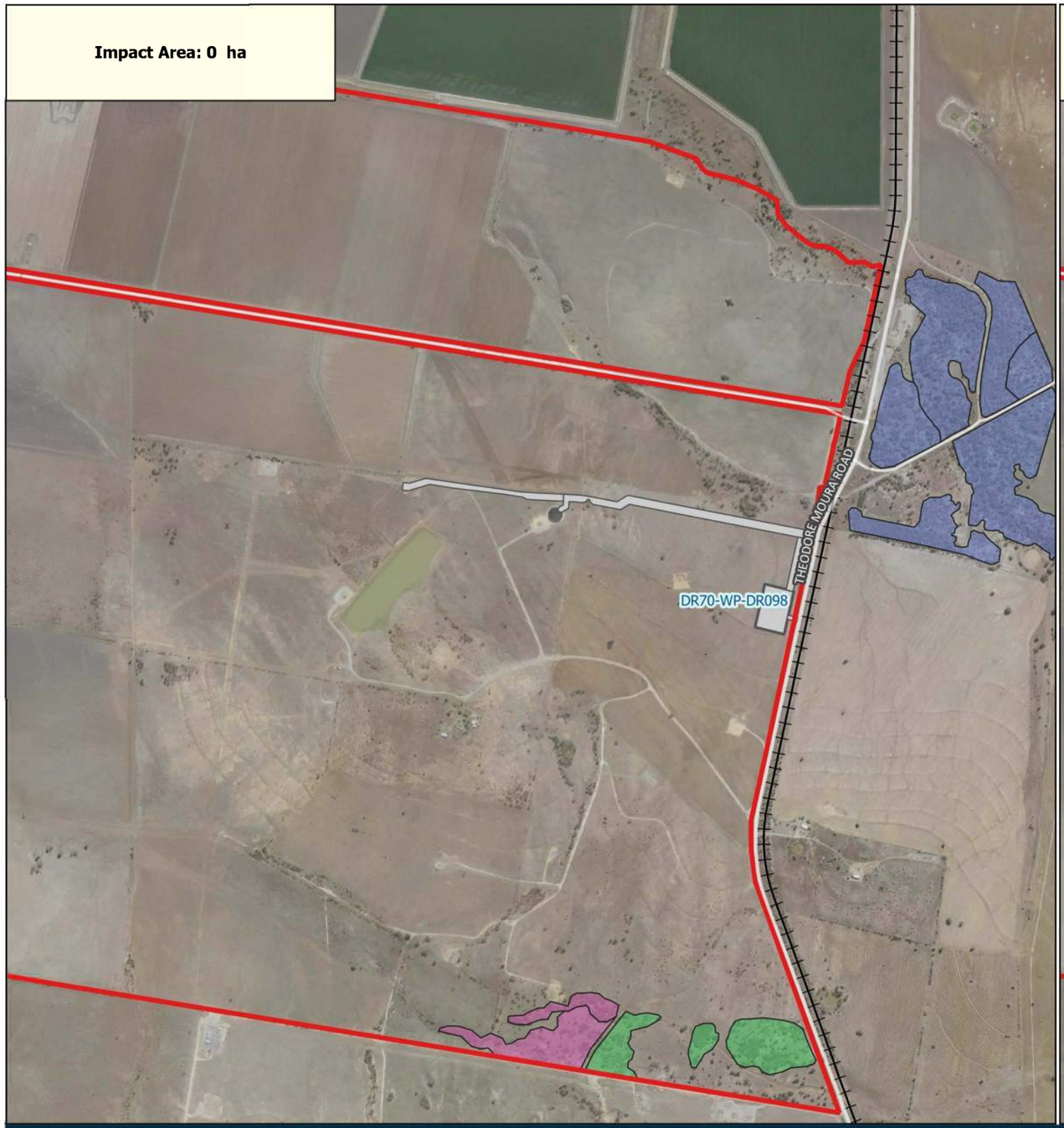

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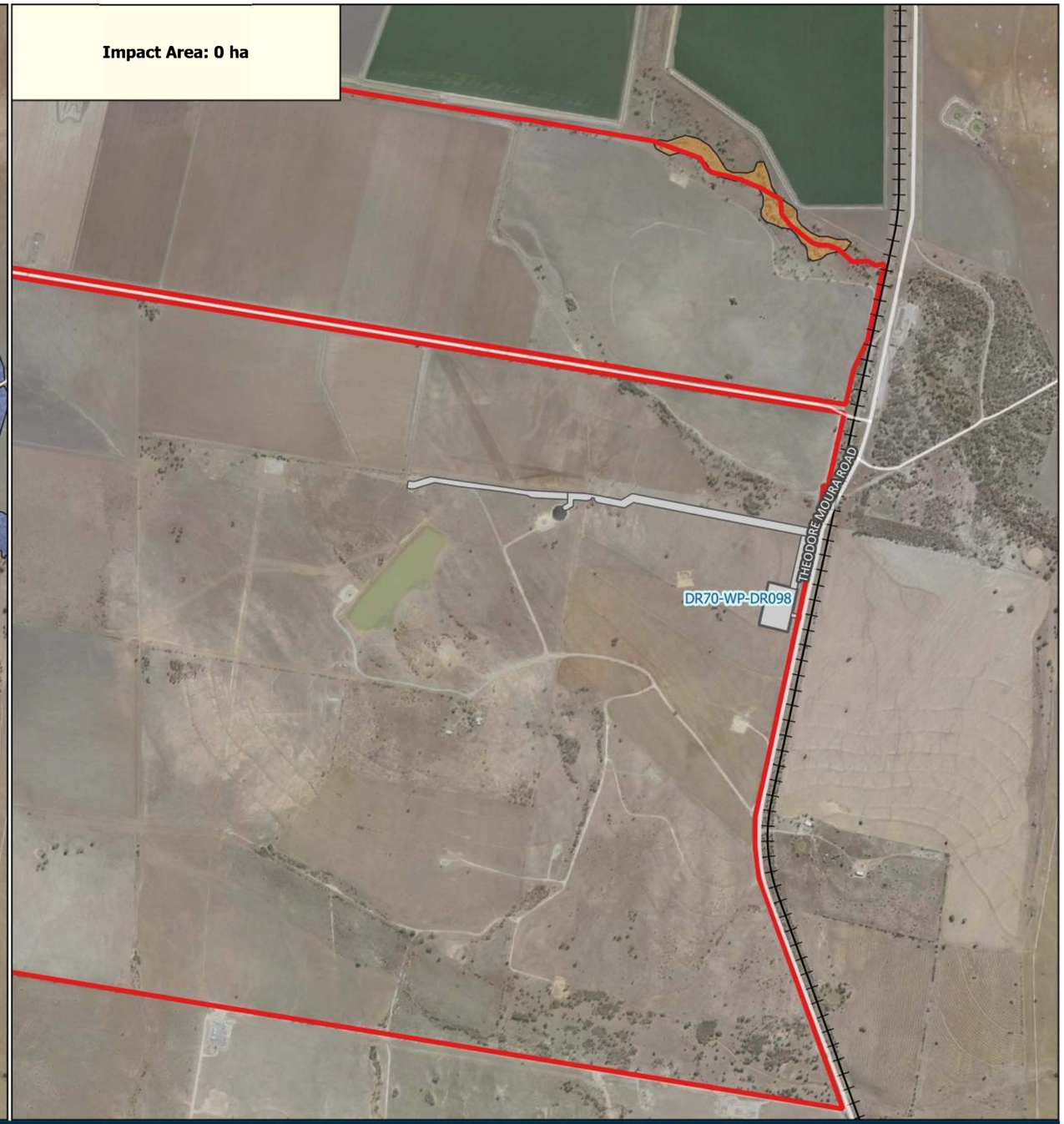

Waddington Park, Westside

Figure 6a - MNES Values on Site

28 South Project Ref: 2026 - 049

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Links to data sources can be provided upon request.

28ºS ENVIRONMENTAL

Legend

- Waddington Park Site Boundary
- Project Area
- Road
- Rail Network (Decommissioned)

Brigalow (Acacia harpophylla dominant and co-dominant TEC

- Analogous RE but not TEC
- Confirmed
- Potential

Coolibah-Black Box Woodlands of the Darling Riverine Plains TEC

- Analogous RE but not TEC

Issue Date	Dwg No.	Author
24-03-2026		NC
Approved	**Revision Note**	
MB		

GDA2020 MGA 56

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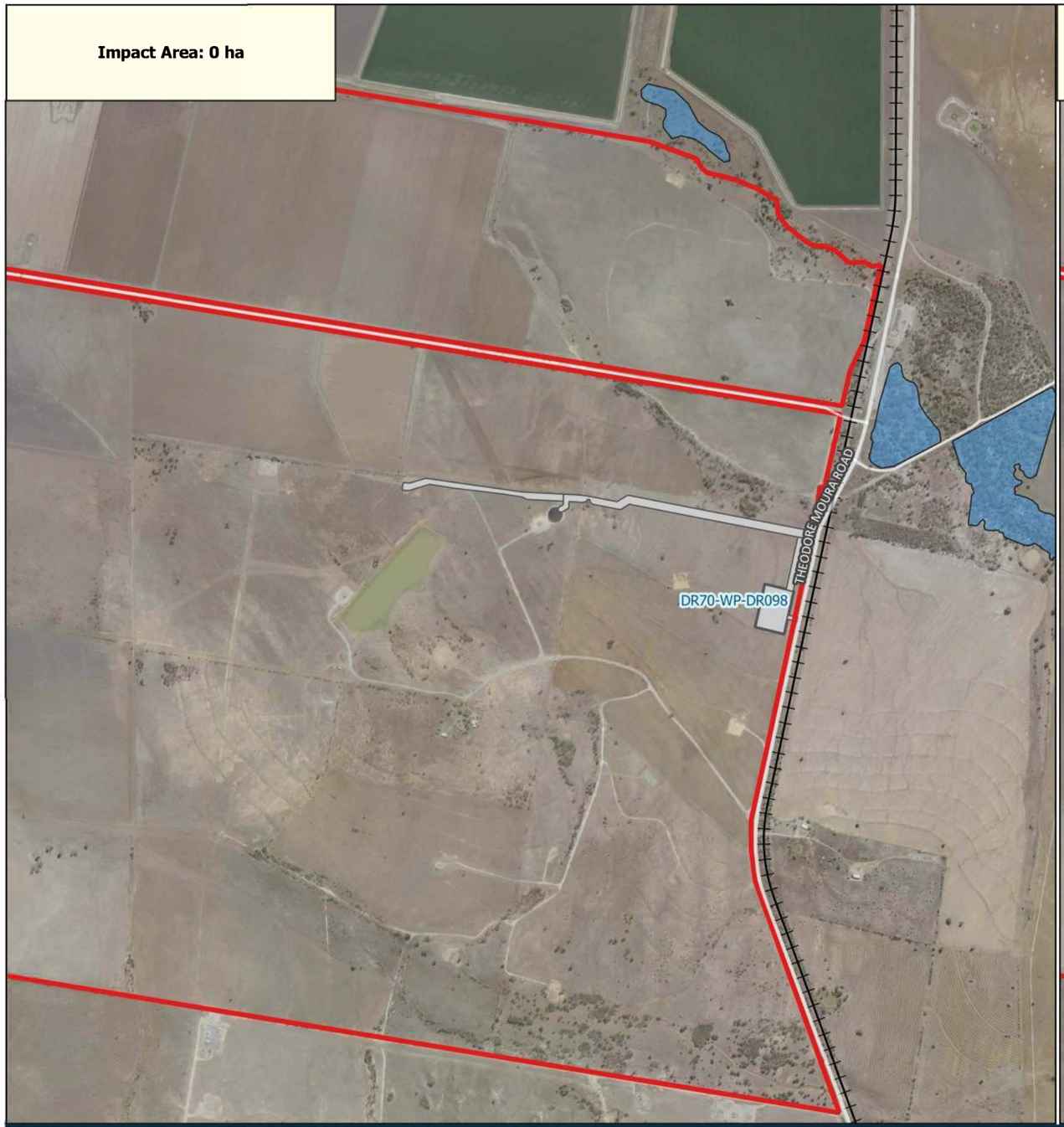

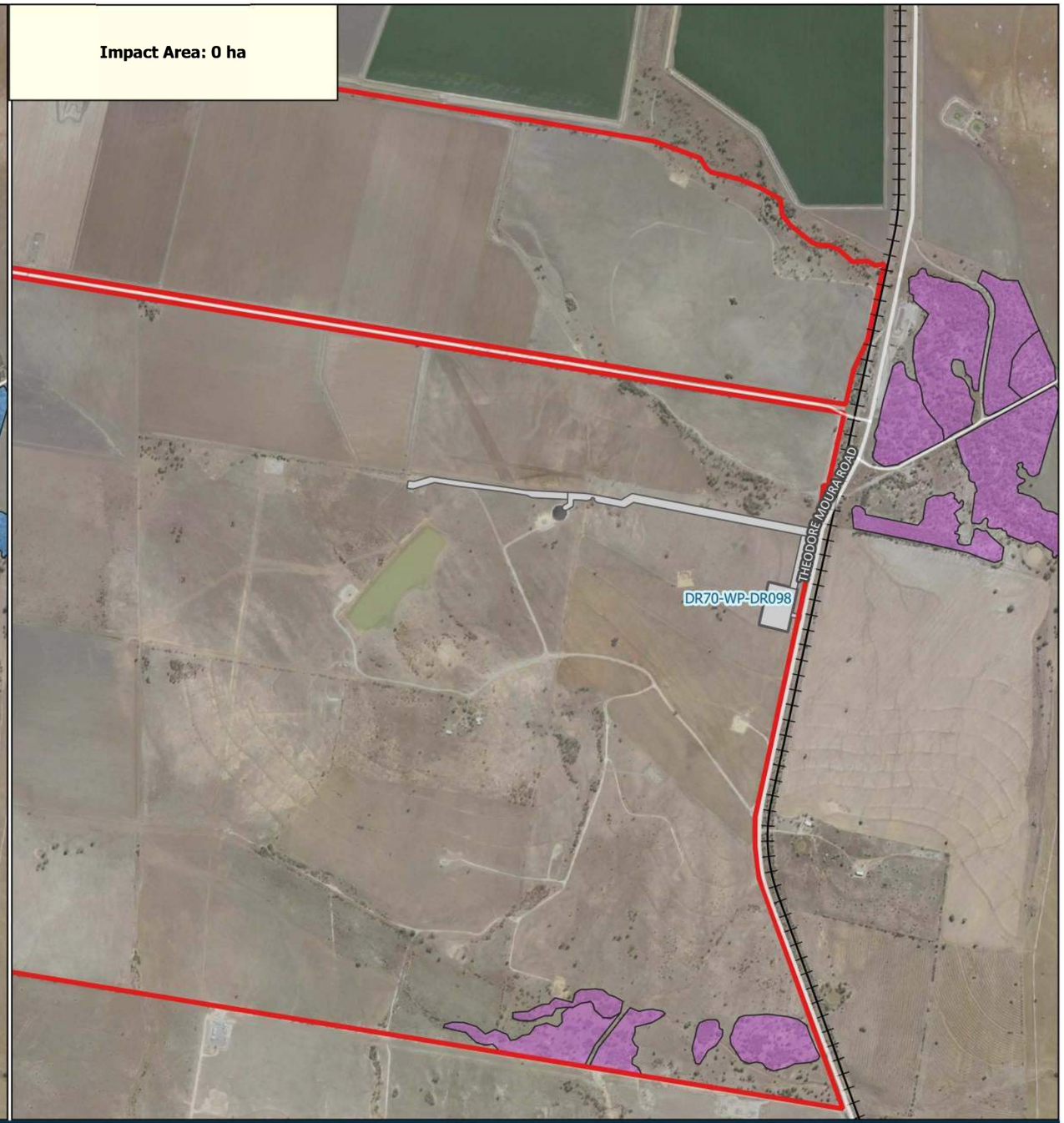

Waddington Park, Westside

Legend

Figure 6b - MNES Values on Site

28 South Project Ref: 2026 - 049

Source: C:\Users\Neha\Dropbox\(d) Projects\2026\2026049_WestSide-KirraleeSurveys\03_Working\01_GIS\2026049_WestSide_Enviro_Services.qgz

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Links to data sources can be provided upon request.

28ºS ENVIRONMENTAL

- Waddington Park Site Boundary
- Project Area
- Road
- Rail Network (Decommissioned)

Poplar Box Grassy Woodlands on Alluvial Plains TEC
- Potential

Xerothamnella herbacea Habitat
- Potential

Issue Date	Dwg No.	Author
24-03-2026		NC
Approved	**Revision Note**	
MB		

GDA2020 MGA 56

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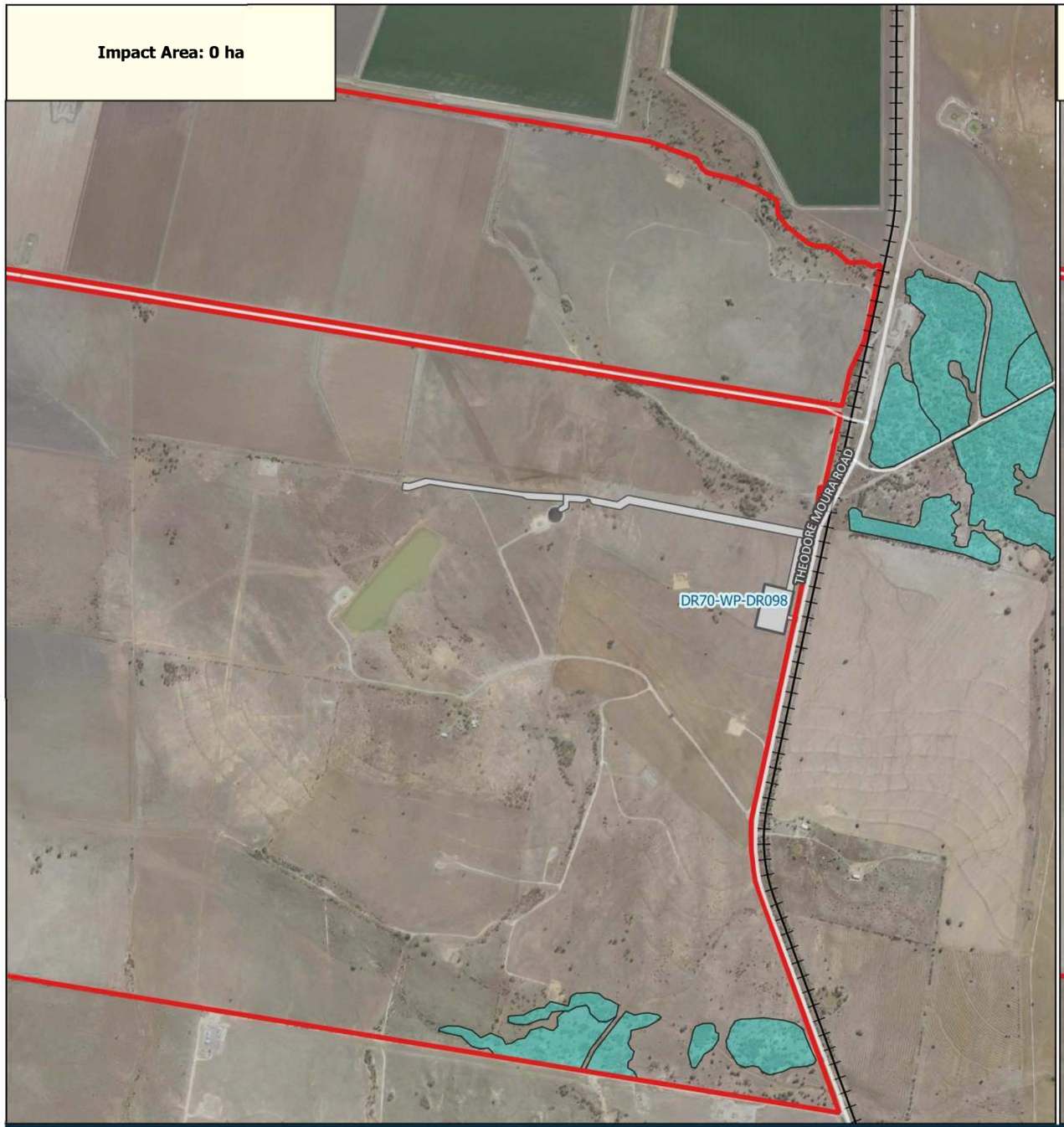

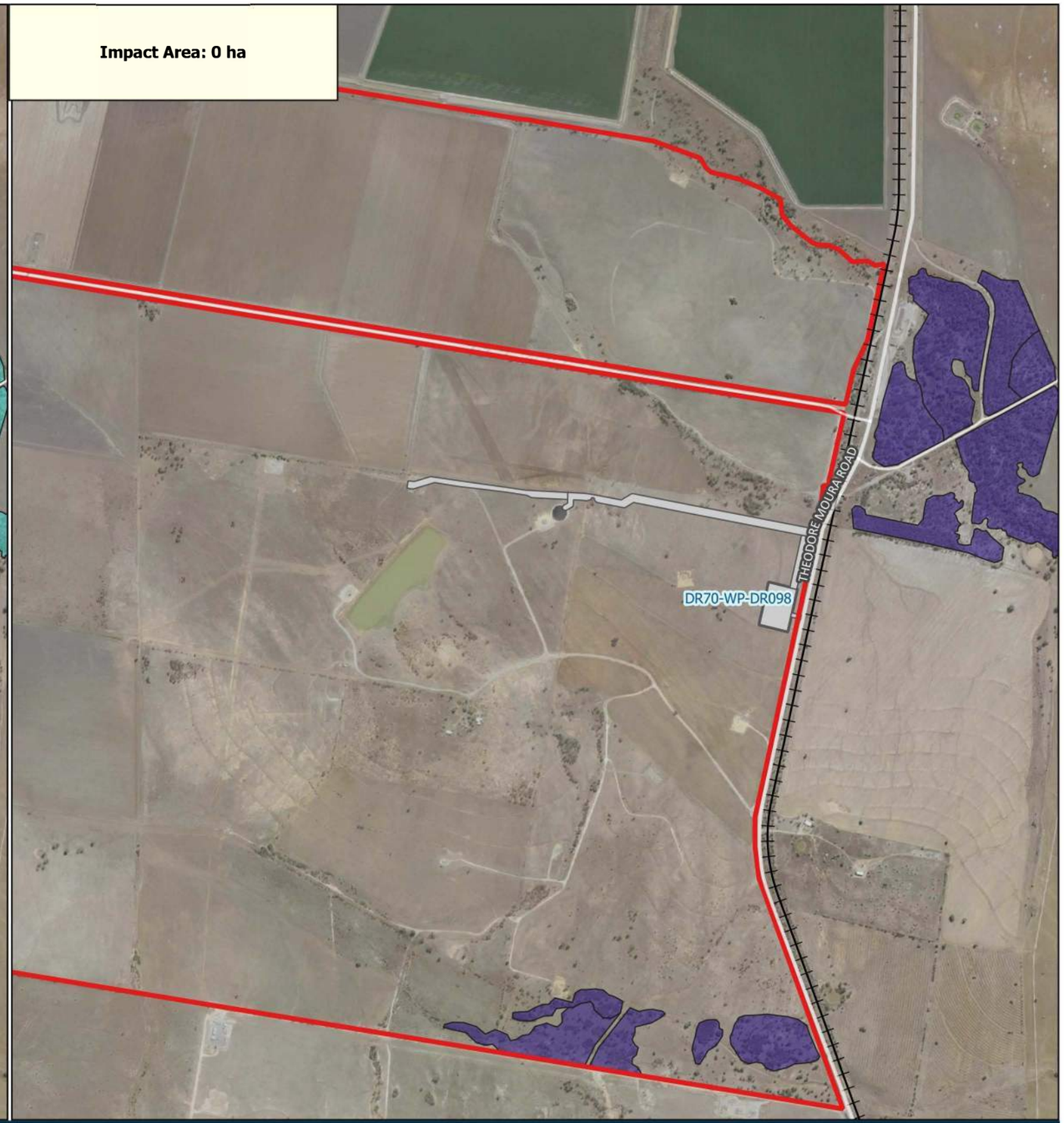

Waddington Park, Westside

Legend

Figure 6c - MNES Values on Site

28 South Project Ref: 2026 - 049

Source: C:\Users\Neha\Dropbox\(d) Projects\2026\2026049_WestSide-KirraleeSurveys\03_Working\01_GIS\2026049_WestSide_Enviro_Services.qgz

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Links to data sources can be provided upon request.

28ºS ENVIRONMENTAL

- Waddington Park Site Boundary
- Project Area
- Road
- Rail Network (Decommissioned)

Solanum dissectum Habitat
- Potential

Solanum johnsonianum Habitat
- Potential

Issue Date	Dwg No.	Author
24-03-2026		NC
Approved	**Revision Note**	
MB		

GDA2020 MGA 56

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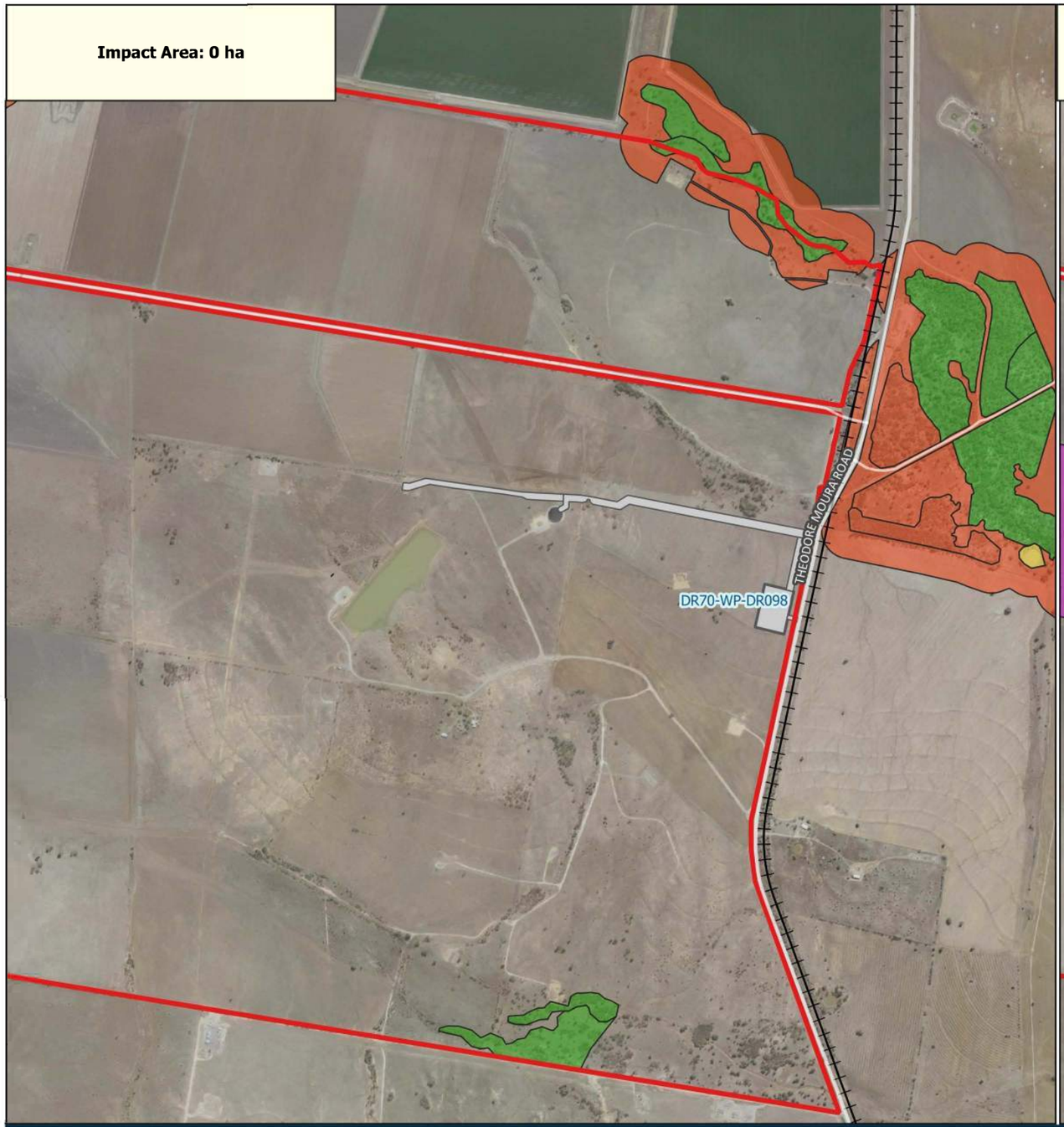

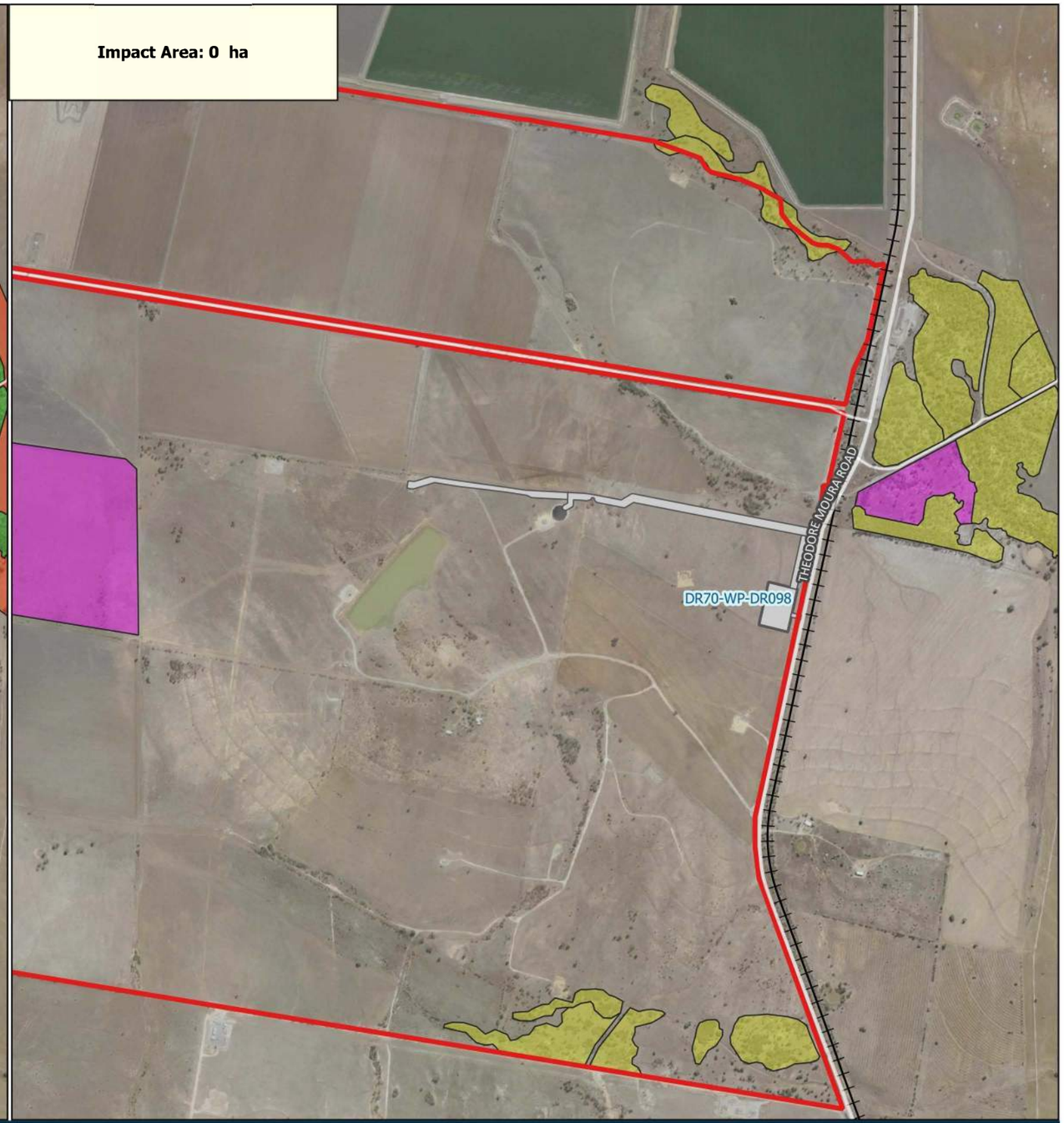

Waddington Park, Westside

Legend

Figure 6d - MNES Values on Site

28 South Project Ref: 2026 - 049

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Links to data sources can be provided upon request.

