Ecological Assessment Report

Hughenden Camp

BASE/

Client:	Powerlink Queensland
Reference:	J0105

Document Control

Title:	Ecological Assessment Report Hughenden Camp
Address:	Lot / Plan –129SP119557, Flinders Highway, Hughenden
Job Number:	J0105
Client:	Powerlink Queensland

Document Issue

Issue	Date	Prepared By
FINAL	03/05/2023	Josie Campbell and Troy Lawrence

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1.0 Introduction

CopperString 2032 (the Project) is a transmission line running from Mulgrave near Townsville west to Mt Isa. The Project includes all permanent infrastructure required for a transmission line including, substations, transmission line and Controlled Environment (CEV) Huts. Temporary construction related infrastructure and facilities also include, but are not limited to, workers accommodation camps, plant and material laydown areas, concrete batching plants and access tracks. Since the approval of the Environmental Impact Statement (EIS) in September 2022, the Project has continued to evolve and refine the design elements of the Project. As per the Coordinator General's Evaluation Report on the EIS, details to be finalised prior to construction include the location of the temporary workers accommodation camps required to house the Project's workforce. The workers accommodation camps will be required to be established and operational in advance of the commencement of construction for the permanent Project infrastructure.

A Request for Project Change (RfPC) was submitted to the Coordinator General on the 1 March 2024 to assess the relocation of the proposed Hughenden workers accommodation camp (the site) from the location identified in the Project's EIS (Lot/Plans 156H20323, 24H20324, 29H20328 and 118DG118) to Lot 129 on SP1195557 (refer Figure 1 Site Context). This change request was submitted as detailed design (post-EIS approval) identified a flooding risk on the former location that could not be managed, resulting in this alternative (refer Figure 2 Site Area).

This report is an assessment of the ecological values of the proposed Hughenden workers accommodation camp (Lot 129 on SP1195557) and is written to provide technical and supporting information to enable an assessment of the proposed change to be completed in accordance with the EIS Terms of Reference.

1.1 Premises Details

An ecological assessment of the following premises was undertaken (refer Table 1)

Table 1 Premise Details

Premises Address	Lot 129 on SP1195557, Flinders Highway, Hughenden
Coordinates	Lat -20.8582 Long 144.1998
Premises Description	Hughenden workers accommodation camp
Land Tenure	Reserve
Total Premises Area	17.03 ha
Local Government Area	Flinders Shire Regional Council
Zoning	Special Purpose Zone

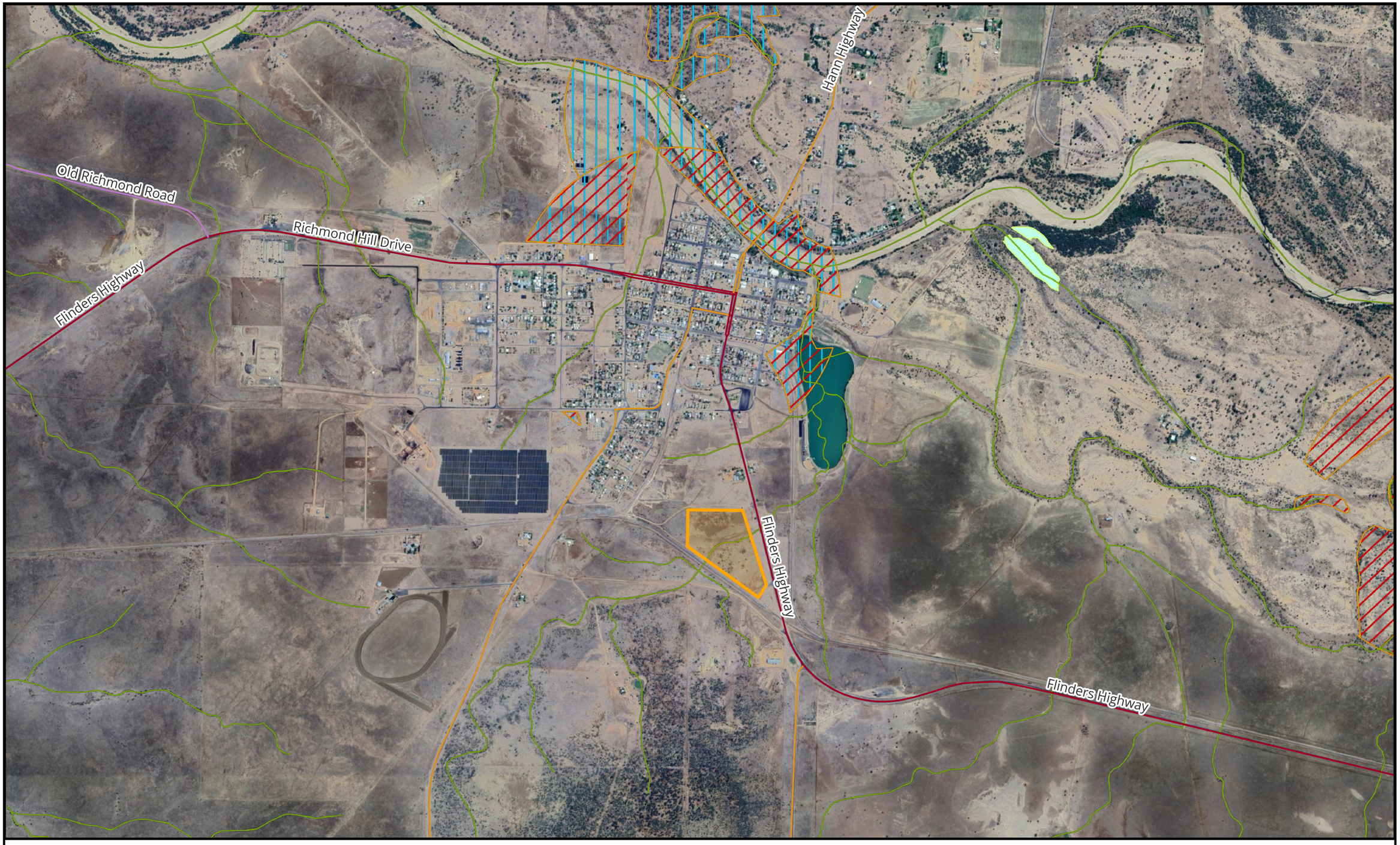

Figure 1: Site Context

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Drawn: Josie Campbell
CRS: EPSG:7844_GDA2020

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DATA SOURCE:
QSPATIAL 2024; The State of Queensland (Department of Resources) 2024; Esri, Nearmap, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community;

- Proposed Hughenden Camp (the site)
- MSES regulated vegetation [100m from wetland]
- MSES regulated vegetation [defined watercourse]
- MSES wildlife habitat [endangered or vulnerable]
- MSES wildlife habitat [special least concern animal]
- Highway
- Secondary

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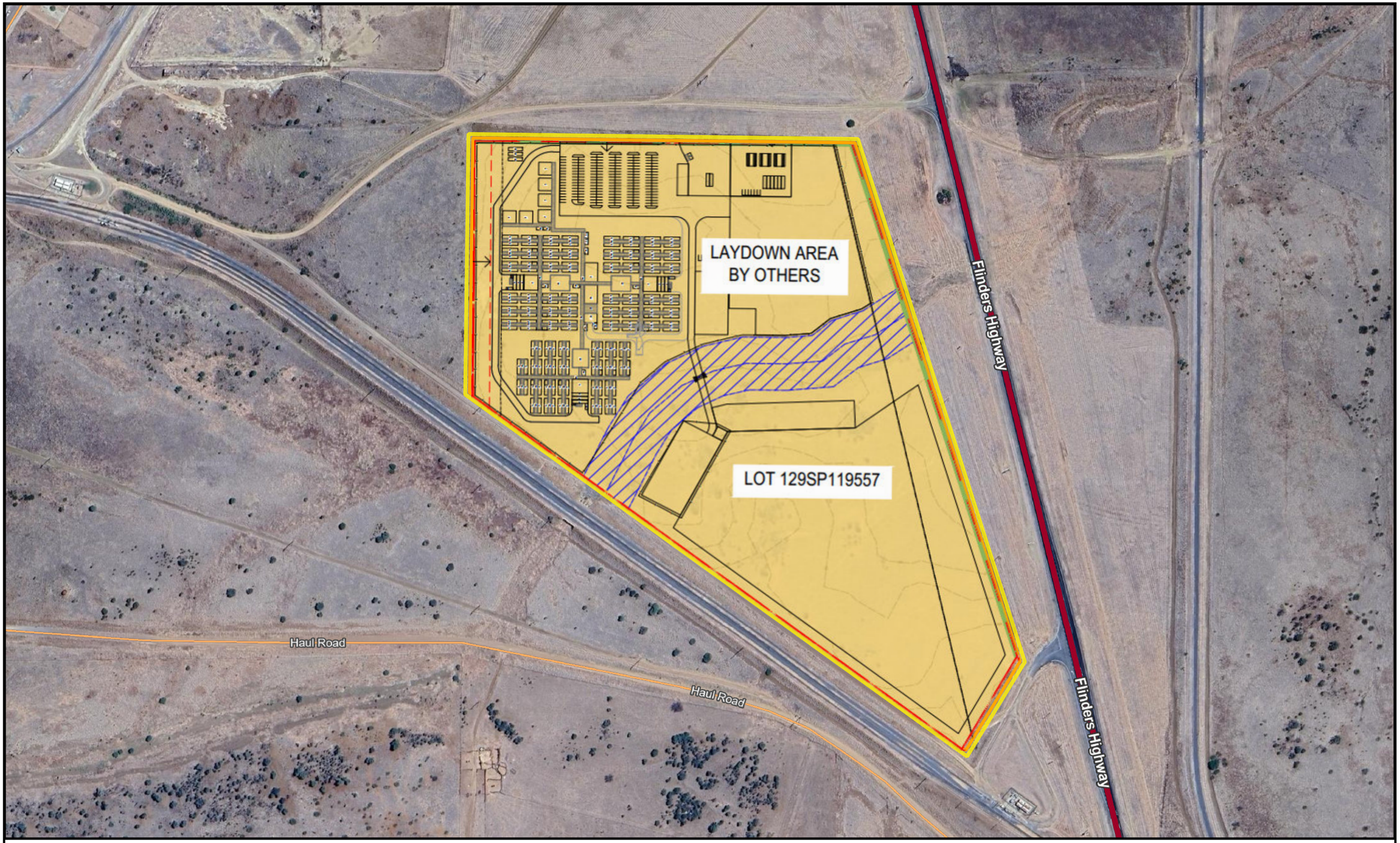

Figure 2: Site Extent

0 0.1 0.2 km

Proposed Hughenden Camp (the site)
Lot Plan

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Date: 02/05/2024
Job: J0105
Drawn: Josie Campbell
CRS: EPSG:7844_GDA2020

N

DATA SOURCE:
QSPATIAL 2024; The State of Queensland (Department of Resources) 2024; Esri, Nearmap, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community;

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2.0 Legislation

2.1 *Environment Protection and Biodiversity Conservation Act 1999*

The *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)* is the Australian Government's central piece of legislation. It provides the legal framework to protect and manage nationally and internationally important flora and fauna, ecological communities and heritage places (Matters of National Environmental Significance).

A protected matters search was conducted over the Hughenden workers accommodation camp footprint (the site) and surrounding 10 km radius (Appendix A) to identify the potential for MNES to occur within the vicinity of the site. Table 2**Error! Reference source not found.** lists the outcomes of this search (refer Table 2).

Table 2 Protected Matters Search Summary

Matters of National Environmental Significance	
World Heritage Properties	No matters identified
National Heritage Places	No matters identified
Wetlands of International Importance	No matters identified
Great Barrier Reef Marine Park	No matters identified
Commonwealth Marine Land	No matters identified
Listed Threatened Ecological Communities	No matters identified
Listed Threatened Species	Curlew Sandpiper (*Calidris ferruginea*) Red Goshawk (*Erythrotriorchis radiatus*) Australian Painted Snipe (*Rostratula australis*) Star Finch (eastern), Star Finch (southern) (*Neochmia ruficauda ruficauda*) Southern Black-throated Finch (*Poephila cincta cincta*) Mertens' Water Monitor (*Varanus mertensi)* Latham's Snipe (*Gallinago hardwickii*) Julia Creek Dunnart (*Sminthopsis douglasi*) Plains Death Adder (*Acanthophis hawkei*) Masked Owl (northern) (*Tyto novaehollandiae kimberli*) Painted Honeyeater (*Grantiella picta*) Pink Gidgee (*Acacia crombiei*) Grey Falcon (*Falco hypoleucos*) Ghost Bat (*Macroderma gigas*) Squatter Pigeon (southern) (*Geophaps scripta scripta*) Yakka Skink (*Egernia rugosa*) Sharp-tailed Sandpiper (*Calidris acuminata*)
Listed Migratory Species	Curlew Sandpiper (*Calidris ferruginea*)

	Latham's Snipe (*Gallinago hardwickii*) Sharp-tailed Sandpiper (*Calidris acuminata*) Fork-tailed Swift (*Apus pacificus*) Grey Wagtail (*Motacilla cinerea*) Yellow Wagtail (*Motacilla flava*) Oriental Cuckoo (*Cuculus optatus*) Common Sandpiper (*Actitis hypoleucos*) Pectoral Sandpiper (*Calidris melanotos*)

2.1.1 Commonwealth Biosecurity

Under the EPBC Act, the Commonwealth can, among other things, list key threatening processes, develop and implement threat abatement plans (TAPs) and outline recovery plans to manage and reduce the impact of invasive species. As defined by the DCCEEW, invasive species include diseases, fungi and parasites, feral animals, insects and other invertebrates, introduced marine pests and weeds.

2.1.1.1 Weeds

The Australian Weeds Strategy 2017–2027 (DAWR, 2017) outlines a coordinated strategy for weed management across Australia. It provides consistent guidance on weed management and identifies Weeds of National Significance (WoNS), which are nationally agreed priority plants for control and management. Thirty-two WoNS are outlined in the Australian Weeds Strategy 2017–2027 (DAWR, 2017). The strategy also addresses roles and responsibilities for weed management, outlining the various roles of government (national, state and local), industry and individuals in weed management.

2.1.1.2 Pest animals

The Australian Pest Animal Strategy 2017-2027 (DAWR, 2017) outlines a national strategy for the management of vertebrate animals in Australia. This strategy outlines that it is the landholder's responsibility to detect and report new occurrences of pest animals and manage pest animals on their own land. Landholders also have a responsibility to management pest animal problems on their own land and where relevant, plan pest animal management activities jointly with neighbours.

2.1.2 Biosecurity Act 2015

The Commonwealth Biosecurity Act 2015 establishes a strong biosecurity system, which protects our way of life from the threat of exotic pests and diseases to our unique environment, the economy, our health and our agricultural industries.

The Biosecurity Act 2015 has been designed to be flexible and responsive to changes in technology and biosecurity challenges. Being able to adapt quickly is important as international passenger travel and trade are growing and evolving every year.

The Biosecurity Act 2015 also determines how biosecurity threats to flora, fauna and human health are managed on and between individual properties in Australia. The management of biosecurity within a property must consider:

- Weeds, pests, diseases, and contaminants that are present within the property and surrounding habitats that must not be spread
- Weeds, pests, diseases, and contaminants that are present within the surrounding region that must not be introduced into the property
- The potential impacts on ecological health, agricultural or horticultural activities, and human health

- The mitigation methods that can be undertaken to reduce biosecurity risks
- Communication techniques that can be used to inform all stakeholders involved in the property
- Legal requirements outlined in the Biosecurity Act 2015.

2.2 State Legislation

A range of State environmental legislation is applicable to development within Queensland. The applicability of this legislation is largely guided by a series of mapping layers and scheduled flora and fauna species as depicted in **Error! Reference source not found.**. The following section outlines the relevance of this legislation to the site.

Table 3 State Legislation Summary

State Environmental Legislation	Applicability	Report Section
Nature Conservation Act 1992	Applicable	Refer Section 2.2.1
Regulated Vegetation (Vegetation Management Act 1999)	Applicable	Refer Section 2.2.2 & Appendix C
Koala Protection Framework (Planning Act 2016)	Not applicable	Refer Section 2.2.3
Environmental Protected Act 1994	Applicable	Refer Section 2.2.4
Biosecurity Act 2024	Applicable	Refer Section 2.2.5
Qld Waterways for Waterway Barrier Works (*Fisheries Act 1999*)	Not applicable	Refer Section 2.2.6
Local (Council) Planning Instruments	Not applicable	Refer Section 2.2.7

2.2.1 *Nature Conservation Act 1992*

The *Nature Conservation Act 1992* (NC Act) classifies and protects significant areas (Protected Areas) and protects threatened plant and animal species. The *Nature Conservation (Plants) Regulation 2020* (NC (Plants) Reg) and the *Nature Conservation (Animals) Regulation 2020* (NC (Animals) Reg) list native plant and animal species as either extinct, extinct in the wild, critically endangered, endangered, vulnerable, near threatened, least concern. The schedules of these regulations were considered in this report using a Wildlife Online Database Search within a 10 kilometre (km) radius from the site. Species listed under the NC (Plants) Reg or NC (Animals) Reg with the potential to occur around the Site are shown Appendix B.

A search of the Flora Survey Trigger Map identified that the site is not located within a High Risk Area for Protected Plants (Appendix E). A detailed flora investigation in accordance with Flora Survey Guidelines – Protected Plants will not be required prior to clearing activities.

The NC Act also regulates the tampering with or removal of protected species breeding places. If a protected species breeding place is impacted, a High Risk Species Management Plan is required to be prepared and approved by DES prior to any impacts taking place. Due to the potential for breeding places to occur on the site, a detailed breeding place survey will be required prior to clearing or construction on the site.

2.2.2 *Vegetation Management Act 1999*

The *Vegetation Management Act 1999* (VM Act), through the *Planning Act 2016 (Planning Act)* regulates the clearing of Native Vegetation in Queensland in a way that conserves remnant vegetation (i.e. regulated vegetation that is endangered, of concern or least concern regional ecosystem (RE). The VM Act conserves vegetation in declared areas, ensures that vegetation clearing does not cause land degradation and prevents loss of biodiversity and maintains ecological processes. The VM Act categorises the status of native vegetation as remnant (Category B), high value regrowth (HVR) (Category C), reef regrowth watercourse vegetation (Category R) and non-remnant

(Category X). Remnant vegetation is further classified into a RE based on bioregion, landform and dominant canopy species. REs are designated a Biodiversity Status under the VM Act based on an assessment of vegetation condition. The VM Act is administered and enforced by the Department of Resources (DoR). A Vegetation management report was obtained for the site, with the results outlined in Appendix E.

The site is mapped as containing Category X (non-remnant) Vegetation. If the proposed development within Hughenden Camp requires any clearing of native vegetation, the clearing is to be considered as exempt clearing work under the *Planning Regulation 2017* in accordance with:

- Schedule 21, Part 1, Section 1(1)
- Schedule 21, Part 1, Section 1(10)(a); or
- Schedule 21, Part 1, Section 1(10)(b).

2.2.3 *Koala Protection Framework Under the Planning Act 2016*

The Queensland Government's planning framework includes provisions to address loss of habitat for koala populations, which is a key threat to the species. Koala habitat areas are areas of vegetation that have been determined to contain koala habitat that is essential for the conservation of a viable koala population in the wild based on the combination of habitat suitability and biophysical variables with known relationships to koala habitat (e.g. land cover, soil, terrain, climate and groundwater). In order to protect this important koala habitat, clearing controls have been introduced into the Planning Regulation 2017 for development in koala habitat areas.

The site is not mapped as containing Koala Habitat under the State koala habitat mapping, refer to Appendix E.

2.2.4 Environment Protection Act 1994

The *Environmental Protection Act 1994* (EP Act) lists obligations and duties to prevent environmental harm, nuisances and contamination.

Environmental harm is a serious impact, or potentially serious impact on an environmental value defined under the EP Act. This includes environmental nuisance (e.g. odour, some types of noise etc). The serious impact can be either temporary or permanent, may occur on a small to significant scale and may differ significantly in the duration or frequency of impact. Environmental harm may be caused by an activity directly or indirectly as a result of the activity, or from the combined effects of the activity and other activities or factors.

Environmental harm becomes unlawful when it exceeds the thresholds of nuisance, serious, or material environmental harm.

- Section 15 of the EP Act provides a definition of environmental nuisance, or
- Section 16 & 17 of the EP Act provides a definition of material and serious environmental harm respectively which includes monetary value thresholds.

The project will need to ensure compliance with the EP Act by taking reasonable and practicable measures to avoid and minimise environmental nuisance and environmental harm to land and waters.

2.2.5 Biosecurity Act 2014

The *Biosecurity Act 2014* commenced on 1 July 2016. It ensures a consistent, modern, risk-based and less prescriptive approach to biosecurity in Queensland.

The Act provides comprehensive biosecurity measures to safeguard our economy, agricultural and tourism industries, environment and way of life, from:

- Diseases, viruses or parasites
- Invasive animals or plants (e.g., pest animals or weeds)

- Noxious fish
- Insect pests

Restricted matter is biosecurity matter found in Queensland and has a significant impact on human health, social amenity, the economy or the environment. Specific actions are required to limit the spread and impact of this matter by reducing, controlling or containing it. There are 7 categories of restricted matter. Category 1 and 2 restricted matter must be reported.