28ºS ENVIRONMENTAL

- Waddington Park Site Boundary
- Project Area
- Road
- Rail Network (Decommissioned)

Squatter Pigeon Habitat
- Breeding
- Dispersal
- Potential water source

Ornamental Snake Habitat
- Breeding and foraging
- Dispersal

Issue Date	Dwg No.	Author
24-03-2026		NC
Approved	**Revision Note**	
MB		

GDA2020 MGA 56

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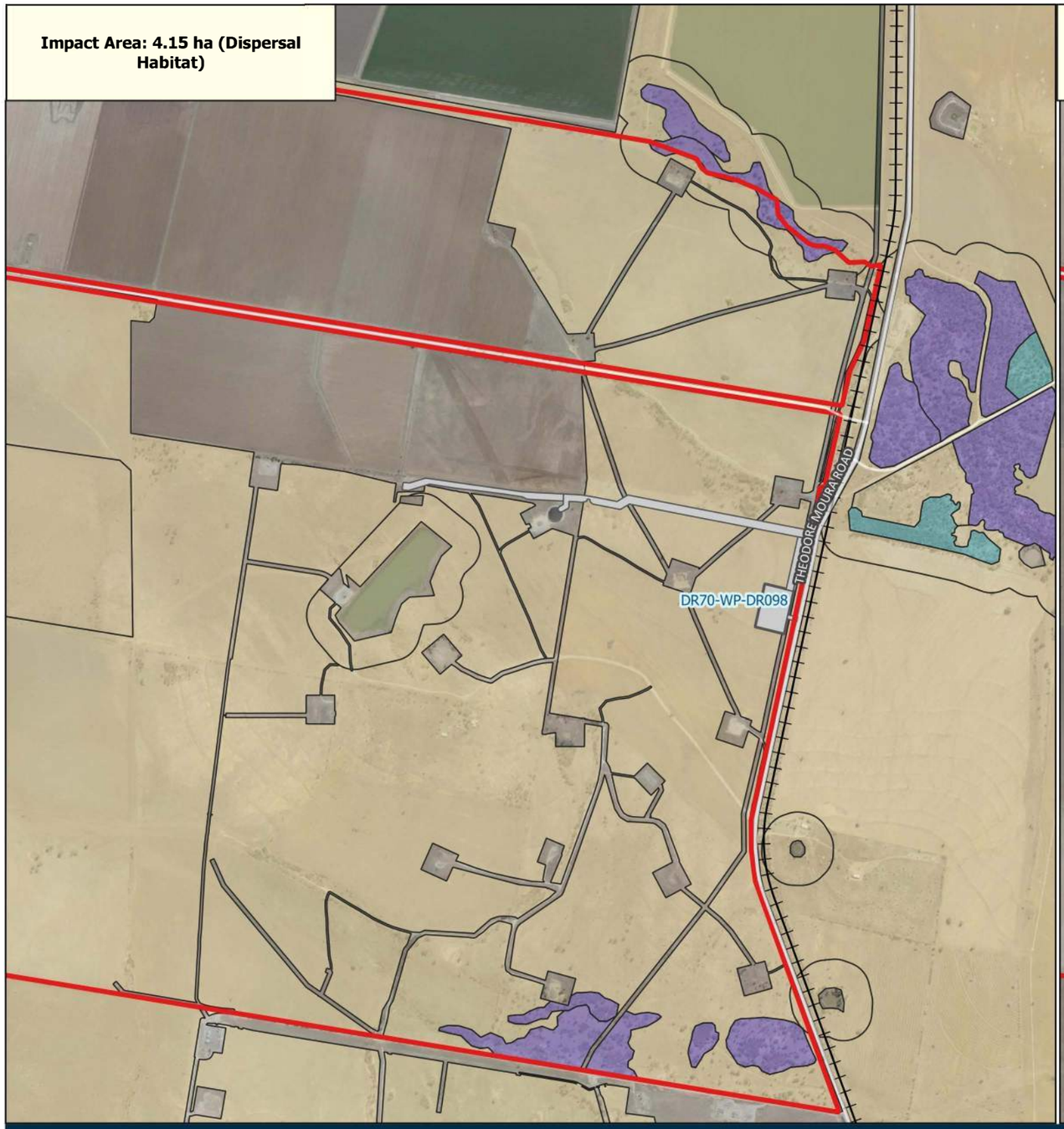
Impact Area: 4.15 ha (Dispersal Habitat)



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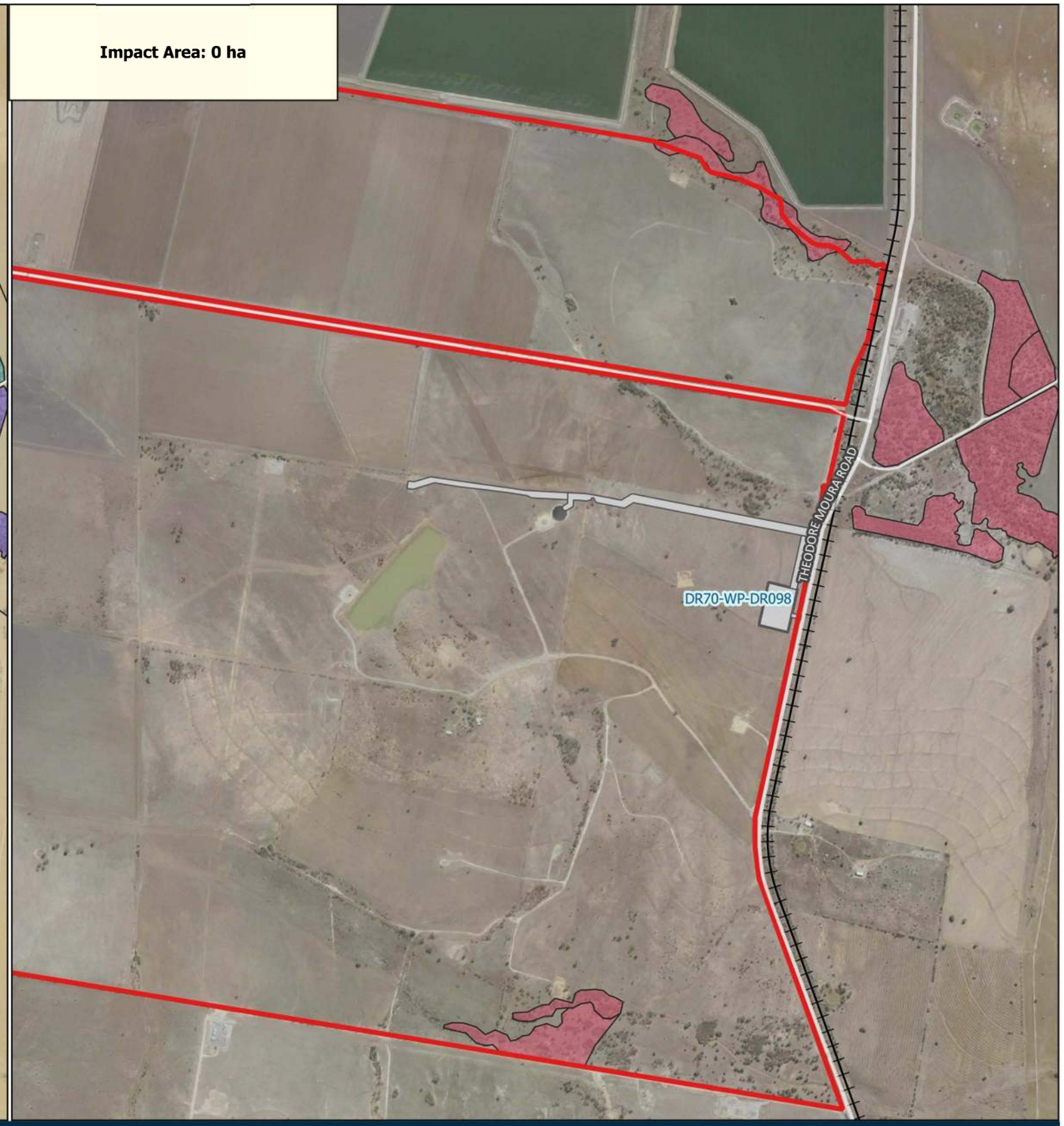

Waddington Park, Westside

Figure 6e - MNES Values on Site

28 South Project Ref: 2026 - 049

Source: C:\Users\Neha\Dropbox\(d) Projects\2026\2026049_WestSide-KirraleeSurveys\03_Working\01_GIS\2026049_WestSide_Enviro_Services.qgz

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28ºS ENVIRONMENTAL

Legend

- Waddington Park Site Boundary
- Project Area
- Road
- Rail Network (Decommissioned)

Koala Habitat
- Breeding and foraging
- Climate refugia
- Dispersal

Yakka Skink Habitat
- Breeding and foraging

Issue Date	Dwg No.	Author
24-03-2026		NC
Approved	**Revision Note**	
MB		

GDA2020 MGA 56

1:18,000

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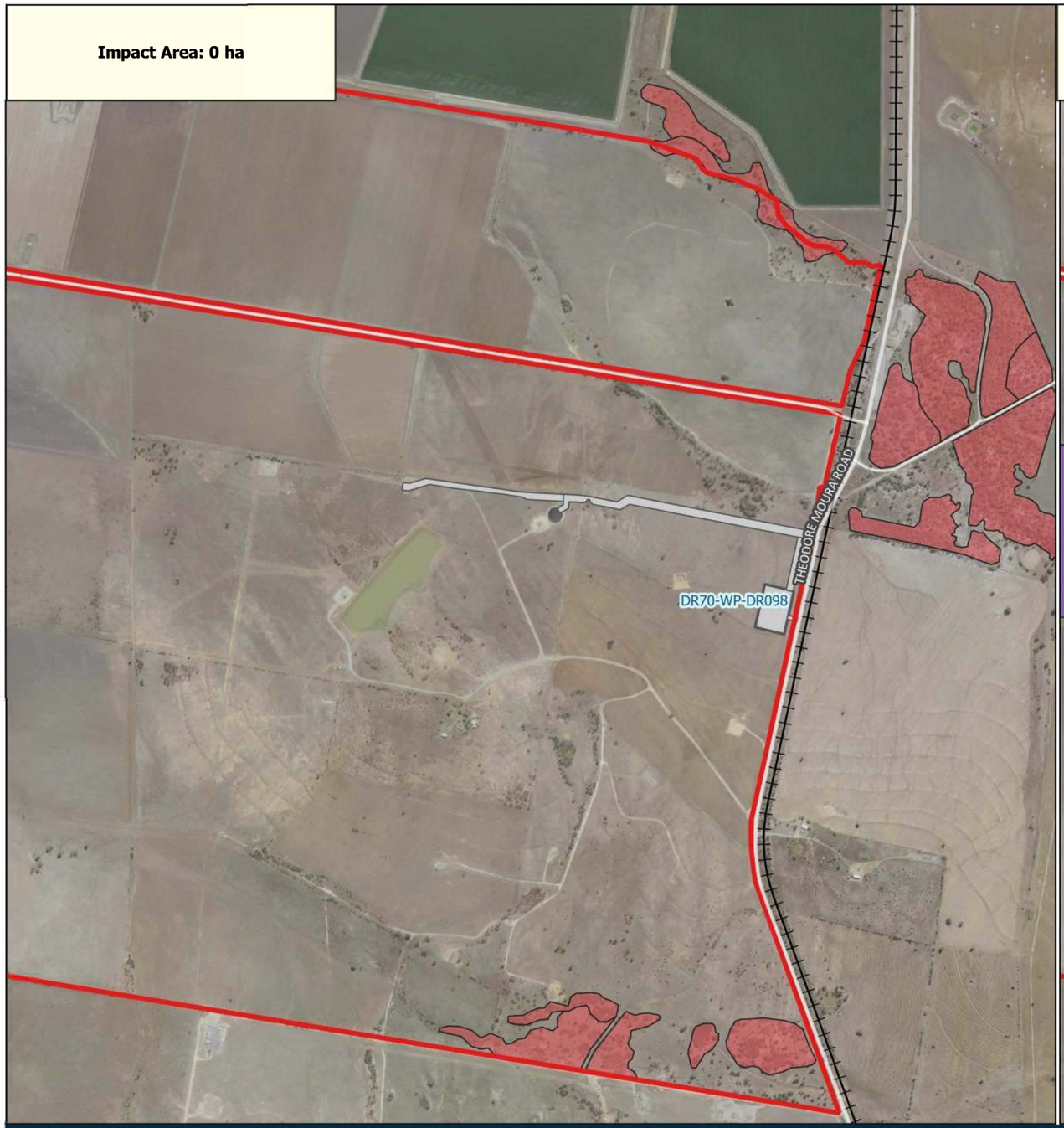
Impact Area: 0 ha



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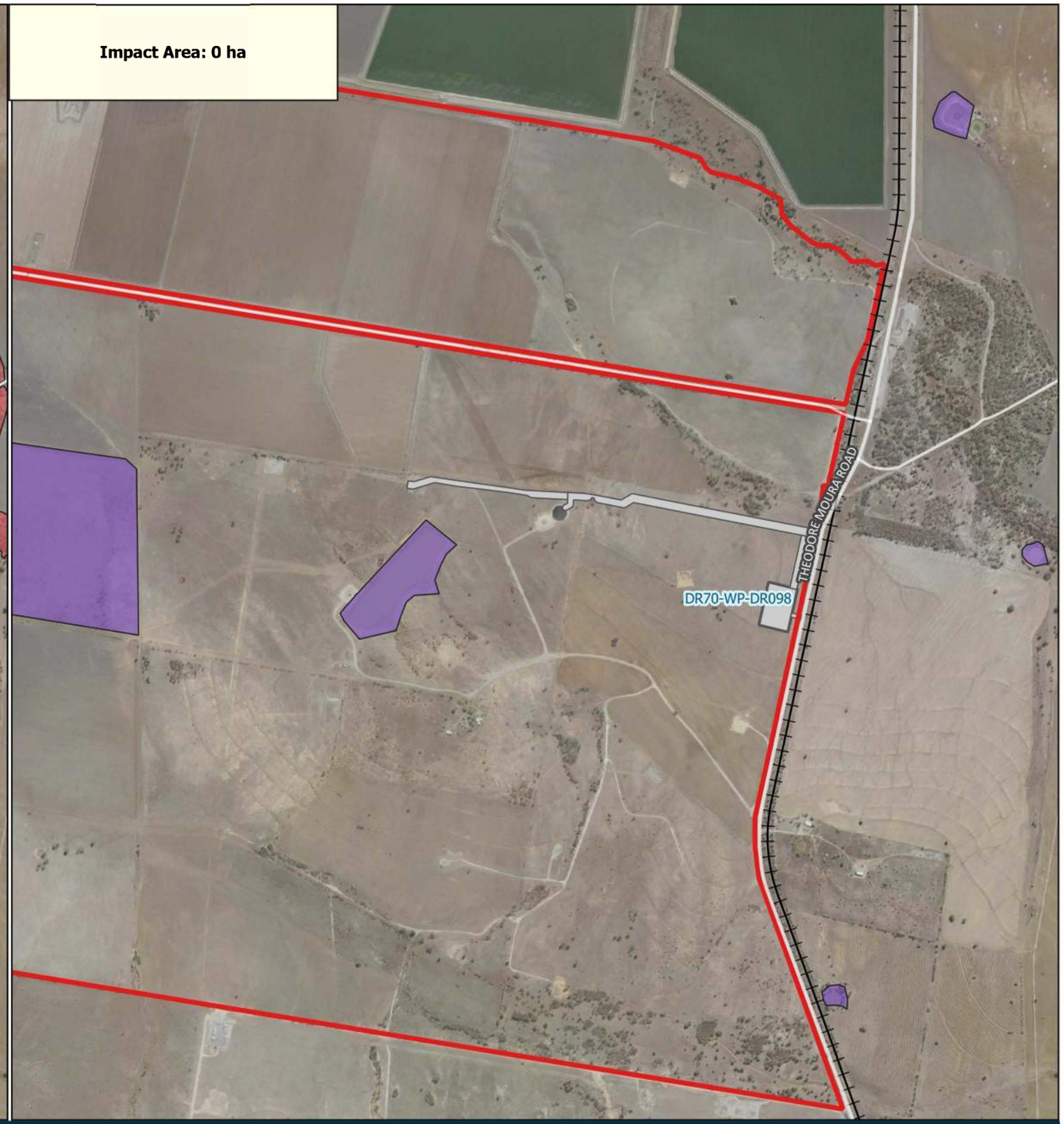

Waddington Park, Westside

Figure 6f - MNES Values on Site

28 South Project Ref: 2026 - 049

Source: C:\Users\Neha\Dropbox\(d) Projects\2026\2026049_WestSide-KirraleeSurveys\03_Working\01_GIS\2026049_WestSide_Enviro_Services.qgz

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Links to data sources can be provided upon request.

28ºS ENVIRONMENTAL

Legend

- Waddington Park Site Boundary
- Project Area
- Road
- Rail Network (Decommissioned)

Painted Honeyeater Habitat
- Breeding, foraging and dispersal

Australian Painted Snipe Habitat
- Seasonal breeding, foraging and dispersal

Issue Date	Dwg No.	Author
24-03-2026		NC
Approved	**Revision Note**	
MB		

GDA2020 MGA 56

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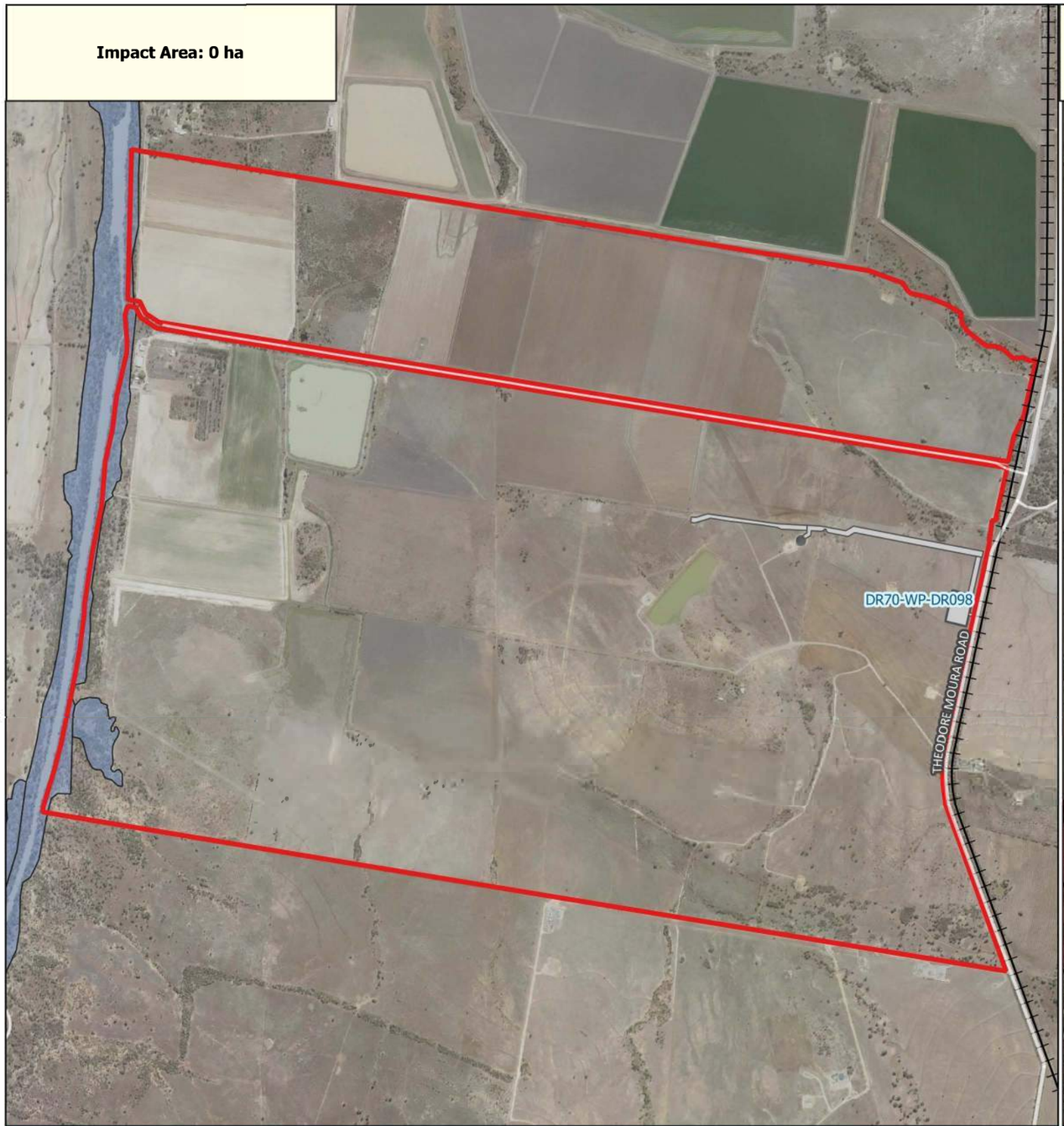

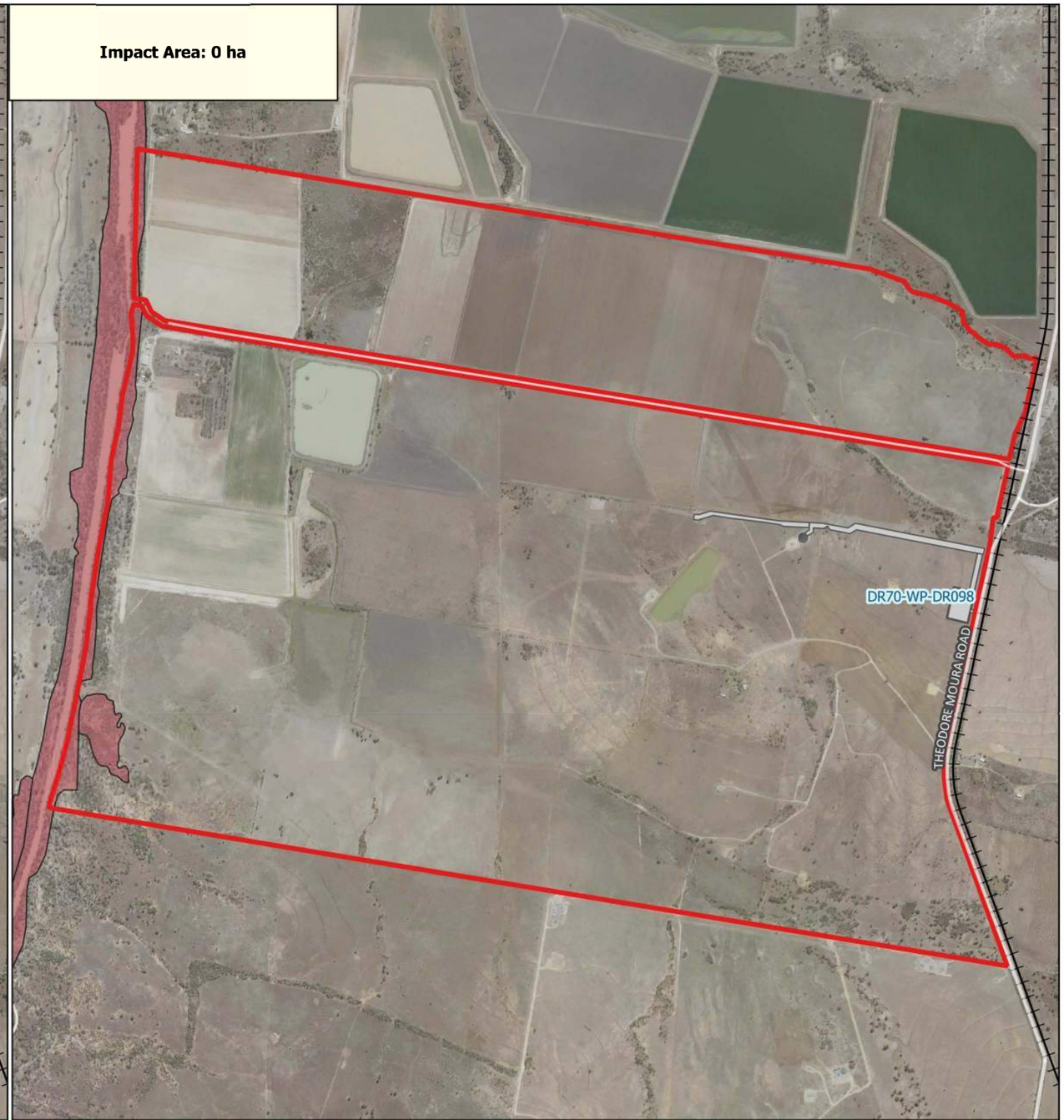

Waddington Park, Westside

Figure 6g - MNES Values on Site

28 South Project Ref: 2026 - 049

Source: C:\Users\Neha\Dropbox\(d) Projects\2026\2026049_WestSide-KirraleeSurveys\03_Working\01_GIS\2026049_WestSide_Enviro_Services.qgz

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Links to data sources can be provided upon request.

28ºS ENVIRONMENTAL

Legend

- Waddington Park Site Boundary
- Disturbance Footprint
- Road
- Rail Network (Decommissioned)

Greater Glider Habitat
- Denning, foraging and dispersal

Yellow-bellied Glider Habitat
- Denning, foraging and dispersal

Issue Date	Dwg No.	Author
24-03-2026		NC
Approved	**Revision Note**	
MB		

GDA2020 MGA 56

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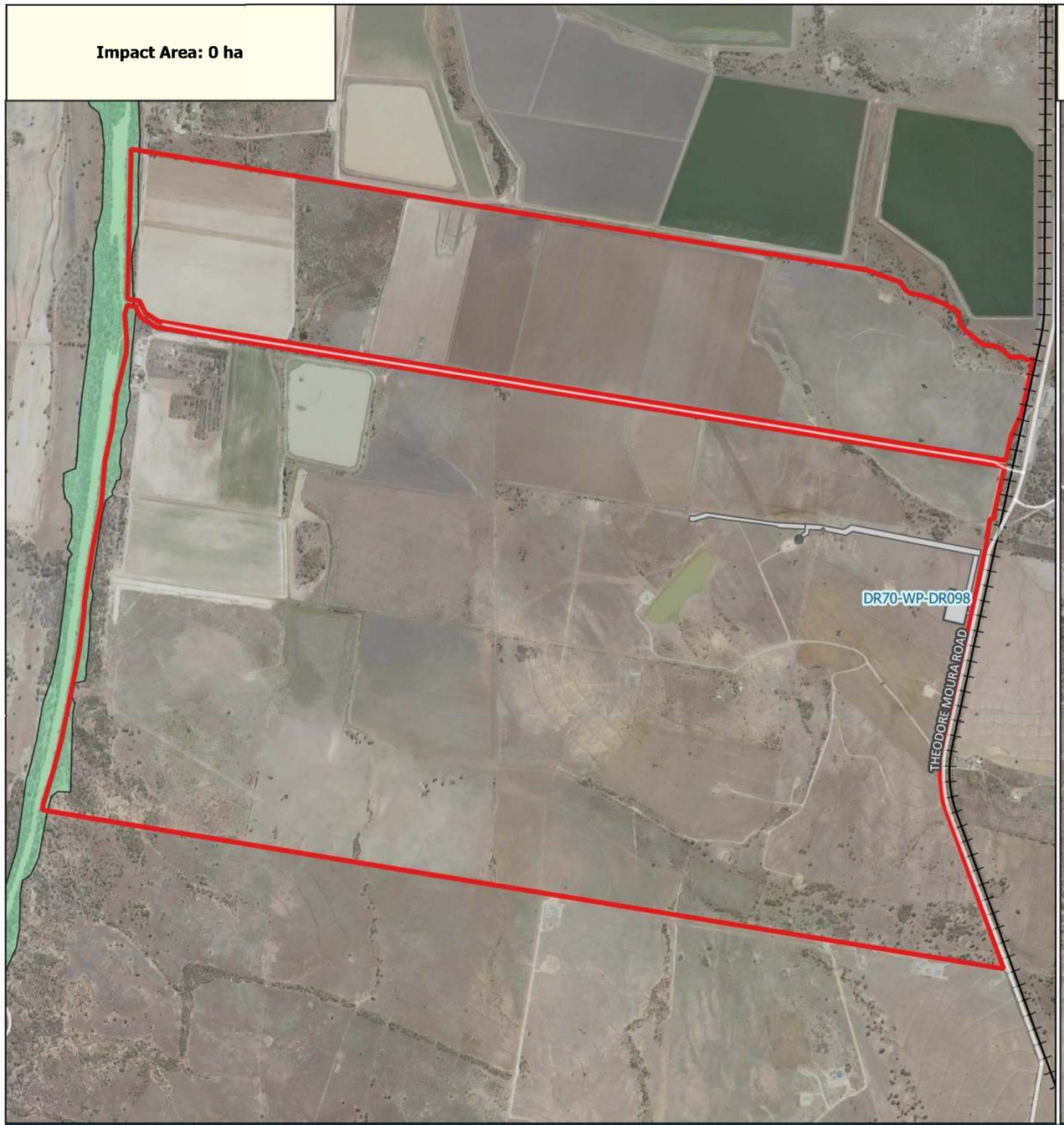

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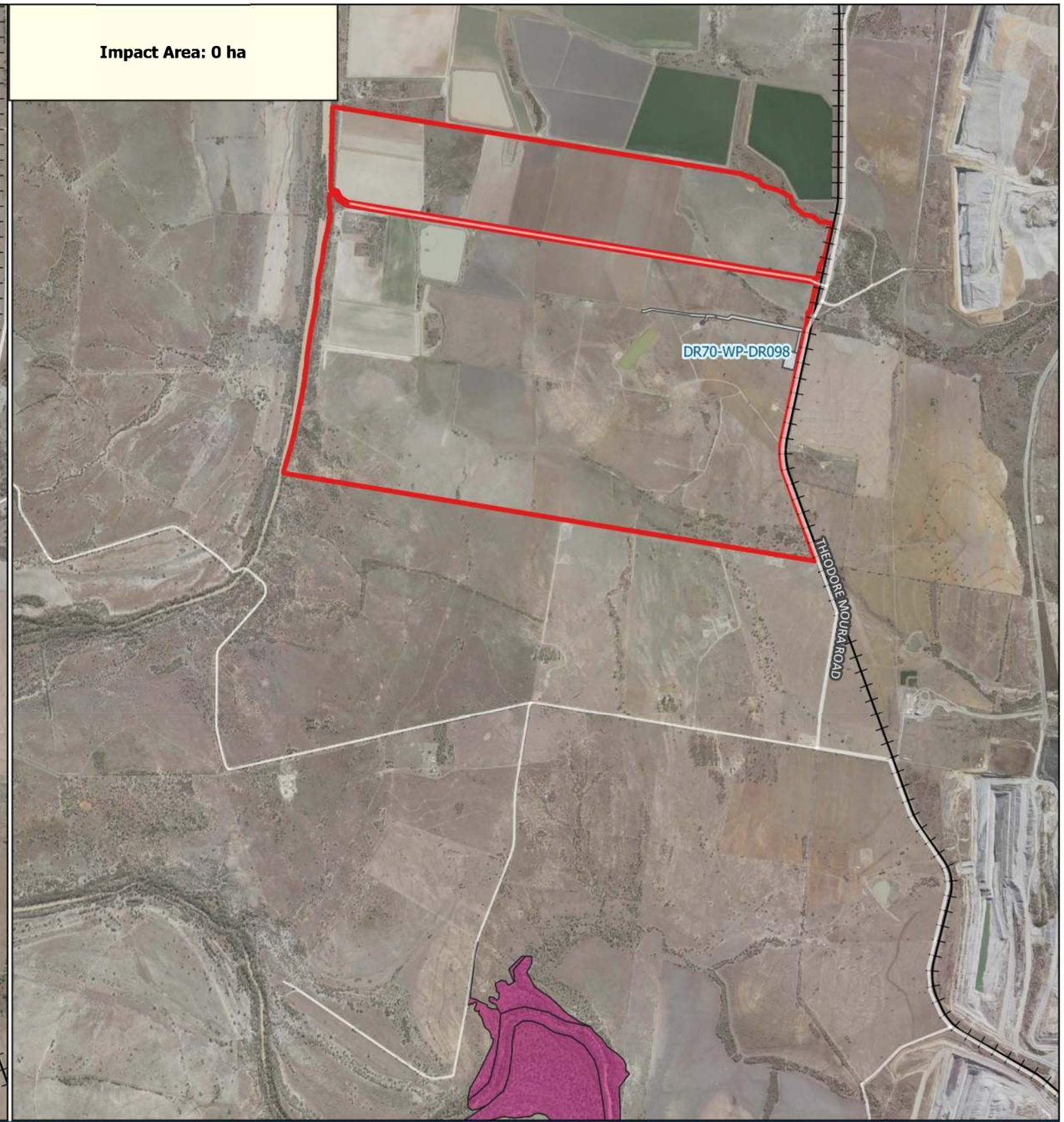

Waddington Park, Westside

Legend

Figure 6h - MNES Values on Site

28 South Project Ref: 2026 - 049

Source: C:\Users\Neha\Dropbox\(d) Projects\2026\2026049_WestSide-KirraleeSurveys\03_Working\01_GIS\2026049_WestSide_Enviro_Services.qg

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Links to data sources can be provided upon request.

28ºS ENVIRONMENTAL

- Waddington Park Site Boundary
- Disturbance Footprint
- Road
- Rail Network (Decommissioned)

Fitzroy River Turtle / White-throated Snapping Turtle Habitat
- Breeding, foraging and dispersal

Boggo Snail Habitat
- Breeding and foraging

Issue Date	Dwg No.	Author
24-03-2026		NC
Approved	**Revision Note**	
MB		

GDA2020 MGA 56

1:25,000

0 0.5 1 km

N

28ºS ENVIRONMENTAL

Attachment 1 – Database Searches

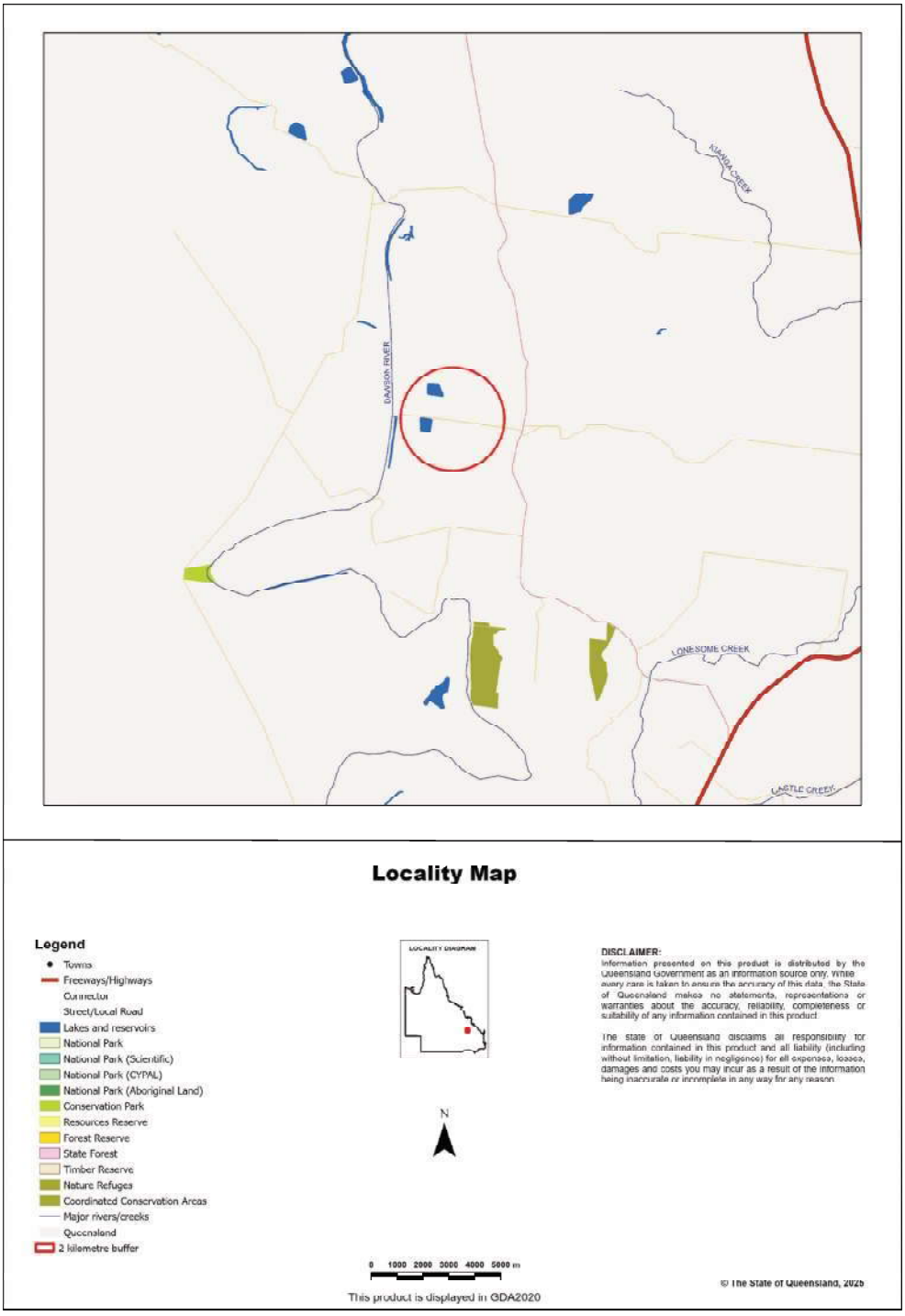
Table of Contents

Assessment Area Details

The following table provides an overview of the area of interest (AOI) with respect to selected topographic and environmental values.

Table 1: Summary table, details for AOI: Longitude: 149.997839 Latitude: -24.770919 with 2 kilometre radius, with area 1256.64 ha

Local Government(s)	Catchment(s)	Bioregion(s)	Subregion(s)
Banana Shire	Fitzroy	Brigalow Belt	Dawson River Downs



Matters of State Environmental Significance (MSES)

MSES Categories

Queensland's State Planning Policy (SPP) includes a biodiversity State interest that states:

'The sustainable, long-term conservation of biodiversity is supported. Significant impacts on matters of national or state environmental significance are avoided, or where this cannot be reasonably achieved; impacts are minimised and residual impacts offset.'

The MSES mapping product is a guide to assist implementation of the SPP biodiversity policy. While it supports the SPP, the mapping does not replace the regulatory mapping or environmental values specifically called up under other laws or regulations.

The SPP defines matters of state environmental significance as:

- Protected areas (including all classes of protected area except coordinated conservation areas) under the *Nature Conservation Act 1992;*

- *Marine parks and land within a 'marine national park', 'conservation park', 'scientific research', 'preservation' or 'buffer' zone under the Marine Parks Act 2004 ;*

- *Areas within declared fish habitat areas that are management A areas or management B areas under the Fisheries Regulation 2008;*

- *Threatened wildlife under the Nature Conservation Act 1992* and special least concern animals under the Nature Conservation (Wildlife) Regulation 2006;

- Regulated vegetation under the *Vegetation Management Act 1999* that is:

  - Category B areas on the regulated vegetation management map, that are 'endangered' or 'of concern' regional ecosystems;
  - Category C areas on the regulated vegetation management map that are 'endangered' or 'of concern' regional ecosystems;
  - Category R areas on the regulated vegetation management map;
  - Regional ecosystems that intersect with watercourses identified on the vegetation management watercourse and drainage feature map;
  - Regional ecosystems that intersect with wetlands identified on the vegetation management wetlands map;

- Strategic Environmental Areas under the *Regional Planning Interests Act 2014* ;

- Wetlands in a wetland protection area of wetlands of high ecological significance shown on the Map of Queensland Wetland Environmental Values under the Environment Protection Regulation 2019;

- Wetlands and watercourses in high ecological value waters defined in the Environmental Protection (Water) Policy 2009, schedule 2;
- Legally secured offset areas.

MSES Values Present

The MSES values that are present in the area of interest are summarised in the table below:

Table 2: Summary of MSES present within the AOI

1a Protected Areas- estates	0 ha	0.0%
1b Protected Areas- nature refuges	0 ha	0.0%
1c Protected Areas- special wildlife reserves	0 ha	0.0%
2 State Marine Parks- highly protected zones	0 ha	0.0%
3 Fish habitat areas (A and B areas)	0 ha	0.0%
4 Strategic Environmental Areas (SEA)	0 ha	0.0%
5 High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values	0 ha	0.0%
6a High Ecological Value (HEV) wetlands	0 ha	0.0%
6b High Ecological Value (HEV) waterways	0 km	Not applicable
7a Threatened (endangered or vulnerable) wildlife	9.6 ha	0.8%
7b Special least concern animals	20.54 ha	1.6%
7c i Koala habitat area - core (SEQ)	0 ha	0.0%
7c ii Koala habitat area - locally refined (SEQ)	0 ha	0.0%
7d Sea turtle nesting areas	0 km	Not applicable
8a Regulated Vegetation - Endangered/Of concern in Category B (remnant)	11.94 ha	1.0%
8b Regulated Vegetation - Endangered/Of concern in Category C (regrowth)	10.96 ha	0.9%
8c Regulated Vegetation - Category R (GBR riverine regrowth)	23.84 ha	1.9%
8d Regulated Vegetation - Essential habitat	9.6 ha	0.8%
8e Regulated Vegetation - intersecting a watercourse	6.5 km	Not applicable
8f Regulated Vegetation - within 100m of a Vegetation Management Wetland	0 ha	0.0%
9a Legally secured offset areas- offset register areas	0 ha	0.0%
9b Legally secured offset areas- vegetation offsets through a Property Map of Assessable Vegetation	0 ha	0.0%

Additional Information with Respect to MSES Values Present

MSES - State Conservation Areas

1a. Protected Areas - estates

(No results)

1b. Protected Areas - nature refuges

(No results)

1c. Protected Areas - special wildlife reserves

(No results)

2. State Marine Parks - highly protected zones

(No results)

3. Fish habitat areas (A and B areas)

(No results)

Refer to **Map 1 - MSES - State Conservation Areas** for an overview of the relevant MSES.

MSES - Wetlands and Waterways

4. Strategic Environmental Areas (SEA)

(No results)

5. High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values

(no results)

6a. Wetlands in High Ecological Value (HEV) waters

(no results)

6b. Waterways in High Ecological Value (HEV) waters

(no results)

Refer to **Map 2 - MSES - Wetlands and Waterways** for an overview of the relevant MSES.

MSES - Species

7a. Threatened (endangered or vulnerable) wildlife

Values are present

7b. Special least concern animals

Values are present

7c i. Koala habitat area - core (SEQ)

Not applicable

7c ii. Koala habitat area - locally refined (SEQ)

Not applicable

7d. Wildlife habitat (sea turtle nesting areas)

Not applicable

Threatened (endangered or vulnerable) wildlife habitat suitability models

Species	Common name	NCA status	Presence
Boronia keysii	Keys boronia	V	None
Calyptorhynchus lathami	Glossy black cockatoo	V	None
Casuarius casuarius johnsonii	Sthn population cassowary	E	None
Crinia tinnula	Wallum froglet	V	None
Denisonia maculata	Ornamental snake	V	Core
Euastacus bindal	Mount Elliot crayfish	CR	None
Euastacus binzayedi		CR	None
Euastacus eungella		E	None
Euastacus hystricosus		E	None
Euastacus jagara	Jagara hairy crayfish	CR	None
Euastacus maidae		CR	None
Euastacus monteithorum		E	None
Euastacus robertsi		E	None
Taudactylus pleione	Kroombit tinkerfrog	E	None
Litoria freycineti	Wallum rocketfrog	V	None
Litoria olongburensis	Wallum sedgefrog	V	None
Macadamia integrifolia		V	None
Melaleuca irbyana	swamp tea-tree	E	None
Macadamia ternifolia		V	None
Macadamia tetraphylla	bopple nut	V	None
Petrogale penicillata	brush-tailed rock-wallaby	V	None
Petrogale coenensis	Cape York rock-wallaby	E	None
Petrogale purpureicollis	purple-necked rock-wallaby	V	None
Petrogale sharmani	Sharmans rock-wallaby	V	None
Petrogale xanthopus celeris	yellow-footed rock-wallaby (Qld subspecies)	V	None
Petaurus gracilis	Mahogany Glider	E	None
Petrogale persephone	Proserpine rock-wallaby	E	None
Phascolarctos cinereus	Koala - outside SEQ*	E	None
Pezoporus wallicus wallicus	Eastern ground parrot	V	None
Xeromys myoides	Water Mouse	V	None

*For koala model, this includes areas outside SEQ. Check 7c SEQ koala habitat for presence/absence.

Threatened (endangered or vulnerable) wildlife species records

(No results)

Special least concern animal species records

Scientific name	Common name	Migratory status
Tringa glareola	wood sandpiper	M-C/J/R/B/E

Shorebird habitat (critically endangered/endangered/vulnerable)

Not applicable

Shorebird habitat (special least concern)

Not applicable

**Nature Conservation Act 1992 (NCA) Status- Endangered (E), Vulnerable (V) or Special Least Concern Animal (SL). Environment Protection and Biodiversity Conservation Act 1999 (EPBC) status: Critically Endangered (CE) Endangered (E), Vulnerable (V)*

Migratory status (M) - China and Australia Migratory Bird Agreement (C), Japan and Australia Migratory Bird Agreement (J), Republic of Korea and Australia Migratory Bird Agreement (R), Bonn Migratory Convention (B), Eastern Flyway (E)

To request a species list for an area, or search for a species profile, access Wildlife Online at:

https://www.qld.gov.au/environment/plants-animals/species-list/

Refer to **Map 3a - MSES - Species - Threatened (endangered or vulnerable) wildlife and special least concern animals** and **Map 3b - MSES - Species - Koala habitat area (SEQ)** and **Map 3c - MSES - Wildlife habitat (sea turtle nesting areas)** for an overview of the relevant MSES.

MSES - Regulated Vegetation

For further information relating to regional ecosystems in general, go to:

https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/

For a more detailed description of a particular regional ecosystem, access the regional ecosystem search page at:

https://environment.ehp.qld.gov.au/regional-ecosystems/

8a. Regulated Vegetation - Endangered/Of concern in Category B (remnant)

Regional ecosystem	Vegetation management polygon	Vegetation management status
11.3.17/11.4.9a	E-subdom	rem_end
11.3.2/11.3.25	O-dom	rem_oc

8b. Regulated Vegetation - Endangered/Of concern in Category C (regrowth)

Regional ecosystem	Vegetation management polygon	Vegetation management status
11.3.1/11.3.2	E-dom	hvr_end

8c. Regulated Vegetation - Category R (GBR riverine regrowth)

Regulated vegetation map category	Map number
R	8848
R	8948

8d. Regulated Vegetation - Essential habitat

Values are present

8e. Regulated Vegetation - intersecting a watercourse**

A vegetation management watercourse is mapped as present

8f. Regulated Vegetation - within 100m of a Vegetation Management wetland

Not applicable

Refer to **Map 4 - MSES - Regulated Vegetation** for an overview of the relevant MSES.

MSES - Offsets

9a. Legally secured offset areas - offset register areas

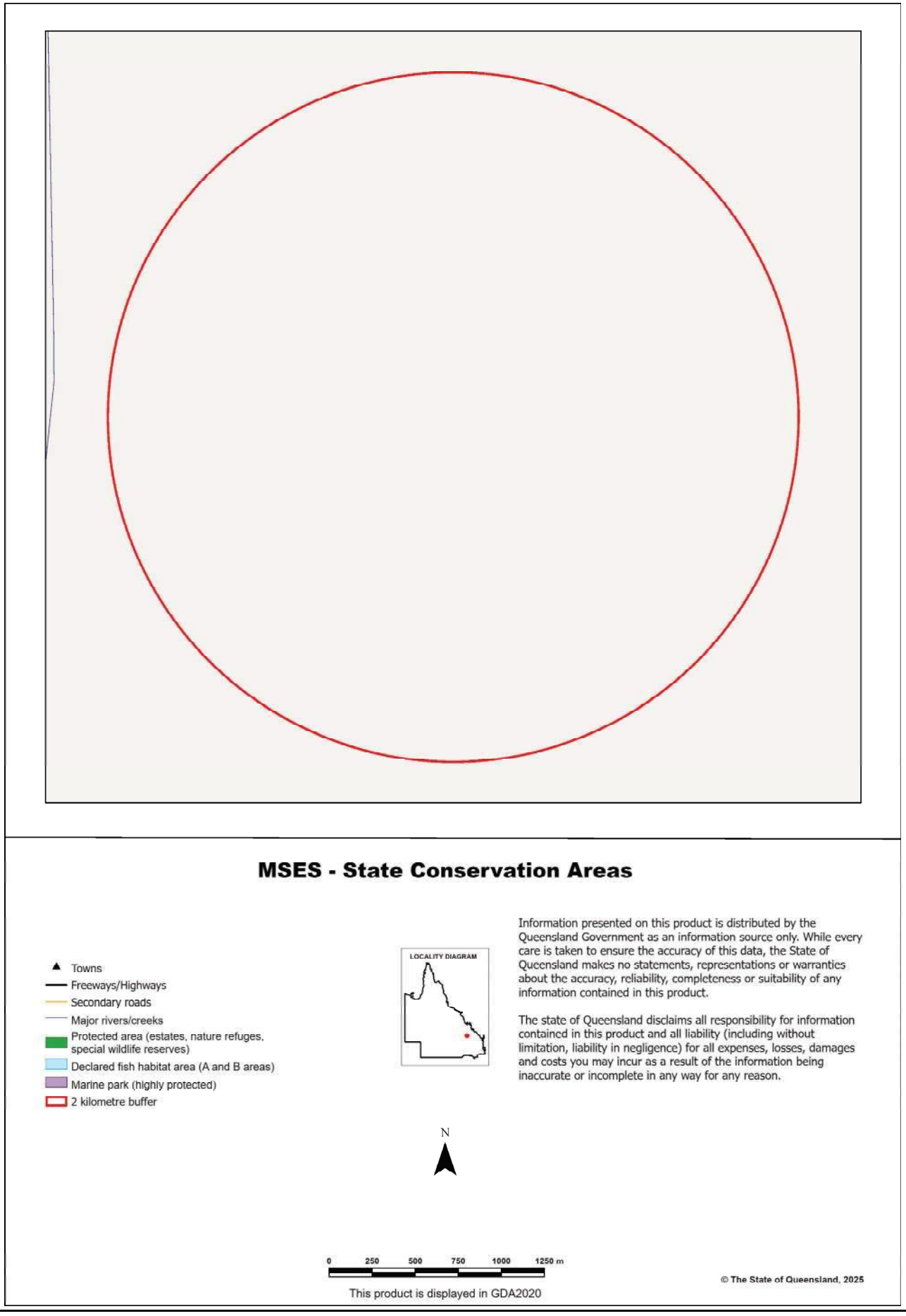
(No results)

9b. Legally secured offset areas - vegetation offsets through a Property Map of Assessable Vegetation

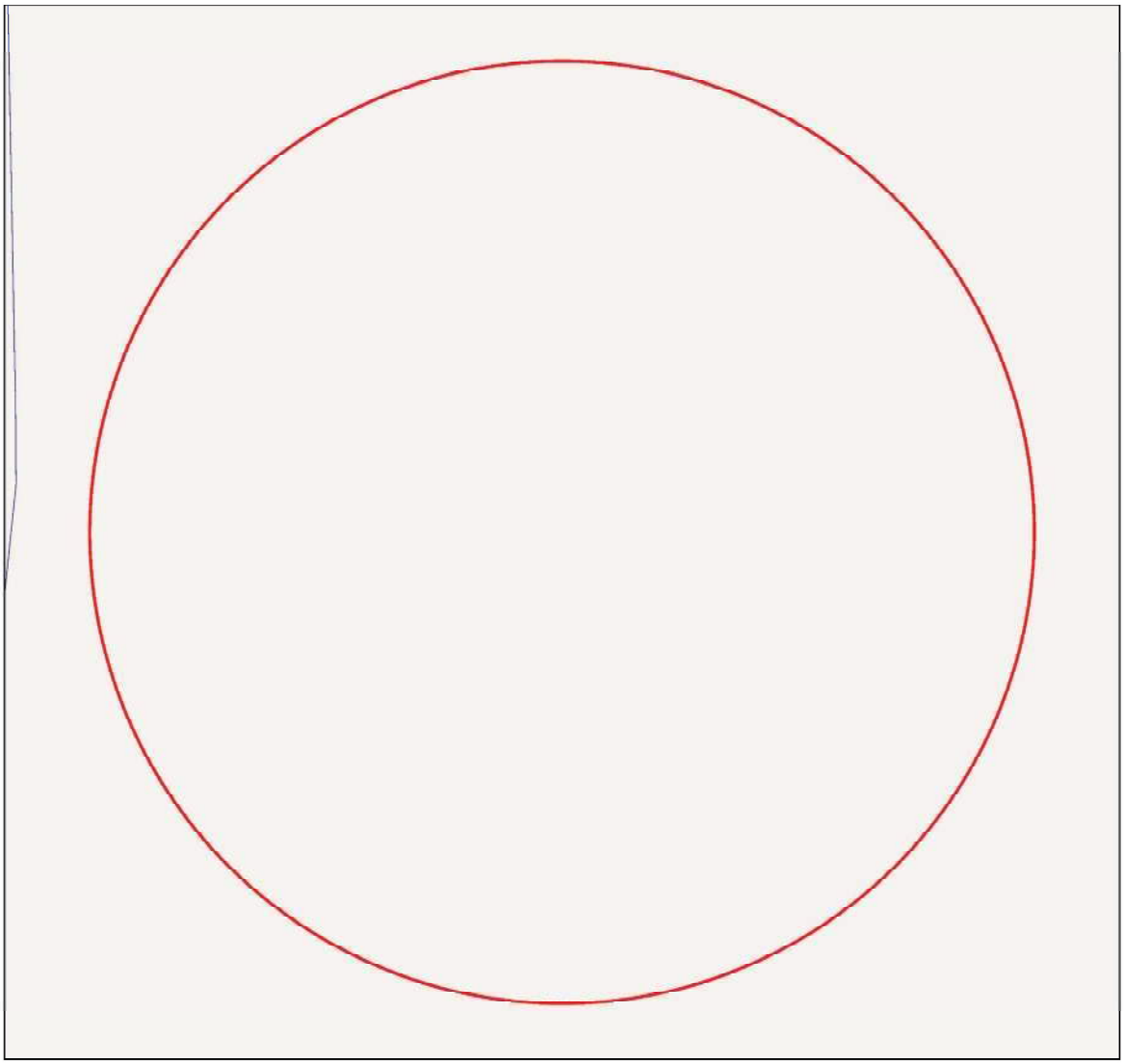
(No results)

Refer to **Map 5 - MSES - Offset Areas** for an overview of the relevant MSES.

Map 1 - MSES - State Conservation Areas



Map 2 - MSES - Wetlands and Waterways



MSES - Wetlands and Waterways

- Towns
- Freeways/Highways
- Secondary roads
- Major rivers/creeks
- Declared high ecological value waters (watercourse)
- Strategic environmental area (designated precinct)
- Declared high ecological value waters (wetland)
- High ecological significance wetlands
- 2 kilometre buffer

LOCALITY DIAGRAM

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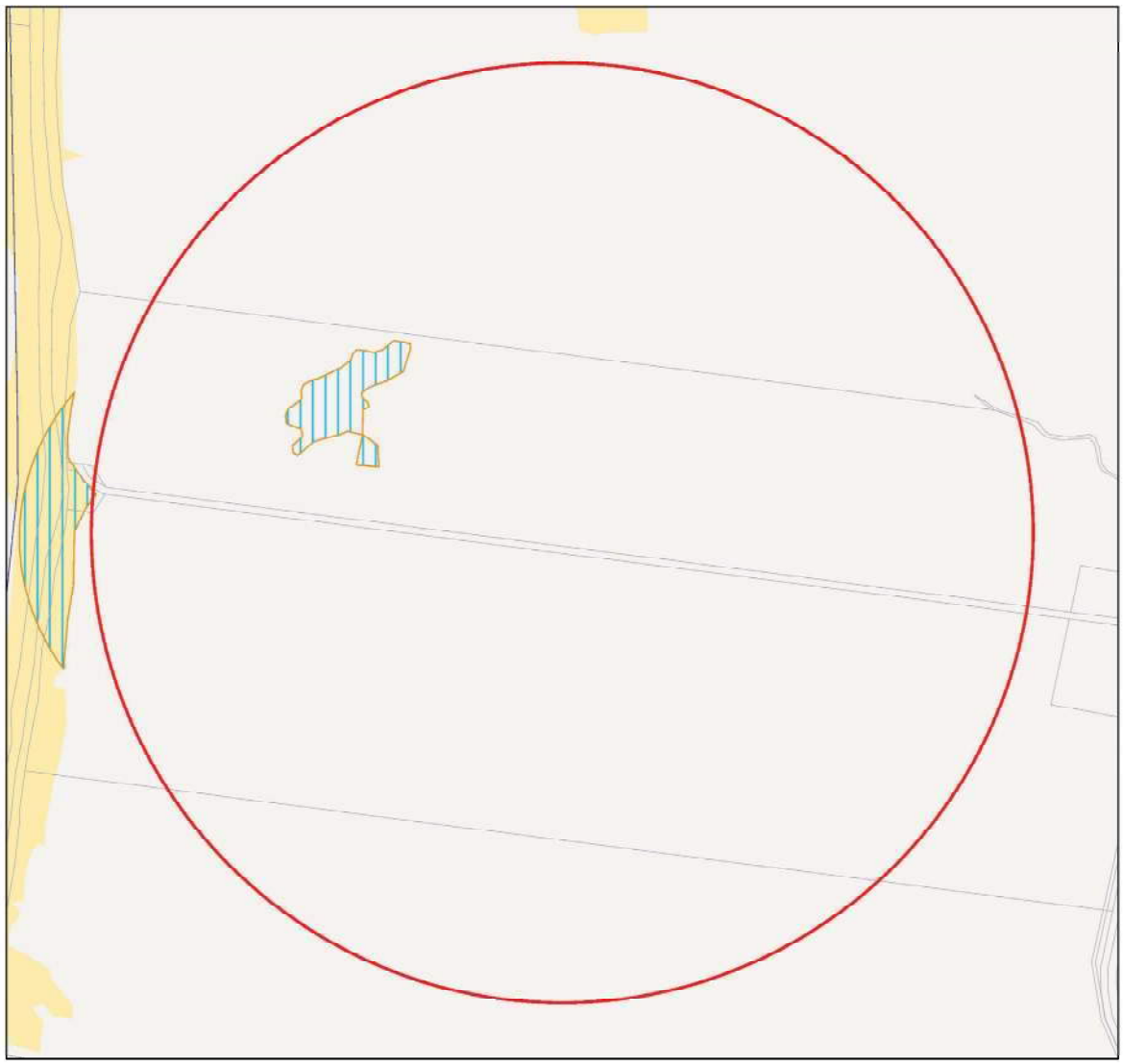
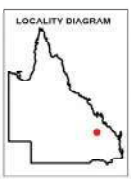
Map 3a - MSES - Species - Threatened (endangered or vulnerable) wildlife and special least concern animals



MSES - Species
Threatened (endangered or vulnerable) wildlife and special least concern animals

- ▲ Towns
- Freeways/Highways
- Secondary roads
- Major rivers/creeks
- Wildlife habitat (special least concern)
- Wildlife habitat (endangered or vulnerable)
- 2 kilometre buffer



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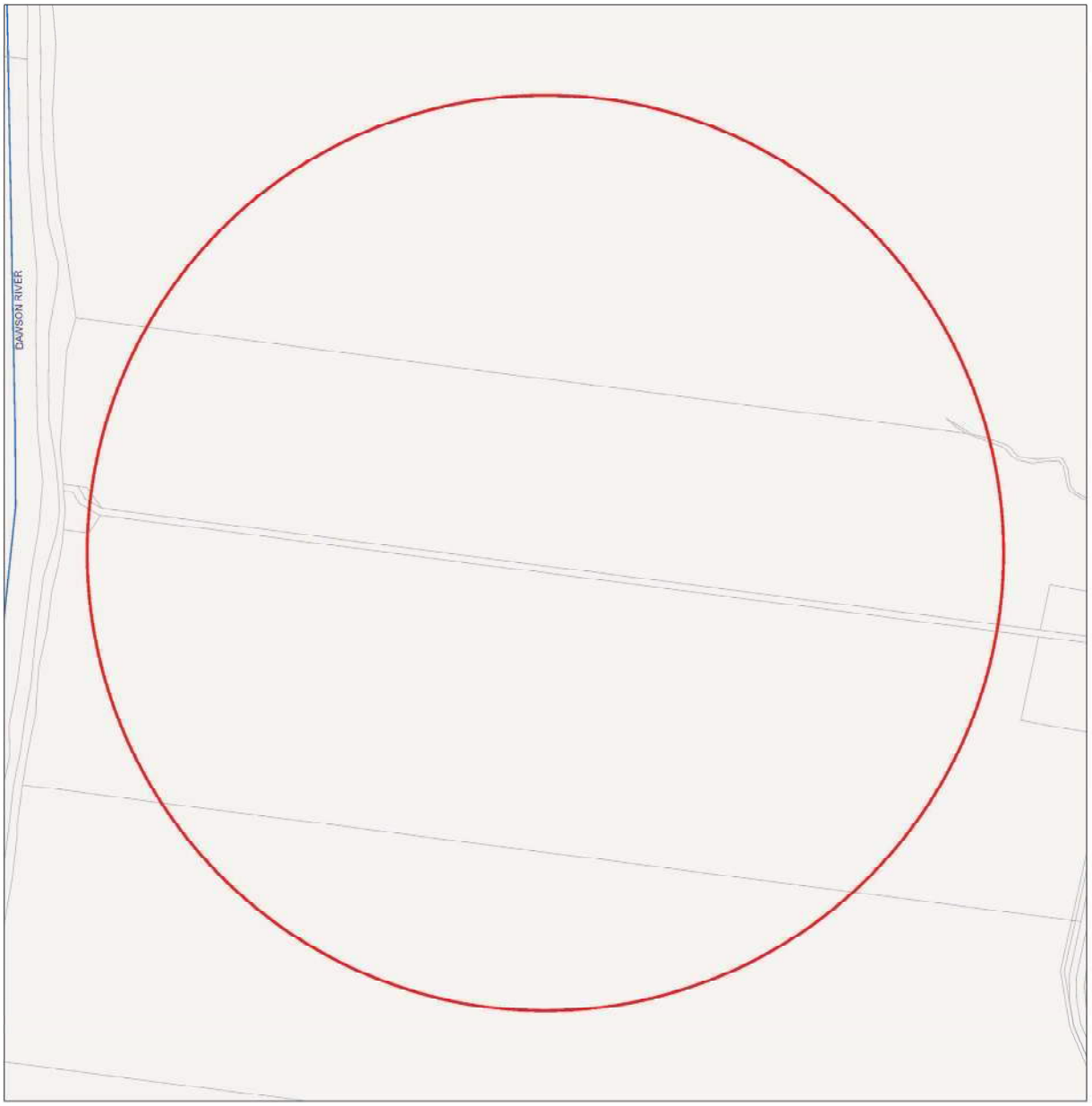
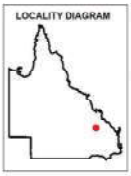
Map 3b - MSES - Species - Koala habitat area (SEQ)



MSES - Species
Koala habitat area (SEQ)

- Towns
- Freeways/Highways
- Secondary roads
- Major rivers/creeks
- Koala habitat area (core)
- Koala habitat area (locally refined)
- 2 kilometre buffer

LOCALITY DIAGRAM



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The represented layers for SEQ 'koala habitat area-core' and 'koala habitat area- locally refined' in MSES are sourced directly from the regulatory mapping under the Nature Conservation (Koala) Conservation Plan 2017. Whilst every effort is made to ensure the information remains current, there may be delays between updating versions. Please refer to the original mapping for the most recent version. See https://environment.des.qld.gov.au/wildlife/animals/living-with/koalas/mapping

The koala habitat mapping within South East Queensland uses regional ecosystem linework compiled at a scale varying from 1:25,000 to 1:100,000. Linework should be used as a guide only. The positional accuracy of regional ecosystem data mapped at a scale of 1:100,000 is +/- 100 metres.

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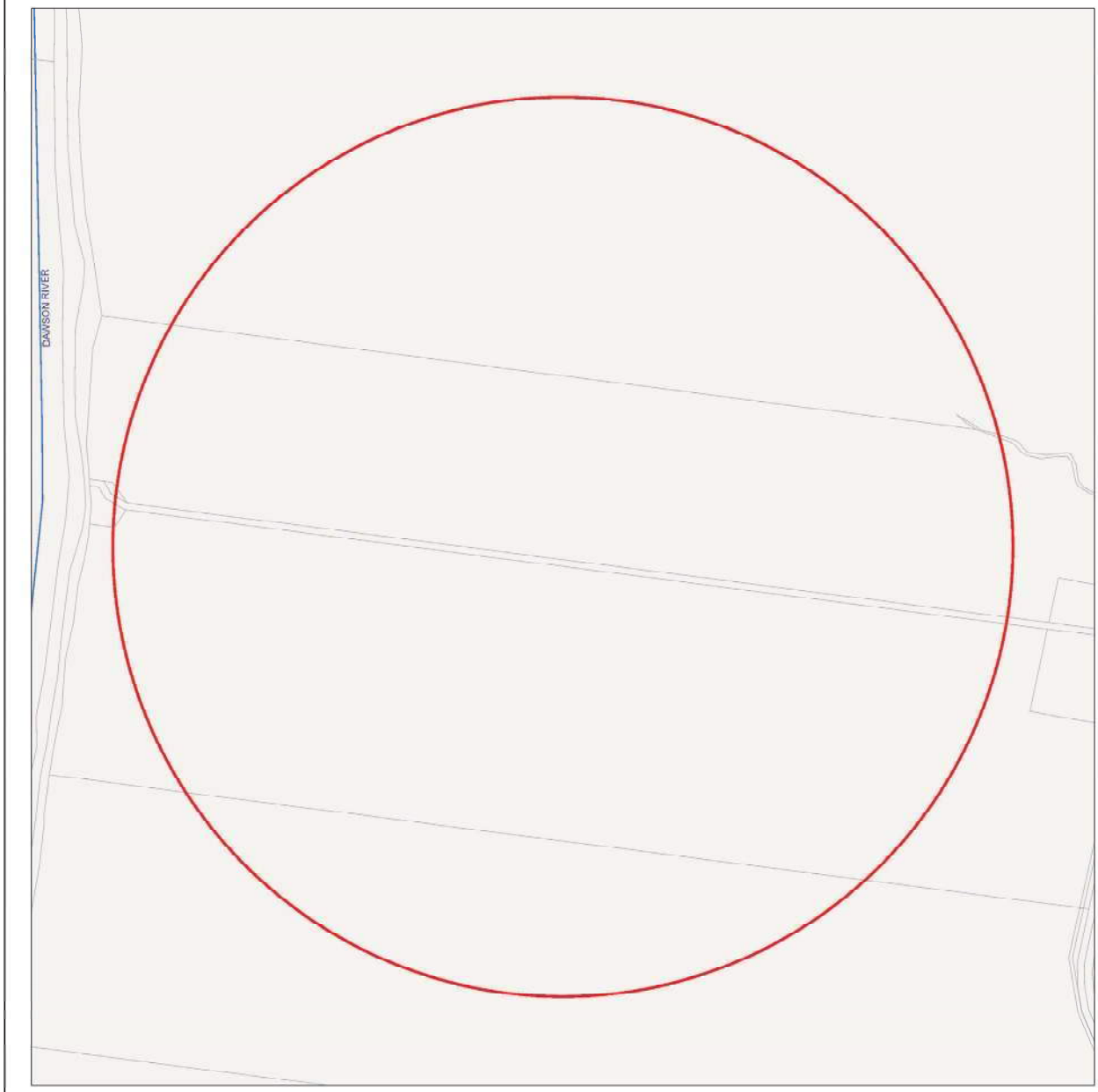
This product is displayed in GDA2020

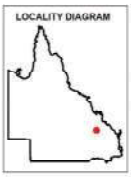
Map 3c - MSES - Species - Wildlife habitat (sea turtle nesting areas)



MSES - Wildlife habitat (sea turtle nesting areas)

Towns
Freeways/Highways
Secondary roads
Major rivers/creeks
Wildlife habitat (sea turtle nesting areas)
2 kilometre buffer

LOCALITY DIAGRAM



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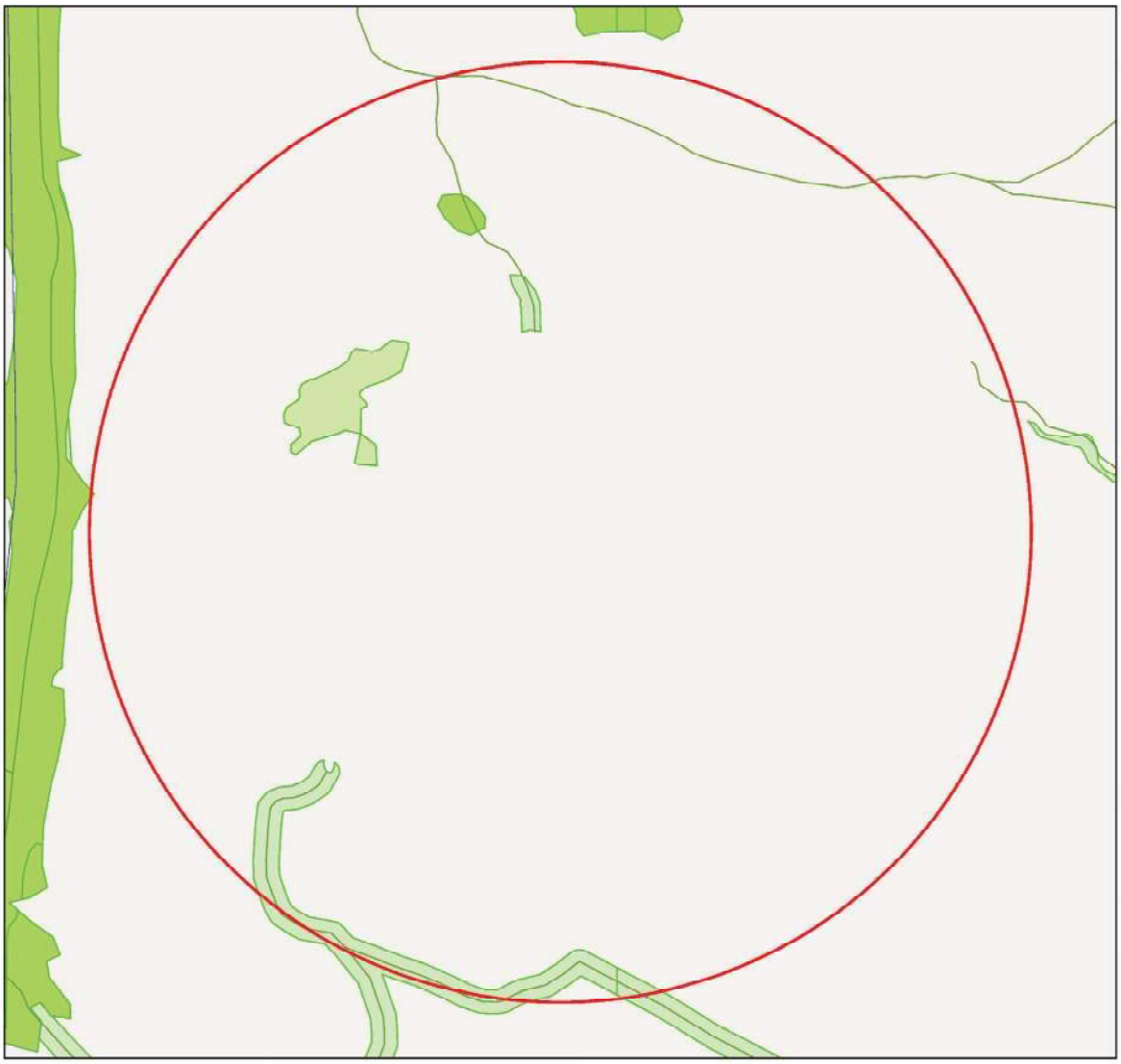
MSES mapping of sea turtle nesting areas identifies beaches where the recorded number of turtle nests are over 1% of the turtle species or genetic stock. The linework is also deliberately extended along nearby rocky coastlines and headlands to recognise that significant numbers of nesting adults and hatchlings can become disoriented by light pollution from development on rocky coastlines and headlands while navigating offshore from nesting beaches.

0 240 480 720 960 1,200 m

This product is displayed in GDA2020

Map 4 - MSES - Regulated Vegetation



MSES - Regulated Vegetation

- Towns
- Freeways/Highways
- Secondary roads
- Major rivers/creeks
- Regulated vegetation (intersecting a watercourse)
- Regulated vegetation (100m from wetland)
- Regulated vegetation (category B - endangered or of concern)
- Regulated vegetation (category C - endangered or of concern)
- Regulated vegetation (category R - GBR riverine)
- Regulated vegetation (essential habitat)
- 2 kilometre buffer

LOCALITY DIAGRAM

N

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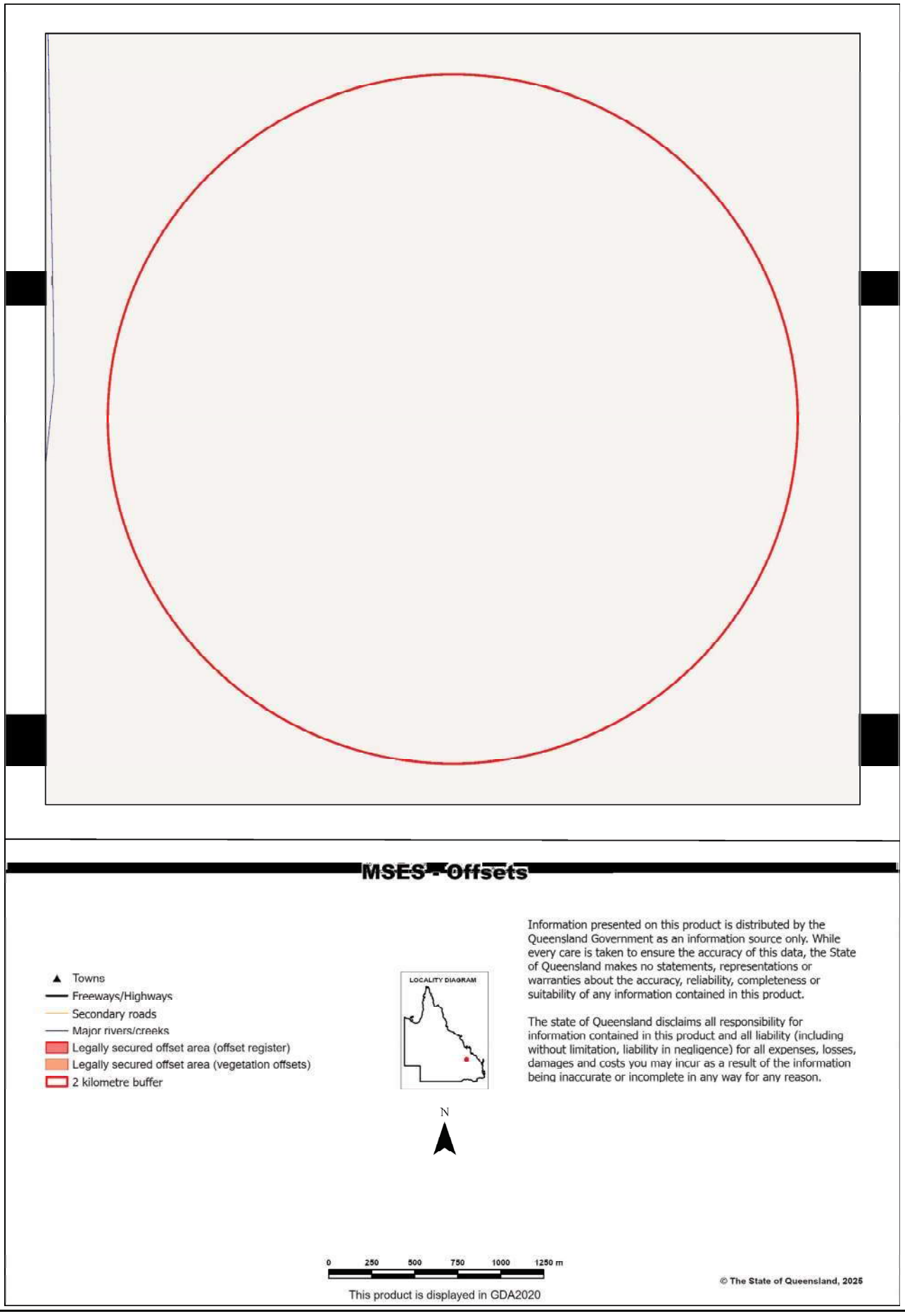
Map 5 - MSES - Offset Areas



Appendices

Appendix 1 - Matters of State Environmental Significance (MSES) methodology

MSES mapping is a regional-scale representation of the definition for MSES under the State Planning Policy (SPP). Its primary purpose is to support implementation of the SPP biodiversity policy.