- Category 1 restricted matter must be reported to an inspector within 24 hours.
- Category 2 restricted matter must be reported to an inspector or authorised person within 24 hours.
- Category 3 restricted matter must not be released into the environment, given away or sold.

2.2.6 Waterway Barrier Works Under the Fisheries Act

Development of new, or raising of existing waterway barriers, must provide adequate fish passage. In many cases fish are unable to move into waters upstream or downstream of these barriers. This loss of access to habitat has caused a decline in distribution of native fish populations, including species of commercial, recreational and traditional importance.

Examples of waterway barriers may include:

- Bridges
- Culverts
- Partial Bunds
- Bed Level Crossings
- Causeways
- Sediment curtains

The site does contain a mapped Low (green) Risk waterway. Certain works impacting mapped waterways (waterway barrier works) are able to be constructed depending on the structure design, duration in place and type of waterway, as per the Accepted Development Requirements (ADR) for Waterway Barrier Works and do not require full Operational Works assessment. The prosed development is not proposing any works within this low risk waterway that would not comply with the ADR.

2.2.7 Local (Council) Planning Instruments

The site is located within Flinders Shire and subject to the *Shire of Flinders Planning Scheme 2017* (the planning scheme). Table 4 below summarise considerations under the planning scheme that have been accounted for, and implemented where reasonable, in the design of the camps.

Table 4 Town Planning Considerations

Camp Activity	Use definition under Planning Scheme	Assessment Benchmarks
Camp	Non-residential workers accommodation	Planning Scheme Special Purpose Zone Code Residential Activities Code Operational Works Code
Maintenance area	Low impact industry	
Carpark and fuel bay	Transport depot	
Cable drum storage	Warehouse	
Water treatment	Utility installation	

The Hughenden Camp development will form part of a works regulation under the State Development and Public Works Organisation Act 1971, which will negate the requirement for development to be assessable under the planning scheme.

3.0 Methodology

3.1 Approach

The primary objective of the ecological assessment was to describe vegetation communities, fauna habitat characteristics, weeds, pests and other relevant ecological values within the Site. The following stages were undertaken:

- Desktop assessment (refer to Section 3.2)
- Field assessment (refer to Section 3.33.3).

3.2 Desktop Assessment

Prior to the commencement of surveys, a desktop analysis was conducted to identify relevant information for the Site. The following information was reviewed:

- Protected Matters Search Tool (PMST) to identify threatened species with the potential to occur within the search extent (Appendix A)
- Wildlife Online Database search to identify threatened species known to occur within the search extent (Appendix B)
- Regulated Vegetation Management Map to determine presence of regional ecosystems, wetlands, watercourses, protected flora survey trigger maps, and essential habitat and factors within the site (Appendix C)
- MSES report generated for Lot Plan 129SP119557 to identify MSES values that are present within the site (Appendix F)
- Flinders Shire local council mapping.

Desktop searches were undertaken over a 10 km radius for Commonwealth, State and Local government databases using the site's central coordinate as the search reference point. The PMST, whilst based on some species records, primarily relies on the modelling of suitable habitats (with mapped boundary constraints accounted for) and is largely a predictive tool (DCCEEW, 2024).

Information from the WildNet database (DES, 2024) contains data approved by DES, compiled from government agencies, researchers, businesses, natural resource management bodies and citizen science programs. As such, records are generally accurate in terms of spatial location and are periodically extracted in subsets for ALA. Spatial data from WildNet sighting records were confirmed through DES' Species Profile Search Tool.

3.2.1 Likelihood of Occurrence Assessment

An assessment of the proposed Hughenden Camp location was conducted to attribute a 'likelihood of occurrence' to conservation significant species (i.e. species listed under the EPBC Act or NC Act) that have been previously recorded or were predicted to occur from the desktop searches. The likelihood of occurrence assessment was based on a review of species distributions and habitat requirements, historical records for the region, and the results of habitat assessments and field surveys conducted within the site.

The defined terms of the desktop searches for the camps were:

- **Online Search Extent**: 10 km either side of Hughenden Camp design footprint (20 km buffer)
- **Study area** – 500 m buffer either side of Hughenden Camp design footprint (1 km buffer)
- **Project Area** – the extent of the Hughenden Camp design footprint (no buffer)

The likelihood of occurrence ranking was based on the following framework:

- **Confirmed present**: Species recorded during field surveys within the study area or confirmed as occurring from reliable desktop records.
- **Likely to occur**: Species not recorded previously within field surveys; however, there are confirmed and current records within the Online Search Extent and suitable habitat is present in the Project Area.
- **Potential to occur**: Species not recorded previously within field surveys. Species has been recorded previously within the Online Search Extent and distribution incorporates the Study area; however, habitat is marginal or heavily modified or degraded within the Project Area.
- **Unlikely to occur**: Species not recorded during previous field surveys, no known records occur within the Online Search Extent and suitable habitat is generally lacking from the Project Area.

The results of the likelihood of occurrence assessment are provided in Appendix D. Likelihood of occurrence was assessed for species determined as potentially occurring during desktop searches. Where no habitat occurs within the broader area (e.g. marine habitat), those species are not considered further and not included in the likelihood of occurrence assessment.

3.3 Field Assessment Methodology

Results from the desktop assessment and previous knowledge of the local area informed the Site assessment including the identification of areas with the greatest potential for listed species to occur based on available and suitable habitat. The field survey involved detailed Flora and Fauna Surveys and Animal Breeding Place Surveys conducted on the site between June 2023 and April 2024. Field data forms are provided in Appendix G.

3.3.1 Flora Survey

Following the broad delineation of vegetation communities using aerial photography and information obtained in the desktop review, a detailed field vegetation survey was conducted by qualified ecologists to locate, describe, map and verify current RE vegetation communities found within the Site.

The field survey and data collection methodologies applied tertiary and quaternary level assessments for validating current RE mapping. The assessment was undertaken using methodology that was consistent with the '*Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communities in Queensland Version 6.0*' (Nelder, et al., 2022). A running incidental flora species list was recorded (including weed species) during vegetation assessments.

The flora surveys also included identification of native flora species (including any conservation significant species) and identification of restricted or prohibited weed species and their status under the *Biosecurity Act 2014* that occurred within the site.

3.3.2 Fauna Survey

Results from the desktop assessment and previous knowledge of the local area informed the Site assessment in the identification of those areas and habitats that have the greatest potential for protected species to occur. The field survey included general observations of fauna species present, targeted searches for species of conservation significance and breeding place surveys for NC Act listed species.

Targeted fauna surveys were undertaken in accordance with the relevant Commonwealth and Queensland Government survey guidelines. Initial surveys were undertaken in June 2023 as part of compliance activities for the approved project (EPBC 2019/8416), which required pre-clearing surveys to be undertaken to verify habitat and impacts to MNES listed under the approval. Follow-surveys were undertaken in April 2024 to confirm the findings of the 2023 surveys, conduct additional targeted surveys for threatened birds, identify if any MSES will be impacted, and search for animal breeding places.

The 2023 and 2024 surveys considered the availability of suitable habitats for conservation significant species and recorded habitat features such as food resources, roosting/shelter sites, cracking soils, trees and hollows, fallen timber, water sources or any other habitat resources.

3.3.3 Animal Breeding Place Survey

Breeding place surveys were conducted in accordance with the NC (Animals) Reg to determine if the proposed activity will impact on breeding places of protected animals that are classified as *extinct in the wild, critically endangered, endangered, vulnerable, near threated (EVNT), special least concern, colonial breeder* or *least concern*. Breeding place surveys considered the potential for the site to be utilised by colonial breeding birds and bats.

Searches were conducted over the entirety of the site to search for breeding sites within vegetation, structures and soils (including earthen embankments), observations for scats, tracks scratches, burrows, dreys, or other indirect evidence of species and habitat, and opportunistic sightings (Ecosure, 2024).

Outcomes of breeding place surveys were used to determine whether species management plans (SMPs) are to be utilised for the species within the Site. Low-risk and High-risk SMPs are approved under the NC (Animals) Regulation, in which the species management plans are to be used if breeding places are located for certain types of protected species (Table 5).

Table 5 High-risk and Low-risk Species Management Plans

Species management plan	To be used for
High-risk SMP	• Least concern animals that are colonial breeders, and therefore whose broader populations are at greater risk from the impacts of events at a single location • Special least concern animals (as prescribed in the NC (Animals) Regulation) • Near threatened, Vulnerable, Endangered, Critically Endangered, or Extinct in the Wild Animals (as prescribed in the NC (Animals) Regulation)
Low-risk SMP	• Least concern animals (other than colonial breeders)

The extent of flora and fauna surveys conducted within the site is shown on Figure 3, with results discussed in section 4.2 and raw data collected during field surveys provided as Appendix G.

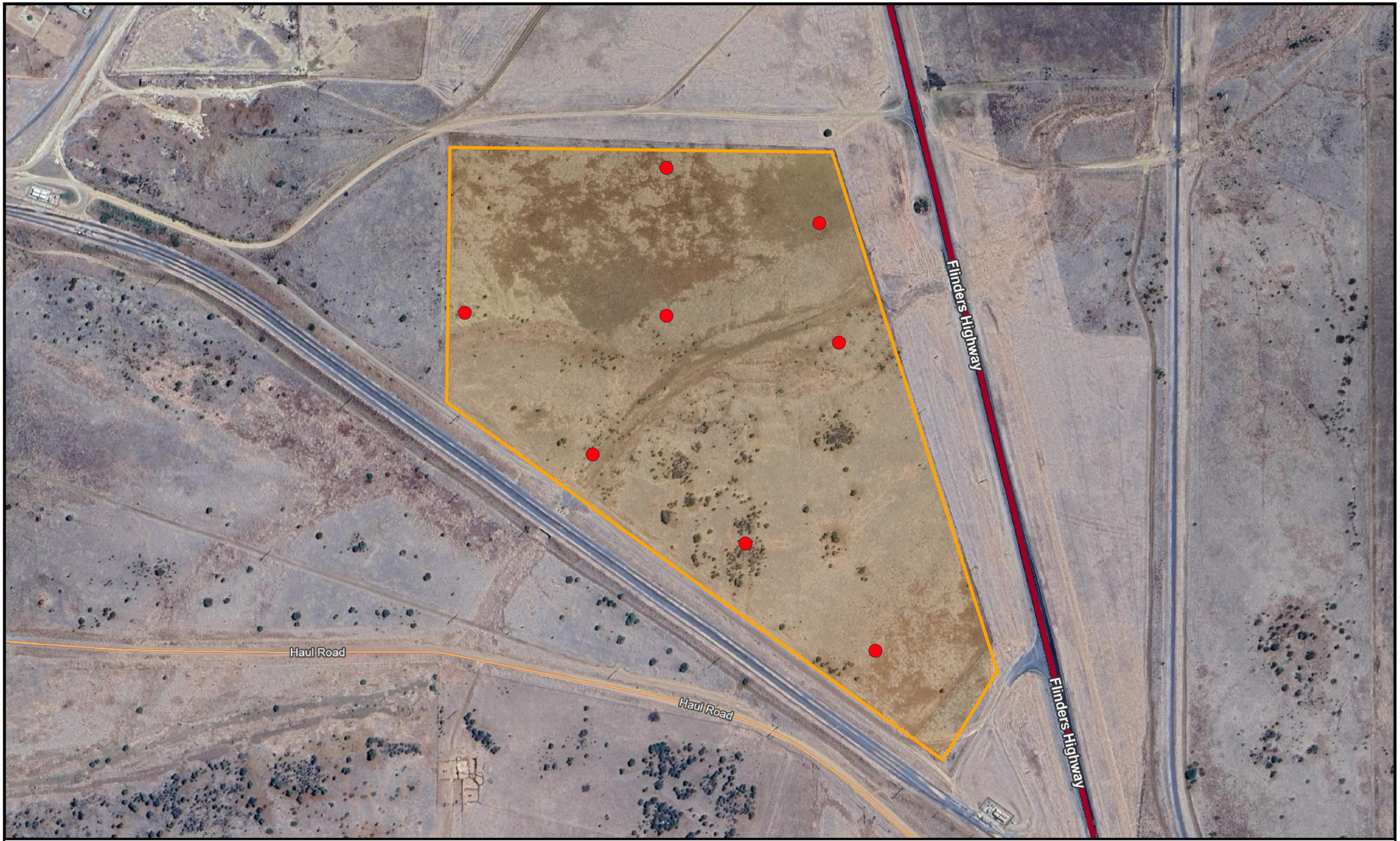

Figure 3: Survey Effort

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Job: J0105
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DATA SOURCE:
QSPATIAL 2024; The State of Queensland (Department of Resources) 2024; Esri, Nearmap, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community;

- Proposed Hughenden Camp (the site)
- Pre-clearance surveys

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4.0 Ecological Assessment Results

4.1 Flora Assessment

4.1.1 Threatened Ecological Communities

The Commonwealth Protected Matters Search Tool (PMST) determined that no (0) Threatened Ecological Communities (TEC's) occur within 10km of the site.

The results from the Protected Matters Search Tool were verified through detailed flora surveys conducted across the site, indicating that no Threatened Ecological Communities (TEC's) occurred within or adjacent the site.

4.1.2 Conservation Significant Flora

The PMST search results identified one (1) conservation significant species, namely Pink Gidgee (*Acacia crombiei*), as potentially occurring within 10km of the site (Appendix BA).

A detailed flora survey was completed across the Site, which identified twenty-two (22) flora species. Of these, thirteen (13) were identified as native species, with nine (9) classified as being non-native / introduced flora species (Appendix E).

The field surveys indicated that *Acacia crombiei* is unlikely to occur within Hughenden Camp. Sandalwood was identified and is listed as a SLC species under the NC Act during one of the breeding place surveys. The NC (Plants) Regulation regulates the harvesting and growing of SLC plants.

The likelihood of occurrence assessment for conservation significant flora species is provided in Appendix D.

4.1.3 Protected Plants Flora Survey Trigger Map

Desktop assessments indicated that the Hughenden Camp area is not shown as a high-risk area on the flora trigger map (Appendix C). Field surveys confirmed the Project Area does not contain any NC Act threatened plants or threatened plant habitat (Appendix E).

4.1.4 Mapped Regional Ecosystems

The entirety of the site is mapped a Category X area containing a non-remnant regional ecosystem as shown on Figure 4 and Appendix C.

4.1.5 Field Verified Vegetation Communities

Field surveys confirmed the site consists of non-remnant grassland dominated by buffel grass (*Cenchrus ciliaris*), with scattered common wireweed (*Sida acuta*) and shrub/tree species including *Acacia tephrina* and *Vachellia farnesiana*. Small patches of regrowth to the south of the watercourse contained individuals of *Acacia tephrina* and *Alectryon oliofloia,* Field surveys recorded the tallest tree reaching 5m in height.

The full flora species list is provided in Appendix E. Representative photographs of vegetation communities on the site are provided below (Photo 2, Photo 1, Photo 3, Photo 4). Field verified vegetation communities are presented in Figure 5.

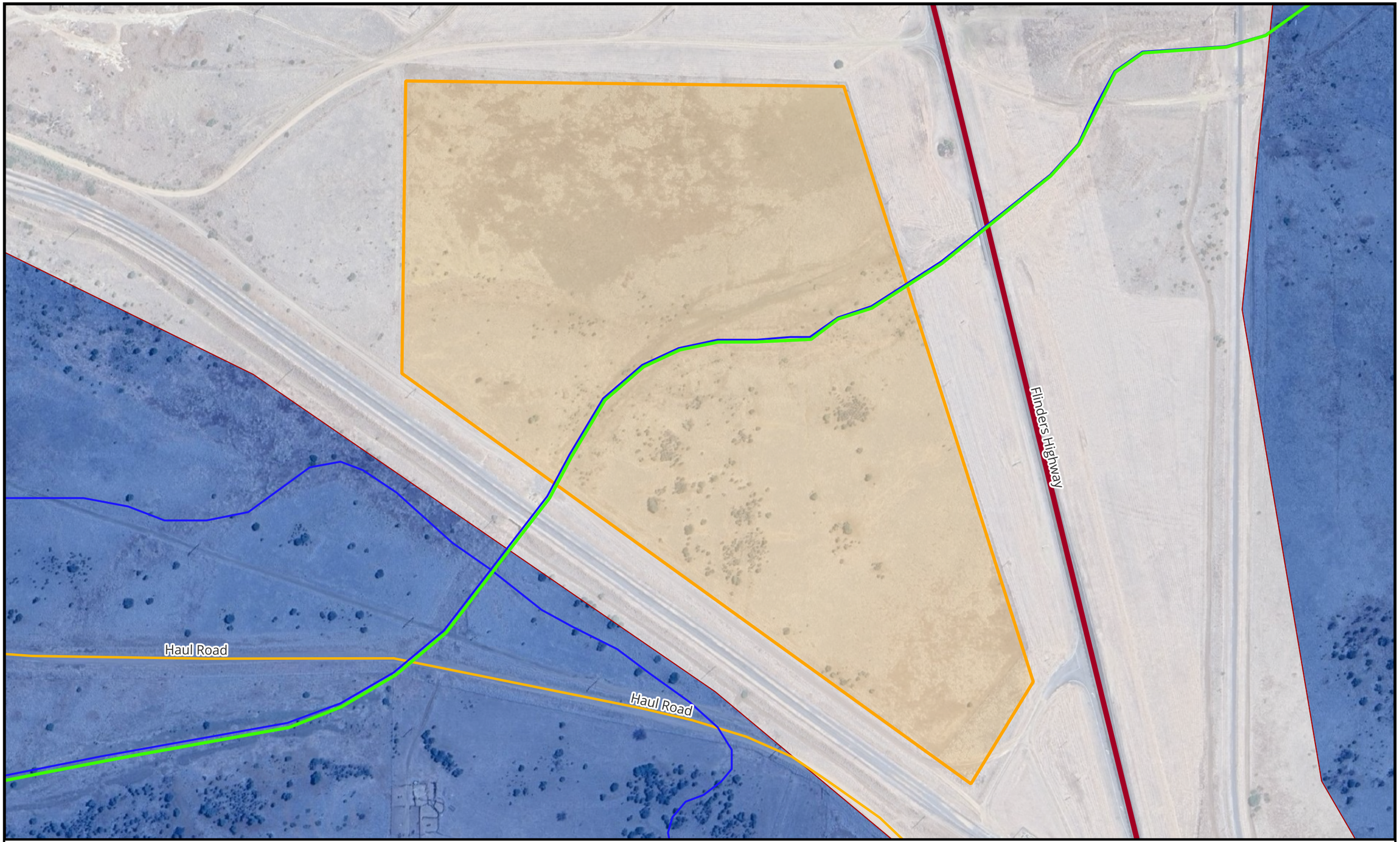

Figure 4: Mapped Regional Ecosystems and Watercourse Mapping

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Date: 03/05/2024
Job: J0105
Drawn: Josie Campbell
CRS: EPSG:7844_GDA2020

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DATA SOURCE:
QSPATIAL 2024; The State of Queensland (Department of Resources) 2024; Esri, Nearmap, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community;

- Proposed Hughenden Camp (the site)
- Category B (remnant 4.9.1c)
- Category X (non-remnant)
- VM watercourse/drainage feature
- Queensland waterways for waterway barrier works
- Highway
- Local

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Photo 2 Representative photograph of vegetation communities

Photo 1 Representative photograph of vegetation communities

Photo 3 Representative photographs of vegetation communities

Photo 4 Representative photograph of vegetation communities

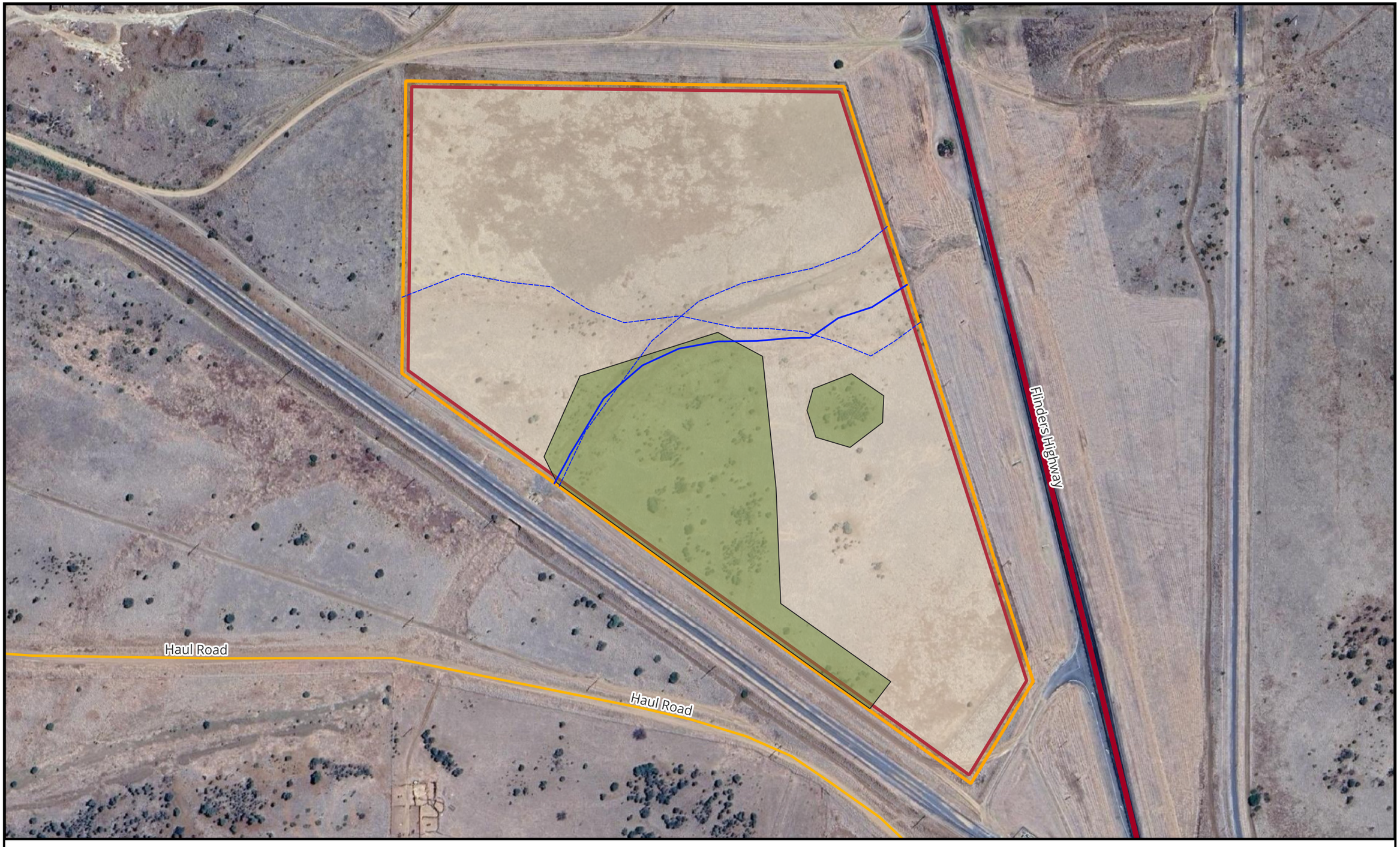

Figure 5: Field Verified Vegetation Communities

0 0.1 0.2 km

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Drawn: Josie Campbell
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- Proposed Hughenden Camp (the site)
- Category X (non-remnant)
- VM watercourse/drainage feature
- Field verified drainage line
- Highway
- Local
- Isolated patches of woody vegetation

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4.1.6 Introduced Flora

A total of nine (9) introduced flora species were observed, with one (1) species listed as a category 3 'restricted matter' plant under the *Biosecurity Act 2014* and Weed of National Environmental Significance (WoNS). Table 6 shows the nine introduced flora species recorded within the site during field surveys. The complete flora species list is provided in Appendix E.

Table 6 Introduced flora species located within Hughenden Camp

Introduced Flora Species	Category under Biosecurity Act 2014	WoNS
Prickly acacia (*Vachellia nilotica*)	Category 3	Yes
Foxtail buffalo grass (*Cenchrus ciliaris*)	N/A	N/A
Saltwort (*Salsola kali*)	N/A	N/A
Common wireweed (*Sida acuta*)	N/A	N/A
Flannel weed (*Sida cordifolia*)	N/A	N/A
Mexican poppy (*Argemone mexicana*)	N/A	N/A
Smooth senna (*Senna septemtrionalis*)	N/A	N/A
Globe amaranths (*Gomphrena sp.*)	N/A	N/A
Wait a while vine (*Calamus australis*)	N/A	N/A

4.2 Fauna Assessment

4.2.1 Listed Fauna Species

Results from the Protected Matters Search Tool identified sixteen (16) protected fauna species under the EPBC Act that have been recorded within a 10km radius of the site (Appendix A). Results from the Queensland Wildlife Online database identified seven (7) protected fauna species under the NC Act that have been recorded within a 10km radius of Hughenden Camp (Appendix B). The likelihood of occurrence assessment for the conservation significant species (Appendix D) identified the following species as potentially occurring on the site:

- Short-beaked echidna (*Tachyglossus aculeatus*) – **potential to occur**

The field surveys confirmed that the site is suitable habitat for the short-beaked echidna, however does not support habitat for any MNES or MSES fauna. There were no sightings of MNES or MSES within the site. Fauna surveys detected a total of 14 species including 13 native species and one (1) introduced species (Appendix E).

The breeding place surveys potential habitat for common (least concern) woodland birds within the isolated patches of regrowth acacia south of the watercourse. One (1) special least concern species, short-beaked echidna (*Tachyglossus aculeatus*), was indirectly observed through identification of bone fragments (skull) and diggings across the site (Ecosure, 2024). An old (inactive) nest was identified within vegetation in this area. No confirmed or active breeding places were found during field surveys, however some evidence of diggings and holes were observed near the drainage channel. The breeding place surveys identified the potential for colonial breeding bird species to utilise stockpiles for nesting during the construction and operation of the Hughenden Camp.

Based on the desktop assessment and field surveys completed, a High Risk and Low Risk SMP has been submitted to the Department of Environment and Science for approval to tamper with the breeding places of least concern species, special least concern species and least concern colonial breeding birds. The High Risk SMP includes the following species:

- Short-beaked echidna (*Tachyglossus aculeatus*)
- Rainbow bee-eater (*Merops ornatus*)
- Red-browed pardalote (*Pardalotus rubricatus*)
- Striated pardalote (*Pardalotus striatus*).

4.2.2 Essential Habitat

The Vegetation Management Map and MSES report indicated that no essential habitat is mapped as occurring within the site.

4.3 Waterway Assessment

The desktop assessment identified that the site has mapped watercourses areas of the following (refer Figure 4**Error! Reference source not found.**).

- VM Act watercourse or drainage feature (stream order 2)
- Fisheries Act waterway for waterway barrier works – low impact (green).

Field assessment of aquatic values, potential impacts and mitigation measures are beyond the scope of this EAR.

5.0 Proposed Activities and Impact Assessment

The proposed activities for the temporary Hughenden workers accommodation camp on Lot 129 on SP1195557) include accommodation buildings, servicing an amenities, carparking and vehicle manoeuvring, water storage facilities, laydown, refuelling and vehicle wash down station, (refer to Appendix H). The site is located within an urban zoning within the Hughenden township and primarily consistent with non-remnant vegetation with limited ecological values present.

The purpose of this Ecological Assessment Report (EAR) is to outline the results of detailed ecological surveys conducted over the site. The assessment was undertaken to confirm the presence or absence of ecological values throughout the site.

As shown in Appendix H, the proposed layout for they camp design shows the structures and activities limited to the northern portion of the site where impacts to Matters of Stage and National Environmental Significance can be completely avoided. Due to the urban locality, lack of remnant vegetation and absence of species habitat, no quantifiable impacts on MNES or MSES are expected. Hence, a detailed significant impact assessment against the relevant Commonwealth and State guidelines is not considered necessary.

The construction and operation of the temporary camp still has the potential to impact on environmental values other than MNES or MSES. Potential impacts to values confirmed as present within the site are detailed below, with proposed mitigation measures to further avoid and minimise impacts on environmental values provided below.

5.1.1 Fauna

The construction and operation of the Hughenden Camp is not expected to impact on any MSES or MNES fauna. The proposed activities within the site have the potential to impact on this species and other least concern animals. Table 7 identifies the potential impacts to fauna communities that may occur as a result of the proposed activities.

Table 7 Potential Impacts to Fauna

Activity	Potential Environmental Impacts
Direct Impacts	
Vegetation clearing	• Vegetation clearing decreasing the availability of resources utilised for food, coverage and protection by fauna species.
Habitat loss	• The removal of grass vegetation will reduce habitat availability for fauna communities.
Indirect impacts	
Habitat fragmentation and edge effects	• Fragmentation of non-developed urban landscape through vegetation clearing impacting fauna communities through edge effects including changes in fauna and flora community dynamics, increased predation risks, and increased competition for resources within fragmented habitats.
Lighting	• Artificial lighting impacting the behaviours of fauna communities, especially nocturnal and/ or crepuscular species. • Artificial lighting impacting on wildlife including disorientation, interference with navigation, increased predation risks, reduction in access to food and habitat resources, increased stress, reduced health, and impacted circadian rhythms.
Vehicle strike	• Vehicle strikes which can lead to injury or mortality.
Fire	• Fire occurring within the site and the surrounding habitat, resulting in the displacement or loss of fauna from their habitat.

5.1.2 Flora

No impacts to MSES or MNES flora area expected as a result of the proposed activities. Table 8 identifies the potential impacts to flora communities that may occur as a result of the proposed activities.

Table 8 Potential impacts to Flora

Activity	Potential Environmental Impacts
Direct Impacts	
Vegetation clearing	• Vegetation clearing will result in the loss of flora communities.
Indirect Impacts	
Habitat fragmentation and edge effects	• Fragmentation of landscape through vegetation clearing having adverse impacts on the flora species through edge effects including changes in micro-climatic conditions, alterations in fauna community dynamics, and population increases of invasive flora.
Erosion and sedimentation	• Adverse impacts on erosion control and sedimentation from the removal of vegetation as the removal decreases soil stability and increases sediment loads into local waterways from surface runoff.
Fire	• Fire occurring within the site and the surrounding habitat due to project operations and machinery.

5.1.3 Biosecurity

The proposed activities have the potential to spread the existing instances of Prickly acacia (*Vachellia nilotica*) if not managed appropriately. Other weeds known to occur within the local area could be introduced unless effective management is implemented, Table 9 detailed a list of priority invasive plants that are modelled as occurring within the site, obtained via the online weed map created by Biosecurity Queensland (Department of Agriculture and Fisheries, 2024).

Table 9 Priority Invasive Flora modelled to occur within site

Priority Invasive Flora	Category under Biosecurity Act 2014	WoNS
Chinee apple (*Ziziphus mauritiana*)	Category 3	No
Mesquite (*Prosopis glandulosa*)	Category 3	Yes
Mother-of-millions (*Bryophyllum delagoense*)	Category 3	No
Neem tree (*Azadirachta indica*)	Category 3	No
Parkinsonia (*Parkinsonia aculeata*)	Category 3	Yes
Prickly acacia (*Vachellia nilotica*)	Category 3	Yes
Rubber vine (*Cryptostegia grandiflora*)	Category 3	Yes

The proposed activities could potentially cause an increase in invasive animals in the local area, including restricted invasive animals. Table 10 details a list of invasive animals identified as potentially occurring within the site, which was obtained using the online PDF maps available from the most recent pest distribution survey series by the Biosecurity Queensland (Department of Agriculture and Fisheries, 2024).

Table 10 Priority Invasive Fauna modelled to occur within site

Invasive Fauna	Category under Biosecurity Act 2014	Distribution
Cane Toad (*Bufo marinus*)	N/A	Widespread - Common
Feral Cat (*Felis catus*)	Category 3	Widespread - Common
Wild Dog (*Canis familiaris*)	Category 3	Widespread - Abundant
Feral Pig (*Sus scrofa*)	Category 3	Widespread - Common
Fox (*Vulpes vulpes*)	Category 3	Widespread - Occasional
Rabbit (*Oryctolagus cuniculus*)	Category 3	Localised – Occasional

Table 11 identified the potential impacts to biosecurity that may occur as a result of the proposed activities.

Table 11 Potential impacts to Biosecurity

Activity	Potential Environmental Impacts
Direct Impacts	
Movement of employees, contractors and visitors	• The movement of employees, contractors and visitors throughout the site exposes flora and fauna communities to the introduction of non-native pests, diseases, and weeds through accidental introduction.
Use of machinery and vehicles	• The use of machinery and vehicles throughout the Site exposes flora and fauna communities to the introduction of non-native pests, diseases, and weeds through accidental introduction.

5.1.4 Soil and Geology

5.1.4.1 Erosion and Sediment Control

Under the *Environmental Protection Act 1994* (EP Act), stormwater run-off from land development and infrastructure development sites has a high potential to cause water contamination and/or environmental harm.

Key sections of the EP Act referencing water contamination include:

- Under s.440ZG it is an offence to unlawfully deposit a prescribed water contaminant to waters. Prescribed contaminants are listed in Schedule 9 of the *Environmental Protection Regulation 2009* (Qld) (EP Regulation) and include sediment.
- The *Environmental Protection (Water and Wetland Biodiversity) Policy 2019* (Qld) (EPP Water) provides a process for protecting Queensland waters by establishing environmental values (EV) and water quality objectives (WQO) for Queensland waters (see Schedule 1 of the EPP Water). For waters not included in Schedule 1, the EPP Water provides a process for determining the EVs and WQOs.

The proposed activities within the site have the potential to decrease soil stability and increase sedimentation within the Site. As a stream order 2 watercourse or drainage feature under the Vegetation Management Act was identified as occurring within site, the potential impacts to from erosion and sedimentation have been identified in Table 12.

Table 12 Potential impacts to erosion and sedimentation

Activity	Potential Environmental Impacts
Direct Impacts	
Vegetation clearing	• Sedimentation of waterways
Construction activities	• Erosion of surfaces causing instability • Loss of soils • Sedimentation of waterways

5.1.4.2 Contaminated Land

A contaminated land search has been prepared by Douglas Partners for the site which found the site appeared to have remained predominately vacant, with some potential ground disturbance appearing to have occurred in the southern and eastern portions of the site sometime between 2009 and 2023. Lot 129 is not identified on the environmental management register (EMR) or contaminated land register (CLR).

The site has been subject to intrusive investigation for purpose of occupational health risk mitigation and baseline soil contamination assessment for the purpose of rehabilitation planning. Refer to the Contaminated Land Technical Note in Appendix D Volume 3 of the RfPC which outlines the results of the sampling program and recommended mitigation and management measures.

No acid sulphate soils are mapped within the area of the camp.

5.2 Mitigation Measures

The proposed development footprint for the proposed Hughenden Camp been designed to minimise clearing of vegetation as far as practicable to reduce potential impacts to MSES. The footprint is largely within already cleared and disturbed areas in the northern portion of the lot. Buffers and setbacks outlined in relevant local planning schemes have been taken into consideration during the design process. Where clearing is unavoidable, mitigation measures, including vegetation selection for landscaping, will be implemented to negate potential impacts from clearing as part of the JV's Construction Environmental Management Plan (CEMP) subject to review and approval two months in advance of construction commencing (i.e. construction commencement includes camp hubs).

Mitigation measures to reduce the potential impacts against fauna, flora, biosecurity, erosion and sediment control during construction and operation of the Hughenden Camp are outlined in Table 13. The mitigation and management measures have been identified in accordance with time of implementation, including pre-construction, construction and operation.

Table 13 Mitigation and Management Measures to be implemented within Hughenden Camp

Timing	Mitigation and Management Measures
Pre-construction	The layout of temporary and permanent structures and infrastructure will be designed to minimise clearing of vegetation
Pre-construction	A Flora and Fauna Management Plan will be developed prior to construction commencing. The Flora and Fauna Management Plan will include details relevant to the general management of flora and fauna impacts as well as Species Management Plans (SMPs) for identified conservation significant, least concern, and colonial breeding species that may be impacted. Where necessary, the Flora and Fauna Management Plan will incorporate flora and fauna monitoring activities. For more information on the flora and fauna management plan
Pre-construction	Species specific avoidance, mitigation and management measures will be incorporated within the Flora and Fauna Management Plan
Pre-construction	A Decommissioning and Rehabilitation Plan for areas to be temporarily disturbed during construction will be developed prior to construction commencing with the overall aim of minimising the amount of land disturbed at any one time during the construction of the Camp. After cleared areas are no longer required, rehabilitation will commence in accordance with the Rehabilitation Plan
Pre-construction	Weed mapping will be undertaken during the pre-construction phase. Weed mapping will cover the final site selection, with particular focus on high-risk locations. This will allow for targeted weed management during construction and limit the likelihood of colonisation by invasive species post construction. Weed control will be undertaken in areas that are very heavily infested or where WoNS or restricted invasive species under the *Biosecurity Act 2014* are known to occur
Pre-construction	A Weed and Pest Management Plan will be developed prior to construction commencing. The weed and pest management plan will include details relating to the monitoring, management and, where necessary, eradication of weeds, disposal of green waste, and vehicle/plant weed wash down protocols
Pre-construction	Light requirements identified during the detailed design will consider positioning security lighting at permanent facilities to minimise the potential for lighting impacts on fauna
Construction	Vegetation clearing will be restricted to the minimal amount necessary for the construction of the Hughenden Camp
Construction	Pre-clearance surveys will be undertaken during the detailed design phase within known and potential habitat areas in order to plan infrastructure placements and resulting clearing to avoid known occurrences and habitat for species

Timing	Mitigation and Management Measures
Construction	The extent of vegetation clearing (and no-go areas) will be clearly identified on construction plans and in the field using high visibility fencing or flagging in the vicinity of high conservation significant areas. Clearing extent will be communicated to construction supervisors
Construction	Infrastructure placement will avoid crossing of waterways and areas of existing disturbance (i.e. existing tracks or clearing) will be used. Where this is not safe to do so, the Project footprint will be minimised and large habitat trees retained
Construction	A Construction Environmental Management Plan (CEMP) will be prepared and implemented for standards such as weed hygiene, erosion, fuels and hazardous substances, fire, etc.
Construction	All construction personnel shall attend environmental training as part of the site induction process prior to entering the work site. As part of this training, all personnel will be instructed on their obligations in regard to vegetation clearing protocols. Areas identified for vegetation clearance are to be clearly defined and detailed in site inductions
Construction	Habitat enhancement features (e.g. salvaged hollows and nesting boxes) will be established outside the clearing area within suitable habitat. The installation of habitat enhancement features will concentrate in areas of high quality habitat or within strategic environment areas (e.g. terrestrial corridors)
Construction	Pre-clearance surveys will be undertaken to mark and avoid the locations of potential breeding places for wildlife and the locations of any breeding places for conservation significant species. Findings from targeted pre-clearance surveys will be incorporated into high risk SMPs and the CEMP
Construction	A low and high risk Species Management Program (SMP) has been submitted for approval in accordance with the requirements of Section 335 of the NC (Animals) Reg. Key species included in the high risk SMP are short-beaked echidna (*Tachyglossus aculeatus*), rainbow bee-eater (*Merops ornatus*), red-browed pardalote (*Pardalotus rubricatus*) and striated pardalote (*Pardalotus striatus*). SMPs will include information around the species' behaviour and ecology, along with specific mitigation measures to reduce to extent of impacts on conservation significant species and their habitat
Construction	All clearing will be supervised by suitably qualified and experienced fauna spotter-catchers. This will involve searching and clearing all hollow trees and logs prior to clearing and relocating any resident fauna to the nearest suitable, safe habitat outside the clearing footprint
Construction	Adverse incident response procedures will be developed to detail actions to be taken in the event of wildlife injury or mortality during clearing. Incident response procedures will include contact details for local wildlife carers and veterinary practices
Construction	A Traffic Management Plan will be developed for the construction site with designated access routes, speed limits and sensitive ecological areas. Speed limits and ecologically sensitive areas will be clearly identified using flagging tape and appropriate signage

Timing	Mitigation and Management Measures
Construction	The CEMP will include protocols to limit injury and mortality to fauna including management of risks associated with open excavations, trenching, waterbodies and responses and reporting for roadkill and adverse incident protocols
Construction	Access tracks and bed-level crossings will be restricted to areas that are already disturbed to reduce the extend of required clearing and remove unnecessary disturbances to the natural environmental
Construction	Where possible, temporary construction areas will be rehabilitated after the completion of construction works to reconnect fragmented habitats
Construction	During the detailed design phase, areas of high habitat connectivity that are intersected by the Project will be identified and measures investigated that would improve or restore connectivity across the corridor selection (e.g. placement of key habitat features within the corridor such as shelter or forage resources, or retention of vegetation between large remnant patches that hold significant habitat value)
Construction	Construction activities will be prioritised to daylight hours to reduce the need for lighting and resultant light spill into adjacent habitat and to reduce noise and vibration impacts on nocturnal fauna species
Construction	A Traffic Management Plan will be developed for the construction site to control vehicle movements and reduced the unnecessary generation of vehicular noise
Construction	All construction vehicles will comply with maintenance schedules and operational restrictions designed to limit noise impacts during construction
Construction	Erosion and sediment control measures will be developed as part of the CEMP for the Project. The requirement of erosion and sediment controls will be assessed at all watercourses and drainage lines intersect by the Project. Erosion and sediment control measures will be installed where disturbance must be undertaken within or adjacent to wetted waterways. Erosion matting (e.g. Jute mesh) or sediment socks (e.g. Sand-filled UV-resistant fabric tubes) will be used for earthwork activities where there is a risk of gulling or sedimentation of watercourses
Construction	Routine dust suppression and monitoring will be undertaken throughout construction and operation to reduce indirect impacts of flora and fauna habitats
Construction	Construction traffic restricted to designated access tracks
Construction	Weather conditions will be monitored during the construction stage and temporary controls will be established during extreme weather events. Construction activities will cease during adverse weather conditions (e.g. high wind / high rainfall) that have the potential to distribute dust or increase run off and sedimentation

Timing	Mitigation and Management Measures
Construction	Duration of in-stream works will be minimised to reduce the potential for sedimentation
Construction	Waste management procedures will be prepared as part of the CEMP. These will detail the location and specifications for disposal and removal of waste from the construction site
Construction	Responsible waste management practices (e.g. not leaving out food waste and not feeding wildlife) will be implemented and followed by all construction personnel. All waste will be stored in secure temporary holding containers and transported off site
Construction	Sightings or evidence of pest animals will be recorded during construction. If increased densities of pest animals are observed, or new pest animals are identified, humane pest controls will be implemented to manage numbers. Regular monitoring will be carried out along the easement and at substation sites. A feral animal management plan will be prepared and implemented in consultation with relevant stakeholders as appropriate
Construction	Construction staff will not bring domestic animals to the Site
Construction	All construction personnel shall attend environmental training as part of site inductions. As part of this training, all personnel will be instructed on their responsibilities related to avoiding and minimising the introduction/attraction to the construction site of feral animals
Construction	The CEMP will include protocols to limit injury and mortality to fauna including management of risks associated with open excavations, trenching, waterbodies and responses and reporting for roadkill and adverse incident protocols
Construction	All construction vehicles / equipment travelling from declared weed areas will undertake a wash down and possess a current weed hygiene inspection certificate from an accredited inspection station that is required to carry as evidence of quarantine clearance
Construction	Resources sought from outside the study area (e.g. fill for access tracks) will be required to hold weed free declarations
Operation	All travel will be restricted to designated access tracks and roads
Operation	All vehicles and plant will adhere to site rules relating to speed limits. Speed limits will be clearly signposted to minimise the potential for road kill
Operation	All fencing used on the Project will use fencing without barbed wire on the top strand to minimise incidence of flying fox entanglement.
Operation	Species management programs (SMPs) submitted for approval include mitigations for the operational phase of the project, to minimise impacts to animal breeding places and breeding behaviours.