MSES mapping does not replace the regulatory mapping or environmental values specifically called up under other laws or regulations.

MSES mapping does not determine whether state or local development assessment is required. For state assessment triggers refer to the Development Assessment Mapping System (DAMS). For local assessment triggers, refer to the relevant local planning scheme.

The Queensland Government's "Method for mapping - matters of state environmental significance can be downloaded from:

http://www.ehp.qld.gov.au/land/natural-resource/method-mapping-mses.html .

Appendix 2 - Source Data

The datasets listed below are available on request from:

http://qldspatial.information.qld.gov.au/catalogue/custom/index.page

- Matters of State environmental significance

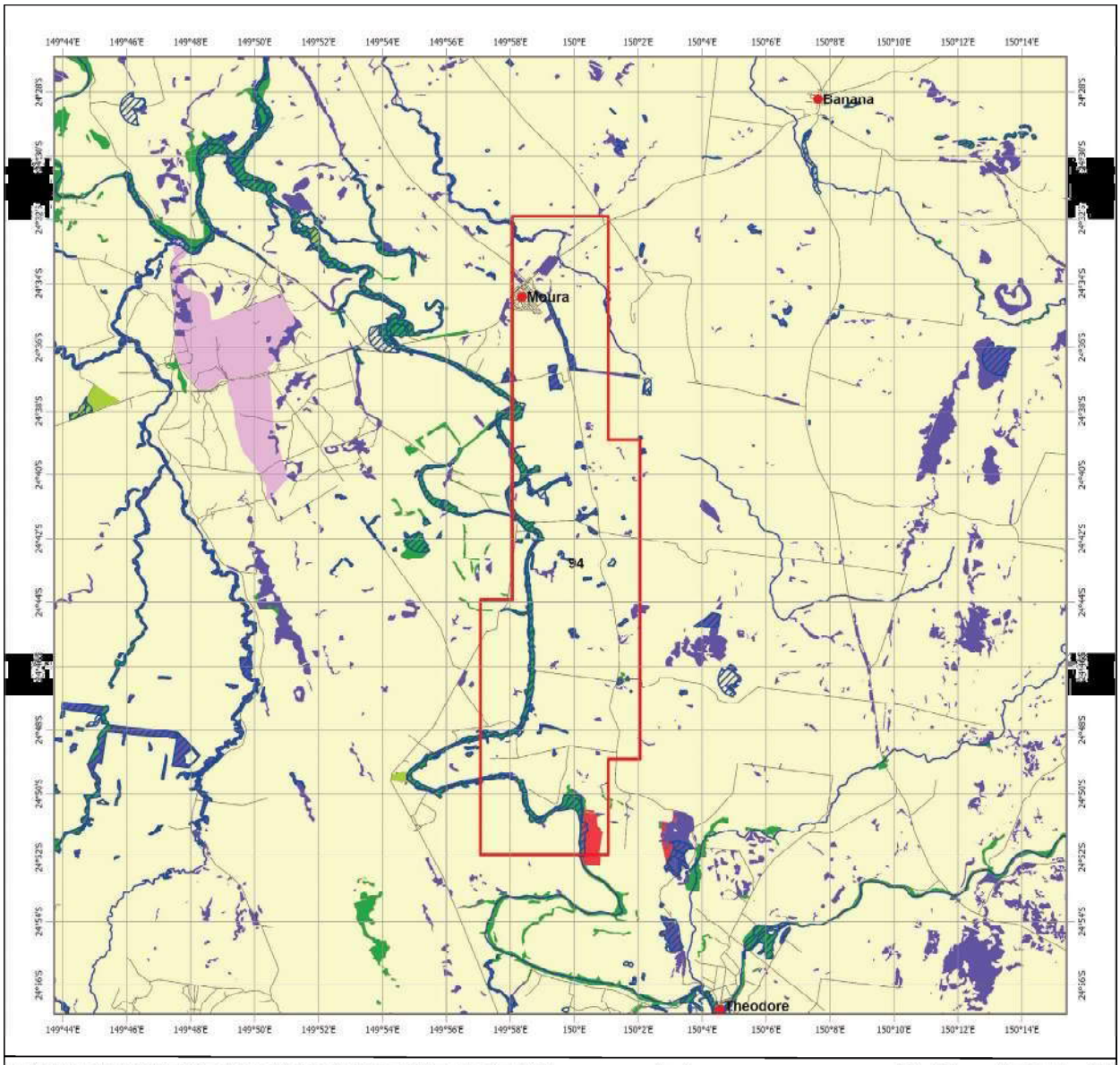
Note: MSES mapping is not based on new or unique data. The primary mapping product draws data from a number of underlying environment databases and geo-referenced information sources. MSES mapping is a versioned product that is updated generally on a twice-yearly basis to incorporate the changes to underlying data sources. Several components of MSES mapping made for the current version may differ from the current underlying data sources. To ensure accuracy, or proper representation of MSES values, it is strongly recommended that users refer to the underlying data sources and review the current definition of MSES in the State Planning Policy, before applying the MSES mapping.

Individual MSES layers can be attributed to the following source data available at QSpatial:

MSES layers	**current QSpatial data (http://qspatial.information.qld.gov.au)**
Protected Areas-Estates, Nature Refuges, Special Wildlife Reserves	- Protected areas of Queensland - Nature Refuges - Queensland - Special Wildlife Reserves- Queensland
Marine Park-Highly Protected Zones	Moreton Bay marine park zoning 2008
Fish Habitat Areas	Queensland fish habitat areas
Strategic Environmental Areas-designated	Regional Planning Interests Act - Strategic Environmental Areas
HES wetlands	Map of Queensland Wetland Environmental Values
Wetlands in HEV waters	HEV waters: - EPP Water intent for waters Source Wetlands: - Queensland Wetland Mapping (Current version 5) Source Watercourses: - Vegetation management watercourse and drainage feature map (1:100000 and 1:250000)
Wildlife habitat (threatened and special least concern)	-WildNet database species records - habitat suitability models (various) - SEQ koala habitat areas under the Koala Conservation Plan 2019
VMA regulated regional ecosystems	Vegetation management regional ecosystem and remnant map
VMA Essential Habitat	Vegetation management - essential habitat map
VMA Wetlands	Vegetation management wetlands map
Legally secured offsets	Vegetation Management Act property maps of assessable vegetation. For offset register data-contact DETSI
Regulated Vegetation Map	Vegetation management - regulated vegetation management map

Appendix 3 - Acronyms and Abbreviations

AOI	- Area of Interest
DETSI	- Department of the Environment, Tourism, Science and Innovation
EP Act	- Environmental Protection Act 1994
EPP	- Environmental Protection Policy
GDA2020	- Geocentric Datum of Australia 2020
GEM	- General Environmental Matters
GIS	- Geographic Information System
MSES	- Matters of State Environmental Significance
NCA	- Nature Conservation Act 1992
RE	- Regional Ecosystem
SPP	- State Planning Policy
VMA	- Vegetation Management Act 1999



ENVIRONMENTALLY SENSITIVE AREAS - non-mining resource activities (EP Act)

CATEGORY A
- National Parks
- Conservation Parks
- Forest Reserves
- Special Wildlife Reserve
- Wet Tropics World Heritage Area
- Great Barrier Reef Region
- Marine Parks other than General Use Zones

CATEGORY B
- Queensland Heritage Register Places
- Ramsar Sites
- Cultural Heritage Registered Areas and DLA's other than Stanbroke
- Special Forestry Areas
- Seaward Side of Highest Astronomical Tide
- Fish Habitat Areas
- Coordinated Conservation Areas
- Endangered Regional Ecosystems - regrowth and remnant (Biodiversity Status)
- General Use Zones of Marine Parks
- Marine Plants
- Selected Petroleum Lease (PL)

CATEGORY C
- Essential Habitat
- Koala Plan
- Nature Refuges
- Resources Reserve
- State Forests
- Timber Reserves
- Of Concern Regional Ecosystems

OTHERS
- Towns
- Roads
- Rivers
- Springs
- Queensland

LOCALITY DIAGRAM

N

0 3000 6000 9000 12000 15000 m

This product is displayed in GDA2020

NOTE TO USER: Themes presented in this map are indicative only. Field survey may be required to verify the 'true' spatial extent and value. Not all environmentally sensitive areas are presented in this map. A user should refer to the particular circumstances relevant to their situation to assess the 'completeness' of themes provided.

The user should note that some boundaries and indicated values are ambient and may change over time (e.g. regional ecosystem boundaries and conservation status, watercourse mapping etc).

The user should be aware that due to multiple overlapping themes/ layers present, some themes/layers may be obscured by others. Ordering in the Legend does not accurately reflect the order by which themes/layers are displayed.

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 17-Apr-2025

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	5
Listed Threatened Species:	36
Listed Migratory Species:	11

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	19
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	2
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	9
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Brigalow (Acacia harpophylla dominant and co-dominant)	Endangered	Community known to occur within area	In feature area
Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions	Endangered	Community likely to occur within area	In feature area
Poplar Box Grassy Woodland on Alluvial Plains	Endangered	Community likely to occur within area	In feature area
Semi-evergreen vine thickets of the Brigalow Belt (North and South) and Nandewar Bioregions	Endangered	Community likely to occur within area	In buffer area only
Weeping Myall Woodlands	Endangered	Community likely to occur within area	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Erythrotriorchis radiatus Red Goshawk [942]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat known to occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area	In feature area
Geophaps scripta scripta Squatter Pigeon (southern) [64440]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat may occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat may occur within area	In feature area
Neochmia ruficauda ruficauda Star Finch (eastern), Star Finch (southern) [26027]	Endangered	Species or species habitat likely to occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat may occur within area	In feature area
Turnix melanogaster Black-breasted Button-quail [923]	Vulnerable	Species or species habitat may occur within area	In feature area
MAMMAL			
Dasyurus hallucatus Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu] [331]	Endangered	Species or species habitat likely to occur within area	In feature area
Macroderma gigas Ghost Bat [174]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Nyctophilus corbeni Corben's Long-eared Bat, South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat may occur within area	In feature area
Petauroides volans Greater Glider (southern and central) [254]	Endangered	Species or species habitat known to occur within area	In feature area
Petaurus australis australis Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat likely to occur within area	In feature area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour may occur within area	In feature area
PLANT			
Arthraxon hispidus Hairy-joint Grass [9338]	Vulnerable	Species or species habitat may occur within area	In feature area
Cadellia pentastylis Ooline [9828]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Cossinia australiana Cossinia [3066]	Endangered	Species or species habitat may occur within area	In buffer area only
Dichanthium queenslandicum King Blue-grass [5481]	Endangered	Species or species habitat known to occur within area	In feature area
Dichanthium setosum bluegrass [14159]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Polianthion minutiflorum [82772]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Solanum dissectum [75720]	Endangered	Species or species habitat likely to occur within area	In feature area
Solanum johnsonianum [84820]	Endangered	Species or species habitat known to occur within area	In feature area
Xerothamnella herbacea [4146]	Endangered	Species or species habitat known to occur within area	In feature area
REPTILE			
Delma torquata Adorned Delma, Collared Delma [1656]	Vulnerable	Species or species habitat may occur within area	In feature area
Denisonia maculata Ornamental Snake [1193]	Vulnerable	Species or species habitat known to occur within area	In feature area
Egernia rugosa Yakka Skink [1420]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Elseya albagula Southern Snapping Turtle, White-throated Snapping Turtle [81648]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Furina dunmalli Dunmall's Snake [59254]	Vulnerable	Species or species habitat may occur within area	In feature area
Hemiaspis damelii Grey Snake [1179]	Endangered	Species or species habitat likely to occur within area	In feature area
Rheodytes leukops Fitzroy River Turtle, Fitzroy Tortoise, Fitzroy Turtle, White-eyed River Diver [1761]	Endangered	Species or species habitat known to occur within area	In feature area
SNAIL			
Adclarkia dawsonensis Boggomoss Snail, Dawson River Snail, Dawson Valley Snail [67458]	Critically Endangered	Species or species habitat known to occur within area	In buffer area only

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Migratory Marine Species			
Crocodylus porosus Salt-water Crocodile, Estuarine Crocodile [1774]		Species or species habitat likely to occur within area	In buffer area only
Migratory Terrestrial Species			
Cuculus optatus Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat may occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat likely to occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pandion haliaetus			
Osprey [952]		Species or species habitat likely to occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat likely to occur within area	In feature area
Anseranas semipalmata			
Magpie Goose [978]		Species or species habitat may occur within area overfly marine area	In feature area
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis			
Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata			
Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area overfly marine area	In feature area
Pandion haliaetus Osprey [952]		Species or species habitat likely to occur within area	In feature area
Pterodroma cervicalis White-necked Petrel [59642]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Rhipidura rufifrons			
Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area	In feature area
Rostratula australis as Rostratula benghalensis (sensu lato)			
Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Reptile			
Crocodylus porosus			
Salt-water Crocodile, Estuarine Crocodile [1774]		Species or species habitat likely to occur within area	In buffer area only

Extra Information

State and Territory Reserves [Resource Information]

Protected Area Name	Reserve Type	State	Buffer Status
Highworth Bend	Conservation Park	QLD	In buffer area only
Willawa	Nature Refuge	QLD	In buffer area only

EPBC Act Referrals [Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Baralaba South Coal Project and Transport Corridor, Bowen Basin, QLD	2012/6547		Approval	In buffer area only
Theodore Coal Project	2003/992		Completed	In buffer area only
Westside Corporation PL94 Coal Seam Gas Project	2021/9117		Assessment	In feature area
Controlled action				
Construct and operate 447km high pressure gas transmission pipeline	2009/4976	Controlled Action	Post-Approval	In feature area
ZeroGen Integrated Gasification Combined Cycle Power Plant and CO2 Capture, Transport and Storage	2009/5195	Controlled Action	Completed	In buffer area only
Not controlled action				
Experimental Thinning And Burning Trials in Brigalow Regrowth	2006/2952	Not Controlled Action	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
Surat Basin Railway	2008/3944	Not Controlled Action	Completed	In buffer area only
Theodore Solar Farm	2019/8588	Not Controlled Action	Completed	In buffer area only

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data is available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on the contents of this report.

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions when time permits.

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded breeding sites; and
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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WildNet Records
Species List

For the selected area of interest 2317.63 Custom input
Current as at 17/04/2025 Badminton_Waddington_TMR

Summary Information
The following table provides an overview of the area of interest: Custom input

Table 1. Area of interest details

Size (ha)	
2,317.63	
Local Government(s)	
Banana Shire	
Catchment(s)	
Fitzroy	
Bioregion(s)	**Subregion(s)**
Brigalow Belt	Dawson River Downs

Protected Area(s)
No estates or reserves are located within the area of interest.

World Heritage Area(s)
No World Heritage Areas are located within the area of interest.

Ramsar Area(s)
No Ramsar Areas are located within the area of interest.

Introduction
This WildNet report is derived from a spatial layer that is generated from the WildNet database, managed by the Department of the Environment, Tourism, Science and Innovation. The layer, which is generated weekly, contains a subset of WildNet wildlife records that are not classed as erroneous or duplicate, that have a location precision equal to or less than 10000 metres and do not have a count of zero. It does not include aspatial data such as some baseline species lists created for some protected areas.

The WildNet dataset is constantly being enhanced and the taxonomic and status information revised. If a species is not listed in this report, it does not mean it doesn't occur there and listed species may also no longer inhabit the area. It is recommended that you also access other internal and external data sources for species information in your area of interest.

The Species List Application may provide additional information on species occurence within your area of interest.

Species data

Contextual location information is presented in Map 1.

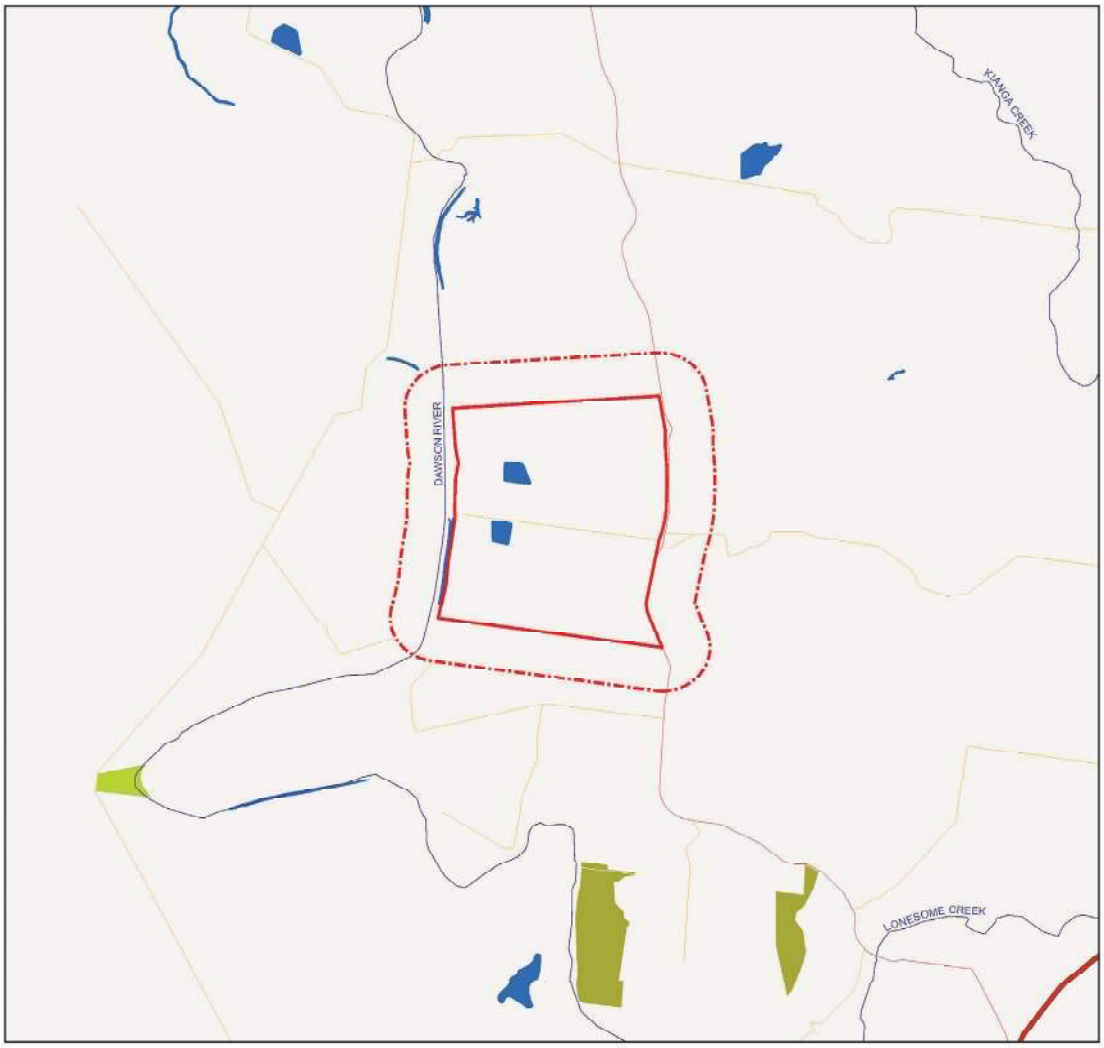
Table 2 lists the animals recorded within the area of interest and its one kilometre buffer.

Table 3 lists the plants recorded within the area of interest and its one kilometre buffer.

Table 4 lists the fungi recorded within the area of interest and its one kilometre buffer.

Table 5 lists the other species recorded within the area of interest and its one kilometre buffer.

Map 1. Locality Map



Locality Map

Legend

- Towns
- Freeways/Highways
- Connector
- Street/Local Road
- Lakes and reservoirs
- National Park
- National Park (Scientific)
- National Park (CYPAL)
- National Park (Aboriginal Land)
- Conservation Park
- Resources Reserve
- Forest Reserve
- State Forest
- Timber Reserve
- Nature Refuges
- Coordinated Conservation Areas
- Major rivers/creeks
- Queensland
- Custom area
- 1 kilometre buffer

LOCALITY DIAGRAM

N

0 1000 2000 3000 4000 5000 m

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Information presented on this product is distributed by the Queensland Government as an information source only. While every care is taken to ensure the accuracy of this data, the State of Queensland makes no statements, representations or warranties about the accuracy, reliability, completeness or suitability of any information contained in this product.

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Table 2. Animals recorded within the area of interest and its one kilometre buffer

Taxon Id	Class	Family	Scientific Name	Common Name	NCA	EPBC	Specimens	Records	Last record
26914	Actinopterygii	Ariidae	*Neoarius graeffei*	blue catfish			0	5	8/7/2007
26925	Actinopterygii	Centropomidae	*Lates calcarifer*	barramundi			0	1	5/10/2007
26941	Actinopterygii	Clupeidae	*Nematalosa erebi*	bony bream			0	24	8/7/2007
26963	Actinopterygii	Eleotridae	*Oxyeleotris aruensis*	Aru gudgeon			0	7	8/7/2007
27039	Actinopterygii	Osteoglossidae	*Scleropages leichardti*	southern saratoga			0	16	10/5/2007
27042	Actinopterygii	Percichthyidae	*Macquaria ambigua*	golden perch			0	15	10/5/2007
27094	Actinopterygii	Terapontidae	*Scortum hillii*	leathery grunter			0	6	8/7/2007
1422	Aves	Acanthizidae	*Acanthiza nana*	yellow thornbill	C		0	1	9/7/2001
1396	Aves	Acanthizidae	*Gerygone olivacea*	white-throated gerygone	C		0	1	9/14/2006
1732	Aves	Accipitridae	*Aquila audax*	wedge-tailed eagle	C		0	1	9/14/2006
1707	Aves	Accipitridae	*Haliastur sphenurus*	whistling kite	C		0	1	9/14/2006
1305	Aves	Acrocephalidae	*Acrocephalus australis*	Australian reed-warbler	C		0	1	9/14/2006
1766	Aves	Alcedinidae	*Dacelo leachii*	blue-winged kookaburra	C		0	1	9/14/2006
1767	Aves	Alcedinidae	*Dacelo novaeguineae*	laughing kookaburra	C		1	2	9/14/2006
1760	Aves	Alcedinidae	*Todiramphus macleayii*	forest kingfisher	C		0	1	9/14/2006
1998	Aves	Anatidae	*Anas superciliosa*	Pacific black duck	C		0	1	9/14/2006
1999	Aves	Anatidae	*Aythya australis*	hardhead	C		0	1	9/14/2006
2005	Aves	Anatidae	*Cygnus atratus*	black swan	C		0	1	9/14/2006
1279	Aves	Anhingidae	*Anhinga novaehollandiae*	Australasian darter	C		0	1	9/14/2006
1829	Aves	Ardeidae	*Ardea alba modesta*	eastern great egret	C		0	1	9/14/2006
1831	Aves	Ardeidae	*Ardea intermedia*	intermediate egret	C		0	1	9/14/2006
1832	Aves	Ardeidae	*Ardea pacifica*	white-necked heron	C		0	1	9/14/2006
1660	Aves	Artamidae	*Artamus leucorynchus*	white-breasted woodswallow	C		0	1	9/14/2006

1654	Aves	Artamidae	*Cracticus nigrogularis*	pied butcherbird	C		0	1	9/14/2006
1644	Aves	Artamidae	*Gymnorhina tibicen*	Australian magpie	C		0	1	9/14/2006
1191	Aves	Cacatuidae	*Cacatua galerita*	sulphur-crested cockatoo	C		0	1	9/14/2006
1194	Aves	Cacatuidae	*Cacatua sanguinea*	little corella	C		0	1	9/14/2006
1193	Aves	Cacatuidae	*Eolophus roseicapilla*	galah	C		0	1	9/14/2006
1636	Aves	Campephagidae	*Coracina novaehollandiae*	black-faced cuckoo-shrike	C		0	1	9/14/2006
27774	Aves	Charadriidae	*Vanellus miles*	masked lapwing	C		0	1	9/14/2006
1294	Aves	Cisticolidae	*Cisticola exilis*	golden-headed cisticola	C		0	1	9/14/2006
1810	Aves	Columbidae	*Geopelia humeralis*	bar-shouldered dove	C		0	1	9/14/2006
18323	Aves	Columbidae	*Geopelia placida*	peaceful dove	C		0	2	9/14/2006
1793	Aves	Columbidae	*Ocyphaps lophotes*	crested pigeon	C		0	1	9/14/2006
1605	Aves	Corcoracidae	*Struthidea cinerea*	apostlebird	C		0	1	9/14/2006
1609	Aves	Corvidae	*Corvus orru*	Torresian crow	C		0	2	9/14/2006
1611	Aves	Dicaeidae	*Dicaeum hirundinaceum*	mistletoebird	C		0	2	9/14/2006
1366	Aves	Estrildidae	*Lonchura castaneothorax*	chestnut-breasted mannikin	C		0	1	9/14/2006
1342	Aves	Estrildidae	*Taeniopygia bichenovii*	double-barred finch	C		0	1	9/14/2006
1716	Aves	Falconidae	*Falco berigora*	brown falcon	C		0	1	9/14/2006
1704	Aves	Falconidae	*Falco cenchroides*	nankeen kestrel	C		0	1	9/14/2006
1678	Aves	Gruidae	*Antigone rubicunda*	brolga	C		0	1	9/14/2006
1585	Aves	Hirundinidae	*Petrochelidon ariel*	fairy martin	C		0	1	9/14/2006
1886	Aves	Laridae	*Gelochelidon macrotarsa*	Australian tern	C		0	1	9/14/2006
1570	Aves	Maluridae	*Malurus cyaneus*	superb fairy-wren	C		0	1	9/14/2006
1558	Aves	Maluridae	*Malurus melanocephalus*	red-backed fairy-wren	C		0	1	9/14/2006
1694	Aves	Megapodiidae	*Alectura lathami*	Australian brush-turkey	C		0	1	9/14/2006

1539	Aves	Meliphagidae	*Entomyzon cyanotis*	blue-faced honeyeater	C		0	1	9/14/2006
1497	Aves	Meliphagidae	*Lichmera indistincta*	brown honeyeater	C		0	2	9/14/2006
1500	Aves	Meliphagidae	*Manorina melanocephala*	noisy miner	C		0	2	9/14/2006
1507	Aves	Meliphagidae	*Melithreptus albogularis*	white-throated honeyeater	C		0	1	9/14/2006
1493	Aves	Meliphagidae	*Philemon citreogularis*	little friarbird	C		0	1	9/14/2006
1471	Aves	Meliphagidae	*Plectorhyncha lanceolata*	striped honeyeater	C		0	1	9/14/2006
1764	Aves	Meropidae	*Merops ornatus*	rainbow bee-eater	C		0	1	9/14/2006
1589	Aves	Monarchidae	*Grallina cyanoleuca*	magpie-lark	C		0	1	9/14/2006
1600	Aves	Monarchidae	*Myiagra inquieta*	restless flycatcher	C		0	1	9/14/2006
1455	Aves	Motacillidae	*Anthus novaeseelandiae*	Australasian pipit	C		0	1	9/14/2006
1442	Aves	Oriolidae	*Oriolus sagittatus*	olive-backed oriole	C		0	1	9/14/2006
1444	Aves	Oriolidae	*Sphecotheres vieilloti*	Australasian figbird	C		0	1	9/14/2006
1680	Aves	Otididae	*Ardeotis australis*	Australian bustard	C		0	1	9/14/2006
1449	Aves	Pachycephalidae	*Colluricincla harmonica*	grey shrike-thrush	C		0	1	9/14/2006
1437	Aves	Pachycephalidae	*Pachycephala rufiventris*	rufous whistler	C		0	1	9/7/2001
1392	Aves	Pardalotidae	*Pardalotus striatus*	striated pardalote	C		0	1	9/14/2006
1284	Aves	Pelecanidae	*Pelecanus conspicillatus*	Australian pelican	C		0	1	9/14/2006
1261	Aves	Phalacrocoracidae	*Microcarbo melanoleucos*	little pied cormorant	C		0	1	9/14/2006
1271	Aves	Podicipedidae	*Podiceps cristatus*	great crested grebe	C		0	1	9/14/2006
1136	Aves	Psittaculidae	*Platycercus adscitus*	pale-headed rosella	C		0	1	9/14/2006
1125	Aves	Psittaculidae	*Trichoglossus moluccanus*	rainbow lorikeet	C		0	1	9/14/2006
1673	Aves	Rallidae	*Gallinula tenebrosa*	dusky moorhen	C		0	1	9/14/2006
1662	Aves	Rallidae	*Porphyrio melanotus*	purple swamphen	C		0	1	9/14/2006
1575	Aves	Rhipiduridae	*Rhipidura albiscapa*	grey fantail	C		0	1	9/14/2006

1576	Aves	Rhipiduridae	*Rhipidura leucophrys*	willie wagtail	C		0	1	9/14/2006
1852	Aves	Scolopacidae	*Tringa glareola*	wood sandpiper	SL		0	1	9/14/2006

Table 3. Plants recorded within the area of interest and its one kilometre buffer

Taxon Id	Class	Family	Scientific Name	Common Name	NCA	EPBC	Specimens	Records	Last record
35894	Equisetopsida	Apocynaceae	*Cynanchum viminale subsp. brunonianum*		C		1	1	5/15/1984
15572	Equisetopsida	Asteraceae	*Camptacra barbata*		C		1	1	2/17/2003
11105	Equisetopsida	Commelinaceae	*Commelina ensifolia*	scurvy grass	C		1	1	2/17/2003
15519	Equisetopsida	Leguminosae	*Crotalaria dissitiflora subsp. dissitiflora*		C		2	2	11/4/2004
12924	Equisetopsida	Malvaceae	*Sida pleiantha*		C		1	1	2/17/2003
16557	Equisetopsida	Meliaceae	*Owenia acidula*	emu apple	C		1	1	3/10/1988
15490	Equisetopsida	Poaceae	*Dactyloctenium radulans*	button grass	C		1	1	11/4/2004
10578	Equisetopsida	Poaceae	*Hyparrhenia rufa*				1	1	11/4/2004
10817	Equisetopsida	Poaceae	*Paspalidium globoideum*	sago grass	C		1	1	2/17/2003

Table 4. Fungi recorded within the area of interest and its one kilometre buffer

No species found within the area of interest and its one kilometre buffer.

Table 5. Other species recorded within the area of interest and its one kilometre buffer

No species found within the area of interest and its one kilometre buffer.

Species table headings and codes
Taxon Id: Unique identifier of the taxon from the WildNet database.
NCA: Queensland conservation status of the taxon under the *Nature Conservation Act 1992* (Least Concern (C), Critically Endangered (CR), Endangered (E), Extinct (EX), Near Threatened (NT), Extinct in the Wild (PE), Special Least Concern (SL), and Vulnerable (V)).
EPBC: Australian conservation status of the taxon under the *Environment Protection and Biodiversity Conservation Act 1999* (Conservation Dependent (CD), Critically Endangered (CE), Endangered (E), Extinct (EX), Vulnerable (V), and Extinct in the Wild (XW)).
Specimens: The number of specimen-backed records of the taxon.
Records: The total number of records of the taxon.
Last record: Date of most recent record of the taxon.

Links and Support

Other sites that deliver species information from the WildNet database include:

- Species profile search - access species information approved for publication including species names, statuses, notes, images, distribution maps and records
- Species lists - generate species lists for Queensland protected areas, forestry areas, local governments and areas defined using coordinates
- Biomaps - view biodiversity information, including WildNet records approved for publication, and generate reports
- Queensland Globe - view spatial information, including WildNet records approved for publication
- Qld wildlife data API - access WildNet species information approved for publication such as notes, images and records etc.
- Wetland*Maps* - view species records, survey locations etc. approved for publication
- Wetland*Summary* - view wildlife statistics, species lists for a range of area types, and access WildNet species profiles
- WildNet wildlife records - published - Queensland - spatial layer of WildNet records approved for publication generated weekly
- Generalised distribution and densities of Queensland wildlife - Queensland species distributions and densities generalised to a 10 km grid resolution
- Conservation status of Queensland wildlife - access current lists of priority species for Queensland including nomenclature and status information
- Queensland Confidential Species - the list of species flagged as confidential in the WildNet database.

Please direct queries about this report to the WildNet Team WildNet@des.qld.gov.au.

Other useful sites for accessing Queensland biodiversity data include:

- Useful wildlife resources
- Queensland Government Data
- Atlas of Living Australia (ALA)
- Online Zoological Collections of Australian Museums (OZCAM)
- Australia's Virtual Herbarium (AVH)
- Protected Matters Search Tool

Disclaimer

Whilst every care is taken to ensure the accuracy of the information provided in this report, the Queensland Government, to the maximum extent permitted by law, makes no representations or warranties about its accuracy, reliability, completeness, or suitability, for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which the user may incur as a consequence of the information being inaccurate or incomplete in any way and for any reason.

Queensland Government

Department of the Environment, Tourism, Science and Innovation

Environmental Reports

Regional Ecosystems

Biodiversity Status

For the selected area of interest
Custom input

Environmental Reports - General Information

The Environmental Reports portal provides for the assessment of selected matters of interest relevant to a user specified location, or area of interest (AOI). All area and derivative figures are relevant to the extent of matters of interest contained within the AOI unless otherwise stated. Please note, if a user selects an AOI via the "central coordinates" option, the resulting assessment area encompasses an area extending for a 2km radius from the input coordinates.

All area and area derived figures included in this report have been calculated via reprojecting relevant spatial features to Albers equal-area conic projection (central meridian = 146, datum Geocentric Datum of Australia 2020). As a result, area figures may differ slightly if calculated for the same features using a different co-ordinate system.

Figures in tables may be affected by rounding.

The matters of interest reported on in this document are based upon available state mapped datasets. Where the report indicates that a matter of interest is not present within the AOI (e.g. where area related calculations are equal to zero, or no values are listed), this may be due either to the fact that state mapping has not been undertaken for the AOI, that state mapping is incomplete for the AOI, or that no values have been identified within the site.

The information presented in this report should be considered as a guide only and field survey may be required to validate values on the ground.