Timing	Mitigation and Management Measures
Operation	No artificial lighting will be used on infrastructure
Operation	Work hours will be restricted to the hours of 7 am and 6 pm
Operation	Reduced vehicle speed limits to reduce dust dispersal in areas of exposed soil
Operation	Minimising vehicle access to waterways and exposed surfaces by establishing designated watercourse crossings
Operation	Continued employment of sediment and erosion control measures and track maintenance to provide ongoing management of erosion prone areas (e.g. waterways)
Operation	Should additional clearing be required during operation, rehabilitation will take place in accordance with the Rehabilitation Plan
Operation	Continued implementation of responsible driving practices will reduce the amount of noise generated during construction
Operation	Ongoing maintenance of tracks to reduce dust and erosion that have the potential to exacerbate localised barrier effects for smaller ground-dwelling fauna species
Operation	Ongoing use and maintenance of designated waterway crossing points to minimise disruption to longitudinal movement of wildlife along watercourses
Operation	A large proportion of the footprint will be subject to temporary vegetation clearance only and rehabilitated after construction
Operation	Poles or planks will be placed in open excavation areas (e.g. pits and holes) to allow trapped fauna to escape

5.3 Monitoring, Reporting and Review

To ensure all mitigation and management measures are implemented effectively, the achievement of the measures will be monitored, reported and reviewed during the pre-construction, construction and operation stages of the proposed activities within Hughenden Camp. Table 14 detailed the monitoring action, delegation of responsibilities, performance requirement and potential corrective action related to the mitigation and management measures related to the construction and operation of Hughenden Camp.

Table 14 Monitoring, Reporting and Review of Mitigation and Management Measures

Monitoring Action	Performance Requirement	Potential Corrective Action
Vegetation will be monitored and records kept of the total area of habitat cleared to construct the surface infrastructure	No clearing outside approved disturbance limits	Works are to cease immediately if the clearing of land exceeds the approved disturbance limits
All site inductions will be undertaken by employees, contractors and visitors and will provide reference to appropriate mitigation actions	All visitors completing site induction	Stop works and complete induction
Monitoring of progressive rehabilitation (vegetation) processes will be undertaken to ensure effective rehabilitation practices are adhered to	Successful propagation and succession of rehabilitation (vegetation)	Increased care to rehabilitation plantings (additional water, mulch etc.) Planting of different suitable species
Vegetation condition assessments by suitably qualified ecologists/botanists	No vegetation die back noted	Investigate cause of die back Alter operations to prevent further die back
Captured fauna will be monitored and records kept of animals relocated from within the site	No decrease in fauna sightings	Reasons of non-compliance will be investigated in the events that effective recording practices are not adhered to.
Short-beaked echidna sightings will be recorded including date, time and location	No decrease in fauna sightings	Conduct fauna survey in area to determine cause for decrease in sightings
Monitoring of lighting conditions will be undertaken to ensure fauna are not negatively impacted	No decrease in fauna sightings	Amend site lighting if required
Records will be kept of all employees, contractors and visitors undertaking site inductions inclusive of biosecurity sections	No spread of weeds and pests	Stop works and complete induction
Records will be kept of all machinery and vehicles entering and exiting the project site through the wash down station	No spread of weeds and pests	Engage weed/pest contractor to conduct biosecurity controls on the site
Records of identified species will be kept and reviewed annually to determine if weeds and pests are spreading	No spread of weeds and pests	Engage weed/pest contractor to conduct biosecurity controls on the site
Weather Forecast – monitoring short and long-term rainfall forecasts to inform monitoring events	N/A	N/A

Monitoring Action	Performance Requirement	Potential Corrective Action
Visual inspection of waterways in the vicinity of the Site for signs of erosion and sedimentation contamination	Inspection Form	Review Erosion and Sediment controls
Inspection of site erosion and sediment controls	Inspection Form	Maintain, replace, desilt controls as required.

6.0 References

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Appendix A

EPBC Act Protected Matters Search

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: 30-Apr-2024

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:	None
Listed Threatened Species:	17
Listed Migratory Species:	9

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:	14
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:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	3
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	1
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

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
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely 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 may occur within area	In feature area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat known to 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

Scientific Name	Threatened Category	Presence Text	Buffer Status
Poephila cincta cincta			
Southern Black-throated Finch [64447]	Endangered	Species or species habitat may occur within area	In feature area
Rostratula australis			
Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area	In feature area
Tyto novaehollandiae kimberli			
Masked Owl (northern) [26048]	Vulnerable	Species or species habitat may occur within area	In feature area
MAMMAL			
Macroderma gigas			
Ghost Bat [174]	Vulnerable	Species or species habitat may occur within area	In feature area
Sminthopsis douglasi			
Julia Creek Dunnart [305]	Vulnerable	Species or species habitat may occur within area	In feature area
PLANT			
Acacia crombiei			
Pink Gidgee [10927]	Vulnerable	Species or species habitat known to occur within area	In feature area
REPTILE			
Acanthophis hawkei			
Plains Death Adder [83821]	Vulnerable	Species or species habitat may occur within area	In feature area
Egernia rugosa			
Yakka Skink [1420]	Vulnerable	Species or species habitat may occur within area	In feature area
Varanus mertensi			
Mertens' Water Monitor, Mertens's Water Monitor [1568]	Endangered	Species or species habitat may 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 Terrestrial Species			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Cuculus optatus Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area	In feature area
Motacilla cinerea Grey Wagtail [642]		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

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

Scientific Name	Threatened Category	Presence Text	Buffer Status
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
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 may 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 may occur within 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 cinerea Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Motacilla flava			
Yellow Wagtail [644]		Species or species habitat may 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 may occur within area overfly marine area	In feature area
Reptile			
Crocodylus johnstoni			
Freshwater Crocodile, Johnston's Crocodile, Johnstone's Crocodile [1773]		Species or species habitat may occur within area	In feature area

Extra Information

EPBC Act Referrals			[Resource Information]	
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
CopperString Transmission Line Project, Nth Qld	2019/8416		Post-Approval	In feature area
Controlled action				
CopperString Project	2010/5581	Controlled Action	Completed	In buffer area only
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

Bioregional Assessments			[Resource Information]
SubRegion	BioRegion	Website	Buffer Status
Galilee	Lake Eyre Basin	BA website	In feature area

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 are 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

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

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

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
- 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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Appendix B

Wildlife Online Extract

Queensland Government

WildNet species list

Search Criteria: Species List for a Specified Point
Species: All
Type: Native
Queensland status: All
Records: All
Date: All
Latitude: -20.8581
Longitude: 144.1999
Distance: 10
Email: jcampbell@basecg.com.au
Date submitted: Tuesday 30 Apr 2024 08:50:02
Date extracted: Tuesday 30 Apr 2024 09:00:07

The number of records retrieved = 264

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Hylidae	*Cyclorana alboguttata*	greenstripe frog		C		1
animals	amphibians	Hylidae	*Cyclorana brevipes*	superb collared frog		C		1
animals	amphibians	Hylidae	*Cyclorana cultripes*	grassland collared frog		C		2
animals	amphibians	Hylidae	*Cyclorana novaehollandiae*	eastern snapping frog		C		1
animals	amphibians	Hylidae	*Litoria caerulea*	common green treefrog		C		3
animals	amphibians	Hylidae	*Litoria rubella*	ruddy treefrog		C		2
animals	amphibians	Limnodynastidae	*Platyplectrum ornatum*	ornate burrowing frog		C		1
animals	birds	Acanthizidae	*Acanthiza nana*	yellow thornbill		C		1
animals	birds	Accipitridae	*Haliastur sphenurus*	whistling kite		C		1
animals	birds	Accipitridae	*Hamirostra melanosternon*	black-breasted buzzard		C		1
animals	birds	Accipitridae	*Lophoictinia isura*	square-tailed kite		C		1
animals	birds	Accipitridae	*Milvus migrans*	black kite		C		20
animals	birds	Alcedinidae	*Dacelo novaeguineae*	laughing kookaburra		C		1
animals	birds	Apodidae	*Apus pacificus*	fork-tailed swift		SL		1
animals	birds	Ardeidae	*Ardea alba modesta*	eastern great egret		C		1
animals	birds	Ardeidae	*Ardea pacifica*	white-necked heron		C		1
animals	birds	Ardeidae	*Egretta novaehollandiae*	white-faced heron		C		1
animals	birds	Artamidae	*Artamus cinereus*	black-faced woodswallow		C		10
animals	birds	Artamidae	*Artamus leucorynchus*	white-breasted woodswallow		C		2
animals	birds	Artamidae	*Cracticus nigrogularis*	pied butcherbird		C		16
animals	birds	Artamidae	*Cracticus torquatus*	grey butcherbird		C		1
animals	birds	Artamidae	*Gymnorhina tibicen*	Australian magpie		C		17
animals	birds	Cacatuidae	*Cacatua galerita*	sulphur-crested cockatoo		C		5
animals	birds	Cacatuidae	*Cacatua sanguinea*	little corella		C		15/2
animals	birds	Cacatuidae	*Calyptorhynchus banksii*	red-tailed black-cockatoo		C		1
animals	birds	Cacatuidae	*Eolophus roseicapilla*	galah		C		20
animals	birds	Cacatuidae	*Nymphicus hollandicus*	cockatiel		C		1
animals	birds	Campephagidae	*Coracina maxima*	ground cuckoo-shrike		C		1
animals	birds	Campephagidae	*Coracina novaehollandiae*	black-faced cuckoo-shrike		C		2
animals	birds	Campephagidae	*Coracina papuensis*	white-bellied cuckoo-shrike		C		1
animals	birds	Campephagidae	*Lalage tricolor*	white-winged triller		C		2
animals	birds	Charadriidae	*Charadrius veredus*	oriental plover		SL		1
animals	birds	Charadriidae	*Elseyornis melanops*	black-fronted dotterel		C		1
animals	birds	Charadriidae	*Vanellus miles*	masked lapwing		C		3
animals	birds	Charadriidae	*Vanellus tricolor*	banded lapwing		C		1
animals	birds	Columbidae	*Geopelia cuneata*	diamond dove		C		2
animals	birds	Columbidae	*Geopelia placida*	peaceful dove		C		3
animals	birds	Columbidae	*Ocyphaps lophotes*	crested pigeon		C		15
animals	birds	Corcoracidae	*Struthidea cinerea*	apostlebird		C		8
animals	birds	Corvidae	*Corvus bennetti*	little crow		C		1
animals	birds	Corvidae	*Corvus coronoides*	Australian raven		C		3
animals	birds	Corvidae	*Corvus orru*	Torresian crow		C		6
animals	birds	Corvidae	*Corvus sp.*			C		5
animals	birds	Dicaeidae	*Dicaeum hirundinaceum*	mistletoebird		C		1
animals	birds	Estrildidae	*Emblema pictum*	painted finch		C		1
animals	birds	Estrildidae	*Taeniopygia guttata*	zebra finch		C		1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Eurostopodidae	*Eurostopodus argus*	spotted nightjar		C		1
animals	birds	Falconidae	*Falco berigora*	brown falcon		C		1
animals	birds	Falconidae	*Falco cenchroides*	nankeen kestrel		C		8
animals	birds	Falconidae	*Falco peregrinus macropus*	Australian peregrine falcon		C		1
animals	birds	Gruidae	*Antigone rubicunda*	brolga		C		2
animals	birds	Locustellidae	*Cincloramphus mathewsi*	rufous songlark		C		1
animals	birds	Locustellidae	*Poodytes carteri*	spinifexbird		C		1
animals	birds	Maluridae	*Malurus assimilis*	purple-backed fairy-wren		C		1
animals	birds	Meliphagidae	*Acanthagenys rufogularis*	spiny-cheeked honeyeater		C		2
animals	birds	Meliphagidae	*Conopophila rufogularis*	rufous-throated honeyeater		C		2
animals	birds	Meliphagidae	*Entomyzon cyanotis*	blue-faced honeyeater		C		5
animals	birds	Meliphagidae	*Gavicalis virescens*	singing honeyeater		C		3
animals	birds	Meliphagidae	*Grantiella picta*	painted honeyeater		V	V	1
animals	birds	Meliphagidae	*Lichmera indistincta*	brown honeyeater		C		2
animals	birds	Meliphagidae	*Manorina flavigula*	yellow-throated miner		C		16
animals	birds	Meliphagidae	*Philemon citreogularis*	little friarbird		C		5
animals	birds	Meliphagidae	*Philemon corniculatus*	noisy friarbird		C		1
animals	birds	Meliphagidae	*Plectorhyncha lanceolata*	striped honeyeater		C		2
animals	birds	Meliphagidae	*Ptilotula penicillata*	white-plumed honeyeater		C		1
animals	birds	Meliphagidae	*Sugomel nigrum*	black honeyeater		C		1
animals	birds	Meropidae	*Merops ornatus*	rainbow bee-eater		C		3
animals	birds	Monarchidae	*Grallina cyanoleuca*	magpie-lark		C		19
animals	birds	Monarchidae	*Myiagra inquieta*	restless flycatcher		C		2
animals	birds	Oreoicidae	*Oreoica gutturalis*	crested bellbird		C		4
animals	birds	Otididae	*Ardeotis australis*	Australian bustard		C		3
animals	birds	Pachycephalidae	*Colluricincla harmonica*	grey shrike-thrush		C		1
animals	birds	Pachycephalidae	*Pachycephala rufiventris*	rufous whistler		C		1
animals	birds	Pardalotidae	*Pardalotus rubricatus*	red-browed pardalote		C		1
animals	birds	Phasianidae	*Coturnix pectoralis*	stubble quail		C		1
animals	birds	Podargidae	*Podargus strigoides*	tawny frogmouth		C		1
animals	birds	Pomatostomidae	*Pomatostomus temporalis*	grey-crowned babbler		C		5
animals	birds	Psittaculidae	*Aprosmictus erythropterus*	red-winged parrot		C		1
animals	birds	Psittaculidae	*Melopsittacus undulatus*	budgerigar		C		1
animals	birds	Psittaculidae	*Platycercus adscitus*	pale-headed rosella		C		3
animals	birds	Psittaculidae	*Psitteuteles versicolor*	varied lorikeet		C		1
animals	birds	Psittaculidae	*Trichoglossus moluccanus*	rainbow lorikeet		C		2
animals	birds	Ptilonorhynchidae	*Chlamydera maculata*	spotted bowerbird		C		9
animals	birds	Rhipiduridae	*Rhipidura leucophrys*	willie wagtail		C		7
animals	birds	Scolopacidae	*Actitis hypoleucos*	common sandpiper		SL		1
animals	birds	Strigidae	*Ninox boobook*	southern boobook		C		2
animals	birds	Threskiornithidae	*Threskiornis spinicollis*	straw-necked ibis		C		7
animals	birds	Tytonidae	*Tyto javanica*	eastern barn owl		C		1
animals	insects	Pieridae	*Belenois java teutonia*	caper white				1
animals	mammals	Muridae	*Rattus villosissimus*	long-haired rat		C		1/1
animals	mammals	Pteropodidae	*Pteropus scapulatus*	little red flying-fox		C		2
animals	mammals	Tachyglossidae	*Tachyglossus aculeatus*	short-beaked echidna		SL		1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	mammals	Vespertilionidae	*Scotorepens balstoni*	inland broad-nosed bat		C		1/1
animals	mammals	Vespertilionidae	*Scotorepens sanborni*	northern broad-nosed bat		C		1/1
animals	ray-finned fishes	Ariidae	*Neoarius berneyi*	highfin catfish				1/1
animals	ray-finned fishes	Melanotaeniidae	*Melanotaenia splendida inornata*	checkered rainbowfish				4/1
animals	ray-finned fishes	Plotosidae	*Neosilurus hyrtlii*	Hyrtl's catfish				1
animals	ray-finned fishes	Terapontidae	*Amniataba percoides*	barred grunter				2
animals	ray-finned fishes	Terapontidae	*Leiopotherapon unicolor*	spangled perch				4
animals	ray-finned fishes	Terapontidae	*Pingalla gilberti*	Gilbert's grunter				1
animals	reptiles	Agamidae	*Diporiphora australis*	tommy roundhead		C		1/1
animals	reptiles	Agamidae	*Pogona barbata*	bearded dragon		C		1/1
animals	reptiles	Agamidae	*Pogona henrylawsoni*	downs bearded dragon		C		1/1
animals	reptiles	Agamidae	*Tympanocryptis intima*	gibber earless dragon		C		1
animals	reptiles	Agamidae	*Tympanocryptis tetraporophora*	Eyrean earless dragon		C		1
animals	reptiles	Diplodactylidae	*Amalosia queenslandia*	Queensland zigzag gecko		C		6/6
animals	reptiles	Diplodactylidae	*Diplodactylus tessellatus*	tessellated gecko		C		13/13
animals	reptiles	Diplodactylidae	*Lucasium steindachneri*	Steindachner's gecko		C		6/6
animals	reptiles	Elapidae	*Pseudechis colletti*	Collett's snake		C		1/1
animals	reptiles	Gekkonidae	*Gehyra dubia*	dubious dtella		C		10/9
animals	reptiles	Gekkonidae	*Gehyra versicolor*			C		1/1
animals	reptiles	Gekkonidae	*Heteronotia binoei*	Bynoe's gecko		C		2
animals	reptiles	Scincidae	*Ctenotus spaldingi*	straight-browed ctenotus		C		1
animals	reptiles	Scincidae	*Morethia boulengeri*	south-eastern morethia skink		C		1/1
animals	reptiles	Typhlopidae	*Anilios affinis*	small-headed blind snake		C		1/1
animals	reptiles	Typhlopidae	*Anilios grypus*	long-beaked blind snake		C		1/1
animals	reptiles	Varanidae	*Varanus mertensi*	Mertens' water monitor		E	E	1
animals	reptiles	Varanidae	*Varanus scalaris*	spotted tree monitor		C		1
animals	reptiles	Varanidae	*Varanus tristis*	black-tailed monitor		C		1
animals	uncertain	Indeterminate	*Indeterminate*	Unknown or Code Pending				2
fungi	lecanoromycetes	Parmeliaceae	*Xanthoparmelia neoquintaria*			C		1/1
plants	land plants	Acanthaceae	*Dipteracanthus australasicus subsp. corynothecus*			C		1/1
plants	land plants	Aizoaceae	*Trianthema*					1/1
plants	land plants	Aizoaceae	*Zaleya galericulata subsp. galericulata*			C		1/1
plants	land plants	Amaranthaceae	*Achyranthes aspera*			C		1/1
plants	land plants	Amaranthaceae	*Alternanthera denticulata var. micrantha*			C		1/1
plants	land plants	Amaranthaceae	*Alternanthera nodiflora*	joyweed		C		1/1
plants	land plants	Amaranthaceae	*Amaranthus cochleitepalus*			C		1/1
plants	land plants	Amaranthaceae	*Amaranthus mitchellii*	Boggabri weed		C		3/3
plants	land plants	Amaranthaceae	*Ptilotus nobilis*			C		1/1
plants	land plants	Apocynaceae	*Leichhardtia viridiflora subsp. tropica*			C		1/1
plants	land plants	Apocynaceae	*Leichhardtia viridiflora subsp. viridiflora*			C		1/1
plants	land plants	Apocynaceae	*Parsonsia lanceolata*	northern silkpod		C		1/1
plants	land plants	Asteraceae	*Calotis hispidula*	bogan flea		C		2/2
plants	land plants	Asteraceae	*Calotis squamigera*			C		1/1
plants	land plants	Asteraceae	*Centipeda minima subsp. minima*			C		1/1
plants	land plants	Asteraceae	*Peripleura arida*			C		1/1
plants	land plants	Asteraceae	*Pterocaulon serrulatum var. serrulatum*			C		1/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Asteraceae	*Pterocaulon sphacelatum*	applebush		C		1/1
plants	land plants	Asteraceae	*Sphaeromorphaea subintegra*			C		1/1
plants	land plants	Boraginaceae	*Heliotropium cunninghamii*			C		1/1
plants	land plants	Boraginaceae	*Heliotropium ovalifolium*			C		1/1
plants	land plants	Capparaceae	*Capparis lasiantha*	nipan		C		1/1
plants	land plants	Capparaceae	*Capparis loranthifolia var. loranthifolia*			C		1/1
plants	land plants	Capparaceae	*Capparis nummularia*			C		2/2
plants	land plants	Casuarinaceae	*Casuarina cunninghamiana subsp. cunninghamiana*			C		1/1
plants	land plants	Celastraceae	*Denhamia oleaster*			C		1/1
plants	land plants	Chenopodiaceae	*Salsola australis*			C		1/1
plants	land plants	Chenopodiaceae	*Sclerolaena anisacanthoides*	yellow burr		C		1/1
plants	land plants	Chenopodiaceae	*Sclerolaena lanicuspis*			C		1/1
plants	land plants	Cleomaceae	*Arivela viscosa*			C		3/3
plants	land plants	Convolvulaceae	*Ipomoea argillicola*			C		2/2
plants	land plants	Convolvulaceae	*Ipomoea calobra*			C		1/1
plants	land plants	Convolvulaceae	*Ipomoea lonchophylla*			C		1/1
plants	land plants	Convolvulaceae	*Operculina aequisepala*			C		1/1
plants	land plants	Convolvulaceae	*Polymeria longifolia*	polymeria		C		2/2
plants	land plants	Cucurbitaceae	*Cucumis melo*			C		1/1
plants	land plants	Cyperaceae	*Bulbostylis barbata*			C		1/1
plants	land plants	Cyperaceae	*Cyperus betchei subsp. betchei*			C		1/1
plants	land plants	Cyperaceae	*Cyperus conicus var. conicus*			C		1/1
plants	land plants	Cyperaceae	*Cyperus difformis*	rice sedge		C		1/1
plants	land plants	Cyperaceae	*Cyperus gilesii*			C		1/1
plants	land plants	Cyperaceae	*Cyperus gracilis*			C		1/1
plants	land plants	Cyperaceae	*Cyperus iria*			C		2/2
plants	land plants	Cyperaceae	*Cyperus polystachyos var. polystachyos*			C		1/1
plants	land plants	Cyperaceae	*Fimbristylis bisumbellata*			C		1/1
plants	land plants	Cyperaceae	*Fimbristylis dichotoma*	common fringe-rush		C		1/1
plants	land plants	Cyperaceae	*Fimbristylis microcarya*			C		1/1
plants	land plants	Erythroxylaceae	*Erythroxylum australe*	cocaine tree		C		2/2
plants	land plants	Euphorbiaceae	*Euphorbia coghlanii*			C		3/3
plants	land plants	Euphorbiaceae	*Euphorbia dallachyana*			C		1/1
plants	land plants	Euphorbiaceae	*Euphorbia inappendiculata var. queenslandica*			C		3/3
plants	land plants	Juncaceae	*Juncus continuus*			C		1/1
plants	land plants	Lamiaceae	*Clerodendrum floribundum*			C		1/1
plants	land plants	Lamiaceae	*Teucrium integrifolium*			C		1/1
plants	land plants	Leguminosae	*Acacia cambagei*	gidgee		C		1/1
plants	land plants	Leguminosae	*Acacia crombiei*	pink gidgee		V	V	5/5
plants	land plants	Leguminosae	*Acacia melleodora*			C		1/1
plants	land plants	Leguminosae	*Acacia salicina*	doolan		C		2/2
plants	land plants	Leguminosae	*Acacia tenuissima*			C		2/2
plants	land plants	Leguminosae	*Acacia victoriae*			C		1/1
plants	land plants	Leguminosae	*Acacia victoriae subsp. fasciaria*			C		1/1
plants	land plants	Leguminosae	*Acacia victoriae subsp. victoriae*			C		2/2
plants	land plants	Leguminosae	*Crotalaria medicaginea var. neglecta*			C		1/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Leguminosae	*Cullen cinereum*			C		2/2
plants	land plants	Leguminosae	*Glycine falcata*			C		1/1
plants	land plants	Leguminosae	*Heliodendron basalticum*			C		1/1
plants	land plants	Leguminosae	*Indigastrum parviflorum*			C		1/1
plants	land plants	Leguminosae	*Indigofera linifolia*			C		1/1
plants	land plants	Leguminosae	*Neptunia amplexicaulis forma amplexicaulis*			C		6/6
plants	land plants	Leguminosae	*Neptunia heliophila*			C		2/2
plants	land plants	Leguminosae	*Neptunia monosperma*			C		2/2
plants	land plants	Leguminosae	*Neptunia scutata*			C		1/1
plants	land plants	Leguminosae	*Neptunia xanthonema*			C		1/1
plants	land plants	Leguminosae	*Rhynchosia minima var. minima*			C		1/1
plants	land plants	Leguminosae	*Sesbania campylocarpa*			C		2/2
plants	land plants	Leguminosae	*Tephrosia rosea var. rosea*			C		1/1
plants	land plants	Leguminosae	*Tephrosia sp. (Ilfracombe R.D.Law AQ238393)*			C		1/1
plants	land plants	Malvaceae	*Abutilon*					1/1
plants	land plants	Malvaceae	*Abutilon calliphyllum*	velvet lanternflower		C		1/1
plants	land plants	Malvaceae	*Abutilon fraseri subsp. fraseri*			C		2/2
plants	land plants	Malvaceae	*Abutilon leucopetalum*			C		1/1
plants	land plants	Malvaceae	*Abutilon malvifolium*	bastard marshmallow		C		1/1
plants	land plants	Malvaceae	*Hibiscus brachysiphonius*			C		1/1
plants	land plants	Malvaceae	*Sida*					1/1
plants	land plants	Malvaceae	*Sida aprica*			C		1/1
plants	land plants	Malvaceae	*Sida everistiana*			C		1/1
plants	land plants	Malvaceae	*Sida laevis*			C		1/1
plants	land plants	Malvaceae	*Sida trichopoda*			C		1/1
plants	land plants	Molluginaceae	*Glinus lotoides*	hairy carpet weed		C		2/2
plants	land plants	Molluginaceae	*Hypertelis cerviana*			C		1/1
plants	land plants	Myrtaceae	*Eucalyptus whitei*	White's ironbark		C		1/1
plants	land plants	Myrtaceae	*Melaleuca trichostachya*			C		1/1
plants	land plants	Nyctaginaceae	*Boerhavia*					2/2
plants	land plants	Nyctaginaceae	*Boerhavia pubescens*			C		2/2
plants	land plants	Oleaceae	*Jasminum didymum subsp. racemosum*			C		1/1
plants	land plants	Phyllanthaceae	*Notoleptopus decaisnei*			C		2/2
plants	land plants	Plantaginaceae	*Stemodia pubescens*			C		1/1
plants	land plants	Poaceae	*Aristida holathera var. holathera*			C		1/1
plants	land plants	Poaceae	*Aristida latifolia*	feathertop wiregrass		C		2/2
plants	land plants	Poaceae	*Aristida nitidula*			C		1/1
plants	land plants	Poaceae	*Aristida pruinosa*			C		1/1
plants	land plants	Poaceae	*Astrebla lappacea*	curly mitchell grass		C		1/1
plants	land plants	Poaceae	*Astrebla pectinata*	barley mitchell grass		C		2/2
plants	land plants	Poaceae	*Bothriochloa ewartiana*	desert bluegrass		C		1/1
plants	land plants	Poaceae	*Brachyachne tenella*			C		1/1
plants	land plants	Poaceae	*Chrysopogon fallax*			C		1/1
plants	land plants	Poaceae	*Dactyloctenium radulans*	button grass		C		2/2
plants	land plants	Poaceae	*Dichanthium fecundum*	curly bluegrass		C		2/2
plants	land plants	Poaceae	*Dichanthium sericeum subsp. polystachyum*			C		1/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Poaceae	*Digitaria bicornis*			C		1/1
plants	land plants	Poaceae	*Digitaria brownii*			C		1/1
plants	land plants	Poaceae	*Digitaria ctenantha*			C		2/2
plants	land plants	Poaceae	*Enneapogon avenaceus*			C		1/1
plants	land plants	Poaceae	*Enneapogon polyphyllus*	leafy nineawn		C		4/4
plants	land plants	Poaceae	*Enneapogon robustissimus*			C		1/1
plants	land plants	Poaceae	*Enteropogon acicularis*	curly windmill grass		C		1/1
plants	land plants	Poaceae	*Eriochloa crebra*	spring grass		C		2/2
plants	land plants	Poaceae	*Eriochloa pseudoacrotricha*			C		4/4
plants	land plants	Poaceae	*Heteropogon contortus*	black speargrass		C		1/1
plants	land plants	Poaceae	*Iseilema ciliatum*			C		1/1
plants	land plants	Poaceae	*Iseilema convexum*			C		1/1
plants	land plants	Poaceae	*Iseilema vaginiflorum*	red flinders grass		C		2/2
plants	land plants	Poaceae	*Oxychloris scariosa*	winged chloris		C		2/2
plants	land plants	Poaceae	*Panicum decompositum var. decompositum*			C		2/2
plants	land plants	Poaceae	*Panicum laevinode*	pepper grass		C		1/1
plants	land plants	Poaceae	*Sporobolus actinocladus*	katoora grass		C		4/4
plants	land plants	Poaceae	*Sporobolus australasicus*			C		2/2
plants	land plants	Poaceae	*Themeda triandra*	kangaroo grass		C		2/2
plants	land plants	Poaceae	*Tragus australianus*	small burr grass		C		1/1
plants	land plants	Poaceae	*Triodia pungens*			C		2/2
plants	land plants	Poaceae	*Tripogon loliiformis*	five minute grass		C		1/1
plants	land plants	Polygalaceae	*Polygala difficilis*			C		1/1
plants	land plants	Polygonaceae	*Persicaria attenuata*			C		1/1
plants	land plants	Polygonaceae	*Persicaria lapathifolia*	pale knotweed		C		1/1
plants	land plants	Polygonaceae	*Polygonum plebeium*	small knotweed		C		1/1
plants	land plants	Rhamnaceae	*Alphitonia excelsa*	soap tree		C		1/1
plants	land plants	Rubiaceae	*Everistia vacciniifolia forma crassa*			C		2/2
plants	land plants	Rutaceae	*Geijera salicifolia*	brush wilga		C		3/3
plants	land plants	Sapindaceae	*Alectryon oleifolius subsp. elongatus*			C		1/1
plants	land plants	Scrophulariaceae	*Eremophila mitchellii*			C		1/1
plants	land plants	Solanaceae	*Solanum esuriale*	quena		C		1/1
plants	land plants	Sparrmanniaceae	*Corchorus pascuorum*			C		1/1
plants	land plants	Thymelaeaceae	*Pimelea decora*			C		5/5

CODES

I - Y indicates that the taxon is introduced to Queensland and has naturalised.

Q - Indicates the Queensland conservation status of each taxon under the *Nature Conservation Act 1992.*
The codes are Extinct (EX), Extinct in the Wild (PE), Critically Endangered (CR), Endangered (E), Vulnerable (V), Near Threatened (NT), Special Least Concern (SL) and Least Concern (C).

A - Indicates the Australian conservation status of each taxon under the *Environment Protection and Biodiversity Conservation Act 1999.*
The values of EPBC are Extinct (EX), Extinct in the Wild (XW), Critically Endangered (CE), Endangered (E), Vulnerable (V) and Conservation Dependent (CD).

Records - The first number indicates the total number of records of the taxon (wildlife records and species listings for selected areas).
This number is output as 99999 if it equals or exceeds this value. A second number located after a / indicates the number of specimen records for the taxon.
This number is output as 999 if it equals or exceeds this value.

Appendix C

Vegetation Management Support Mapping

resources.QLD.GOV.AU

Vegetation management report

For Lot: 129 Plan: SP119557
3/05/2024

Queensland Government

This publication has been compiled by Operations Support, Department of Resources.

Recent changes

Updated mapping

Updated vegetation mapping was released on 22 November 2023 and includes the most recent Queensland Herbarium scientific updates to the Regulated Vegetation Management Map, regional ecosystems, essential habitat, wetland and high-value regrowth mapping.

The Department of Environment, Science and Innovation have also updated their koala protection mapping to align with the Queensland Herbarium scientific updates.

The latest version (v10) of the Protected Plants Flora Survey Trigger Map (trigger map) was released on 6 September 2023.

Overview

Based on the lot on plan details you have supplied, this report provides the following detailed information:
Property details - information about the specified Lot on Plan, lot size, local government area, bioregion(s), subregion(s) and catchment(s);

Vegetation management framework - an explanation of the application of the framework and contact details for the Department of Resources who administer the framework;

Vegetation management framework details for the specified Lot on Plan including:

- the vegetation management categories on the property;
- the vegetation management regional ecosystems on the property;
- vegetation management watercourses or drainage features on the property;
- vegetation management wetlands on the property;
- vegetation management essential habitat on the property;
- whether any area management plans are associated with the property;
- whether the property is coastal or non-coastal; and
- whether the property is mapped as Agricultural Land Class A or B;

Protected plant framework - an explanation of the application of the framework and contact details for the Department of Environment, Science and Innovation who administer the framework, including:

- high risk areas on the protected plant flora survey trigger map for the property;

Koala protection framework - an explanation of the application of the framework and contact details for the Department of Environment, Science and Innovation who administer the framework; and

Koala protection framework details for the specified Lot on Plan including:

- the koala district the property is located in;
- koala priority areas on the property;
- core and locally refined koala habitat areas on the property;
- whether the lot is located in an identified koala broad-hectare area; and
- koala habitat regional ecosystems on the property for core koala habitat areas.

This information will assist you to determine your options for managing vegetation under:
- the vegetation management framework, which may include:

- exempt clearing work;
- accepted development vegetation clearing code;
- an area management plan;
- a development approval;

- the protected plant framework, which may include:

- the need to undertake a flora survey;
- exempt clearing;
- a protected plant clearing permit;

- the koala protection framework, which may include:

- exempted development;
- a development approval;
- the need to undertake clearing sequentially and in the presence of a koala spotter.

Other laws

The clearing of native vegetation is regulated by both Queensland and Australian legislation, and some local governments also regulate native vegetation clearing. You may need to obtain an approval or permit under another Act, such as the Commonwealth Government's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Section 8 of this guide provides contact details of other agencies you should confirm requirements with, before commencing vegetation clearing.

Table of Contents

1. Property details

1.1 Tenure and title area

All of the lot, plan, tenure and title area information associated with property Lot: 129 Plan: SP119557 are listed in Table 1.

Table 1: Lot, plan, tenure and title area information for the property

Lot	Plan	Tenure	Property title area (sq metres)
129	SP119557	Reserve	170,300

The tenure of the land may affect whether clearing is considered exempt clearing work or may be carried out under an accepted development vegetation clearing code.

Does the property Lot: 129 Plan: SP119557 have a freehold tenure and is in the Wet Tropics of Queensland World Heritage Area?

No, this property is not located in the Wet Tropics of Queensland World Heritage Area.

1.2 Property location

Table 2 provides a summary of the locations for property Lot: 129 Plan: SP119557, in relation to natural and administrative boundaries.

Table 2: Property location details

Local Government(s)	Catchment(s)	Bioregion(s)	Subregion(s)
Flinders Shire	Flinders	Mitchell Grass Downs	Central Downs

2. Vegetation management framework (administered by the Department of Resources)

The *Vegetation Management Act 1999* (VMA), the Vegetation Management Regulation 2012, the *Planning Act 2016* and the Planning Regulation 2017, in conjunction with associated policies and codes, form the Vegetation Management Framework.

The VMA does not apply to all land tenures or vegetation types. State forests, national parks, forest reserves and some tenures under the *Forestry Act 1959* and *Nature Conservation Act 1992* are not regulated by the VMA. Managing or clearing vegetation on these tenures may require approvals under these laws.

The following native vegetation is not regulated under the VMA but may require permit(s) under other laws:

- grass or non-woody herbage;
- a plant within a grassland regional ecosystem identified in the Vegetation Management Regional Ecosystem Description Database (VM REDD) as having a grassland structure; and
- a mangrove.

2.1 Exempt clearing work

Exempt clearing work is an activity for which you do not need to notify the Department of Resources or obtain an approval under the vegetation management framework. Exempt clearing work was previously known as exemptions.

In areas that are mapped as Category X (white in colour) on the regulated vegetation management map (see section 4.1), and where the land tenure is freehold, indigenous land and leasehold land for agriculture and grazing purposes, the clearing of vegetation is considered exempt clearing work and does not require notification or development approval under the vegetation management framework. For all other land tenures, contact the Department of Resources before commencing clearing to ensure that the proposed activity is exempt clearing work.

A range of routine property management activities are considered exempt clearing work. A list of exempt clearing work is available at

https://www.qld.gov.au/environment/land/management/vegetation/clearing-approvals/exemptions/.

Exempt clearing work may be affected if the proposed clearing area is subject to development approval conditions, a covenant, an environmental offset, an exchange area, a restoration notice, or an area mapped as Category A. Exempt clearing work may require approval under other Commonwealth, State or Local Government laws, or local government planning schemes. Contact the Department of Resources prior to clearing in any of these areas.

2.2 Accepted development vegetation clearing codes

Some clearing activities can be undertaken under an accepted development vegetation clearing code. The codes can be downloaded at

https://www.qld.gov.au/environment/land/management/vegetation/clearing-approvals/codes/

If you intend to clear vegetation under an accepted development vegetation clearing code, you must notify the Department of Resources before commencing. The information in this report will assist you to complete the online notification form.

You can complete the online form at
https://vegetation-apps.dnrm.qld.gov.au

2.3 Area management plans

Area Management Plans (AMP) provide an alternative approval system for vegetation clearing under the vegetation management framework. They list the purposes and clearing conditions that have been approved for the areas covered by the plan. It is not necessary to use an AMP, even when an AMP applies to your property.

On 8 March 2020, AMPs ended for fodder harvesting, managing thickened vegetation and managing encroachment. New notifications cannot be made for these AMPs. You will need to consider options for fodder harvesting, managing thickened vegetation or encroachment under a relevant accepted development vegetation clearing code or apply for a development approval.

New notifications can be made for all other AMPs. These will continue to apply until their nominated end date.

If an Area Management Plan applies to your property for which you can make a new notification, it will be listed in Section 3.6 of this report. Before clearing under one of these AMPs, you must first notify the Department of Resources and then follow the conditions and requirements listed in the AMP.

https://www.qld.gov.au/environment/land/management/vegetation/clearing-approvals/area-management-plans

2.4 Development approvals

If under the vegetation management framework your proposed clearing is not exempt clearing work, or is not permitted under an accepted development vegetation clearing code, or an AMP, you may be able to apply for a development approval. Information on how to apply for a development approval is available at

https://www.qld.gov.au/environment/land/management/vegetation/clearing-approvals/development

2.5. Contact information for the Department of Resources

For further information on the vegetation management framework:

Phone 135VEG (135 834)

Email vegetation@resources.qld.gov.au

Visit https://www.resources.qld.gov.au/?contact=vegetation to submit an online enquiry.

3. Vegetation management framework for Lot: 129 Plan: SP119557

3.1 Vegetation categories

The vegetation categories on your property are shown on the regulated vegetation management map in section 4.1 of this report. A summary of vegetation categories on the subject lot are listed in Table 3. Descriptions for these categories are shown in Table 4.

Table 3: Vegetation categories for subject property

Vegetation category	Area (ha)
Category X	17.01

Table 4: Description of vegetation categories

Category	Colour on Map	Description	Requirements / options under the vegetation management framework
A	red	Compliance areas, environmental offset areas and voluntary declaration areas	Special conditions apply to Category A areas. Before clearing, contact the Department of Resources to confirm any requirements in a Category A area.
B	dark blue	Remnant vegetation areas	Exempt clearing work, or notification and compliance with accepted development vegetation clearing codes, area management plans or development approval.
C	light blue	High-value regrowth areas	Exempt clearing work, or notification and compliance with managing Category C regrowth vegetation accepted development vegetation clearing code.
R	yellow	Regrowth within 50m of a watercourse or drainage feature in the Great Barrier Reef catchment areas	Exempt clearing work, or notification and compliance with managing Category R regrowth accepted development vegetation clearing code or area management plans.
X	white	Clearing on freehold land, indigenous land and leasehold land for agriculture and grazing purposes is considered exempt clearing work under the vegetation management framework. Contact the Department of Resources to clarify whether a development approval is required for other State land tenures.	No permit or notification required on freehold land, indigenous land and leasehold land for agriculture and grazing. A development approval may be required for some State land tenures.