Important Note to User

Information presented in this report is based upon the Queensland Herbarium & Biodiversity Science's Regional Ecosystem framework. The Biodiversity Status has been used to depict the extent of "Endangered", "Of Concern" and "No Concern at Present" regional ecosystems in all cases, rather than the classes used for the purposes of the *Vegetation Management Act 1999* (VMA). Mapping and figures presented in this document reflect the Queensland Herbarium & Biodiversity Science's Remnant and Pre-clearing Regional Ecosystem Datasets, and not the certified mapping used for the purpose of the VMA.

For matters relevant to vegetation management under the VMA, please refer to the Department of Natural Resources and Mines, Manufacturing, and Regional and Rural Development website https://www.nrmmrrd.qld.gov.au/

Please direct queries about these reports to: Queensland.Herbarium@qld.gov.au

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Whilst every care is taken to ensure the accuracy of the information provided in this report, the Queensland Government makes no representations or warranties about its accuracy, reliability, completeness, or suitability, for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which the user may incur as a consequence of the information being inaccurate or incomplete in any way and for any reason.

Table of Contents

Summary Information

The following table provides an overview of the AOI with respect to selected topographic and environmental themes. Refer to **Map 1** for locality information.

Table 1: Details for area of interest:
Custom input, with area 2317.63 ha

Local Government(s)	Catchment(s)	Bioregion(s)	Subregion(s)
Banana Shire	Fitzroy	Brigalow Belt	Dawson River Downs

The table below summarizes the extent of remnant vegetation classed as "Endangered", "Of concern" and "No concern at present" regional ecosystems classified by Biodiversity Status within the area of interest (AOI).

Table 2: Summary table, biodiversity status of regional ecosystems within the AOI

Biodiversity Status	Area (Ha)	% of AOI
Endangered	23.71	1.02
Of concern	17.39	0.75
No concern at present	0.00	0.00
Total remnant vegetation	41.10	1.77

Refer to **Map 2** for further information.

Regional Ecosystems

1. Introduction

Regional ecosystems are vegetation communities in a bioregion that are consistently associated with particular combinations of geology, landform and soil (Sattler and Williams 1999). Descriptions of Queensland's Regional ecosystems are available online from the Regional Ecosystem Description Database (REDD). Descriptions are compiled from a broad range of information sources including vegetation, land system and geology survey and mapping and detailed vegetation site data. The regional ecosystem classification and descriptions are reviewed as new information becomes available. A number of vegetation communities may form a single regional ecosystem and may be distinguished by differences in structure or sub-dominant species in the ecologically dominant layer. Vegetation communities with different dominant species in the ecologically dominant layer may be amalgamated in to a regional ecosystem if they are not mappable and predictable in the landscape at 1:100 000 scale. Vegetation communities may be mappable at a scale larger than 1:100 000. Vegetation communities within a regional ecosystem are denoted by a letter following the regional ecosystem code (e.g. a, b, c). Vegetation communities and regional ecosystems are amalgamated into a higher level classification of broad vegetation groups (BVGs).

A published methodology for survey and mapping of regional ecosystems across Queensland (Neldner et al 2023) provides further details on regional ecosystem concepts and terminology.

This report provides information on the type, status, and extent of vegetation communities, regional ecosystems and broad vegetation groups present within a user specified area of interest. Please note, for the purpose of this report, the Biodiversity Status is used. This report has not been developed for application of the *Vegetation Management Act 1999* (VMA). Additionally, information generated in this report has been derived from the Queensland Herbarium & Biodiversity Science's Regional Ecosystem Mapping, and not the regulated mapping certified for the purposes of the VMA. If your interest/matter relates to regional ecosystems and the VMA, users should refer to the Department of Natural Resources and Mines, Manufacturing, and Regional and Rural Development website https://www.nrmmrrd.qld.gov.au/.

With respect to the Queensland Biodiversity Status,

"Endangered" regional ecosystems are described as those where:

- remnant vegetation is less than 10 per cent of its pre-clearing extent across the bioregion; or 10-30% of its pre-clearing extent remains and the remnant vegetation is less than 10,000 hectares, or
- less than 10 per cent of its pre-clearing extent remains unaffected by severe degradation and/or biodiversity loss*, or
- 10-30 percent of its pre-clearing extent remains unaffected by severe degradation and/or biodiversity loss and the remnant vegetation is less than 10,000 hectares; or
- it is a rare** regional ecosystem subject to a threatening process.***

"Of concern" regional ecosystems are described as those where:

- the degradation criteria listed above for 'Endangered' regional ecosystems are not met and,
- remnant vegetation is 10-30 per cent of its pre-clearing extent across the bioregion; or more than 20 per cent of its pre-clearing extent remains and the remnant extent is less than 10,000 hectares, or
- 10-30 percent of its pre-clearing extent remains unaffected by moderate degradation and/or biodiversity loss.****

and "No concern at present" regional ecosystems are described as those where:

- remnant vegetation is over 30 percent of its pre-clearing extent across the bioregion, and the remnant area is greater than 10,000 hectares, and
- the degradation criteria listed above for 'Endangered' or 'Of concern' regional ecosystems are not met.

**Severe degradation and/or biodiversity loss is defined as: floristic and/or faunal diversity is greatly reduced but unlikely to recover within the next 50 years even with the removal of threatening processes; or soil surface is severely degraded, for example, by loss of A horizon, surface expression of salinity; surface compaction, loss of organic matter or sheet erosion.*

***Rare regional ecosystem: pre-clearing extent (<1000 ha); or patch size (<100 ha and of limited total extent across its range).*

****Threatening processes are those that are reducing or will reduce the biodiversity and ecological integrity of a regional ecosystem. For example, clearing, weed invasion, fragmentation, inappropriate fire regime or grazing pressure, or infrastructure development.*

*****Moderate degradation and/or biodiversity loss is defined as: floristic and/or faunal diversity is greatly reduced but unlikely to recover within the next 20 years even with the removal of threatening processes; or soil surface is moderately degraded.*

2. Remnant Regional Ecosystems

The following table identifies the remnant regional ecosystems and vegetation communities mapped within the AOI and provides their short descriptions, Biodiversity Status, and remnant extent within the selected AOI. Please note, where heterogeneous vegetated patches (mixed patches of remnant vegetation mapped as containing multiple regional ecosystems) occur within the AOI, they have been split and listed as individual regional ecosystems (or vegetation communities where present) for the purposes of the table below. In such instances, associated area figures have been generated based upon the estimated proportion of each regional ecosystem (or vegetation community) predicted to be present within the larger mixed patch.

Table 3: Remnant regional ecosystems, description and status within the AOI

Regional Ecosystem	Short Description	BD Status	Area (Ha)	% of AOI
11.3.2	Eucalyptus populnea woodland on alluvial plains	Of concern	12.17	0.53
11.3.25	Eucalyptus tereticornis or E. camaldulensis woodland fringing drainage lines	Of concern	5.22	0.23
11.4.7	Eucalyptus populnea with Acacia harpophylla and/or Casuarina cristata open forest to woodland on Cainozoic clay plains	Endangered	1.23	0.05
11.4.8	Eucalyptus cambageana woodland to open forest with Acacia harpophylla or A. argyrodendron on Cainozoic clay plains	Endangered	4.91	0.21
11.4.9a	Acacia harpophylla shrubby woodland with Terminalia oblongata on Cainozoic clay plains	Endangered	6.14	0.27
11.9.5	Acacia harpophylla and/or Casuarina cristata open forest to woodland on fine-grained sedimentary rocks	Endangered	11.42	0.49
non-remnant	None	None	2,276.53	98.23

Refer to **Map 2** for further information. **Map 3** also provides a visual estimate of the distribution of regional ecosystems present before clearing.

Table 4 provides further information in regards to the remnant regional ecosystems present within the AOI. Specifically, the extent of remnant vegetation remaining within the bioregion, the 1:1,000,000 broad vegetation group (BVG) classification, whether the regional ecosystem is identified as a wetland, and extent of representation in Queensland's Protected Area Estate. For a description of the vegetation communities within the AOI and classified according to the 1:1,000,000 BVG, refer to **Table 6**.

Table 4: Remnant regional ecosystems within the AOI, additional information

Regional Ecosystem	Remnant Extent	BVG (1 Million)	Wetland	Representation in protected estate
11.3.2	Pre-clearing 1905000 ha; Remnant 2021 499000 ha	17a	Contains Palustrine	Low

Regional Ecosystem	Remnant Extent	BVG (1 Million)	Wetland	Representation in protected estate
11.3.25	Pre-clearing 813000 ha; Remnant 2021 531000 ha	16a	Riverine	Low
11.4.7	Pre-clearing 205000 ha; Remnant 2021 18000 ha	25a	Not a Wetland	Low
11.4.8	Pre-clearing 728000 ha; Remnant 2021 67000 ha	25a	Contains Palustrine	Low
11.4.9a	Pre-clearing 989000 ha; Remnant 2021 89000 ha	25a	Not a Wetland	Low
11.9.5	Pre-clearing 2276000 ha; Remnant 2021 161000 ha	25a	Not a Wetland	Low
non-remnant	None	None	None	None

Representation in Protected Area Estate: High greater than 10% of pre-clearing extent is represented; Medium 4 - 10% is represented; Low less than 4% is represented, No representation.

The distribution of mapped wetland systems within the area of interest is displayed in **Map 6**.

The following table lists known special values associated with a regional ecosystem type.

Table 5: Remnant regional ecosystems within the AOI, special values

Regional Ecosystem	Special Values
11.3.2	11.3.2: Habitat for threatened flora species Homopholis belsonii. This ecosystem is also known to provide suitable habitat for koalas (Phascolarctos cinereus).
11.3.25	11.3.25: Shown to be associated with a high fauna species richness in the Taroom area (Venz et al. 2002). Within parts of the Fitzroy catchment, this RE is known habitat for the threatened freshwater turtle Rheodytes leukops. Known to be important habitat for other riparian freshwater turtle species. This ecosystem is also known to provide suitable habitat for koalas (Phascolarctos cinereus).
11.4.7	11.4.7: Potential habitat for NCA listed species: Rutidosis lanata, Solanum stenopterum.
11.4.8	11.4.8a: Larger gilgai provides ephemeral wetland habitat.
11.4.9a	11.4.9: Potential habitat for NCA listed species: Cadellia pentastylis, Solanum adenophorum, Solanum dissectum, Solanum elachophyllum, Solanum johnsonianum, Xerothamnella herbacea.
11.9.5	11.9.5: Habitat for threatened fauna species including Jalmenus eubulus, pale imperial hairstreak butterfly (Eastwood et al. 2008).
non-remnant	None

3. Remnant Regional Ecosystems by Broad Vegetation Group

BVGs are a higher-level grouping of vegetation communities. Queensland encompasses a wide variety of landscapes across temperate, wet and dry tropics and semi-arid climatic zones. BVGs provide an overview of vegetation communities across the state or a bioregion and allow comparison with other states. There are three levels of BVGs which reflect the approximate scale at which they are designed to be used: the 1:5,000,000 (national), 1:2,000,000 (state) and 1:1,000,000 (regional) scales.

A comprehensive description of BVGs is available at: https://publications.qld.gov.au/dataset/redd/resource/

The following table provides a description of the 1:1,000,000 BVGs present and their associated extent within the AOI.

Table 6: Broad vegetation groups (1 million) within the AOI

BVG (1 Million)	Description	Area (Ha)	% of AOI
None	None	2,276.53	98.23
16a	Open forest and woodlands dominated by Eucalyptus camaldulensis (river red gum) (or E. tereticornis (blue gum)) and/or E. coolabah (coolabah) (or E. microtheca (coolabah)) fringing drainage lines. Associated species may include Melaleuca spp., Corymbia tessellaris (carbeen), Angophora spp., Casuarina cunninghamiana (riveroak). Does not include alluvial areas dominated by herb and grasslands or alluvial plains that are not flooded.	5.22	0.23
17a	Woodlands dominated by Eucalyptus populnea (poplar box) (or E. brownii (Reid River box)) on alluvium, sand plains and footslopes of hills and ranges.	12.17	0.53
25a	Open forests to woodlands dominated by Acacia harpophylla (brigalow) sometimes with Casuarina cristata (belah) on heavy clay soils. Includes areas co-dominated with A. cambagei (gidgee) and/or emergent eucalypts.	23.71	1.02

Refer to **Map 4** for further information. **Map 5** also provides a representation of the distribution of vegetation communities as per the 1:5,000,000 BVG believed to be present prior to European settlement.

4. Technical and BioCondition Benchmark Descriptions

Technical descriptions provide a detailed description of the full range in structure and floristic composition of regional ecosystems (e.g. 11.3.1) and their component vegetation communities (e.g. 11.3.1a, 11.3.1b). See: http://www.qld.gov.au/environment/plants-animals/plants/ecosystems/technical-descriptions/

The descriptions are compiled using site survey data from the Queensland Herbarium & Biodiversity Science's QBEIS database. Distribution maps, representative images (if available) and the pre-clearing and remnant extent (hectares) of each vegetation community derived from the regional ecosystem mapping data are included. The technical descriptions should be used in conjunction with the fields from the regional ecosystem description database (REDD) for a full description of the regional ecosystem.

Technical descriptions include data on canopy height, canopy cover and native plant species composition of the predominant layer, which are attributes relevant to assessment of the remnant status of vegetation under the *Vegetation Management Act 1999*. However, as technical descriptions reflect the full range in structure and floristic composition across the climatic, natural disturbance and geographic range of the regional ecosystem, local reference sites should be used for remnant assessment where possible (Neldner et al. 2023 (PDF)* section 3.3 of: https://www.qld.gov.au/__data/assets/pdf_file/0033/459186/methodology-mapping-surveying-v7.pdf

The technical descriptions are subject to review and are updated as additional data becomes available.

When conducting a BioCondition assessment, these technical descriptions should be used in conjunction with BioCondition benchmarks for the specific regional ecosystem, or component vegetation community. http://www.qld.gov.au/environment/plants-animals/biodiversity/benchmarks/

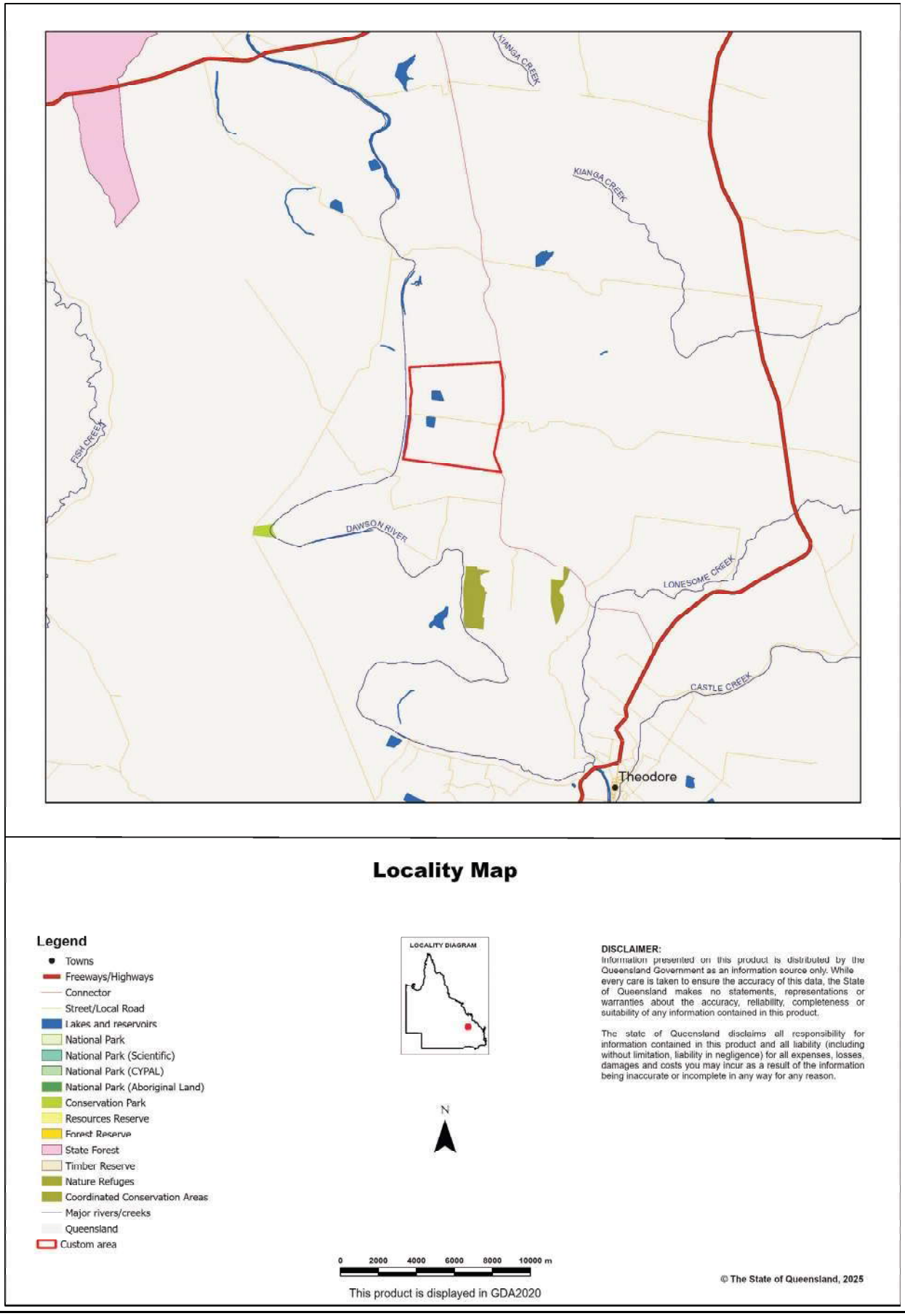
Benchmarks are based on a combination of quantitative and qualitative information and should be used as a guide only. Benchmarks are specific to one regional ecosystem vegetation community, however, the natural variability in structure and floristic composition under a range of climatic and natural disturbance regimes has been considered throughout the geographic extent of the regional ecosystem. Local reference sites should be used for this spatial and temporal (seasonal and annual) variability.

Table 7: List of remnant regional ecosystems within the AOI for which technical and biocondition benchmark descriptions are available

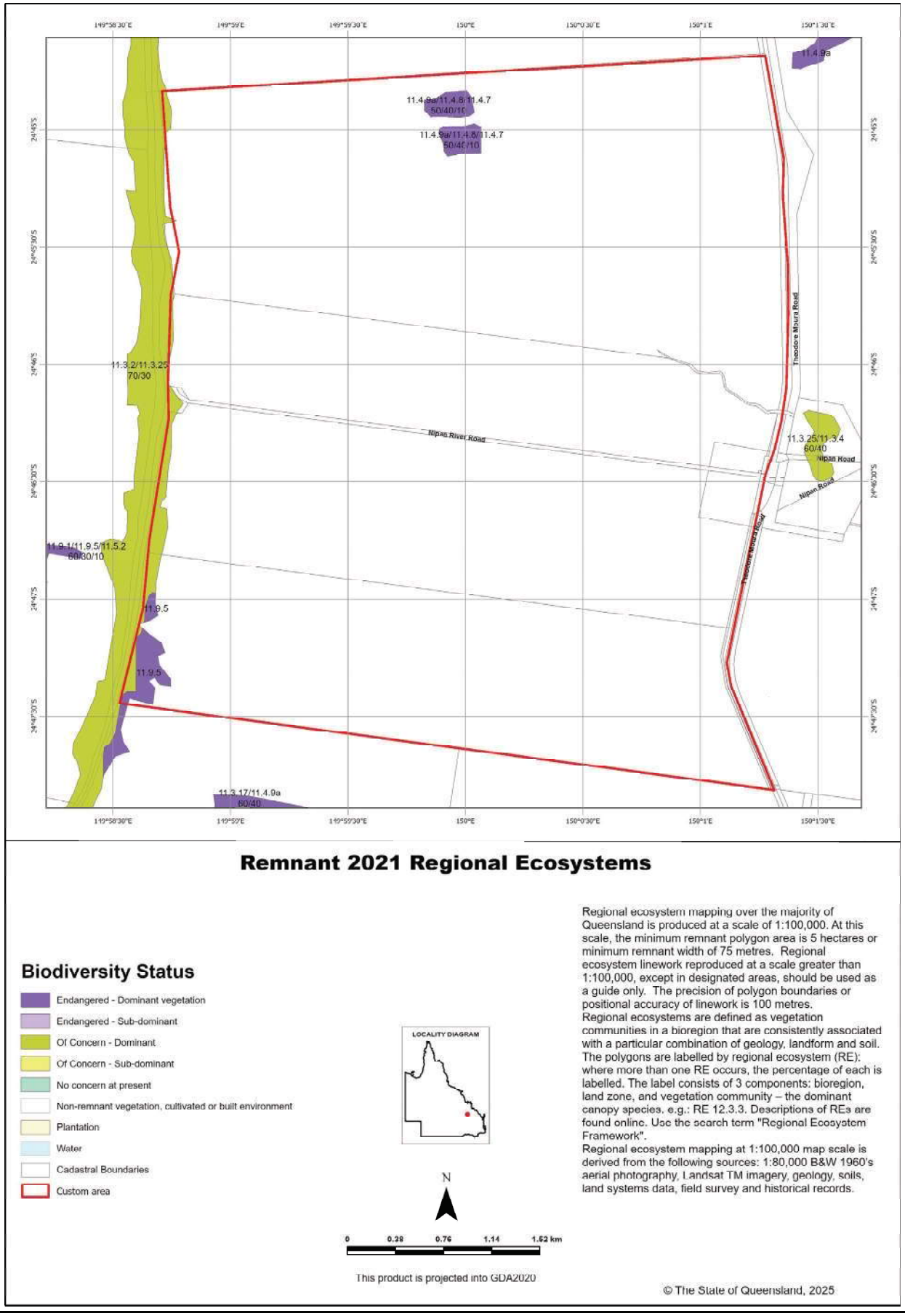
Regional ecosystems mapped as within the AOI	Technical Descriptions	Biocondition Benchmarks
11.3.2	Available	Available
11.3.25	Available	Available
11.4.7	Available	Not currently available
11.4.8	Available	Available
11.4.9a	Available	Not currently available
11.9.5	Available	Available
non-remnant	Not currently available	Not currently available

Maps

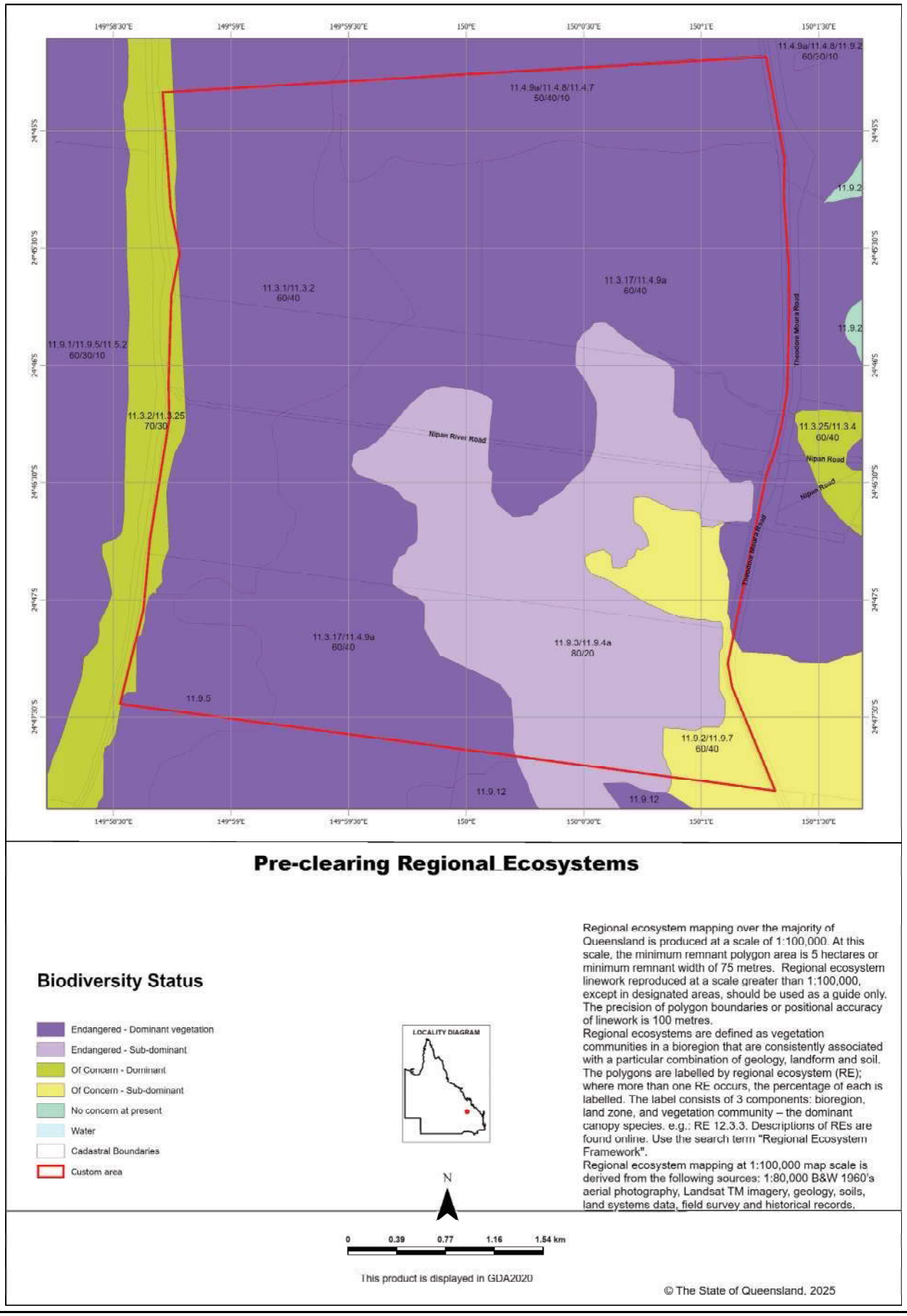
Map 1 - Location



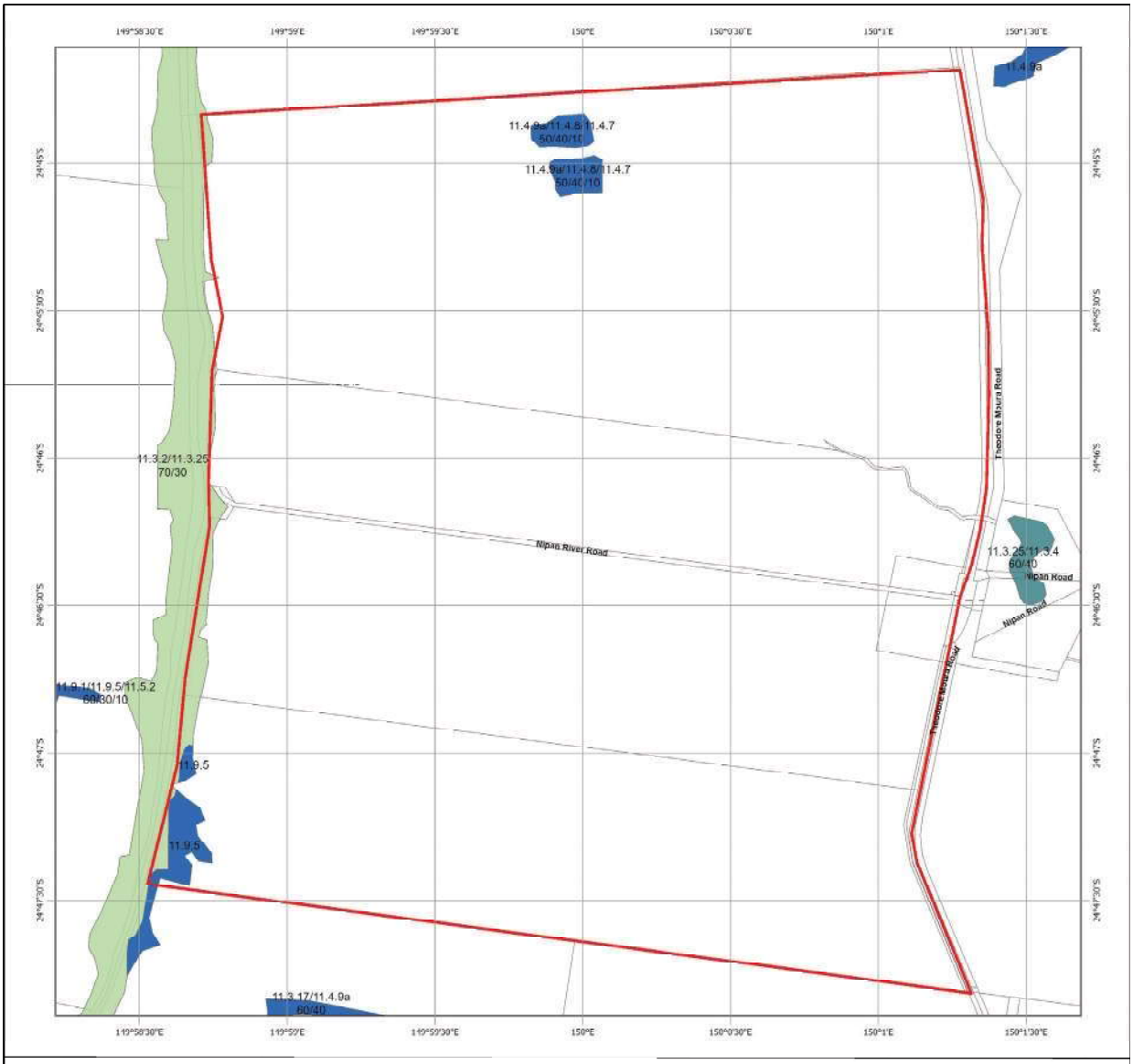
Map 2 - Remnant 2021 regional ecosystems



Map 3 - Pre-clearing regional ecosystems



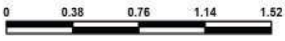
Map 4 - Remnant 2021 regional ecosystems by BVG (5M)



Remnant 2021 Regional Ecosystems coloured by Broad Vegetation Groups

Broad Vegetation Groups
BVG5M Description (BVG1M codes)

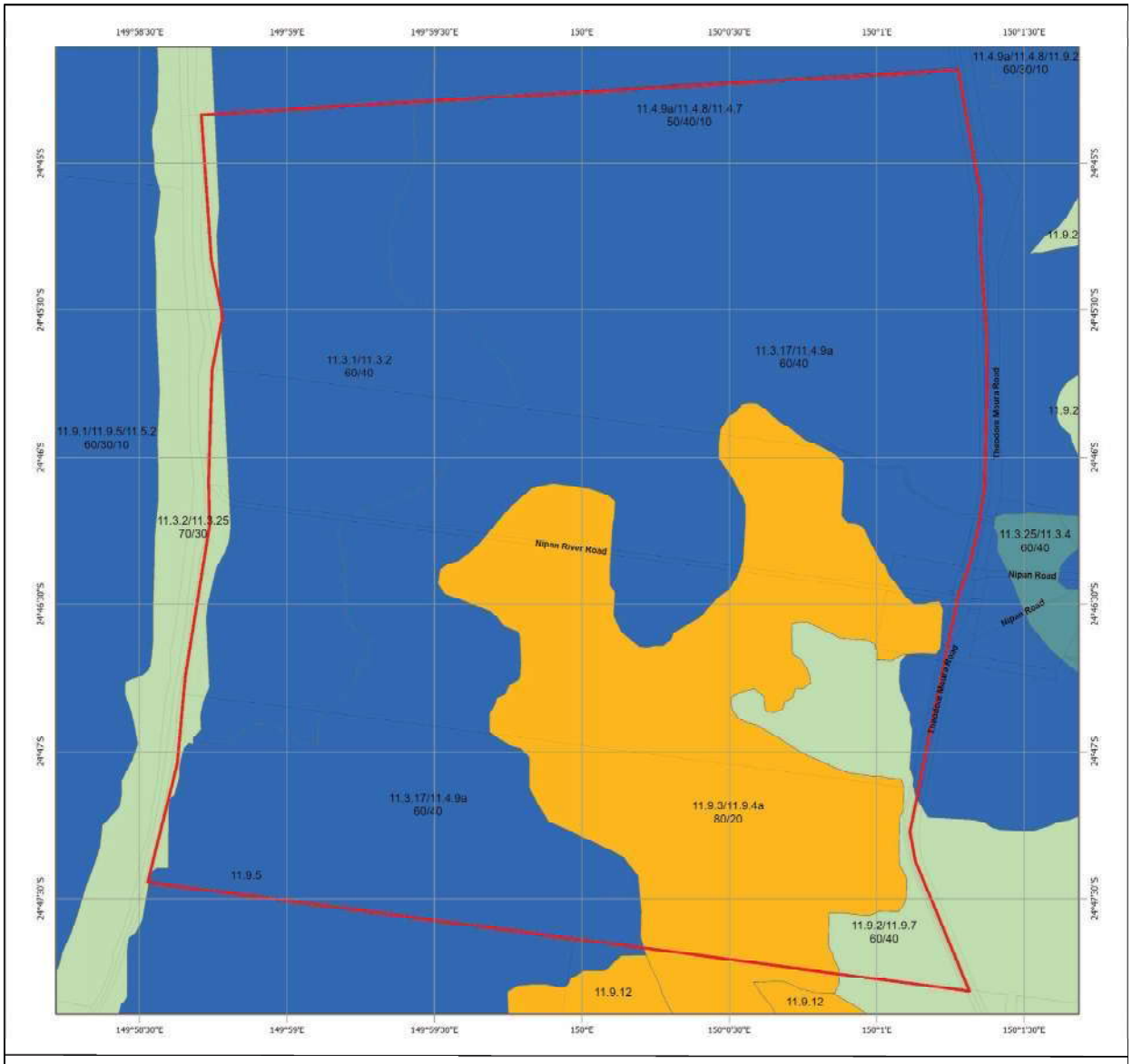
- 1. Rainforests and scrubs (1-7b)
- 2. Wet eucalypt open forests (8-8b)
- 3. Eucalypt woodlands to open forests (mainly eastern Qld) (9-15b)
- 4. Eucalypt open forests to woodlands on floodplains (16-16d)
- 5. Eucalypt dry woodlands on inland depositional plains (17-18d)
- 6. Eucalypt low open woodlands usually with spinifex understorey (19-19d)
- 7. Callitris woodland - open forests (20a)
- 8. Melaleuca open woodlands on depositional plains (21-22c)
- 9. Acacia aneura (mulga) dominated open forests, woodlands and shrublands (23-23h)
- 10. Other acacia dominated open forests, woodlands and shrublands (24-26a)
- 11. Mixed species woodlands, open woodland - (inland bioregions) includes wooded downs (27-27c)
- 12. Other coastal communities or heaths (28-29b)
- 13. Tussock grasslands, forblands (30-32b)
- 14. Hummock grasslands (33-33b)
- 15. Wetlands (swamps and lakes) (34-34g)
- 16. Mangroves and saltmarshes (35-35b)
- Non-remnant vegetation, cultivated or built environment
- Water
- Cadastral Boundaries
- Custom area



This product is displayed in GDA2020

Broad Vegetation Groups (BVG) of Queensland are applied by look up table to the regional ecosystem vegetation communities. Each polygon is coloured by the dominant BVG5M and the component regional ecosystems labelled. Where more than one regional ecosystem occurs, the percentage of each is labelled.
Regional ecosystem mapping over the majority of Queensland is produced at a scale of 1:100,000. At this scale, the minimum remnant polygon area is 5 hectares or minimum remnant width of 75 metres. Regional ecosystem linework reproduced at a scale greater than 1:100,000, except in designated areas, should be used as a guide only. The precision of polygon boundaries or positional accuracy of linework is 100 metres.
Regional ecosystems are defined as vegetation communities in a bioregion that are consistently associated with a particular combination of geology, landform and soil.
The label consists of 3 components: bioregion, land zone, and vegetation community – the dominant canopy species. e.g.: RE 12.3.3. Descriptions of REs are found online. Use the search term "Regional Ecosystem Framework".
Regional ecosystem mapping at 1:100,000 map scale is derived from the following sources: 1:80,000 B&W 1960's aerial photography, Landsat TM imagery, geology, soils, land systems data, field survey and historical records.
Remnant woody vegetation is defined as vegetation that has not been cleared or vegetation that has been cleared but where the dominant canopy has >70% of the height and >50% of the cover relative to the undisturbed height and cover of that stratum and is dominated by species characteristic of the vegetation's undisturbed canopy.
Non-remnant vegetation includes regrowth and disturbed native vegetation.