Property Map of Assessable Vegetation (PMAV)

There is no Property Map of Assessable Vegetation (PMAV) present on this property.

3.2 Regional ecosystems

The endangered, of concern and least concern regional ecosystems on your property are shown on the vegetation management supporting map in section 4.2 and are listed in Table 5.

A description of regional ecosystems can be accessed online at
https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/descriptions/

Table 5: Regional ecosystems present on subject property

Regional Ecosystem	VMA Status	Category	Area (Ha)	Short Description	Structure Category
non-rem	None	X	17.01	None	None

Please note:
1. All area and area derived figures included in this table have been calculated via reprojecting relevant spatial features to Albers equal-area conic projection (central meridian = 146, datum Geocentric Datum of Australia 1994). As a result, area figures may differ slightly if calculated for the same features using a different co-ordinate system.
2. If Table 5 contains a Category 'plant', please be aware that this refers to 'plantations' such as forestry, and these areas are considered non-remnant under the VMA.

The VMA status of the regional ecosystem (whether it is endangered, of concern or least concern) also determines if any of the following are applicable:

- exempt clearing work;
- accepted development vegetation clearing codes;
- performance outcomes in State Code 16 of the State Development Assessment Provisions (SDAP).

3.3 Watercourses

Vegetation management watercourses and drainage features for this property are shown on the vegetation management supporting map in section 4.2.

3.4 Wetlands

There are no vegetation management wetlands present on this property.

3.5 Essential habitat

Under the VMA, essential habitat for protected wildlife is native wildlife prescribed under the *Nature Conservation Act 1992* (NCA) as critically endangered, endangered, vulnerable or near-threatened wildlife.

Essential habitat for protected wildlife includes suitable habitat on the lot, or where a species has been known to occur up to 1.1 kilometres from a lot on which there is assessable vegetation. These important habitat areas are protected under the VMA.

Any essential habitat on this property will be shown as blue hatching on the vegetation supporting map in section 4.2.

If essential habitat is identified on the lot, information about the protected wildlife species is provided in Table 6 below. The numeric labels on the vegetation management supporting map can be cross referenced with Table 6 to outline the essential habitat factors for that particular species. There may be essential habitat for more than one species on each lot, and areas of Category A, Category B and Category C can be mapped as Essential Habitat.

Essential habitat is compiled from a combination of species habitat models and buffered species records. Regional ecosystem is a mandatory essential habitat factor, unless otherwise stated. Essential habitat, for protected wildlife, means an area of vegetation shown on the Regulated Vegetation Management Map -

1) that has at least 3 essential habitat factors for the protected wildlife that must include any essential habitat factors that are stated as mandatory for the protected wildlife in the essential habitat database. Essential habitat factors are comprised of - regional ecosystem (mandatory for most species), vegetation community, altitude, soils, position in landscape; or
2) in which the protected wildlife, at any stage of its life cycle, is located.

If there is no essential habitat mapping shown on the vegetation management supporting map for this lot, and there is no table in the sections below, it confirms that there is no essential habitat on the lot.

Category A and/or Category B and/or Category C

Table 6: Essential habitat in Category A and/or Category B and/or Category C

No records

3.6 Area Management Plan(s)

Area Management Plan for the control of pest plants in the Dry Tropics region

3.7 Coastal or non-coastal

For the purposes of the accepted development vegetation clearing codes and State Code 16 of the State Development Assessment Provisions (SDAP), this property is regarded as*

Non Coastal

*See also Map 4.3

3.8 Agricultural Land Class A or B

The following can be used to identify Agricultural Land Class A or B areas under the "Managing regulated regrowth vegetation" accepted development vegetation clearing code:

Does this lot contain land that is mapped as Agricultural Land Class A or B in the State Planning Interactive Mapping System?

No Class A

No Class B

Note - This confirms Agricultural Land Classes as per the State Planning Interactive Mapping System only. This response does not include Agricultural Land Classes identified under local government planning schemes. For further information, check the Planning Scheme for your local government area.

See Map 4.4 to identify the location and extent of Class A and/or Class B Agricultural land on Lot: 129 Plan: SP119557.

4. Vegetation management framework maps

Vegetation management maps included in this report may also be requested individually at:
https://www.resources.qld.gov.au/qld/environment/land/vegetation/vegetation-map-request-form

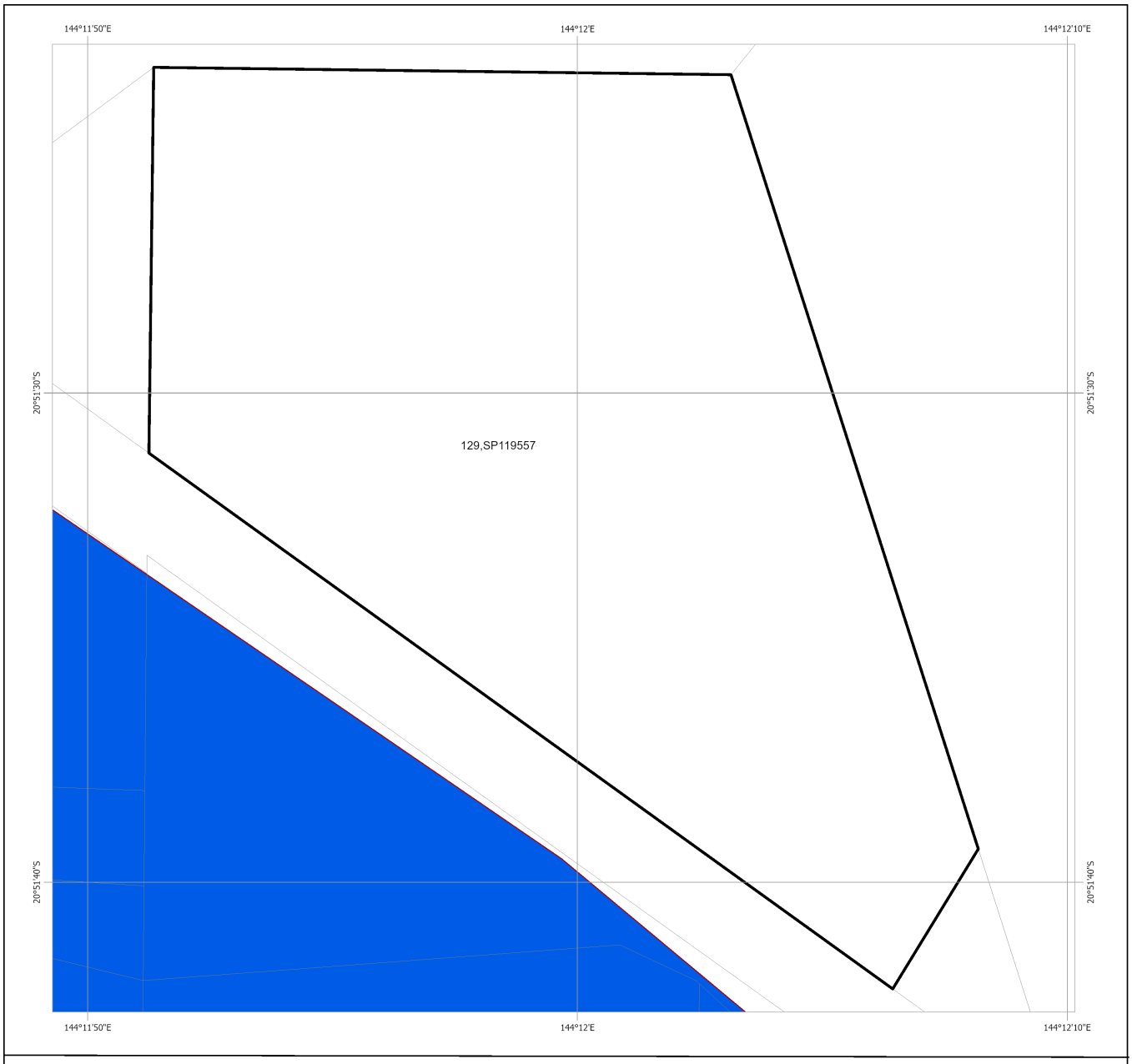
Regulated vegetation management map
The regulated vegetation management map shows vegetation categories needed to determine clearing requirements. These maps are updated monthly to show new property maps of assessable vegetation (PMAV).

Vegetation management supporting map
The vegetation management supporting map provides information on regional ecosystems, wetlands, watercourses and essential habitat.

Coastal/non-coastal map
The coastal/non-coastal map confirms whether the lot, or which parts of the lot, are considered coastal or non-coastal for the purposes of the accepted development vegetation clearing codes and State Code 16 of the State Development Assessment Provisions (SDAP).

Agricultural Land Class A or B as per State Planning Policy: State Interest for Agriculture
The Agricultural Land Class map confirms the location and extent of land mapped as Agricultural Land Classes A or B as identified on the State Planning Interactive Mapping System. Please note that this map does not include areas identified as Agricultural Land Class A or B in local government planning schemes. This map can be used to identify Agricultural Land Class A or B areas under the "Managing regulated regrowth vegetation" accepted development vegetation clearing code.

4.1 Regulated vegetation management map



Regulated Vegetation Management Map

- Category A area (Vegetation offsets/compliance notices/VDecs)
- Category B area (Remnant vegetation)
- Category C area (High-value regrowth vegetation)
- Category R area (Reef regrowth watercourse vegetation)
- Category X area (Exempt clearing work on Freehold, Indigenous and Leasehold land)
- Water
- Other land parcel boundaries
- Selected Lot and Plan

LOCALITY DIAGRAM

N

0 35 70 105 140 175 m

This product is displayed in:
GDA2020

Disclaimer:
While every care is taken to ensure the accuracy of this product, the Department of Resources 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 you might incur as a result of the product being inaccurate or incomplete in any way and for any reason.

Additional information required for the assessment of vegetation values is provided in the accompanying "Vegetation Management Supporting map". For further information go to the web site: www.resources.qld.gov.au or contact the Department of Resources.

Digital data for the regulated vegetation management map is available from the Queensland Spatial Portal at http://www.information.qld.gov.au/

Land parcel boundaries are provided as locational aid only.

This map is updated on a monthly basis to ensure new PMAVs are included as they are approved.

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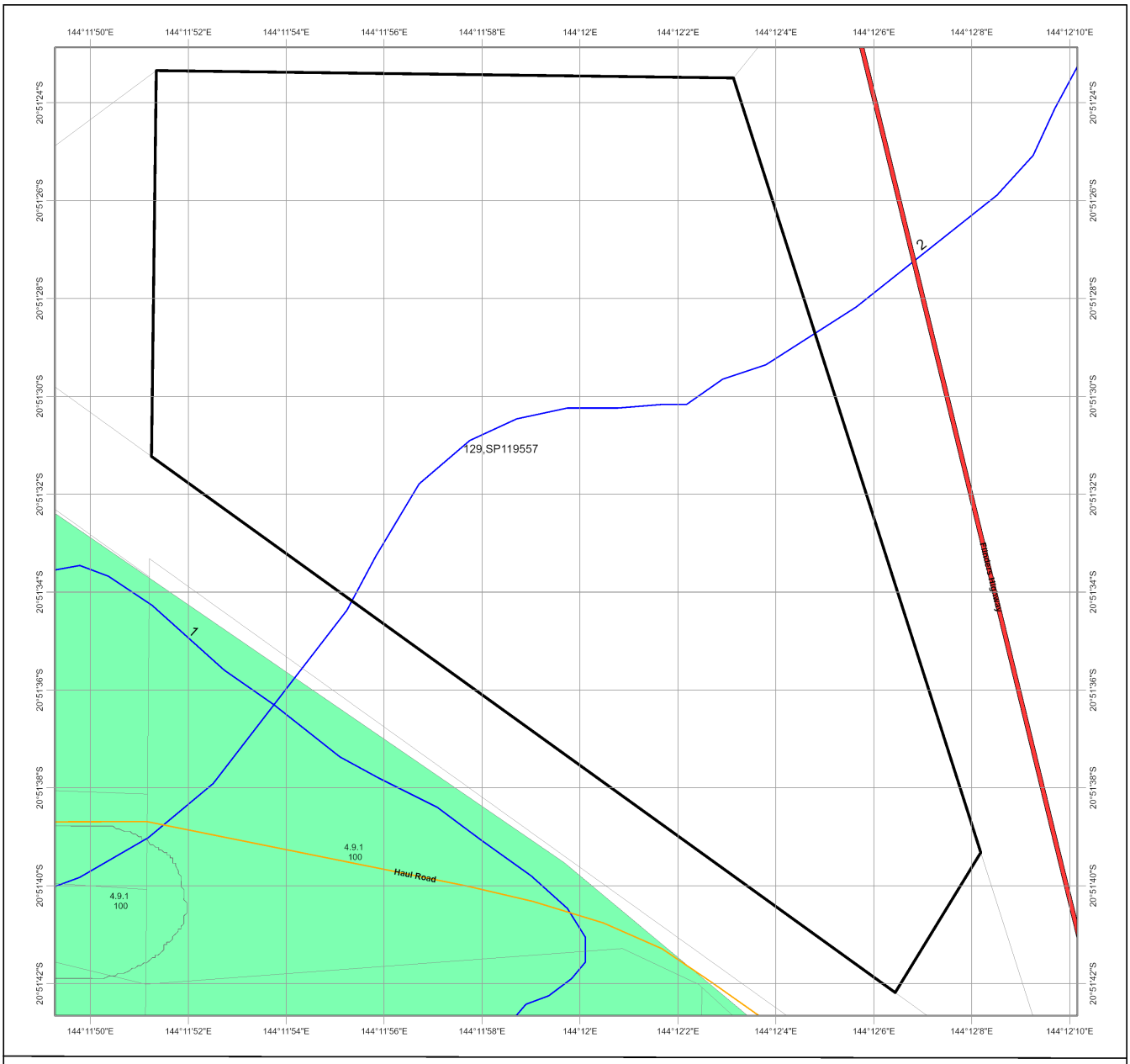
4.2 Vegetation management supporting map

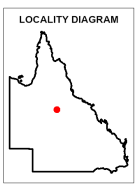


Vegetation Management Supporting Map

- Category A or B area containing endangered regional ecosystems
- Category A or B area containing of concern regional ecosystems
- Category A or B area that is a least concern regional ecosystem
- Category C or R area containing endangered regional ecosystems
- Category C or R area containing of concern regional ecosystems
- Category C or R area that is a least concern regional ecosystem
- Category X area
- Water
- Wetland on the vegetation management wetlands map
- Essential habitat on the essential habitat map
- Essential habitat species record
- Watercourses and drainage features on the vegetation management watercourse and drainage features map (Stream order shown as black number against stream where available)
- Highway
- Connector
- Street/Local Road
- National Parks, State Forest and other reserves
- Other land parcel boundaries
- Selected Lot and Plan

Queensland Government

LOCALITY DIAGRAM



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Labels for Essential Habitat are centred on the area of enquiry.

Regional ecosystem linework has been compiled at a scale of 1:100 000, except in designated areas where a compilation scale of 1:50 000 is available. Linework should be used as a guide only. The positional accuracy of RE data mapped at a scale of 1:100 000 is +/- 100 metres.

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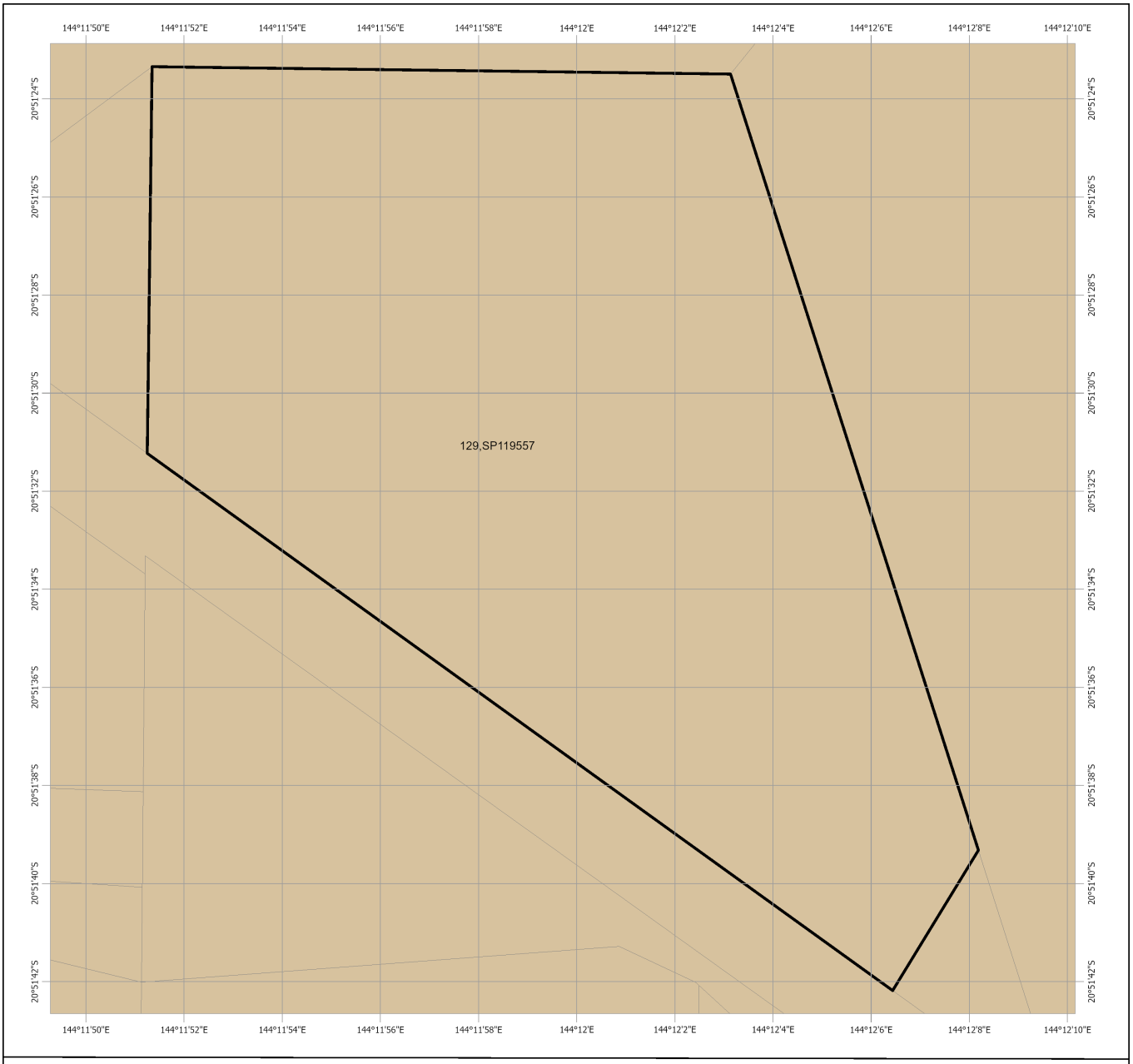
Additional information may be required for the purposes of land clearing or assessment of a regional ecosystem map or PMAV applications. For further information go to the web site: www.resources.qld.gov.au or contact the Department of Resources.

Digital data for the vegetation management watercourse and drainage feature map, vegetation management wetlands map, essential habitat map and the vegetation management remnant and regional ecosystem map are available from the Queensland Spatial Portal at http://www.information.qld.gov.au/

Land parcel boundaries are provided as locational aid only.