Map 5 - Pre-clearing regional ecosystems by BVG (5M)



Pre-clearing Regional Ecosystems coloured by Broad Vegetation Groups

Broad Vegetation Groups
BVG5M Description (BVG1M codes)

1. Rainforests and scrubs (1-7b)
2. Wet eucalypt open forests (8-8b)
3. Eucalypt woodlands to open forests (mainly eastern Qld) (9-15b)
4. Eucalypt open forests to woodlands on floodplains (16-16d)
5. Eucalypt dry woodlands on inland depositional plains (17-18d)
6. Eucalypt low open woodlands usually with spinifex understorey (19-19d)
7. Callitris woodland - open forests (20a)
8. Melaleuca open woodlands on depositional plains (21-22c)
9. Acacia aneura (mulga) dominated open forests, woodlands and shrublands (23-23b)
10. Other acacia dominated open forests, woodlands and shrublands (24-26a)
11. Mixed species woodlands, open woodland - (inland bioregions) includes wooded downs (27-27c)
12. Other coastal communities or heaths (28-29b)
13. Tussock grasslands, forblands (30-32b)
14. Hummock grasslands (33-33b)
15. Wetlands (swamps and lakes) (34-34g)
16. Mangroves and saltmarshes (35-35b)

Water
Cadastral Boundaries
Custom area

LOCALITY DIAGRAM

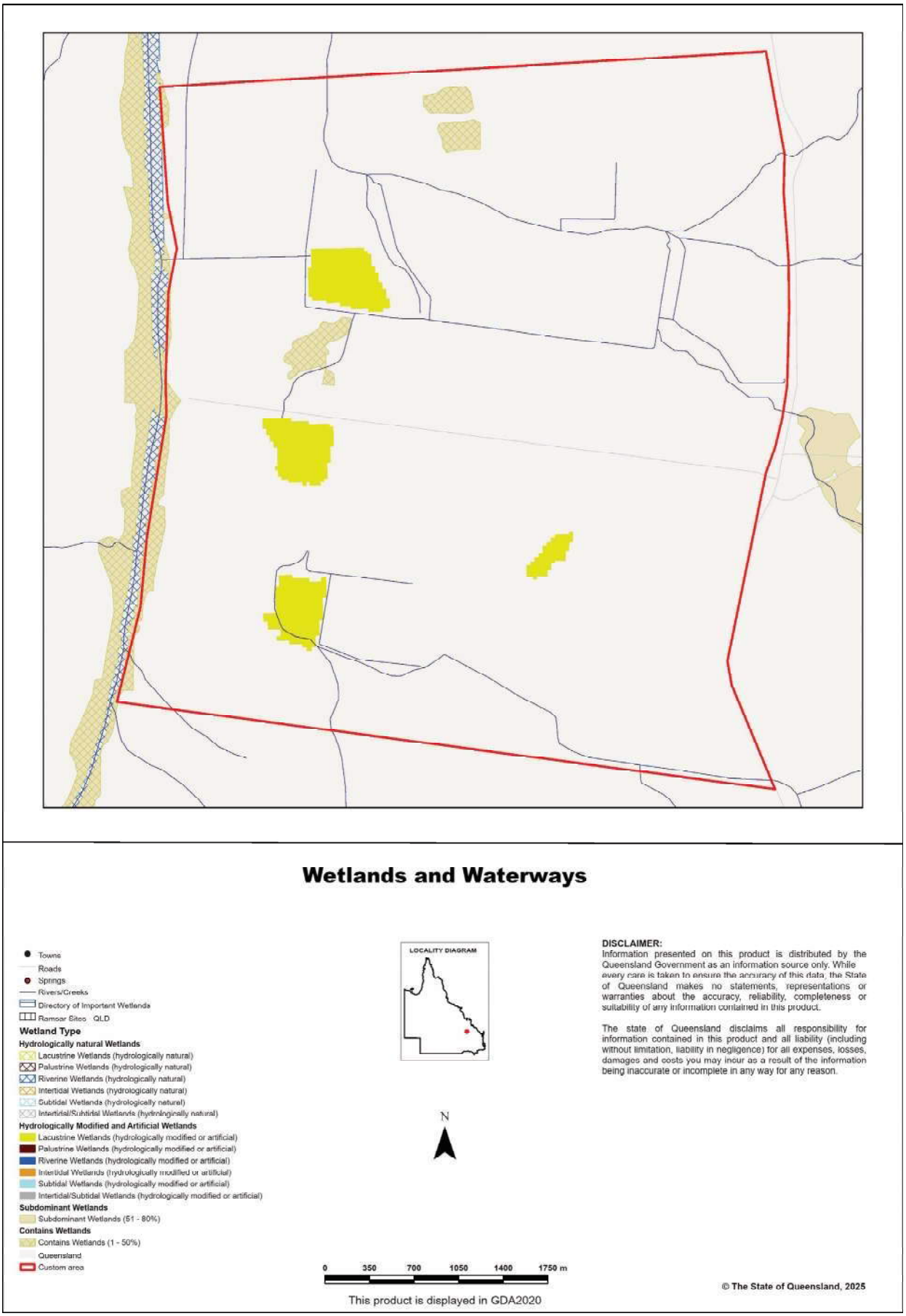
N

0 0.39 0.77 1.16 1.54 km

This product is displayed in GDA2020

Broad Vegetation Groups (BVG) of Queensland are applied by look up table to the regional ecosystem vegetation communities. Each polygon is coloured by the dominant BVG5M and the component regional ecosystems labelled. Where more than one regional ecosystem occurs, the percentage of each is labelled.
Regional ecosystem mapping over the majority of Queensland is produced at a scale of 1:100,000. At this scale, the minimum remnant polygon area is 5 hectares or minimum remnant width of 75 metres. Regional ecosystem linework reproduced at a scale greater than 1:100,000, except in designated areas, should be used as a guide only. The precision of polygon boundaries or positional accuracy of linework is 100 metres.
Regional ecosystems are defined as vegetation communities in a bioregion that are consistently associated with a particular combination of geology, landform and soil. The label consists of 3 components: bioregion, land zone, and vegetation community – the dominant canopy species. e.g.: RE 12.3.3. Descriptions of REs are found online. Use the search term "Regional Ecosystem Framework".
Regional ecosystem mapping at 1:100,000 map scale is derived from the following sources: 1:80,000 B&W 1960's aerial photography, Landsat TM imagery, geology, soils, land systems data, field survey and historical records.

Map 6 - Wetlands and waterways



Links and Other Information Sources

The Department of the Environment, Tourism, Science and Innovation's Website - http://www.qld.gov.au/environment/plants-animals/plants/ecosystems/ provides further information on the regional ecosystem framework, including access to links to the Regional Ecosystem Database, Broad Vegetation Group Definitions, Regional Ecosystem and Land zone descriptions.

Descriptions of the broad vegetation groups of Queensland can be downloaded from: https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/broad-vegetation

The methodology for mapping regional ecosystems can be downloaded from: https://www.qld.gov.au/__data/assets/pdf_file/0033/459186/methodology-mapping-surveying-v7.pdf

Technical descriptions for regional ecosystems can be obtained from: http://www.qld.gov.au/environment/plants-animals/plants/ecosystems/technical-descriptions/

Benchmarks can be obtained from: http://www.qld.gov.au/environment/plants-animals/biodiversity/benchmarks/

For further information associated with the remnant regional ecosystem dataset used by this report, refer to the metadata associated with the Biodiversity status of pre-clearing and Remnant Regional Ecosystems of Queensland dataset (version listed in **Appendix 1**) which is available through the Queensland Spatial Catalogue, Queensland Spatial Catalogue : Queensland Government (information.qld.gov.au)

The Queensland Globe is a mapping and data application. As an interactive online tool, Queensland Globe allows you to view and explore Queensland maps, imagery (including up-to-date satellite images) and other spatial data, including regional ecosystem mapping. To further view and explore regional ecosystems over an area of interest, access the Biota Globe (a component of the Queensland Globe). The Queensland Globe can be accessed via the following link: https://qldglobe.information.qld.gov.au/

References

Neldner, V.J., Niehus, R.E., Wilson, B.A., McDonald, W.J.F., Ford, A.J. and Accad, A. (2023). The Vegetation of Queensland. Descriptions of Broad Vegetation Groups. Version 6.0. Queensland Herbarium, Department of Environment and Science. (https://publications.qld.gov.au/dataset/redd/resource/78209e74-c7f2-4589-90c1-c33188359086)

Neldner, V.J., Wilson, B.A., Dillewaard, H.A., Ryan, T.S., Butler, D.W., McDonald, W.J.F, Richter,D., Addicott, E.P. and Appelman, C.N. (2023) Methodology for survey and mapping of regional ecosystems and vegetation communities in Queensland. Version 7.0. Updated December 2023. Queensland Herbarium, Queensland Department of Environment, Science and Innovation, Brisbane. (https://www.qld.gov.au/__data/assets/pdf_file/0033/459186/methodology-mapping-surveying-v7.pdf).

Sattler, P.S. and Williams, R.D. (eds) (1999). *The Conservation Status of Queensland's Bioregional Ecosystems.* Environmental Protection Agency, Brisbane.

Appendices

Appendix 1 - Source Data

The dataset listed below is available for download from:
http://www.qld.gov.au/environment/plants-animals/plants/ecosystems/download/

- Regional Ecosystem Description Database

The datasets listed below are available for download from:
Queensland Spatial Catalogue : Queensland Government (information.qld.gov.au)

- Biodiversity status of pre-clearing and 2021 remnant regional ecosystems of Queensland
- Pre-clearing Vegetation Communities and Regional Ecosystems of Queensland
- Queensland Wetland Data Version - Wetland lines
- Queensland Wetland Data Version - Wetland points
- Queensland Wetland Data Version - Wetland areas
- Pre-clearing broad vegetation groups of Queensland
- Remnant 2021 broad vegetation groups of Queensland

Appendix 2 - Acronyms and Abbreviations

AOI - Area of Interest
GIS - Geographic Information System
RE - Regional Ecosystem
REDD - Regional Ecosystem Description Database
VMA - *Vegetation Management Act 1999*

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Attachment 2 – 2026
Field Survey Sheets

Name	Latitude	Longitude	RE	Remnant Status	Site Description	Photos Taken	Photo Numbers	Date	Time
Q 1a	-24.777555	150.011783	nil	Non-remnant	Mapped non-remnant Landowner has created a bund along the fenceline within the proposed corridor (not present in 2024/2025) - potentially to prevent overland flows encroaching into the cultivation paddock to the north. Exposed bare earth has been colonised by a mixture of native and non-native species (**P. peruviana, P. ambiguua, *B. pertusa, *C. ciliaris, N. gracilis, C. trilocularis, R. minima var. australis*). Colonisation risk for **P. hysterophorus*.	N, E, S, W, g/c	212-22	16/03/2026	2:01:23 PM
Q 2a	-24.777636	150.012763	nil	Non-remnant	Mapped non-remnant Several small clumps of Brigalow (*A. harpophylla*) that have been retained in the north-western corner of the paddock (cue for retention uncertain - potentially for shade). Separation of clumps ranges from 5 to 50 m, noting the presence of similar clumps to the south and west of a nearby ring tank. These clumps were observed to support a significant, and potentially deleterious, load of *Amyema quandang bar. quandang* as well as occasional *Amyema maidenii subsp. maidenii*, i.e. potential nesting and foraging habitat for Painted Honeyeater. However, given the degree of fragmentation and limited overall size of the clumps (including the clumps near the ring tank) it is posited that the population is unlikely to represent a likely target for nesting. These clumps recovery plan and conservation advice for this species suggests that larger remnants with connectivity and substantive mistletoe load are more preferred for nesting. There is, however, a potential that they may be of value as a foraging area but requires further consideration and an assessment of the population numbers of *Amyema spp*. (see mark-up).	N, E, S, W, g/c	223-32	17/03/2026	6:02:10 AM
Q 3a	-24.777975	150.016658	nil	Non-remnant	Mapped non-remnant Northern side of the fenceline, previously assessed in June 2025 (sub-optimal conditions).	N, E, S, W, g/c	233-7	17/03/2026	6:02:47 AM

					Community primarily improved pasture that has responded significantly well to the 2026 wet season. Limited cover of woody vegetation with the distribution of well established Eucalyptus coolabah and Acacia harpophylla woodland to open forest fringing Huan Creek well removed from the proposed corridor. Groundcover is the EDL, and is dominated by dense *Bothriochloa pertusa with *Macroptillium lathyroides, Indigofera linifolia, Neptunia gracilis, Rhynchosia minima var. australis scattered amongst the tussocks, Clumps of Heteropogon contortus scattered throughout. Woody vegetation limited to very occasional juvenile *L. leucocephala				
Q 4a	-24.778515	150.019813	nil	Non-remnant	See 2024 and 2025 notes. Very similar composition, just much denser following an above average rainfall season.	None Taken	no photos taken	17/03/2026	6:03:08 AM
Q 5a	-24.780576	150.019295	nil	Non-remnant	Mapped non-remnant Assessment site at the southern end of the gathering line at the intersection location of the proposed well pad. Native species much more prevalent at this location. Groundcover is the EDL and dominated by Aristida latifolia with associated Panicum decompositum var. tenuis, Corchorus trilocularis, Rhynchosia minima var. australis, Ipomoea plebeia, Phyllnthus maderaspatensis with *Bothriochloa pertusa somewhat suppressed. The prevalence of *P. hysterophorus that was observed in 2024 and 2025 was hampered by the denser vegetative cover in 2026.	N, E, S, W, g/c	238-42	17/03/2026	6:03:34 AM

Phots	Reference		
Q1 a			
Q2 a			

Q 3a	 16 Mar 2026 at 14:20:00 -24.778027,+150.016231 7° N Q 3a	 16 Mar 2026 at 14:20:07 -24.778027,+150.016231 182° S Q 3a	 16 Mar 2026 at 14:20:11 -24.778027,+150.016231 280° W Q 3a
Q 5a	 16 Mar 2026 at 14:49:10 -24.780377,+150.019412 99° E Q 5a	 16 Mar 2026 at 14:49:20 -24.780391,+150.019422 164° S Q 5a	 16 Mar 2026 at 14:49:17 -24.780387,+150.019391 271° W Q 5a

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Attachment 3 – Likelihood of Occurrence Assessment

Likelihood of occurrence assessment

Database searches indicate the presence or potential presence threatened plants, fauna and migratory birds listed under the EPBC Act in the search area. Additional threatened or near threatened plants, fauna listed under the NC Act only, were returned from database searches for the search area. These results are presented in Attachment 1. A number of the EPBC Act listed species are also listed under the NC Act.

Most of these species are considered unlikely to occur in the Project area due to lack of suitable forested, natural grassland, wetland or aquatic habitats, unsuitable soils and underlying geology, and/or the Project area being outside the known distribution of the species. Therefore, these species have not been considered further.

While marginally suitable habitat is present for the following species, the extent of historical disturbance and clearing and dominance of exotic pasture grasses in the ground layer, in combination with limited if any records in the region, makes the occurrence of these species unlikely:

Flora –

- Arthraxon hispidus (Hairy Joint Grass) – Vulnerable (EPBC Act)
- Cadellia pentastylis (Ooline) – Vulnerable (EPBC Act)
- Cossinia Australiana (Cossinia) – Endangered (EPBC Act)
- *Dichanthium queenslandicum (*King-Blue-grass) - Endangered (EPBC Act), vulnerable (NC Act)
- *Dichanthium setosum* (Bluegrass) – Vulnerable (EPBC Act)
- Polianthion minutiflorum (no common name) – Vulnerable (EPBC Act)
- *Solanum dissectum* (no common name) – Endangered (EPBC Act & NC Act)
- *Solanum johnsonianum* (no common name) - Endangered (EPBC Act & NC Act)
- Xerothamnella herbacea (no common name) - Endangered EPBC Act & NC Act)

Fauna –

- Corben's Long-eared Bat (*Nyctophilus corbeni*) – vulnerable (EPBC Act & NC Act)
- Ghost Bat (Dasyurus hallucatus) – Endangered (EPBC Act)
- Greater Glider (*Petauroides volans*) – Endangered (EPBC Act)
- Grey-headed Flying-fox (Pteropus poliocephalus) – Vulnerable (EPBC Act)
- Koala (*Phascolarctos cinereus*) – Endangered (EPBC Act)
- Northern Quoll (Dasyurus hallucatus) – Endangered (EPBC Act)
- Yellow-bellied Glider (south-eastern) (*Petaurus australis australis*) – vulnerable (EPBC Act & NC Act)
- Adorned Delma (*Delma torquata*) – vulnerable (EPBC Act & NC Act)
- Dunmall's Snake (*Furina dunmalli*) – vulnerable (EPBC Act & NC Act)
- Fitzroy River Turtle (*Rheodytes leukops*) – Endangered (EPBC Act)
- Grey Snake (*Hemiaspis damelii*) – endangered (EPBC Act & NC Act)
- Ornamental Snake (*Denisonia maculata*) – Vulnerable (EPBC Act)
- Southern Snapping Turtle (*Elseya albag*) – Critically Endangered (EPBC Act)
- Yakka Skink (*Egernia rugos*a) – vulnerable (EPBC Act & NC Act)
- Australian Painted Snipe (Rostratula australis) – Endangered (EPBC Act)
- Black-breasted Button Quail (*Turnix melanogaster*) – Vulnerable (EPBC Act)
- Curlew sandpiper (Calidris ferruginea) – Critically endangered migratory wetland species (EPBC Act)
- Diamond Firetail (*Stagonopleura guttata*) – Vulnerable (EPBC Act)
- Fork-tailed Swift (*Apus pacificus*) – Migratory (EPBC Act)

- Grey Falcon (Falco hypoleucos) – Vulnerable (EPBC Act)
- Latham's Snipe (Gallinago hardwickii) – Vulnerable migratory wetland species (EPBC Act)
- Oriental Cuckoo (*Cuculus optatus*) - migratory (EPBC Act), special least concern/migratory (NC Act)
- Painted Honeyeater (*Grantiella picta*) – Vulnerable (EPBC Act)
- Red Goshawk (Erythrotriorchis radiatus) – Endangered (EPBC Act)
- Sharp-tailed sandpiper (*Calidris acuminata*) - Vulnerable migratory wetland species (EPBC Act)
- Squatter Pigeon (southern) (*Geophaps scripta scripta*) – vulnerable (EPBC Act & NC Act)
- Star Finch (Neochmia ruficauda ruficauda) – Endangered (EPBC Act)
- Sharp-tailed Sandpiper (Calidris acuminata) – Vulnerable migratory wetland species (EPBC Act)
- White-throated Needletail (*Hirundapus caudacutus*) – Vulnerable migratory species (EPBC Act)

The following species are known from the area and habitat, although degraded, may still be suitable for these species, however, these species were not detected in the field survey despite targeted searches and/or they being easily detected due to their distinctive features. They may occur elsewhere in the region and local area but are likely to only occur transiently in the Project area. Additionally, these species would not be directly impacted by the Project. Any potential indirect impacts, in the form of light, dust, noise, vibration, erosion and sedimentation are highly unlikely as these types of impacts will be small in scale in any one area, temporary in duration during progressive construction activities and will be avoided, minimised and mitigated using industry best practice measures, such as:

- implementing dust suppression activities
- restricting activities to dry periods and day time only
- maintaining vehicles and equipment in good working order. These species include:

Flora –

- Cadellia pentastylis (Ooline) – Vulnerable (EPBC Act)
- *Dichanthium queenslandicum (*King-Blue-grass) - Endangered (EPBC Act), vulnerable (NC Act)
- *Dichanthium setosum* (Bluegrass) – Vulnerable (EPBC Act)
- *Solanum dissectum* (no common name) – Endangered (EPBC Act & NC Act)
- *Solanum johnsonianum* (no common name) - Endangered (EPBC Act & NC Act)
- Xerothamnella herbacea (no common name) - Endangered EPBC Act & NC Act

Fauna –

- White-throated Needletail (*Hirundapus caudacutus*) – vulnerable/migratory (EPBC Act & NC Act)
- Grey-headed Flying-fox (*Pteropus poliocephalus*) – vulnerable (EPBC Act)
- Greater Glider (southern & central) (*Petauroides volans*) – endangered (EPBC Act & NC Act).

The species listed in Table 3a below were either detected or considered to potentially occur in the Project area and impacts have been assessed as part of this Ecological Survey Report.

Table 3a: Summary of species occurring or potentially occurring in the Project area

Species	Source[1]	NC Act status[2]	EPBC Act status[3]	Profile	Likelihood to occur
Solanum elachophyllum (no common name)	WildNet	E	NL	***Queensland Distribution:*** The species is known from central subcoastal parts of Queensland between Middlemount and Theodore. ***Habitat:*** It prefers fertile cracking-clay soils in open forest that comprise napunyah (Eucalyptus thozetiana), brigalow (Acacia harpophylla), with understory of wilga (Geijera parviflora), belah (Casuarina cristata), Macropteranthes leichhardtii (no common name), Dawson River gum (Eucalyptus cambageana), or woodland of narrow-leaved red ironbark (E. crebra) and E. tenuipes (no common name). The species is strongly associated with brigalow communities but also occurs in eucalypt forests close to brigalow vegetation. It has also been recorded in cleared and degraded brigalow and non-brigalow habitat with low exotic grass cover. ***Nearest record:*** The species is known from the local area and there are large populations of thousands of individuals within 3.5 km of the Project area (Chris Hansen per comm April 2024; (Belbin, Lee, 2011).	Present: This species was recorded during the field survey (Figure 4 and Attachment 2).
Australian painted snipe (*Rostratula australis*)	PMSR	E	E	***Queensland Distribution:*** The species is considered to constitute a single, contiguous breeding population. It has been recorded in all states but is most common in eastern Australia. It is thought to be less widespread than it historically was. The species is possibly migratory or dispersive and this is likely related to local conditions an availability of wetland suitable habitats. ***Habitat:*** The species depends on shallow wetlands for feeding and breeding habitat, including; ephemeral and permanent waterbodies such as lakes, swamps, claypans, inundated or waterlogged grassland/saltmarsh, dams, rice crops, sewage farms, bore drains and usually with a good cover of grasses, rushes and reeds, low scrub and lignum (*Muehlenbeckia* spp.), open timber or samphire (DSEWPC, 2013). The species requires wetlands with bare, wet mud and upper and canopy cover nearby for breeding and almost	Possible: Cleared gilgai adjacent to the CROW may provide temporary and intermittent foraging habitat for this species following prolonged rainfall, although this habitat is highly disturbed and degraded and would provide marginal habitat quality (Figures 4.1, Figure 4.2 and Figure 4.3).

Species	Source[1]	NC Act status[2]	EPBC Act status[3]	Profile	Likelihood to occur
				all nest records are observed to be on or near small islands in freshwater wetlands (DCCEEW, 2023a). ***Nearest Record:*** There are numerous scattered records throughout Queensland, particularly eastern Queensland. Although there are very few records in the broader region surrounding the Project area. The nearest record to the Project area is more than 30 km to the south-south-east (Belbin, Lee, 2011).	
Latham's snipe (*Gallinago hardwickii*)	PMSR	SLC (M)	V/M	***Queensland Distribution:*** This species is highly dispersive and moves in response to rainfall and food availability. It is widely dispersed generally in low numbers and doesn't often congregate in large groups, but may most regularly be seen in its core range along the east coast of Australia and occasionally further inland (DCCEEW, 2024b). This species occurs along the east coast of Australia from Cape York Peninsula through to south-eastern South Australia and slightly inland of the Great Dividing Range from Rockhampton south. This species is a non-breeding visitor to Australia. The species is known from permanent and ephemeral wetlands up to 2,000 m above sea level. ***Habitat:*** The Latham's Snipe occupies fresh, saline or brackish habitats but usually freshwater open wetlands with low, dense vegetation (e.g. swamps, flooded grasslands or heathlands, around soaks and water bodies). It is known from flooded meadows, seasonal or semi-permanent swamps, open waters, waterholes, billabongs, lagoons, lakes, creek or river margins, river pools, floodplains and nearby vegetated areas. Modified habitats may also be used, including pasture, ploughed paddocks, irrigation channels, drainage ditches, rice fields, orchards, saltworks and sewage farms (DCCEEW, 2023c). ***Nearest Record:*** This species is known from the broader region and has been recorded at Moura, approximately within 6 km of the Project area (Belbin, Lee, 2011).	Possible: Cleared gilgai adjacent to the CROW may provide temporary and intermittent foraging habitat for this species following prolonged rainfall, although this habitat is highly disturbed and degraded and would provide marginal habitat quality (Figures 4.1, Figure 4.2 and Figure 4.3).

Species	Source[1]	NC Act status[2]	EPBC Act status[3]	Profile	Likelihood to occur
Koala (*Phascolarctos cinereus*)	PMSR, WildNet	E	E	***Queensland Distribution:*** The Koala is known from eastern Australia eucalypt woodland and forests in Queensland, New South Wales, the Australian Capital Territory, Victoria and South Australia, although its distribution is patchy and several subpopulations occur within this range. Regions of suitable habitat tend to align with mean maximum summer temperatures of between 23-26ºC and mean annual rainfall of between 700 and 1,500 mm (DAWE, 2022a). ***Habitat:*** In Queensland the species occupies moist coastal forests, southern and central western subhumid woodland, eucalypt woodlands near waterbodies in semi-arid western parts of its range. The korala is an obligate folivore (leaf eater), with a limited diet of Eucalyptus, Corymbia an Angophora species. The koala feeds on hundreds of tree species across its range, however, has a preference of only a handful of species in any given location, which is likely to be dependent on regional variations in chemical profiles, water content and nutrient value of foliage. Climate refugia, such as drainage lines, riparian zones and patches resilient to drying conditions (through favourable hydrological systems) are considered habitat critical to this species (DAWE, 2022a). ***Nearest Record:*** The species is known historically from the region, with closest record less than 5 km from the Project area in Moura. However, there are no dated or recently published records (i.e. within the last 25 years) within the region surrounding the Project area (Belbin, Lee, 2011).	Possible: This species is known from the broader region and is likely to use forested habitats and clumps of habitat trees particularly in association with the Dawson River and ranges to the east and west of the Project area. However, there are limited potential foraging resources within the Project area. Therefore, it is unlikely the species uses the Project area for foraging, refuge or shelter, although may occur in the broader area and move through the Project area incidentally.
Ornamental snake (*Denisonia maculata*)	PMSR, WildNet	V	V	***Queensland Distribution:*** The species is known only from the Fitzroy and Dawson Rivers drainage systems in Queensland. ***Habitat:*** The species occupies floodplains, undulating clay pans and margins of swamps, lakes and watercourses, as well as elevated ground supporting woodlands and open woodlands of coolabah, popular box, and brigalow and in fringing vegetation along watercourses. The species prefers open-forests to woodlands associated with gilgai formations	Possible: Potentially suitable gilgai habitat in cleared paddocks and in regrowth communities adjacent to the Project area may be used by this species, which is known from the area. However, more intact habitat within vegetated areas is present in the local landscape in areas mapped as essential habitat for ornamental snake (Figure 4.1, Figure 4.2 and Figure 4.3).

Species	Source[1]	NC Act status[2]	EPBC Act status[3]	Profile	Likelihood to occur
				and wetlands on land zone 4, commonly mapped as REs 11.3.3, 11.4.3, 11.4.6, 11.4.8, 11.4.9 or 11.5.16. However, the species is also known to occur in gilgai formations that have been cleared of vegetation, but where these REs formerly occurred (DCCEEW, 2024c). The species shelters in logs, under coarse woody debris and ground litter and in gilgai cracks. The species shelters in logs, under coarse woody debris and ground litter and in gilgai cracks. Specific micro-habitat features are noted for this species, including: ▪ a preference for shallow water where some aquatic vegetation is present, especially where bog hyacinth (*Monochoria cyanea*) is dominant ▪ a diversity gilgai size and depth, with gently sloping gradients the sides ▪ soils having deep cracking clay characteristics with high water retention capacity associated with fine clay particle fraction of soils ▪ ground timber is usually common ▪ abundance of frogs, its preferred prey, particularly burrowing frogs (i.e. *Cyclorana* species) ▪ habitat patches of greater than 10 and connected with larger areas of remnant vegetation (DCCEEW, 2024c). ***Nearest record:*** There are a handful of records for this species in the region, the nearest of which is within 5 km of the Project area (Belbin, Lee, 2011).	

[1] Record returned in the WildNet or the EPBC Act Protected Matters Search Report (PMSR)
[2] E = endangered, V = vulnerable, NT = near threatened, SLC (migratory) = special least concern (migratory) under the Queensland *Nature Conservation Act 1994*
[3] E = endangered, V = vulnerable, NL = not listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

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Attachment 4 – Flora Species List

Verbenaceae	*Glandularia aristigera*	Mayne's Pest	*	*		1			1	1		1	
Molluginaceae	*Glinus lotoides*	Hairy Carpet Weed	NL	C								+ (g)	
Apocynaceae	*Gomphocarpus physocarpus*	Balloon Cotton Bush	*	*						+			
Amaranthaceae	*Gomphrena celosioides*	Gomphrena Weed	*	*		1 (e)			1	1		2	
Malvaceae	*Gossypium hirsutum*	Cotton	*	*			1 (e)			+			
Proteaceae	*Grevillea striata*	Beefwood	NL	C	1								
Haloragaceae	*Haloragis heterophylla*	Raspwort	NL	C						1			
Cactaceae	*Harrisia martinii*	Harrisia Cactus	*	*(RI)		1			1	1			
Poaceae	*Heteropogon contortus*	Black Speargrass	NL	C	1	2			1	1-3		1	
Malvaceae	*Hibiscus verdcourtii*	Bladder Ketmia	NL	C		1	2		1				
Poaceae	*Holcolemma dispar*	*ncn*	NL	C						1			
Poaceae	*Hyparrhenia rufa*	Thatch Grass	*	*						1-3			
Fabaceae	*Indigofera linifolia*	ncn	NL	C						1			
Convolvulaceae	*Ipomoea plebeia*	Bell Vine	NL	C	1	2		1-2	1	2		1	
Poaceae	*Iseilema vaginiflorum*	Red Flinders Grass	NL	C						1		1	
Convolvulaceae	*Jacquemontia paniculata*	*ncn*	NL	C									1
Oleaceae	*Jasminum didymum* subsp. *didymum*	Coastal Jasmine	NL	C					2				1
Juncaceae	*Juncus aridicola*	*ncn*	NL	C						1 (g)		1 (g)	
Asteraceae	*Lactuca serriola*	Prickly Lettuce	*	*						+			
Mimosaceae	*Leucaena leucocephala*	Leucaena	*	*	1				1	1-6	3-4	1	
Onagraceae	*Ludwigia octovalvis*	Native Willow Primrose	NL	C		1 (g)				1 (g)			
Loranthaceae	*Lysiana subfalcata*	Lemon Mistletoe	NL	C	2	2		1	2	2		1	
Caesalpiniaceae	*Lysiphyllum carronii*	Red-flowered Bauhinia	NL	C	3	3-4		2	3-4	2-3		2	
Caesalpiniaceae	*Lysiphyllum hookeri*	Pegunny	NL	C		1				1			
Fabaceae	*Macroptilium atropurpureum*	Siratro	*	*	1 (e)				1	2			
Fabaceae	*Macroptilium lathyroides*	Phasey Bean	*	*	1 (e)				1	2			
Chenopodiaceae	*Maireana microphylla*	Blue Saltbush	NL	C	2	2			2	1		1	1
Malvaceae	*Malvastrum americanum* var. *americanum*	Spiked Malvastrum	*	*	1	2			2	2		1	1
Malvaceae	*Malvastrum coromandelianum* subsp. *coromande*	False Mallow	*	*	1				1				
Apocynaceae	*Marsdenia viridiflora* subsp. *viridiflora*	Native Pear	NL	C		1		1	1	1			1
Marsileaceae	*Marsilea costulifera*	Narrow-leaved Nardoo	NL	C								1-2 (g)	
Marsileaceae	*Marsilea mutica*	(a) Nardoo	NL	C					1 (g)			1 (g)	
Poaceae	*Megathyrsus maximus* var. *pubiglumis*	Green Panic	*	*	1	1-4 (e)			1-3	1-3		1-5	1-2
Pentapetaceae	*Melhania oblongifolia*	Melhania	NL	C									+
Poaceae	*Melinis repens*	Red Natal Grass	*	*	1 (e)				1-3	1-3		2	
Pontederiaceae	*Monochoria cyanea*	Pond Hyacinth	NL	C								+ (g)	
Poaceae	*Moorochloa eruciformis*	*ncn*	*	*		1 (tk)			1	1		1 (g)	
Mimosaceae	*Neptunia dimorphantha*	Tall Sensitive Plant	NL	C	1	1			1	1		1	
Mimosaceae	*Neptunia gracilis*	Native Sensitive Plant	NL	C	2	2			1	2		1	
Solanaceae	*Nicotiana megalosiphon*	*ncn*	NL	C						+			
Amaranthaceae	*Nyssanthes erecta*	*ncn*	NL	C	1	2			2	2		1	2
Lamiaceae	*Ocimum tenuiflorum*	Holy Basil	NL	C		1 (g)			2 (g)	2 (g)		1 (g)	
Cactaceae	*Opuntia streptacantha*	Westwood Pear	*	*(RI)				+	+				
Cactaceae	*Opuntia tomentosa*	Velvety Tree Pear	*	*(RI)					1	1		1	
Meliaceae	*Owenia x reliqua*	Bellata Owenia	NL	C					1	1			2
Oxalidaceae	*Oxalis perennans*	*ncn*	NL	C	1	1		1	2	1		1	1
Poaceae	*Panicum decompositum* var. *decompositum*	Native Millet	NL	C	1				1	1		1	
Apocynaceae	*Parsonsia lanceolata*	Rough Silkpod	NL	C		1				2		1	1
Asteraceae	*Parthenium hysterophorus*	Parthenium	*	*(RI)	1-2	2-4		1	2	1	3	1	
Poaceae	*Paspalidium* sp.	*ncn*	NL	C						1		1	1
Asteraceae	*Peripleura diffusa*	*ncn*	NL	C						1			

Polygonaceae	*Persicaria attenuata*	Smartweed	NL	C						1 (g)			
Phyllanthaceae	*Phyllanthus maderaspatensis*	*ncn*	NL	C	1	1				1		1	1
Solanaceae	*Physalis peruviana*	Cape Gooseberry	*	*						1			
Violaceae	*Pigea stellarioides*	Orange Spade Flower	NL	C									1
Pittosporaceae	*Pittosporum angustifolium*	Weeping Pittosporum	NL	C		1				1			1
Convolvulaceae	*Polymeria ambigua*	Creeping Polymeria	NL	C	1	2		2	2	1		1	1
Portulacaceae	*Portulaca filifolia*	Native Pigweed	NL	C		1			1	1			1
Portulacaceae	*Portulaca oleracea*	Pigweed	*	*	1			1	2	1		2	1
Portulacaceae	*Portulaca pilosa*	Hairy Pigweed	*	*	1			1	1				
Acanthaceae	*Pseuderanthemum variabile*	Love Flower	NL	C									1
Rubiaceae	*Psydrax johnsonii*	Brigalow Canthium	NL	C					1	+			
Asteraceae	*Pterocaulon serrulatum*	Pineapple Bush	NL	C						1			
Chenopodiaceae	*Rhagodia spinescens*	Spiny Saltbush	NL	C					2				
Fabaceae	*Rhynchosia minima* var. *australis*	Rhyncho	NL	C	2	2		2	2	1		1	1
Acanthaceae	*Rostellularia adscendens*	Pink Tongues	NL	C								1	1
Chenopodiaceae	*Salsola australis*	Soft Roly Poly	NL	C	2	1		1	2	1-2		1	1
Santalaceae	*Santalum lanceolatum*	Northern Sandalwood	NL	SL	1	2		1	2	2		1	2
Cyperaceae	*Scleria mackaviensis*	*ncn*	NL	C	1			1	1				1
Chenopodiaceae	*Sclerolaena muricata*	Black Roly Poly	NL	C	1				1	1		1	1
Chenopodiaceae	*Sclerolaena tetracuspis*	Brigalow Burr	NL	C	2	2			2	1			
Asteraceae	*Senecio brigalowensis*	Brigalow Fireweed	NL	C						1			
Caesalpiniaceae	*Senna barclayana*	*ncn*	NL	C						1			
Caesalpiniaceae	*Senna coronilloides*	Brigalow Senna	NL	C						1			
Fabaceae	*Sesbania cannabina*	Sesbania Pea	NL	C		2 (g)				1		1	
Poaceae	*Setaria pumila*	Pale Pigeon Grass	*	*	1 (e)	1			1-4	1-2		1	
Malvaceae	*Sida cordifolia*	Flannel Weed	*	*		1				+			
Malvaceae	*Sida corrugata*	Corrugated Sida	NL	C	1				1	1			2
Malvaceae	*Sida fibulifera*	Pin Sida	NL	C						+			1
Malvaceae	*Sida hackettiana*	Shrub Sida	NL	C						1			
Malvaceae	*Sida rhombifolia*	Paddy's Lucerne	*	*		+							
Malvaceae	*Sida spinosa*	Spiny Sida	*	*	1				1	2	2	1-3 (g)	1
Solanaceae	***Solanum elachophyllum***	***ncn***	**NL**	**E**					**1**	**1**			**1**
Solanaceae	*Solanum esuriale*	Quena	NL	C		1			1	+		1	
Asteraceae	*Sonchus oleraceus*	Common Sowthistle	*	*	1 (e)					1			
Poaceae	*Sorghum* cv. Excalibur	Sorghum	*	*						+			
Poaceae	*Sorghum halepense*	Johnson Grass	*	*	1-3 (e)	1			1	1-6			
Poaceae	*Sporobolus caroli*	Fairy Grass	NL	C	1-3	2		1	2	1		1	1
Poaceae	*Sporobolus creber*	Slender Rat's Tail Grass	NL	C		1			2 (g)	1			
Fabaceae	*Stylosanthes scabra*	Shrubby Stylo	*	*	1	1				1			
Asteraceae	*Symphyotrichum subulatum*	Wild Aster	*	*		1 (g)				1 (g)		1	
Aizoaceae	*Tetragonia tetragonoides*	Warrigal Greens	NL	C		1			2	+			
Lamiaceae	*Teucrium daucoides*	*ncn*	NL	C						2			2
Poaceae	*Tragus australianus*	Burr Grass	NL	C						1		1	
Aizoaceae	*Trianthema triquetra*	Red Spinach	NL	C	1				2	1		1	1
Zygophyllaceae	*Tribulus micrococcus*	Spineless Caltrop	NL	C		1			2	1			1
Asteraceae	*Tridax procumbens*	Tridax Daisy	*	*						1-2			
Typhaceae	*Typha domingensis*	Narrow-leaved Cumbungi	NL	C						1			
Poaceae	*Urochloa mosambicensis*	Sabi Grass	*	*	2	1		2	1-4 (tk)	2	2	1-4	2 (e)
Mimosaceae	*Vachellia farnesiana*	Prickly Acacia	*	*	+				1	1		+	
Verbenaceae	*Verbena macrostachya*	*ncn*	NL	C						1			
Asteraceae	*Verbesina encelioides*	Crownbeard	*	*						1			

Fabaceae	*Vigna lanceolata*	*ncn*	NL	C	1								
Fabaceae	*Vigna radiata* var. *sublobata*	Mung Bean	NL	C						5-6			
Asteraceae	*Vittadinia dissecta*	*ncn*	NL	C								1	1
Asteraceae	*Vittadinia pustulata*	*ncn*	NL	C		1			1			1	
Asteraceae	*Xanthium occidentale*	Noogera Burr	*	*		2				1		1	
Aizoaceae	*Zaleya galericulata*	Hogweed	NL	C		2			1	1		1	1
Asteraceae	*Zinnia peruviana*	Peruviana Zinnia	*	*						1			

Legend

1 ncn = no common name.