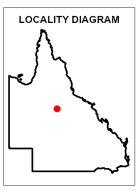
4.3 Coastal/non-coastal map



Coastal/Non Coastal Map

Coastal
Non Coastal
Other land parcel boundaries
Selected Lot and Plan

LOCALITY DIAGRAM



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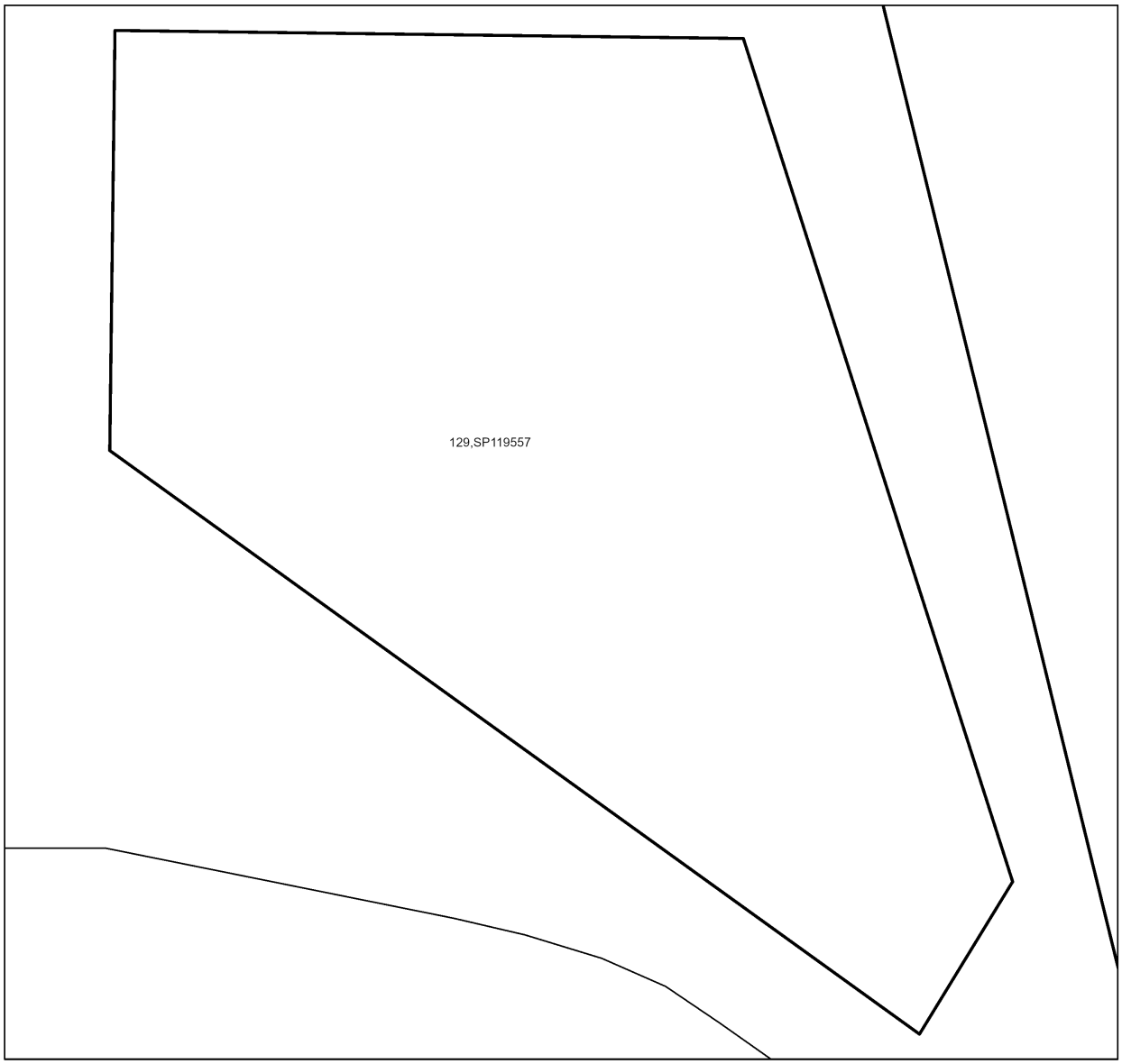
4.4 Agricultural Land Class A or B as per State Planning Policy: State Interest for Agriculture

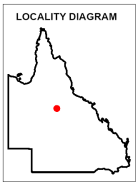


Agricultural Land Class A or B
as per State Planning Policy: State Interest for Agriculture

- Towns
- Rivers and creeks
- Freeways / motorways; Highways
- Secondary roads; Streets

Agricultural land class A or B

- A
- B
- Not class A or B
- Selected Lot and Plan



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5. Protected plants framework (administered by the Department of Environment, Science and Innovation (DESI))

In Queensland, all plants that are native to Australia are protected plants under the *Nature Conservation Act 1992* (NCA). The NCA regulates the clearing of protected plants 'in the wild' (see Operational policy: When a protected plant in Queensland is considered to be 'in the wild') that are listed as critically endangered, endangered, vulnerable or near threatened under the Act.

Please note that the protected plant clearing framework applies irrespective of the classification of the vegetation under the *Vegetation Management Act 1999* and any approval or exemptions given under another Act, for example, the *Vegetation Management Act 1999* or *Planning Regulation 2017*.

5.1 Clearing in high risk areas on the flora survey trigger map

The flora survey trigger map identifies high-risk areas for threatened and near threatened plants. These are areas where threatened or near threatened plants are known to exist or are likely to exist based on the habitat present. The flora survey trigger map for this property is provided in section 5.5.

If you are proposing to clear an area shown as high risk on the flora survey trigger map, a flora survey of the clearing impact area must be undertaken by a suitably qualified person in accordance with the Flora survey guidelines. The main objective of a flora survey is to locate any threatened or near threatened plants that may be present in the clearing impact area.

If the flora survey identifies that threatened or near threatened plants are not present within the clearing impact area or clearing within 100m of EVNT plants can be avoided, the clearing activity is exempt from a permit. An exempt clearing notification form must be submitted to the Department of Environment, Science and Innovation, with a copy of the flora survey report, at least one week prior to clearing.

If the flora survey identifies that threatened or near threatened plants are present in, or within 100m of, the area to be cleared, a clearing permit is required before any clearing is undertaken. The flora survey report, as well as an impact management report, must be submitted with the clearing permit application form.

5.2 Clearing outside high risk areas on the flora survey trigger map

In an area other than a high risk area, a clearing permit is only required where a person is, or becomes aware that threatened or near threatened plantsare present in, or within 100m of, the area to be cleared. You must keep a copy of the flora survey trigger map for the area subject to clearing for five years from the day the clearing starts. If you do not clear within the 12 month period that the flora survey trigger map was printed, you need to print and check a new flora survey trigger map.

5.3 Exemptions

Many activities are 'exempt' under the protected plant clearing framework, which means that clearing of native plants that are in the wild can be undertaken for these activities with no need for a flora survey or a protected plant clearing permit. The Information sheet - General exemptions for the take of protected plants provides some of these exemptions.

Some exemptions under the NCA are the same as exempt clearing work (formerly known as exemptions) under the *Vegetation Management Act 1999* (i.e. listed in Schedule 21 of the Planning Regulations 2017) while some are different.

5.4 Contact information for DESI

For further information on the protected plants framework:
Phone 1300 130 372 (and select option four)
Email palm@des.qld.gov.au
Visit https://www.qld.gov.au/environment/plants-animals/plants/protected-plants

5.5 Protected plants flora survey trigger map

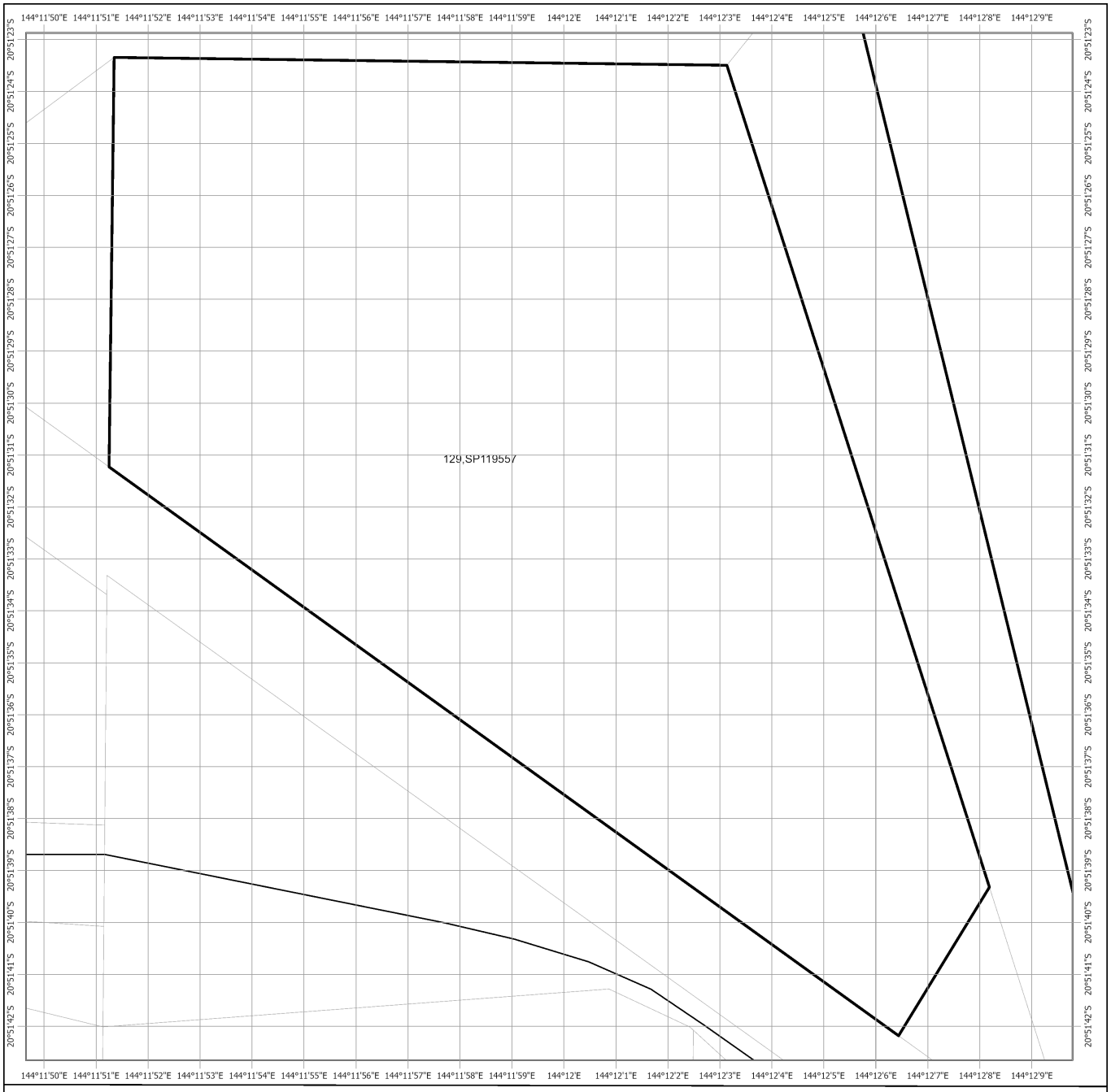
This map included may also be requested individually at: https://apps.des.qld.gov.au/map-request/flora-survey-trigger/.

Updates to the data informing the flora survey trigger map

The flora survey trigger map will be reviewed, and updated if necessary, at least every 12 months to ensure the map reflects the most up-to-date and accurate data available.

Species information

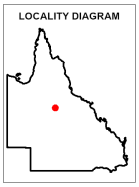
Please note that flora survey trigger maps do not identify species associated with 'high risk areas'. While some species information may be publicly available, for example via the Queensland Spatial Catalogue, the Department of Environment, Science and Innovation does not provide species information on request. Regardless of whether species information is available for a particular high risk area, clearing plants in a high risk area may require a flora survey and/or clearing permit. Please see the Department of Environment, Science and Innovation webpage on the clearing of protected plants for more information.



Protected Plants Flora Survey Trigger Map

High risk area
Other land parcel boundaries
Freeways / motorways / highways
Secondary roads / streets
Selected Lot and Plan

LOCALITY DIAGRAM



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This map shows areas where particular provisions of the Nature Conservation Act 1992 apply to the clearing of protected plants.

Land parcel boundaries are provided as locational aid only.

This map is produced at a scale relevant to the size of the area selected and should be printed as A4 size in portrait orientation.

For further information or assistance with interpretation of this product, please contact the Department of Environment, Science and Innovation at palm@des.qld.gov.au

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6. Koala protection framework (administered by the Department of Environment, Science and Innovation (DESI))

The koala (*Phascolarctos cinereus*) is listed in Queensland as endangered by the Queensland Government under *Nature Conservation Act 1992* and by the Australian Government under the *Environment Protection and Biodiversity Conservation Act 1999*.

The Queensland Government's koala protection framework is comprised of the *Nature Conservation Act 1992*, the Nature Conservation (Animals) Regulation 2020, the Nature Conservation (Koala) Conservation Plan 2017, the *Planning Act 2016* and the Planning Regulation 2017.

6.1 Koala mapping

6.1.1 Koala districts

The parts of Queensland where koalas are known to occur has been divided into three koala districts - koala district A, koala district B and koala district C. Each koala district is made up of areas with comparable koala populations (e.g. density, extent and significance of threatening processes affecting the population) which require similar management regimes.

Section 7.1 identifies which koala district your property is located in.

6.1.2 Koala habitat areas

Koala habitat areas are areas of vegetation that have been determined to contain koala habitat that is essential for the conservation of a viable koala population in the wild based on the combination of habitat suitability and biophysical variables with known relationships to koala habitat (e.g. landcover, soil, terrain, climate and ground water). In order to protect this important koala habitat, clearing controls have been introduced into the Planning Regulation 2017 for development in koala habitat areas.

Please note that koala habitat areas only exist in koala district A which is the South East Queensland "Shaping SEQ" Regional Plan area. These areas include the local government areas of Brisbane, Gold Coast, Logan, Lockyer Valley, Ipswich, Moreton Bay, Noosa, Redland, Scenic Rim, Somerset, Sunshine Coast and Toowoomba (urban extent).

There are two different categories of koala habitat area (core koala habitat area and locally refined koala habitat), which have been determined using two different methodologies. These methodologies are described in the document Spatial modelling in South East Queensland.

Section 7.2 shows any koala habitat area that exists on your property.

Under the Nature Conservation (Koala) Conservation Plan 2017, an owner of land (or a person acting on the owner's behalf with written consent) can request to make, amend or revoke a koala habitat area determination if they believe, on reasonable grounds, that the existing determination for all or part of their property is incorrect.

More information on requests to make, amend or revoke a koala habitat area determination can be found in the document Guideline - Requests to make, amend or revoke a koala habitat area determination.

The koala habitat area map will be updated at least annually to include any koala habitat areas that have been made, amended or revoked.

Changes to the koala habitat area map which occur between annual updates because of a request to make, amend or revoke a koala habitat area determination can be viewed on the register of approved requests to make, amend or revoke a koala habitat area available at: https://environment.des.qld.gov.au/wildlife/animals/living-with/koalas/mapping/koalamaps. The register includes the lot on plan for the change, the date the decision was made and the map issued to the landholder that shows areas determined to be koala habitat areas.

6.1.3 Koala priority areas

Koala priority areas are large, connected areas that have been determined to have the highest likelihood of achieving conservation outcomes for koalas based on the combination of habitat suitability, biophysical variables with known relationships to koala habitat (e.g. landcover, soil, terrain, climate and ground water) and a koala conservation cost benefit analysis.

Conservation efforts will be prioritised in these areas to ensure the conservation of viable koala populations in the wild including a focus on management (e.g. habitat protection, habitat restoration and threat mitigation) and monitoring. This includes a prohibition on clearing in koala habitat areas that are in koala priority areas under the Planning Regulation 2017 (subject to some exemptions).

Please note that koala priority areas only exist in koala district A which is the South East Queensland "Shaping SEQ" Regional Plan area. These areas include the local government areas of Brisbane, Gold Coast, Logan, Lockyer Valley, Ipswich, Moreton Bay, Noosa, Redland, Scenic Rim, Somerset, Sunshine Coast and Toowoomba (urban extent).

Section 7.2 identifies if your property is in a koala priority area.

6.1.4 Identified koala broad-hectare areas

There are seven identified koala broad-hectare areas in SEQ. These are areas of koala habitat that are located in areas committed to meet development targets in the SEQ Regional Plan to accommodate SEQ's growing population including bring-forward Greenfield sites under the Queensland Housing Affordability Strategy and declared master planned areas under the repealed *Sustainable Planning Act 2009* and the repealed *Integrated Planning Act 1997*.

Specific assessment benchmarks apply to development applications for development proposed in identified koala broad-hectare areas to ensure koala conservation measures are incorporated into the proposed development.

Section 7.2 identifies if your property is in an identified koala broad-hectare area.

6.2 Koala habitat planning controls

On 7 February 2020, the Queensland Government introduced new planning controls to the Planning Regulation 2017 to strengthen the protection of koala habitat in South East Queensland (i.e. koala district A).

More information on these planning controls can be found here:
https://environment.des.qld.gov.au/wildlife/animals/living-with/koalas/mapping/legislation-policy.

As a high-level summary, the koala habitat planning controls make:

- development that involves interfering with koala habitat (defined below) in an area that is both a koala priority area and a koala habitat area, prohibited development (i.e. development for which a development application cannot be made);
- development that involves interfering with koala habitat (defined below) in an area that is a koala habitat area but is not a koala priority area, assessable development (i.e. development for which development approval is required); and
- development that is for extractive industries where the development involves interfering with koala habitat (defined below) in an area that is both a koala habitat area and a key resource area, assessable development (i.e. development for which development approval is required).

Interfering with koala habitat means:

1. Removing, cutting down, ringbarking, pushing over, poisoning or destroying in anyway, including by burning, flooding or draining native vegetation in a koala habitat area; but
2. Does not include destroying standing vegetation stock or lopping a tree.

However, these planning controls do not apply if the development is exempted development as defined in Schedule 24 of the Planning Regulation 2017. More information on exempted development can be found here:
https://environment.des.qld.gov.au/wildlife/animals/living-with/koalas/mapping/legislation-policy.

There are also assessment benchmarks that apply to development applications for:

- building works, operational works, material change of use or reconfiguration of a lot where:

  - the local government planning scheme makes the development assessable;
  - the premises includes an area that is both a koala priority area and a koala habitat area; and
  - the development does not involve interfering with koala habitat (defined above); and

- development in identified koala broad-hectare areas.

The Guideline - Assessment Benchmarks in relation to Koala Habitat in South East Queensland assessment benchmarks outlines these assessment benchmarks, the intent of these assessment benchmarks and advice on how proposed development may meet these assessment benchmarks.

6.3 Koala Conservation Plan clearing requirements

Section 10 and 11 of the Nature Conservation (Koala) Conservation Plan 2017 prescribes requirements that must be met when clearing koala habitat in koala district A and koala district B.

These clearing requirements are independent to the koala habitat planning controls introduced into the Planning Regulation 2017, which means they must be complied with irrespective of any approvals or exemptions offered under other legislation.

Unlike the clearing controls prescribed in the Planning Regulation 2017 that are to protect koala habitat, the clearing requirements prescribed in the Nature Conservation (Koala) Conservation Plan 2017 are in place to prevent the injury or death of koalas when koala habitat is being cleared.

6.4 Contact information for DESI

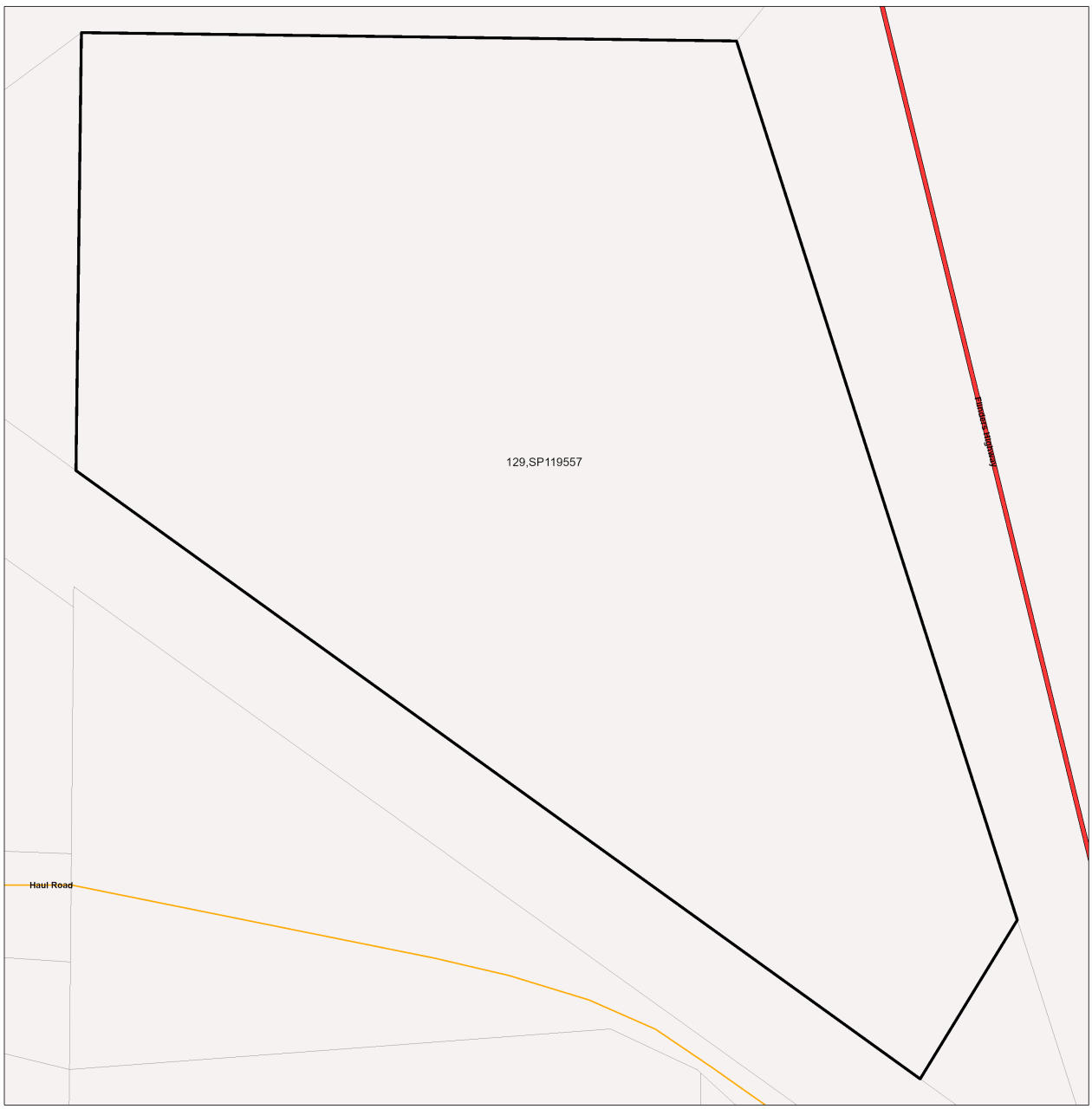
For further information on the koala protection framework:
Phone 13 QGOV (13 74 68)
Email koala.assessment@des.qld.gov.au
Visit https://environment.des.qld.gov.au/wildlife/animals/living-with/koalas/mapping

7. Koala protection framework details for Lot: 129 Plan: SP119557

7.1 Koala districts

Koala District C

7.2 Koala priority area, koala habitat area and identified koala broad-hectare map

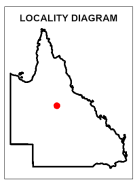


Koala priority area, koala habitat area and identified koala broad-hectare area map

- Koala habitat area (core)
- Koala habitat area (locally refined)
- Koala priority area
- Identified koala broad-hectare area
- Cadastral Boundaries
- Towns
- Major rivers/creeks
- Highway
- Connector
- Street/Local Road
- Queensland
- Selected Lot and Plan

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.