2 Flora species status under the EPBC Act: NL = not listed; * = exotic species

3 Flora species status under the NC Act: E - Enfdangered; SL – special least concern; C = least concern native species; C (n-l) = not listed native species but not local to region; * = exotic species.

4 Class of declared species under Queensland's *Biosecurity Act 2014* : *(RI) – restricted invasive exotic flora species.

5 Relative abundance of species was based on the Braun-Blanquet technique cover-abundance scale (Mueller-Dombois and Ellenberg 2003) as follows:

+ = individual specimen recorded

1 = sparse, <5%;

2 = any number, <5%;

3 = 5 – 24%;

4 = 25 – 49%;

5 = 50 – 74%; and,

6 = 75 – 100%.

[Note: the bracketed letters denote: (e) – edge of community; (g) - gilgai; (tk) – farm track

Greater Meridian Project – Ecological Scouting and Reporting

Waddington Park (DR098) – EPBC Act Compliance

2026-049

7 April 2026

Document Control

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Approval for Issue

Name	Position	Date
Mark Barnett	**Technical Director**	**07.04.2026**

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1. Introduction

WestSide Corporation Pty Ltd (**WestSide**) are in the process of developing and operating gas fields in Greater Meridian, in central southern Queensland, in the vicinity of the township of Moura. As part of the development of wells, access and gathering lines for gas production, a number of investigations are required to; ensure compliance with existing permits and approvals, develop comprehensive land access agreements, refine and finalise design, engineering and construction components and apply for any additional or new permits and approvals.

28 South Environmental Pty Ltd (**28 South**) has been engaged to undertake specialist ecological investigations and prepare an Ecological Survey Report (**ESR**) to assist WestSide in developing the gas project; capturing relevant ecological constraints and refining layout of conceptual infrastructure components. In July 2021, Westside submitted a referral for the Project in accordance with the EPBC Act (2021/9117). On June 30, 2022, the Project was deemed a controlled action by a delegate of the Minister for the Environment and Water, with assessment to be undertaken on Preliminary Documentation.

The Project was approved, via the Preliminary Documentation assessment process, on 10 November 2025. WestSide is required to meet the conditions in Annexure A of the approval.

2. Site

Proposed Well Pad DR098 and associated access and gathering infrastructure is located at Waddington Park (the Site). The Site comprises of 38.66 ha and is located in a rural, largely cleared area between the Dawson River and the Dawson Mine, south of the township of Moura. Land use in the region has typically been for coal mining, gas exploration and production, and cattle grazing and cropping (including irrigated cropping), particularly along the alluvial plains of the Dawson River and its tributaries.

3. EPBC Act Compliance

Table 1 provides the conditions of EPBC Act approval 2021/9117 and discussion on how WestSide can reasonably meet these requirements prior to and/or during works for DR098.

Table 1: EPBC approval conditions (Parts A and B) – Annexure A (EPBC Approval: 2021/9117)

Condition	Approval condition	Response
Part A - Avoidance, mitigation, and compensation conditions		
CLEARING LIMITS		
1)	The approval holder must not: a) Clear outside of the project area.	Clearing for DR098 would be limited within Waddington Park Site Boundary. The Project Area defined for the broader project includes all of land contained within Petroleum Lease (PL94).
2)	The approval holder must not clear any: a) Coolibah-Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregion, b) Poplar Box Grassy Woodlands on Alluvial Plains. c) Yellow-bellied Glider habitat d) White-throated Snapping Turtle habitat e) Fitzroy River Turtle habitat f) Boggomoss Snail habitat g) Individuals of *Solanum johnsonianum* identified by a suitably qualified ecologist and surveyed in compliance with condition 18 below. h) Individuals of *Solanum dissectum* identified by a suitably qualified ecologist and surveyed in compliance with condition 18 below. i) Individuals of *Xerothamnella herbacea* identified by a suitably qualified ecologist and surveyed in compliance with condition 18 below. j) Greater Glider (southern and central) denning habitat. k) Koala climate refugia habitat.	Project area within the scope of DR098 does not involve clearing of these areas (See Figure 1).
3)	The approval holder must not clear more than a) 16.0 ha of Ornamental Snake suitable habitat b) 0.9 ha of Brigalow (*Acacia harpophylla* dominant and co-dominant) Threatened Ecological Community c) 1.0 ha of *Solanum johnsonianum* potential habitat d) 1.0 ha of *Solanum dissectum* potential habitat e) 1.0 ha of *Xerothamnella herbacea* potential habitat f) 6.0 ha of Australian Painted Snipe habitat	Project area within the scope of DR098 will require clearing of the following: ▪ 4.15 ha of Koala Dispersal Habitat

Condition	Approval condition	Response
	g) 6.9 ha of Painted Honeyeater habitat h) 1.0 ha of Squatter Pigeon (Southern) Breeding Habitat i) 1.0 ha of Squatter Pigeon (Southern) Foraging Habitat j) 40.0 ha of Squatter Pigeon (Southern) Dispersal Habitat k) 2.0 ha of Greater Glider (Southern and Central) Foraging and Dispersal Habitat. l) 6.9 ha of Koala shelter habitat m) 2.0 ha of Koala Breeding and foraging habitat n) 400 ha of Koala dispersal habitat.	
4)	To ensure no functional change to Koala dispersal habitat, the approval holder must not clear more than 1% (or 4 ha) of Koala dispersal trees measured by canopy cover in Koala dispersal habitat.	No canopy trees are proposed to be removed to accommodate the Project. 4.15 ha of dispersal habitat relates to open ground area suitable for koala movement.
5)	To ensure no functional change to Painted Honeyeater habitat, the approval holder must not clear more than 10% of trees containing mistletoe of *Amyema* genus within mapped Painted Honeyeater habitat.	No mistletoe habitat is proposed to be removed.

Condition	Approval condition	Response
		
DISTURBANCE LIMITS		
6)	The approval holder must not take the Action outside of the project area.	The Project area is located entirely within the area encompassed by EPBC Approval: 2021/9117.
7)	The approval holder must not: a) Construct more than 350 gas production well heads in the taking of the Action. b) Operate more than 350 gas production well heads in the taking of the Action.	Works related to this scope will not see WestSide operate outside this approval condition.
8)	In accordance with the Constraint Protocol, the approval holder must: a) not exceed the maximum disturbance limits identified at conditions 2) and 3) b) adhere to the constraint mapping.	This condition is managed at a project-wide level through implementation of the approved Constraint Protocol. The development of the Project area will not, in itself, result in non-compliance with this condition.

Condition	Approval condition	Response
	c) ensure the fauna spotter-catcher is given authority to guide (including halting), all clearing. d) ensure that the fauna spotter-catcher monitors the movements of any protected matters in the project area. e) ensure that the fauna spotter-catcher does not, in carrying out their duties, act inconsistently with the Fauna Spotter Code of Practice.	
9)	To avoid potential loss to potential breeding of the Australian Painted Snipe, the approval holder must not clear any mapped Australian Painted Snipe habitat in the species breeding season, between May and October.	Clearing for the Project area does not impact mapped Australian Painted Snipe Habitat (Figure 1).
10)	To avoid risks to any active nests within Australian Painted Snipe habitat, Painted Honeyeater habitat or Squatter Pigeon habitat, the approval holder must: a) establish an exclusion zone, including a 100 m radius (or larger if determined by the fauna spotter-catcher) around active nests of Australian Painted Snipe habitat, Painted Honeyeater habitat or Squatter Pigeon habitat until the young have fledged and the breeding season has ended, or the adults have dispersed of their own accord. b) clearly mark the exclusion zone using visible means (e.g. signage, flagging tape, or similar) to prevent accidental disturbance. c) brief all personnel likely to be in the proximity of an exclusion zone around active nests to avoid the exclusion zone and active nests to ensure avoidance of harm to Australian Painted Snipe habitat, Painted Honeyeater habitat or Squatter Pigeon habitat during the relevant breeding season.	At this stage, no active nests have been identified. Seasonal breeding habitat is known to be present in the farm dams on the Site. WestSide to ensure a 100 m radius is designated around active nests if identified, prior to clearing.
11)	If any *Xerothamnella herbacea*, *Solanum dissectum* and *Solanum johnsonianum* are identified during the field-verification surveys, the approval holder must ensure to: a) establish an exclusion zone, including a 5 m buffer, around any populations of *Xerothamnella herbacea*, *Solanum dissectum* and *Solanum johnsonianum* identified. b) clearly mark the exclusion zone using visible means (e.g. signage, flagging tape or similar)to prevent accidental harm to, or clearance of protected matters. c) brief all personnel likely to be in the proximity of an exclusion zone around	While potential suitable habitat is present for these species within the vicinity of the Project area (Figure 1), field surveys did not identify any individuals of these species. If individuals are identified prior to clearing, they must not be cleared in accordance with Condition 2, above. WestSide must ensure a clearly marked exclusion zone is provided around specimens, including a 5 m buffer.

Condition	Approval condition	Response
	listed threatened flora to further ensure avoidance of harm to listed threatened flora .	
12)	To ensure no functional change to Greater Glider (southern and central) foraging and dispersal habitat, the approval holder must ensure that clearing required for the project must not create gaps in the habitat that are too great for the species to glide across based on known glide ratio (calculated based on the known glide angle (40°) and tree height, or 100 m if not able to calculate accurately).	Suitable habitat for Greater Glider (southern and central) is not present in the vicinity of the Project area.
13)	To minimise disturbance within fringe areas of the Brigalow (Acacia harpophylla dominant and co-dominant) Threatened Ecological Community, the approval holder must: a) maintain at least a 5 m exclusion zone around areas of the Brigalow (*Acacia harpophylla* dominant and co-dominant) Threatened Ecological Community. b) clearly mark the exclusion zone using visible means (e.g. signage, flagging tape or similar) to prevent accidental disturbances. c) brief all personnel likely to be in proximity of an exclusion zone around Brigalow (*Acacia harpophylla* dominant and co-dominant) Threatened Ecological Community of the need to avoid the exclusion zone and protected matter.	Brigalow TEC has not been identified within the development footprint Project area or the bounds of the Site. Therefore, development of Project area will have no impact on Brigalow TEC.
14)	If the approval holder detects the presence of any protected matter, or the habitat of any protected matter, that is likely to be impacted by the Action and was not previously reported to the department as part of the referral of this Action, to ensure an understanding of all potential impacts from the action on all protected matters, the approval holder must: a) notify the department in writing of the presence of any protected matter, or the likely extent of protected matter habitat, not previously reported to the department within 10 business days of detecting the presence of any protected matter or its habitat. The notification must include: i) A description of the species or habitat detected, ii) An assessment of its presence and extent on site, and why it was not previously detected iii) a discussion on the significance of the potential impact.	This is a broad administrative condition that WestSide is expected to be able to comply with.

Condition	Approval condition	Response
	b) not clear any area where the protected matter or the habitat of the protected matter is located unless: i) condition 3 provides for the clearing of that protected matter or habitat of that protected matter, ii) clearing does not exceed the limit specified in condition 3 for that protected matter or habitat of that protected matter.	
FIELD VERIFICATION SURVEYS		
15)	To ensure clearance limits specified under condition 1, 2 and 3 are not exceeded, the approval holder must conduct and provide evidence of field verification surveys for all protected matters and, in accordance with condition 18, in areas that are defined as high constraint area or moderate constraint area as defined in the constraints mapping within the project area at least one month prior to any clearance. Field verification surveys in low constraint areas as defined in the constraints mapping must be conducted in at least one month prior to any clearing but need only to be conducted for canopy cover relevant to Koala dispersal habitat limits described in condition 4. Field verification survey results remain valid for the duration of the project if conducted according to the following requirements. Field verification surveys: a) must be conducted in an average or above average rainfall year. If field verification surveys were conducted in moderate constraint areas, in a below average rainfall year and the relevant protected matter habitat was not detected, then the field verification survey must be repeated in average or above average rainfall years at least one month prior to clearance. Field verification surveys conducted within high constraint areas do not have to be repeated if initially conducted in a below average rainfall year, if the protected matter habitat is assumed and will not be cleared. b) for canopy cover, relevant to Koala dispersal habitat can be conducted through high resolution desktop analysis if canopy cover can be verified. This survey is not required to be repeated if conducted in a below average rainfall year since the presence of Koala dispersal trees is not seasonal or rainfall dependent.	WestSide is expected to comply with these conditions. a) April 2025 and March 2026 surveys follow high rainfall period and are considered post-wet season surveys. b) Dispersal habitat mapping for Koalas is done only based on RE mapping across the wider project area. High-resolution desktop analysis has not been undertaken. However, tree surveys efforts have been undertaken on the Site during between 2024 and 2025. The Project area generally lacks significant canopy trees that are either Locally Important Koala Trees or Ancillary Habitat Trees.

Condition	Approval condition	Response
16)	The approval holder must ensure that protected matters occurrences derived from systematic field verification surveys are submitted to the department and include data relating to the surveyed sites, survey methodology and species occurrence data.	This is an administrative condition that WestSide is expected to be able to comply with.
17)	Prior to any clearing within mapped Painted Honeyeater habitat, the approval holder must ensure that the fauna spotter-catcher will complete canopy searches to identify any foraging Painted Honeyeater individuals and for the presence of mistletoes of the Amyema genus recording whether or not the mistletoe is flowering.	This is an administrative condition that WestSide is expected to be able to comply with.
18)	Prior to any clearing within mapped Australian Painted Snipe habitat, Ornamental Snake habitat, *Xerothamnella herbacea* potential habitat, *Solanum dissectum* potential habitat and *Solanum johnsonianum* potential habitat the approval holder must ensure field-verification surveys have been conducted at a time and season most likely to detect the relevant Australian Painted snipe, Ornamental snake, *Xerothamnella herbacea, Solanum dissectum* and *Solanum johnsonianum*. Unless verified by a suitably qualified ecologist that the below protected matters can be detected outside of below times, the time to survey for the following protected matters are: a) the breeding season for Australian Painted snipe - between May and October b) the flowering season for the listed threatened flora, i.e.: i) between July and November for *Solanum dissectum*, ii) between March to September for *Solanum johnsonianum*, iii) for *Xerothamnella herbacea*, an appropriate flowering season is not known therefore surveys are to be conducted at the same time as for *Solanum dissectum* and *Solanum johnonianum*, unless determined outside of this period by a suitably qualified ecologist. c) at night when water is present in the gilgais or within 3 days of significant rainfall events (>20 mm), when frogs are active for the Ornamental snake.	Field verification surveys were completed 3 and 10 April 2024, 1-4 April 2025 and 17 March 2026 all outside the breeding season for the Australian Painted snipe and the flowering seasons for *Solanum dissectum* and *Xerothamnella herbacea*. The surveys did occur within the flowering season of *Solanum johnsonianum*. Habitat mapping undertaken for the Site as part of the EPBC Approval Process (Figure 1) confirms that only potential habitat occurs for these species. Importantly, the Project area is sited away from these mapped areas and will not result in clearing of potential habitat areas for *Xerothamnella herbacea, Solanum dissectum* and *Solanum johnsonianum*. Despite the surveys being undertaking outside of the flowering season, the survey effort on-site is deemed suitable to conclude that the above listed species are not present within the Project area. Similarly, while seasonal breeding, foraging and dispersal habitat for Australian Painted Snipe, no gilgai or wetland features were observed on Site during the survey efforts. Therefore, it is unlikely that the Site supports Australian Painted Snipe. Nonetheless, the Project area is sited away from suitable habitat areas (Figure 1).
19)	When conducting field-verification surveys for Ornamental Snake within Ornamental Snake suitable habitat, the approval holder must ensure: a) that field-verification surveys will:	Suitable breeding and foraging habitat for Ornamental Snake is not mapped within the Project area (Figure 1).

Condition	Approval condition	Response
	i) be conducted at night, and ii) be conducted under ideal conditions for detecting Ornamental Snake, when water is present within gilgai habitat or within 3 days of significant rain (>20 mm). b) to record the date, time, location, recent rainfall, and presence and abundance of water and frog species in the Ornamental Snake suitable habitat, and c) to record when any Ornamental Snake is observed within up to 15 metres of the development footprint.	
20)	The approval holder must prepare a field-verification survey report on the results from field- verification surveys undertaken in accordance with conditions 15, to 19 and publish the field- verification survey report on the approval holders website and submit the field-verification survey report to the department at least 15 business days prior to any clearing. The field- verification survey report must: a) Include the records from the surveys of Ornamental Snake suitable habitat required by condition 19. b) Include photographs of all *Solanum johnsonianum*, *Solanum dissectum* and *Xerothamnella herbacea* detected onsite. c) Include the location and extent of trees containing mistletoes from the *Amyema* genus to be cleared, including their location on maps d) Include a discussion on how the removal of trees containing mistletoes from the *Amyema* genus will not affect the functional value of the habitat of Painted Honeyeater e) Include the location and extent of trees to be cleared from Greater Glider (southern and central) Foraging and Dispersal habitat, including their location on maps f) Include a discussion on how removal of trees within Greater Glider (southern and central) Foraging and Dispersal habitat will not create gaps in the habitat corridor that are too great for the Greater Glider (Southern and central) to glide across based on known glide ratio (calculated based on the known glide angle (40°) and tree height, or 100 m if not able to calculate accurately). g) Include a discussion of how removal of trees would not changed the ability of Koalas to disperse across the landscape h) Not include sensitive biodiversity data or any sensitive landholder information in the version of the field-verification survey report published on the website or	Compliance with this condition is considered achievable. a) Ornamental Snake suitable habitat is mapped in Figure 1. No confirmed records within the Project area. b) No individuals of *Solanum johnsonianum*, *Solanum dissectum* and *Xerothamnella herbacea* have been detected within the Project area. c) and d) No mistletoes from the *Amyema* genus are proposed to be cleared within the Project area. e) and f) No Greater Glider (southern and central) habitat is proposed to be cleared within the Project area. g) The Site presents few scattered Koala trees throughout. The Site generally lacks connectivity. Only one Ancillary Habitat Tree is proposed to be removed within the Project area. It is unlikely to change the ability of Koala to disperse along the landscape. h) Compliance with this administrative condition is considered achievable. i) Compliance with this administrative condition is considered achievable. j) Compliance with this administrative condition is considered achievable.

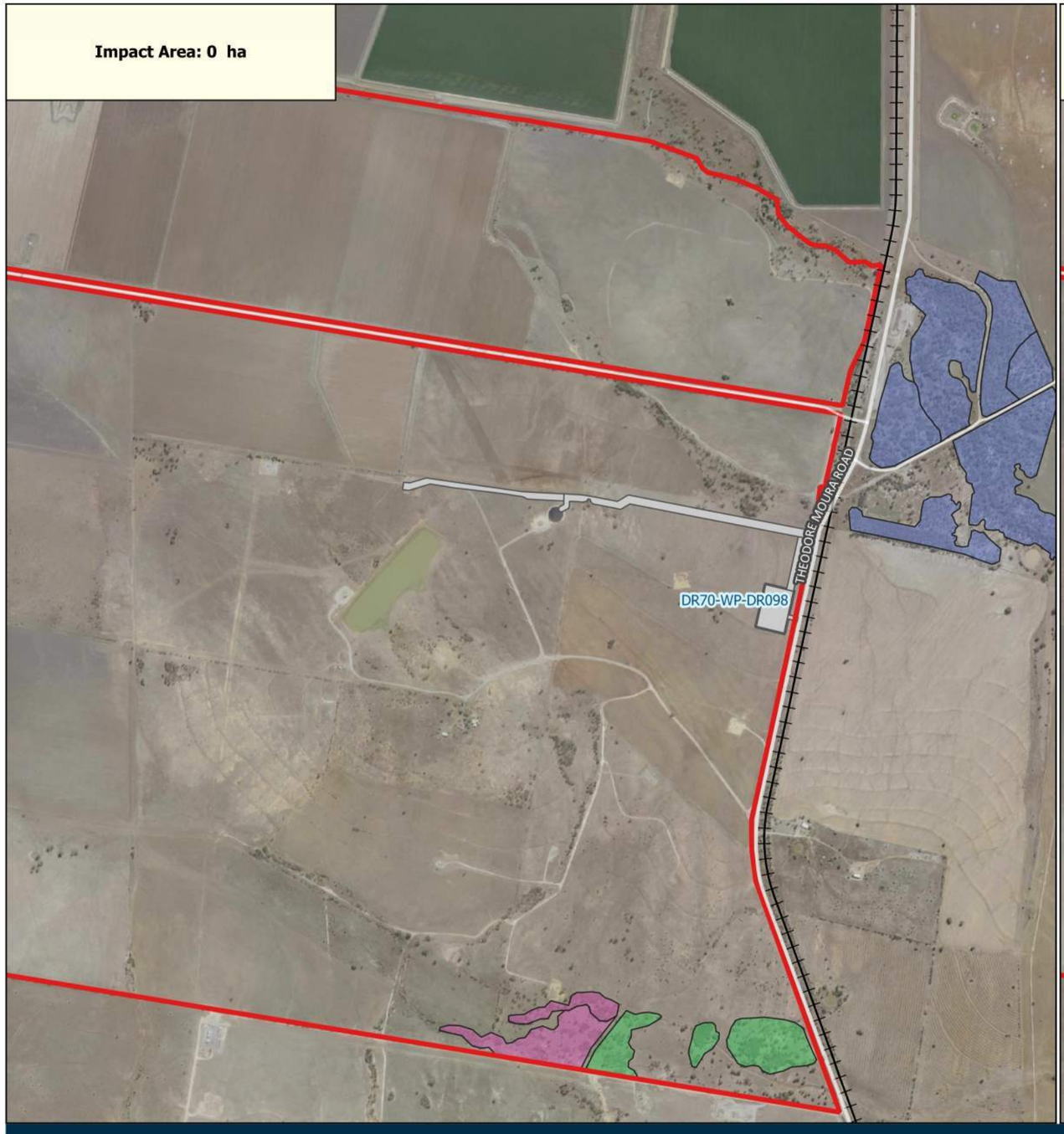
Condition	Approval condition	Response
	otherwise provided to a member of the public. i) Include the full results from field-verification surveys in the field-verification survey report provided to the department and notify the department in writing what exclusions and reductions were made in the version of the field-verification survey report published on the website or otherwise provided to a member of the public. j) include the location of protected matter habitat and records including shapefiles of the field-verification surveys, and how they have been protected in their next compliance report.	
21)	The approval holder must not make changes to habitat descriptions and mapping rules stipulated in the Constraint Protocol unless approved by the Minister in writing.	Not assessed within the of scope of this report.
22)	The approval holder must ensure that any updates to constraint mapping are based on field- verification surveys and only undertaken in accordance with the habitat descriptions and mapping rules stipulated in the approved Constraint Protocol. If the constraints mapping is updated consistent with condition 21, the approval holder must, at least one month prior to any clearing, submit to the department: a) an electronic copy of the revised and approved Constraint Protocol, including the updated constraint mapping, and the Environmental Constraint Analysis Report. b) an explanation of the updates made to the updated constraints mapping. c) details and results of the relevant field-verification surveys. d) evidence that updates to the constraints mapping align with the habitat descriptions and mapping rules stipulated in the approved Constraint Protocol.	This is an administrative condition that WestSide is expected to be able to comply with.
PRE-CLEARANCE SURVEYS		
23)	The approval holder must: a) ensure that immediately prior to clearing, a fauna spotter-catcher will complete flushing transects as part of their pre-clearance surveys to encourage the movement of Koala, Squatter Pigeon and Australian Painted Snipe out of the project area.	While suitable habitat for this species is mapped over the Site, no individuals for these species were recorded. It is considered unlikely that these species will be present within the Project area.

Condition	Approval condition	Response
	b) adhere to Ornamental Snake pre-clearance survey and relocation requirements specified in condition 24 and 25. c) ensure that protected matters occurrences detected during pre-clearance surveys are submitted to the department should include data relating to the location (including shape files), survey methodology and species occurrence data. d) publish on the Approval Holders website and submit to the department the results from pre-clearance surveys undertaken from condition 23 to 25 in the form of a pre-clearance survey report within 15 business days after any clearing. The pre-clearance survey report must: i) Include the records and location of any protected matters identified from pre-clearance survey[] ii) Include the records and location of any Ornamental Snake required by condition 25 to be relocated e) exclude or redact sensitive biodiversity data or any sensitive landholder information from pre-clearance survey report published on the website or otherwise provided to a member of the public. f) submit the full results from pre-clearance surveys to the department within 10 business days of its publication on the website and notify the department in writing what exclusions and redactions have been made in the version published on the website or otherwise provided to a member of the public. g) notify the department within five business days of the publication, and h) include the records of the surveys, including the location of the records and shape files of their locations, and how they have been protected in their next compliance report.	Nonetheless, WestSide will need to ensure compliance with this condition prior to, during and after clearing for the Project area.
24)	To avoid the risk of Ornamental Snake injury or death from clearing, the approval holder must engage a fauna-spotter catcher to: a) undertake Ornamental Snake pre-clearance surveys within Ornamental Snake suitable habitat of the project area to identify the presence and relocate any Ornamental Snake detected at the time of clearing away from the development footprint. b) record when any Ornamental Snake is observed within up to 15 metres of the development footprint. c) If an Ornamental Snake is identified record the date, time, location, recent	While suitable habitat for this species is mapped over the Site, no individuals for these species were recorded. It is considered unlikely that these species will be present within the Project area. Nonetheless, WestSide will need to ensure compliance with this condition prior to, during and after clearing for the Project area.

Condition	Approval condition	Response
	rainfall, and presence and abundance of water and frog species in the Ornamental Snake suitable habitat.	
25)	To avoid the risk of Ornamental Snake injury or death from clearing, the approval holder must ensure that the fauna spotter-catcher engaged to meet the requirements of condition 24) has the authority to immediately cease clearance for sufficient time to safely relocate all Ornamental Snake individuals detected within up to 15 metres of any clearing away from the area for clearing.	WestSide will need to ensure compliance with this condition prior to and during clearing for the Project area.
Conditions 26 – 73 are not assessed within the scope of this report.		

Figures

Impact Area: 0 ha



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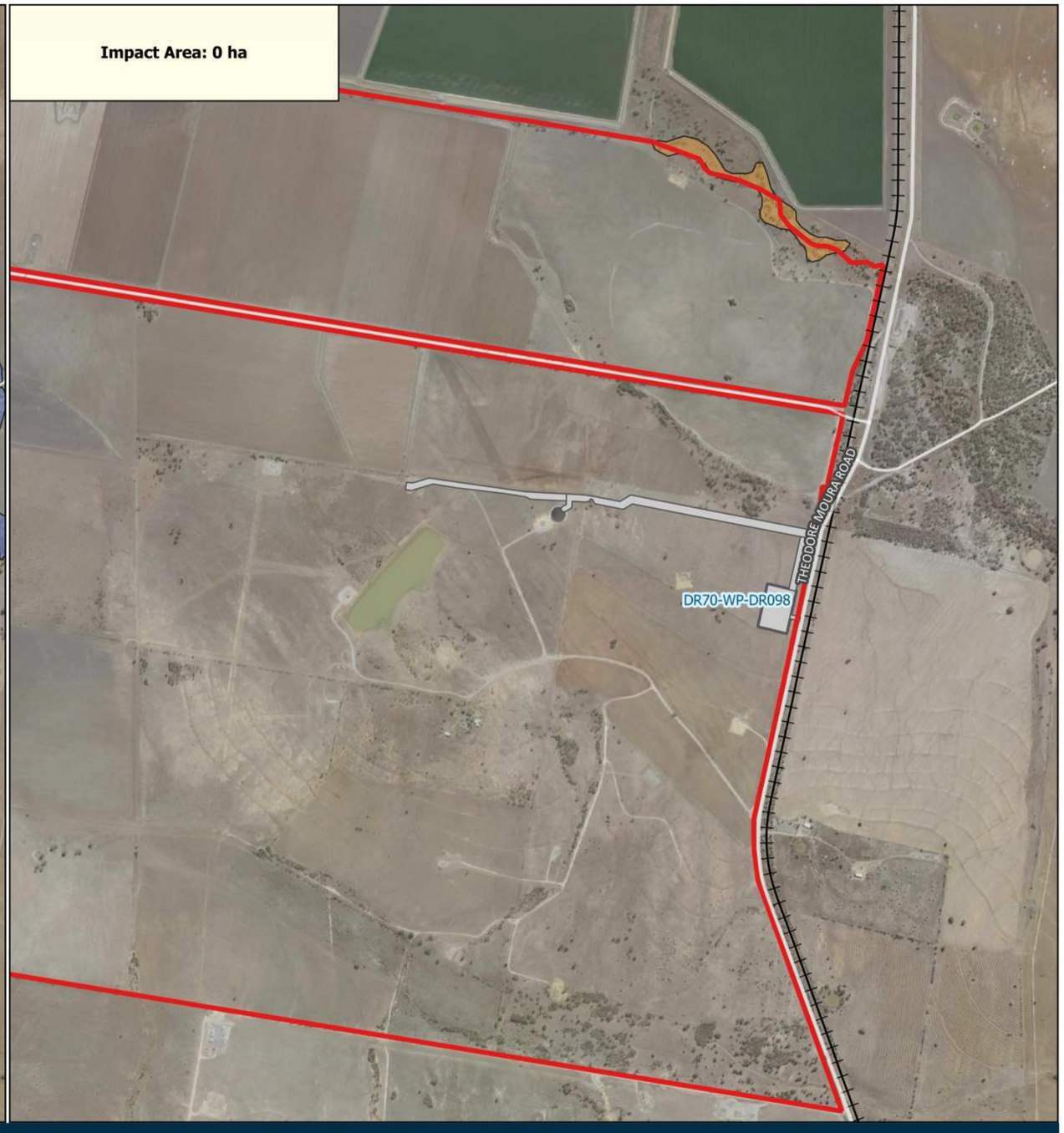

Waddington Park, Westside

Figure 1a - MNES Values on Site

28 South Project Ref: 2026 - 049

Source: C:\Users\Neha\Dropbox\(d) Projects\2026\2026049_WestSide-Kirralee-Surveys\03_Working\01_GIS\2026049_WestSide_Envira_Services.qgz

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.

28ºS ENVIRONMENTAL

Legend

- Waddington Park Site Boundary
- Disturbance Footprint
- Road
- Rail Network (Decommissioned)

Brigalow (Acacia harpophylla dominant and co-dominant TEC

- Analogous RE but not TEC
- Confirmed
- Potential

Coolibah-Black Box Woodlands of the Darling Rivering Plains TEC

- Analogous RE but not TEC

Issue Date	Dwg No.	Author
24-03-2026		NC
Approved	**Revision Note**	
MB		

GDA2020 MGA 56

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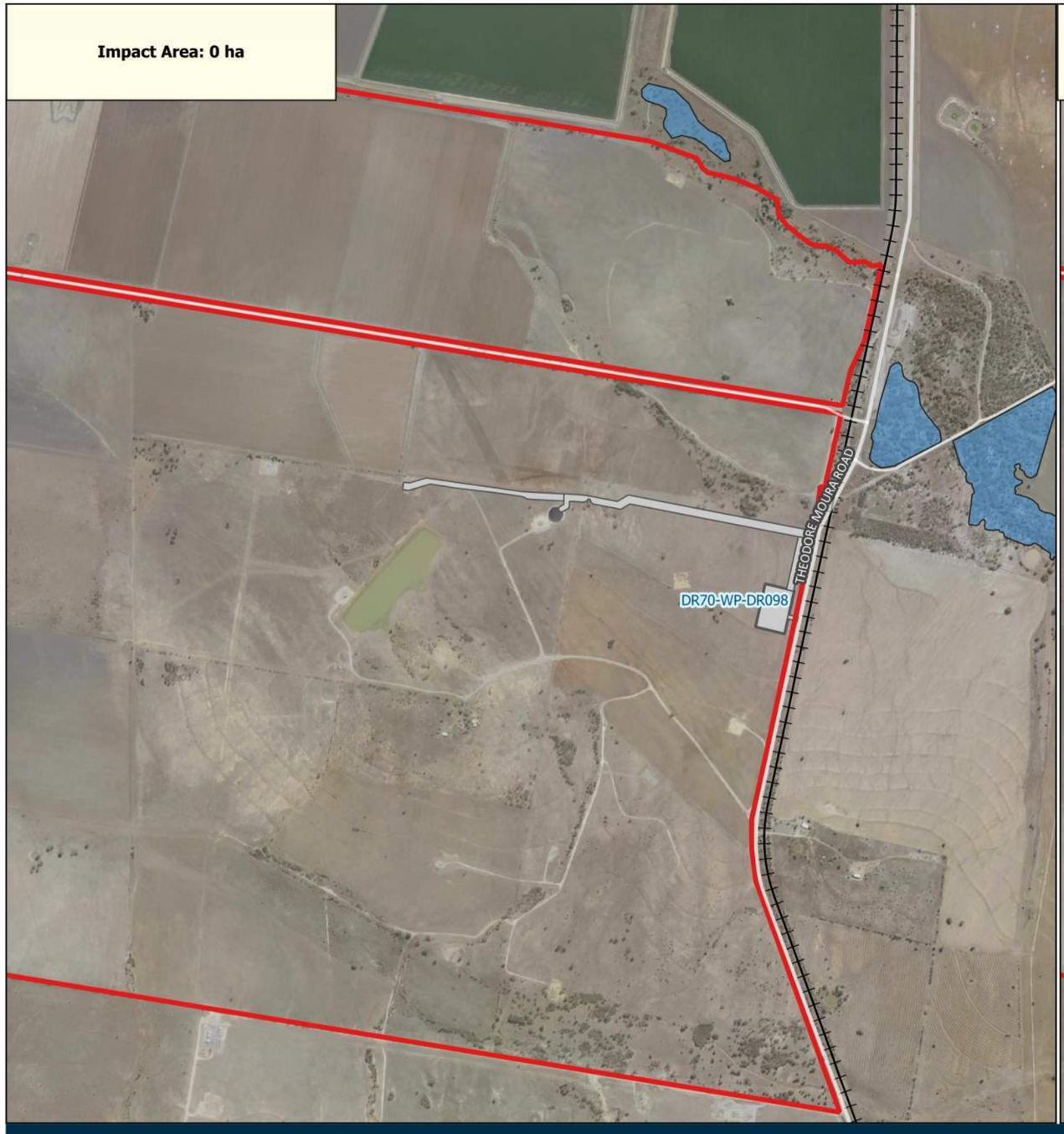
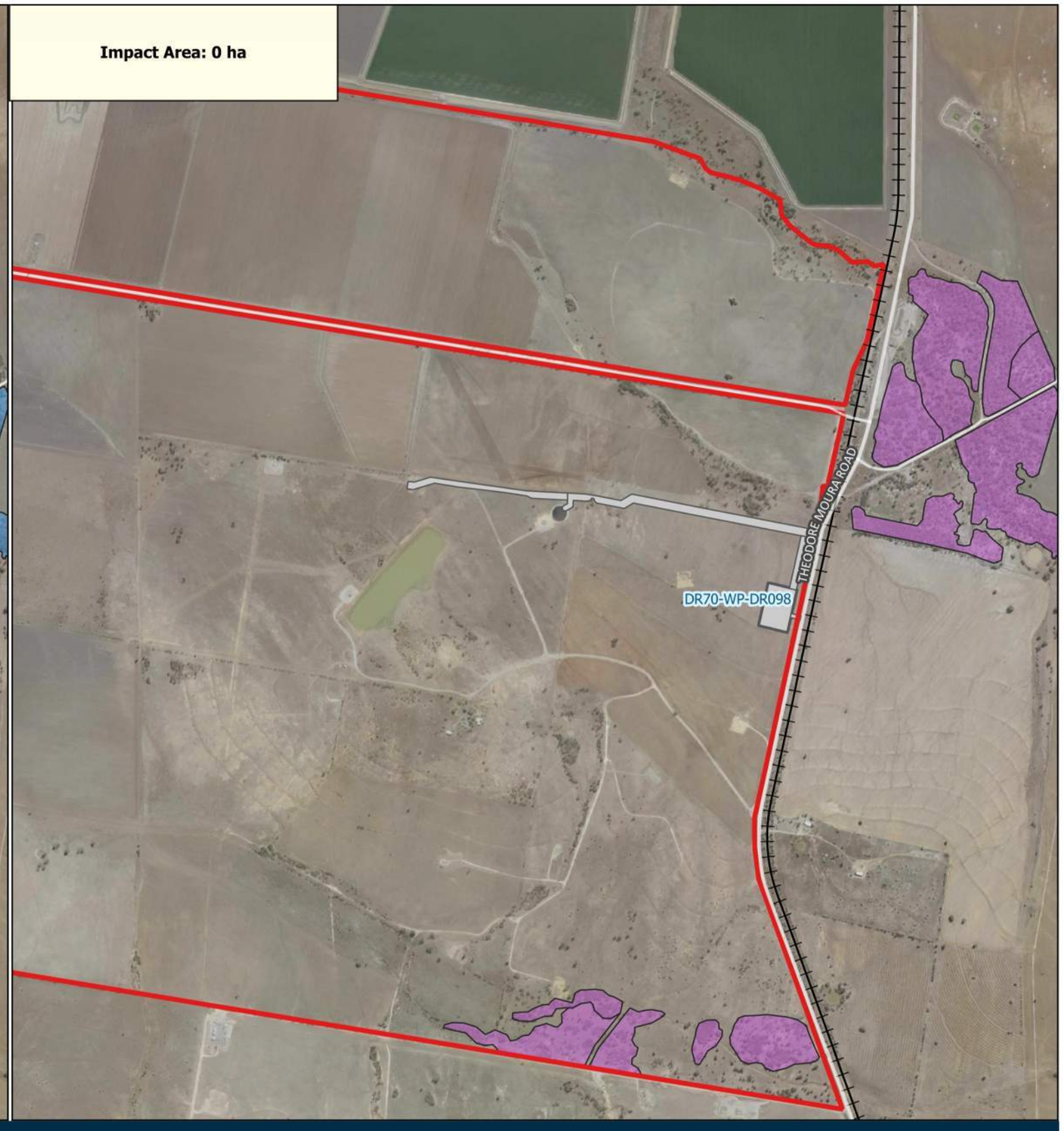
N





Waddington Park, Westside

Figure 1b - MNES Values on Site

28 South Project Ref: 2026 - 049

Source: C:\Users\Neha\Dropbox\(d) Projects\2026\2026049_WestSide-Kirralee-Surveys\03_Working\01_GIS\2026049_WestSide_Envira_Services.qgz

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28ºS ENVIRONMENTAL

Legend

- Waddington Park Site Boundary
- Disturbance Area
- Road
- Rail Network (Decommissioned)

Poplar Box Grassy Woodlands on Alluvial Plains TEC
- Potential

Xerothamnella herbacea Habitat
- Potential

Issue Date	Dwg No.	Author
24-03-2026		NC
Approved	**Revision Note**	
MB		

GDA2020 MGA 56

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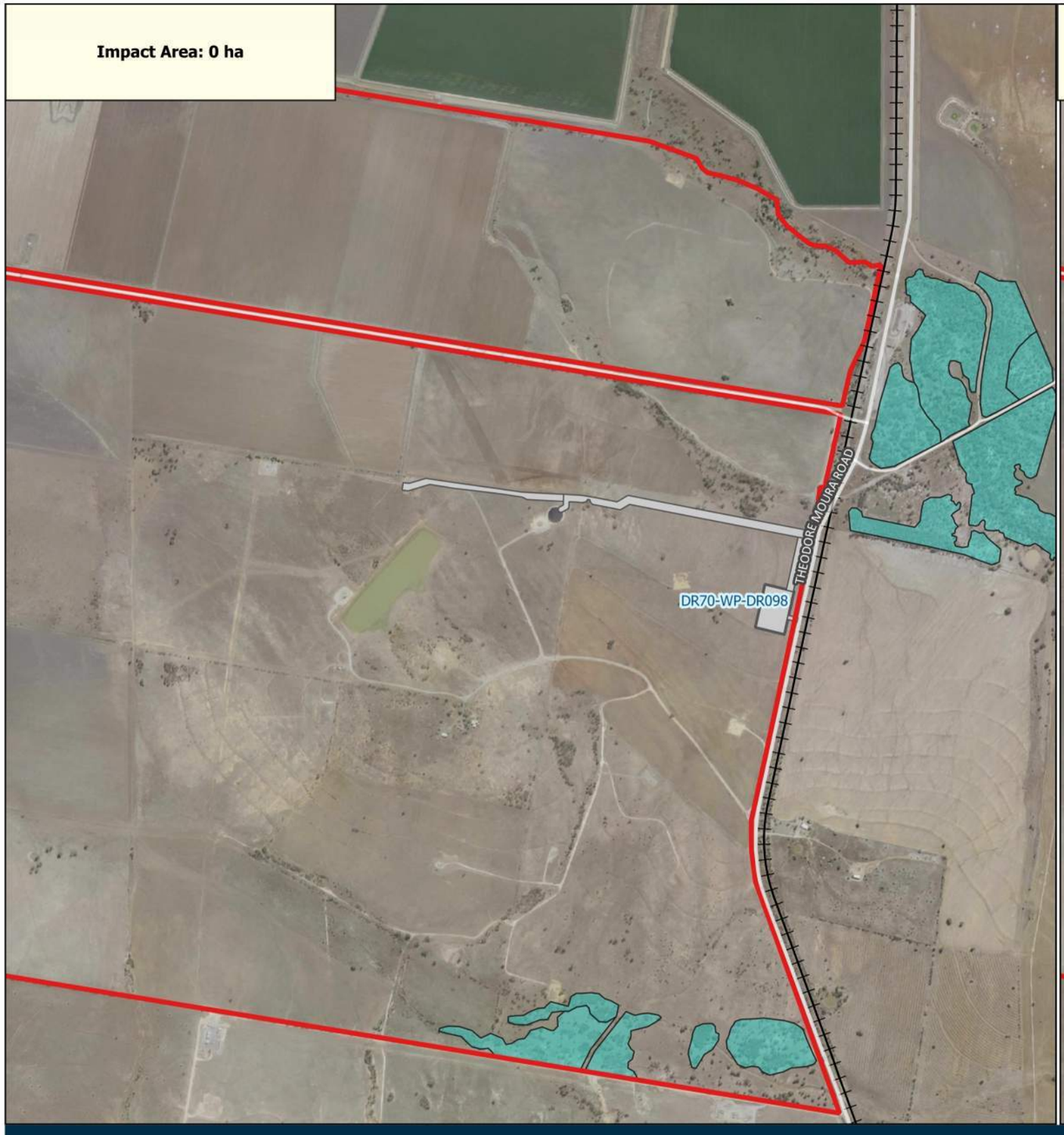

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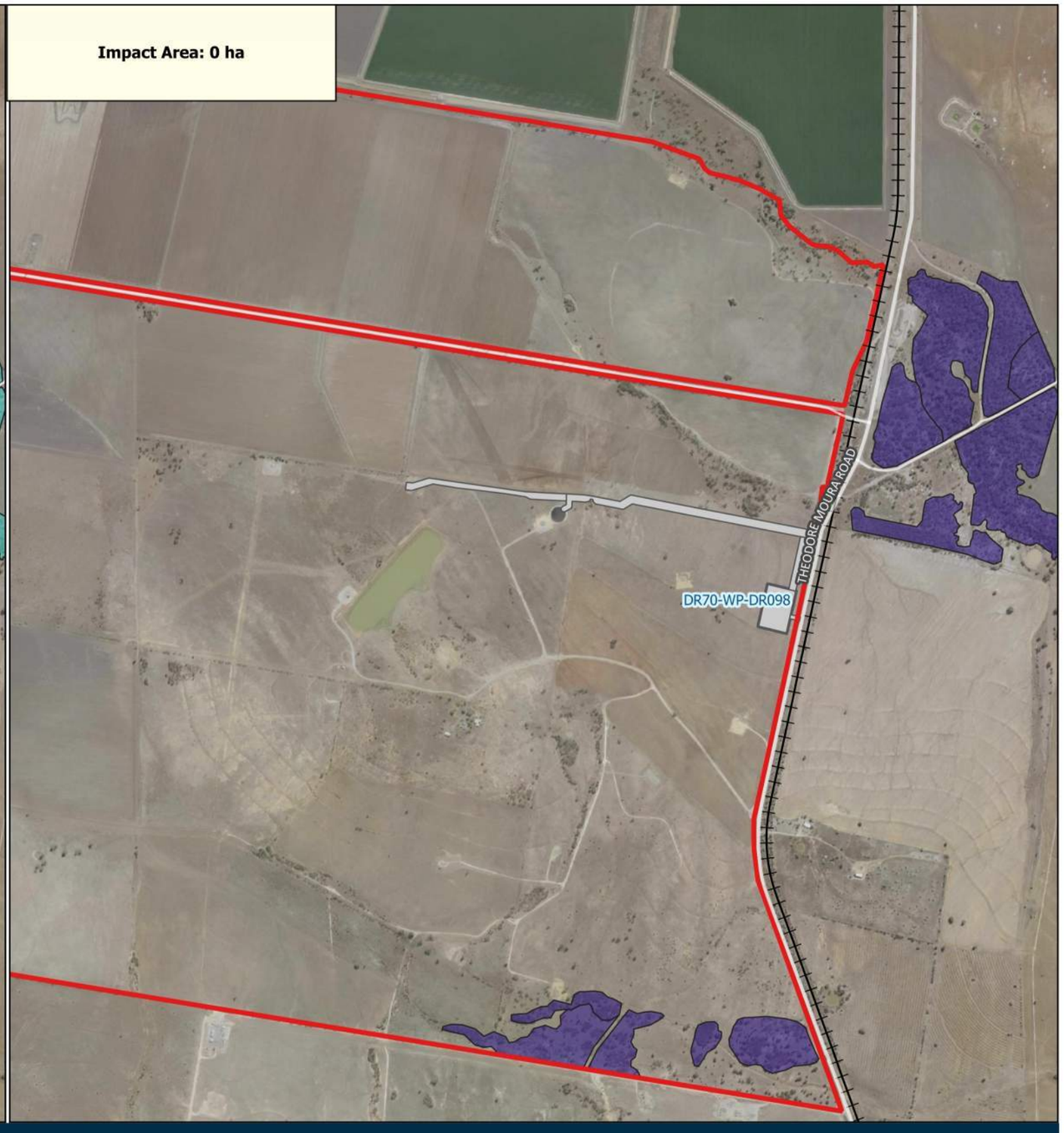

Waddington Park, Westside

Figure 1c - MNES Values on Site

28 South Project Ref: 2026 - 049

Source: C:\Users\Neha\Dropbox\(d) Projects\2026\2026049_WestSide-Kirralee-Surveys\03_Working\01_GIS\2026049_WestSide_Envira_Services.qgz

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Links to data sources can be provided upon request.

28ºS ENVIRONMENTAL

Legend

- Waddington Park Site Boundary
- Disturbance Footprint
- Road
- Rail Network (Decommissioned)

Solanum dissectum Habitat
- Potential

Solanum johnsonianum Habitat
- Potential

Issue Date	Dwg No.	Author
24-03-2026		NC
Approved	**Revision Note**	
MB		

GDA2020 MGA 56

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Impact Area: 0 ha

Impact Area: 0 ha

THEODORE MOURA ROAD

DR70-WP-DR098

Waddington Park, Westside

Figure 1d - MNES Values on Site

28 South Project Ref: 2026 - 049

Source: C:\Users\Neha\Dropbox\(d) Projects\2026\2026049_WestSide-Kirralee-Surveys\03_Working\01_GIS\2026049_WestSide_Envira_Services.qgz

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28ºS ENVIRONMENTAL

Legend

- Waddington Park Site Boundary
- Disturbance Footprint
- Road
- Rail Network (Decommissioned)

Squatter Pigeon Habitat
- Breeding
- Dispersal
- Potential water source

Ornamental Snake Habitat
- Breeding and foraging
- Dispersal

Issue Date	Dwg No.	Author
24-03-2026		NC
Approved	**Revision Note**	
MB		

GDA2020 MGA 56

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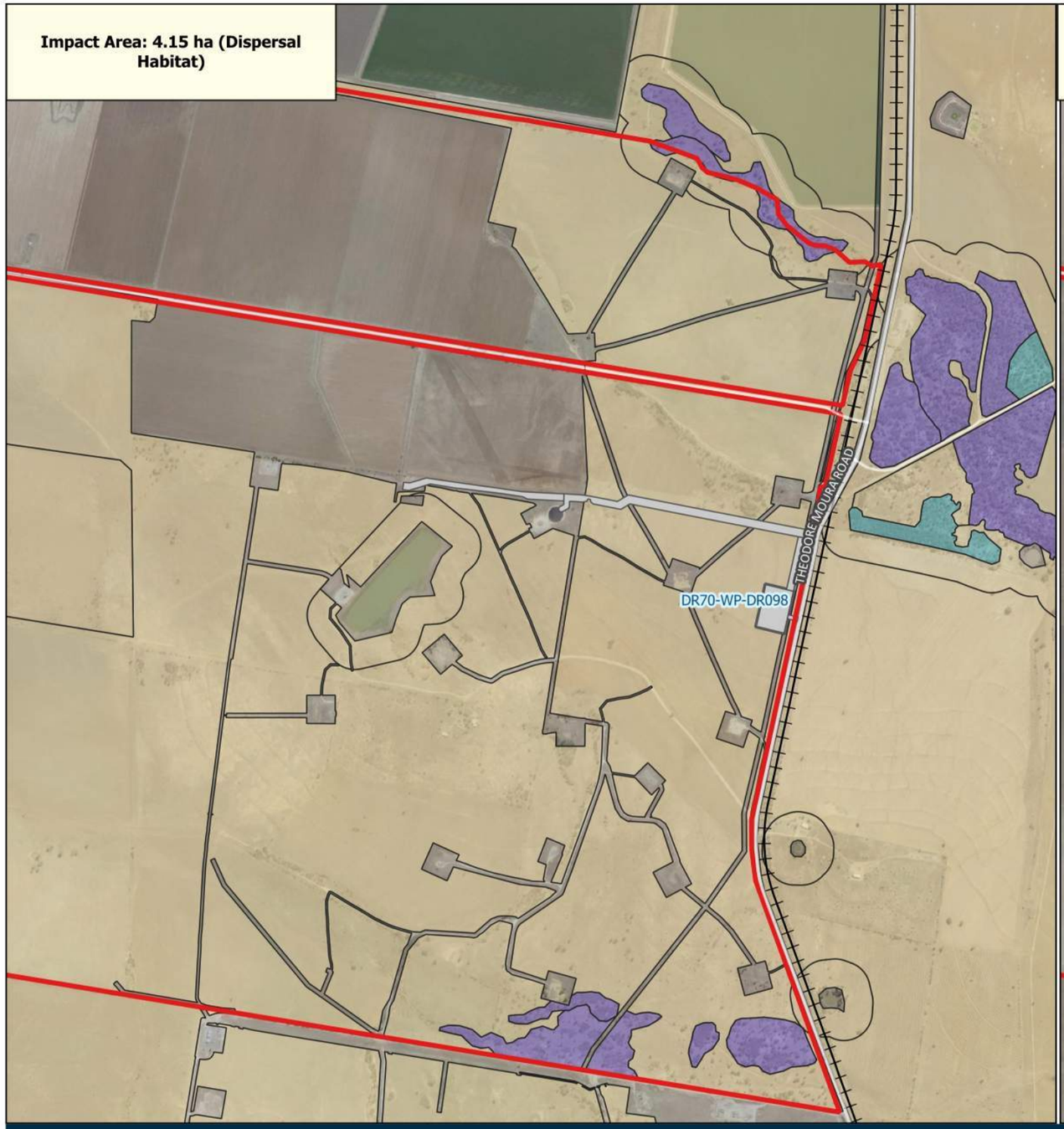

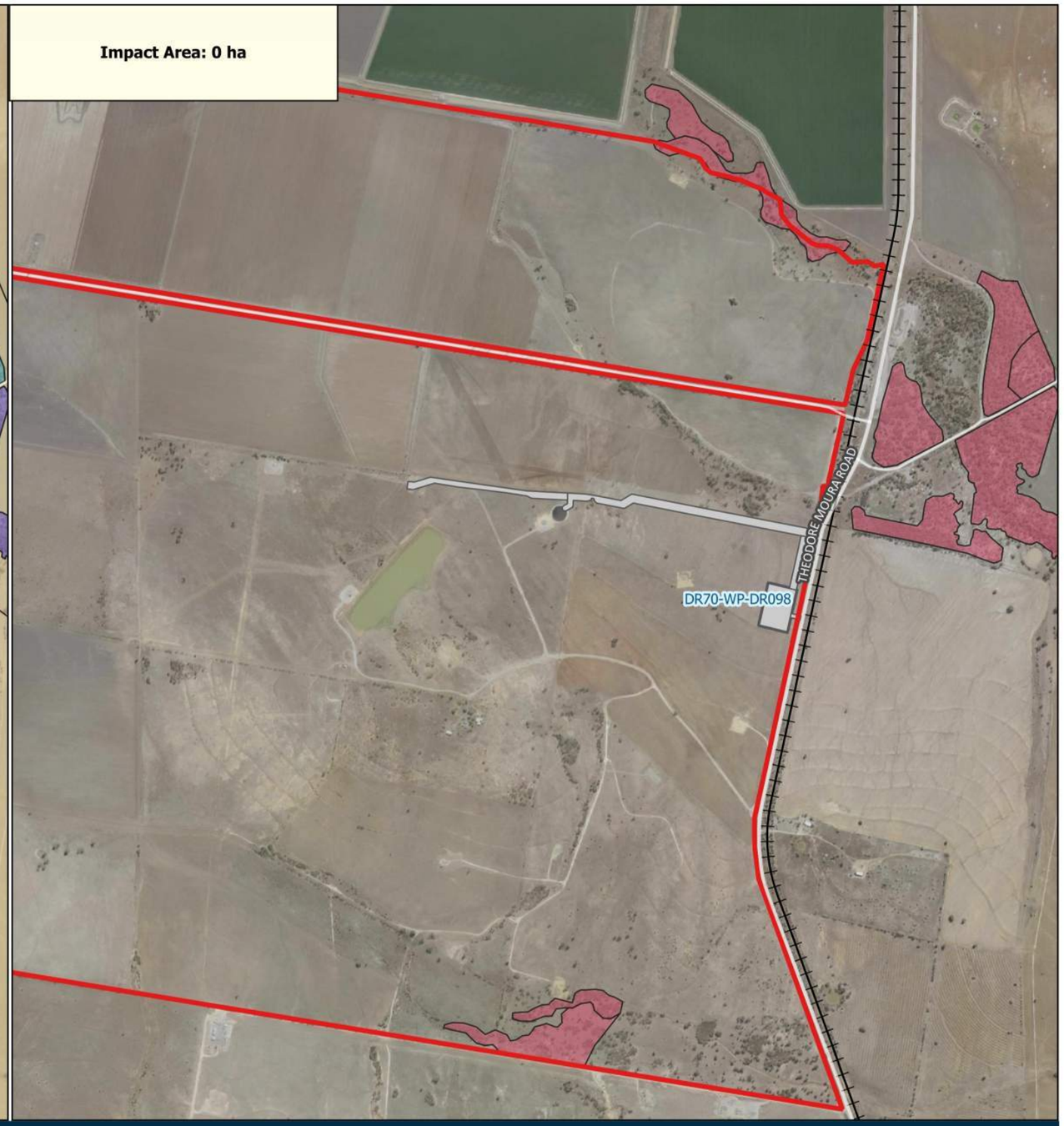

Waddington Park, Westside

Figure 1e - MNES Values on Site

28 South Project Ref: 2026 - 049

Source: C:\Users\Neha\Dropbox\(d) Projects\2026\2026049_WestSide-Kirralee-Surveys\03_Working\01_GIS\2026049_WestSide_Enviro_Services.qg

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28ºS ENVIRONMENTAL

Legend

- Waddington Park Site Boundary
- Disturbance Footprint
- Road
- Rail Network (Decommissioned)

Koala Habitat
- Breeding and foraging
- Climate refugia
- Dispersal

Yakka Skink Habitat
- Breeding and foraging

Issue Date	Dwg No.	Author
24-03-2026		NC
Approved	**Revision Note**	
MB		

GDA2020 MGA 56

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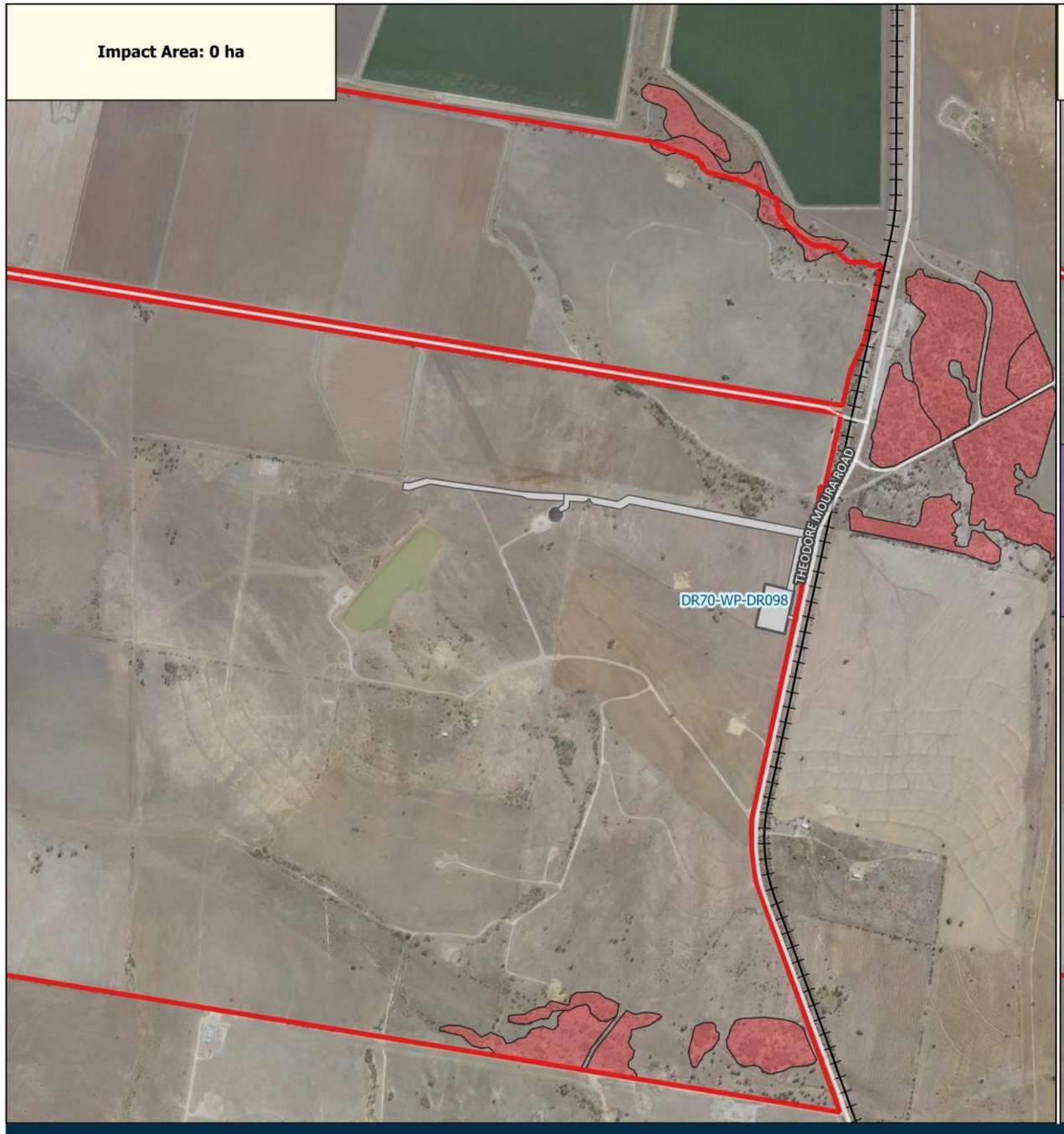

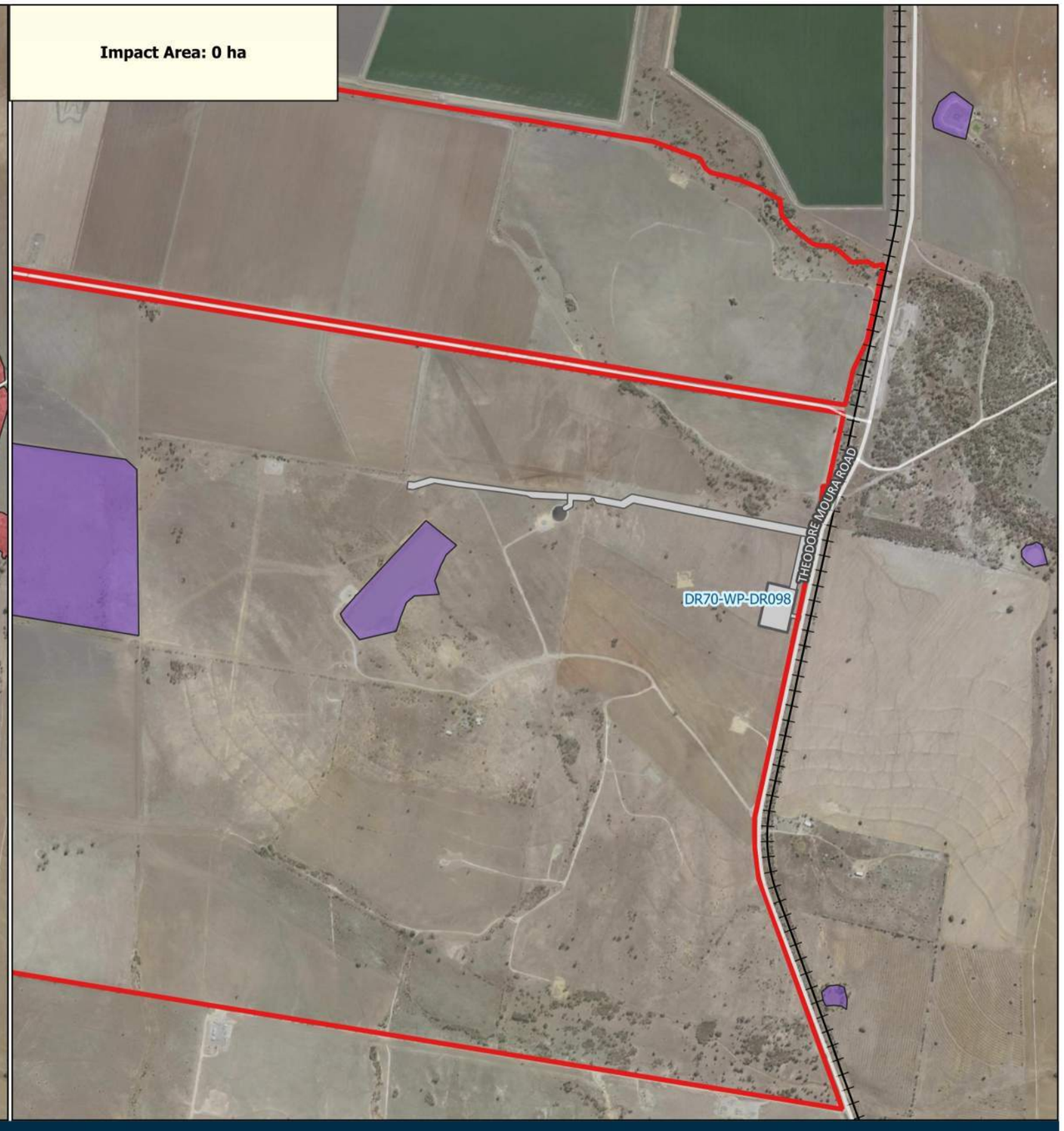

Waddington Park, Westside

Figure 1f - MNES Values on Site

28 South Project Ref: 2026 - 049

Source: C:\Users\Neha\Dropbox\(d) Projects\2026\2026049_WestSide-Kirralee-Surveys\03_Working\01_GIS\2026049_WestSide_Envira_Services.qgz

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Links to data sources can be provided upon request.

28ºS ENVIRONMENTAL

Legend

- Waddington Park Site Boundary
- Disturbance Footprint
- Road
- Rail Network (Decommissioned)

Painted Honeyeater Habitat
- Breeding, foraging and dispersal

Australian Painted Snipe Habitat
- Seasonal breeding, foraging and dispersal

Issue Date	Dwg No.	Author
24-03-2026		NC
Approved	**Revision Note**	
MB		

GDA2020 MGA 56

1:18,000

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Impact Area: 0 ha

DR70-WP-DR098

THEODORE MOURA ROAD

Impact Area: 0 ha

DR70-WP-DR098

THEODORE MOURA ROAD

Waddington Park, Westside

Figure 1g - MNES Values on Site

28 South Project Ref: 2026 - 049

Source: C:\Users\Neha\Dropbox\(d) Projects\2026\2026049_WestSide-Kirralee-Surveys\03_Working\01_GIS\2026049_WestSide_Enviro_Services.qg

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Links to data sources can be provided upon request.

28ºS ENVIRONMENTAL

Legend

- Waddington Park Site Boundary
- Disturbance Footprint
- Road
- Rail Network (Decommissioned)

Greater Glider Habitat
- Denning, foraging and dispersal

Yellow-bellied Glider Habitat
- Denning, foraging and dispersal

Issue Date	Dwg No.	Author
24-03-2026		NC
Approved	**Revision Note**	
MB		

GDA2020 MGA 56

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N

Impact Area: 0 ha

DR70-WP-DR098

THEODORE MOURA ROAD

Impact Area: 0 ha

DR70-WP-DR098

THEODORE MOURA ROAD

Waddington Park, Westside

Figure 1h - MNES Values on Site

28 South Project Ref: 2026 - 049

Source: C:\Users\Neha\Dropbox\(d) Projects\2026\2026049_WestSide-Kirralee-Surveys\03_Working\01_GIS\2026049_WestSide_Enviro_Services.qg

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Links to data sources can be provided upon request.

28ºS ENVIRONMENTAL

Legend

- Waddington Park Site Boundary
- Disturbance Footprint
- Road
- Rail Network (Decommissioned)

Fitzroy River Turtle / White-throated Snapping Turtle Habitat
- Breeding, foraging and dispersal

Boggo Snail Habitat
- Breeding and foraging

Issue Date	Dwg No.	Author
24-03-2026		NC
Approved	**Revision Note**	
MB		

GDA2020 MGA 56

1:25,000

0 0.5 1 km

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DR70-WP-DR098

THEODORE MOURA ROAD

Waddington Park, Westside

Figure 2 - Exclusion Buffer around Brigalow TEC

28 South Project Ref: 2026 - 049

Source: C:\Users\Neha\Dropbox\(d) Projects\2026\2026049_WestSide-Kirralee-Surveys\03_Working\01_GIS\2026049_WestSide_Enviro_Services.qg

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Links to data sources can be provided upon request.

28ºS ENVIRONMENTAL

Legend

- Waddington Park Site Boundary
- Disturbance Footprint
- Road
- Rail Network (Decommissioned)
- 5m Exclusion Buffer

Brigalow (Acacia harpophylla dominant and co-dominant TEC)

- Analogous RE but not TEC
- Confirmed
- Potential

Issue Date	Dwg No.	Author
24-03-2026		NC
Approved	**Revision Note**	
MB		

GDA2020 MGA 55

1:10,000

0 100 200 300 m

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