LOCALITY DIAGRAM



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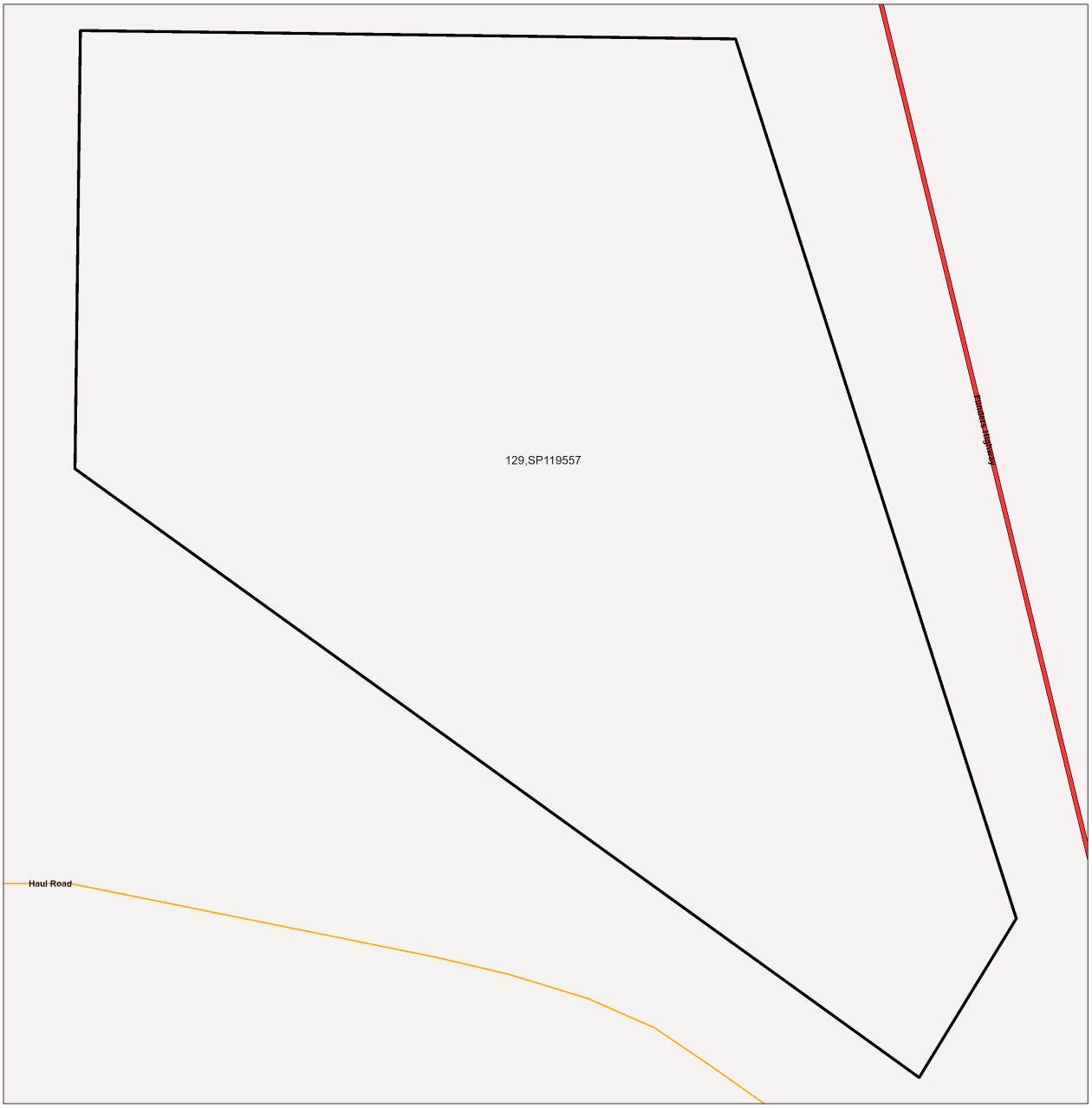
The koala conservation plan maps will be updated at least annually to include any koala habitat areas that have been made, amended or revoked.

In order to ensure that the most recent map for an area of interest can be accessed, prior to the annual update, a register of changes made to koala habitat areas as a result of the map amendment process will be available at: https://environment.des.qld.gov.au/wildlife/animals/living-with/koalas/mapping/. The register will include lot on plan for the change, the date the decision was made and the map issued to the landholder which shows areas determined to be koala habitat areas.

7.3 Koala habitat regional ecosystems for core koala habitat areas



Koala habitat regional ecosystems for core koala habitat areas

Koala habitat area (core)
Towns
Highway
Connector
Street/Local Road
Major rivers/creeks
Queensland
Selected Lot and Plan

LOCALITY DIAGRAM

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8. Other relevant legislation contacts list

Activity	Legislation	Agency	Contact details
• Interference with overland flow • Earthworks, significant disturbance	*Water Act 2000* *Soil Conservation Act 1986*	Department of Regional Development, Manufacturing and Water (Queensland Government) Department of Resources (Queensland Government)	Ph: 13 QGOV (13 74 68) www.rdmw.qld.gov.au/ www.resources.qld.gov.au
• Indigenous Cultural Heritage	*Aboriginal Cultural Heritage Act 2003* *Torres Strait Islander Cultural Heritage Act 2003*	Department of Seniors, Disability Services and Aboriginal and Torres Strait Islander Partnerships	Ph: 13 QGOV (13 74 68) www.datsip.qld.gov.au
• Mining and environmentally relevant activities • Infrastructure development (coastal) • Heritage issues	*Environmental Protection Act 1994* *Coastal Protection and Management Act 1995* *Queensland Heritage Act 1992*	Department of Environment, Science and Innovation (Queensland Government)	Ph: 13 QGOV (13 74 68) www.des.qld.gov.au
• Protected plants and protected areas	*Nature Conservation Act 1992*	Department of Environment, Science and Innovation (Queensland Government)	Ph: 1300 130 372 (option 4) palm@des.qld.gov.au www.des.qld.gov.au
• Koala mapping and regulations	*Nature Conservation Act 1992*	Department of Environment, Science and Innovation (Queensland Government)	Ph: 13 QGOV (13 74 68) Koala.assessment@des.qld.gov.au
• Interference with fish passage in a watercourse, mangroves • Forestry activities on State land tenures	*Fisheries Act 1994* *Forestry Act 1959*	Department of Agriculture and Fisheries (Queensland Government)	Ph: 13 QGOV (13 74 68) www.daf.qld.gov.au
• Matters of National Environmental Significance including listed threatened species and ecological communities	*Environment Protection and Biodiversity Conservation Act 1999*	Department of Agriculture, Water and the Environment (Australian Government)	Ph: 1800 803 772 www.environment.gov.au
• Development and planning processes	*Planning Act 2016* *State Development and Public Works Organisation Act 1971*	Department of State Development, Infrastructure, Local Government and Planning (Queensland Government)	Ph: 13 QGOV (13 74 68) www.dsdmip.qld.gov.au
• Local government requirements	*Local Government Act 2009* *Planning Act 2016*	Department of State Development, Infrastructure, Local Government and Planning (Queensland Government)	Ph: 13 QGOV (13 74 68) Your relevant local government office
• Harvesting timber in the Wet Tropics of Qld World Heritage area	*Wet Tropics World Heritage Protection and Management Act 1993*	Wet Tropics Management Authority	Ph: (07) 4241 0500 https://www.wettropics.gov.au/

Appendix D

Likelihood of Occurrence

Likelihood of occurrence assessment – Hughenden Camp

An assessment of Copperstring Camp locations was conducted to attribute a 'likelihood of occurrence' to conservation significant species (i.e. species listed under the EPBC Act) that have been previously recorded or were predicted to occur at each Camp from the desktop searches. The likelihood of occurrence assessment was based on a review of species distributions and habitat requirements, historical records for the region, and the results of habitat assessments and field surveys conducted within the Project Area. A summary of the assessment is provided in Table 1, with the full assessment provided below in Table 2 and Table 3 below.

The defined terms of the desktop searches for the camps were:

- **Online Search Extent**: 10 km either side of Hughenden Camp design footprint (20 km buffer)
- **Study area** – 500 m buffer either side of Hughenden Camp design footprint (1 km buffer)
- **Project Area** – of Hughenden Camp design footprint (no buffer)

The likelihood of occurrence ranking was based on the following framework:

- **Confirmed present**: Species recorded during previous field surveys within the study area or confirmed as occurring from reliable desktop records.
- **Likely to occur**: Species not recorded previously within field surveys; however, there are confirmed and current records within the Online Search Extent and suitable habitat is present in the Project Area.
- **Potential to occur**: Species not recorded previously within field surveys. Species has been recorded previously within the Online Search Extent and distribution incorporates the Study area; however, habitat is marginal or heavily modified or degraded within the Project Area.
- **Unlikely to occur**: Species not recorded during previous field surveys, no known records occur within the Online Search Extent and suitable habitat is generally lacking from the Project Area.

Table 1: Summary of Likelihood of Assessment – Hughenden Camp

	Species
Confirmed present	N/A
Likely to occur	N/A
Potential to occur	Short beaked Echidna (*Tachyglossus aculeatus*)
Unlikely to occur	Julia Creek dunnart (*Sminthopsis douglasi)* Painted honeyeater (*Grantiella picta*) Australian painted-snipe (*Rostratula australis*) Squatter pigeon (*Geophaps scripta scripta*) Black-throated finch (southern) (*Poephila cincta cincta*) Plains death adder (*Acanthophis hawkei*) Mertens water monitor (*Varanus mertensi*) Pink gidgee (*Acacia crombiei*) Curlew sandpiper (*Calidris ferruginea*) Red goshawk (*Erythrotriorchis radiatus*) Star finch (eastern) (*Neochmia ruficauda ruficauda*) Masked owl (*Tyto novaehollandiae kimberli*) Grey falcon (*Falco hypoleucos*) Ghost bat (*Macroderma gigas*) Yakka skink (*Egernia rugosa*) Common sandpiper (*Actitis hypoleucos*) Fork-tailed swift (*Apus pacificus*) Oriental plover (*Charadrius veredus*)

	Latham's Snipe (*Gallinago hardwickii*) Sharp-tailed sandpiper (*Calidris acuminata*)

Table 2: Hughenden Camp

Species	EPBC Act status	NC Act status	Habitat requirements	Likelihood of occurrence
Sminthopsis douglasi Julia Creek dunnart	V	E	This species is only found in the Mitchell Grasslands of north-west QLD. It has a patchy distribution east of Cloncurry extending south-east to Barcaldine. It occurs in cracking clay soils dominated by Mitchell grass (*Astrebla spp.*) (Copperstring, 2022). ***Habitat*** includes – Tussock Mitchell Grass grasslands dominated by Mitchell Grass (*Astrebla* spp.) and Flinders Grass (*Iseilema* spp.) on cracking clay soils (DCCEEW, 2023). Preferred habitat includes areas where abundant cracks and holes are known to be present in the dry season, high density ground cover vegetation is known to be present in the wet season, and prickly acacia is not abundant (DERM, 2009).	**Unlikely to occur** The nearest record is ~62km to the southwest of the site. Marginally suitable habitat exists within the southern portion of the Project Area; However, this habitat is highly degraded from historical grazing and machinery use. No suitable habitat in the northern portion. *Cenchrus ciliaris* (buffel grass) infestations were also present with very limited presence of native grass coverage. There was a very limited abundance of cracking soils due to the high compaction caused by livestock or machinery.
Grantiella picta Painted honeyeater	V	V	Species sparsely distributed from south-eastern Australia to north-western Qld and eastern NT. Species exhibits north-south movements in response to the fruiting of mistletoe (Copperstring, 2022). The species inhabits mistletoes in eucalypt forests/woodlands, riparian woodlands of black box and river red gum, box-ironbark-yellow gum woodlands, acacia-dominated woodlands, paperbarks, casuarinas, callitris, and trees on farmland or gardens. The species prefers woodlands which contain a higher number of mature trees, as these host more mistletoes. It is more common in wider blocks of remnant woodland than in narrower strips (Garnett et al., 2011) ***Habitat*** includes – Woodland ecosystems, as well as riparian woodlands and Acacia scrubs (DCCEEW, 2023). The species relies heavily, but not exclusively, on Grey Mistletoe (*Amyema quandang*) and Needle leaf Mistletoe (*Amyema cambagei*) for breeding and foraging (DCCEEW, 2023).	**Unlikely to occur** There have been two recorded sightings of the species within the search extent. The most recent from 2017 was recorded ~9km northeast of the Project Area. The other record was from 1984 and was recorded in the Hughenden township ~1.2km north of the Project Area. Vegetation at the site is consistent with astrebla grasslands with Atalaya and Alectryon canopy species, which is not conistent with suitbale habtiat for the species. Due to the lack of suitbale habtiat in the Proejct Area, the species is unlikley to occur.

Species	EPBC Act status	NC Act status	Habitat requirements	Likelihood of occurrence
Rostratula australis Australian painted-snipe	E	V	The species generally inhabits shallow terrestrial freshwater (occasionally brackish) wetlands, including temporary and permanent lakes, swamps, claypans and waterlogged grasslands (Copperstring, 2022). ***Habitat*** includes – The fringe of a wide variety of permanent and/or temporary shallow, brackish and freshwater wetlands. Suitable wetlands usually support a mosaic of low, patchy vegetation, as well as lignum and cane grass (DCCEEW, 2023). Nesting occurs within a scrape on the ground amongst reeds and tussocks which is lined with twigs, leaves and stalks of grass (DCCEEW, 2023).	**Unlikely to occur** The closest known record for this species is 114km to the west**.** Suitable habitat is generally lacking from the Study Area. Suitable habitat is absent from the Project Area.
Geophaps scripta scripta Squatter pigeon	V	V	The species occurs in open-forests to sparse, open-woodlands and scrub that are dominated by *Eucalyptus, Corymbia* and *Acacia* or *Callitris* species, remnant and regrowth in close proximity of water (Copperstring, 2022). ***Foraging habitat*** includes – Open-forests to sparse, open-woodlands and scrub that are: o mostly dominated in the overstorey by *Eucalyptus, Corymbia, Acacia* or *Callitris* species o remnant, regrowth or partly modified vegetation communities o and within 3 km of permanent or seasonal waterbodies (DCCEEW, 2023). ***Breeding habitat*** includes – Foraging habitat that is on sandy or gravelly soils, and within one kilometre of a permanent water source (DCCEEW, 2023). ***Dispersal habitat*** includes – Woodlands, forests, waterbodies, grassland REs and non-remnant areas located **between** areas of foraging or breeding habitat (DCCEEW, 2023).	**Unlikely to occur** There are no known records of this species within the search extent. The closest record of the species is ~55km north east. Foraging habitat is generally lacking from the Study Area and is absent from the Project Area. Breeding habitat is generally lacking from the Study Area and is absent from the Project Area. Disperal habitat is generally lacking from the Study Area and is absent from the Project Area.

Species	EPBC Act status	NC Act status	Habitat requirements	Likelihood of occurrence
Poephila cincta cincta Black-throated finch (southern)	E	E	Mainly inhabits grassy, open woodlands and forests, often in the vicinity of water. Species are closely associated to habitats that are dominated by *Eucalyptus, Corymbia and Melaleuca* (Copperstring, 2022). ***Foraging habitat*** includes – • Grassy, open woodlands and forests, typically dominated by Eucalyptus, Corymbia, Acacia and Melaleuca (DCCEEW, 2023); and • Tussock grasslands and wetland habitats within 1km of suitable wooded areas (DCCEEW, 2023; DEWHA, 2009); • within 3km of permanent or seasonal water sources (DEWHA, 2009). ***Breeding habitat*** includes – Foraging habitat that is within **1km** of a permanent water source (DEWHA, 2009) and contains suitable trees.	**Unlikely to occur** There are no known records of this species within the search extent. The closest record is ~130km east. Foraging habitat is generally lacking from the Study Area and is absent from the Project Area. Breeding habitat is generally lacking from the Study Area and is absent from the Project Area.
Acanthophis hawkei Plains death adder	V	V	Suitable habitat for this species includes flat, treeless cracking clay riverine floodplains (Cogger, 2000). Its distribution is not well defined, but based on its habitat preference, this species is most likely distributed from western QLD, across north NT through to north-east WA (Copperstring, 2022). ***Habitat*** includes – Flat, treeless, cracking-soil riverine floodplains. (DCCEEW, 2023).	**Unlikely to occur** There are no known records of this species within the search extent. The closest record is ~385km to the west. Suitable habitat is generally absent within the Study Area. Suitable habitat is absent within the Project Area.
Tachyglossus aculeatus Short beaked Echidna	SL		Habitat distribution is Australia wide. Inhabit a wide range of terrestrial habitats wherever there are enough ants or termites: including desert, rainforest, open forest, bushland, farmland, suburban backyards. Sheltering in hollow logs, rock crevices and vegetation.	**Potential to occur** There is one known record of this species within the search extent. The closest record is ~6.5km north east of Hughenden Camp. Suitable habitat is present within the Project Area.

Species	EPBC Act status	NC Act status	Habitat requirements	Likelihood of occurrence
Varanus mertensi Mertens water monitor	E	E	This species occurs in patches across tropical northern Australia from the Kimberley in Western Australia through to far north Queensland. The Merten's water monitor is an aquatic lizard that is predominately restricted to permanent and semi-permanent natural and arteficial wetlands and watercources, never venturing further than 5-10 m from the waters edge (DCCEEW, 2023c).	**Unlikely to occur** This species has been previously recorded in the Online Search Extent. A singular record is recorded within Hughenden, however, it is unconfirmed and an unreliable record. Although suitable habitat of permanent and semi-permanent wetlands were identified outside the Study Area and the Study Area does intersect the known species potential habitat distribution west of Hughenden to Cloncurry (DCCEEW, 2024). It is noted that the Study Area is located outside of the current known species likely habitat distribution, which is isolated between Cloncurry and Mount Isa and to the north. Therefore, it is unlikely for this species to occur.
Acacia crombiei Pink gidgee	V	V	Occurs on wooded downs in woodland and open woodland often associated with gidgee *(Acacia cambagei)* and whitewood *(Atalaya hemiglauca)*, on alluvial, sandstone and basalt derived soils. It is distributed through central Qld in small, isolated subpopulations with most records being within 100 km south and 150 km north-west of Hughenden (DCCEEW, 2024).	**Unlikely to occur** This species has been recorded within the Online Search Extent, however, recordings have been made in proximity to the Study Area. Historical recordings have been recorded within 7 km (1985) of Project Area near Hughenden. The Study Area is within of the known species habitat distribution (DCCEEW, 2024). Potential habitat of alluvial sandstone and basalt derived soils has not been mapped within the Project Area. Therefore, it is likely for this species to occur.

Species	EPBC Act status	NC Act status	Habitat requirements	Likelihood of occurrence
Calidris ferruginea Curlew sandpiper	CE, Mig	CR	The curlew sandpiper occurs along the coastlines and inland waters of Australia. Commonly found foraging on sheltered intertidal mudflats and roosting on dry beaches, spits and islets. Breeding occurs during June and July in Siberia. Species depart breeding grounds in early August and arrive in Australia in late August and early September. Flocks stopover in northern Australia and arrive in south-eastern Australia in September (DCCEEW, 2024).	**Unlikely to occur** This species has been previously recorded in the Online Search Extent, however no WildNet records were recorded within proximity to the Project Area. The species can occur in both coastal and inland waterways and wetlands, with most of Australia within the known species potential habitat distribution, but it has a very sparse and patchy known species likely habitat distribution inland (DCCEEW, 2024). Suitable foraging habitats of inland wetlands and waterways with mudflats has not been mapped within the Project Area. This species mostly inhabits coastal regions. Therefore, this species is unlikely to occur within the Project Area.
Erythrotriorchis radiatus Red goshawk	E	E	The species occurs in a range of habitats, often at ecotones, including coastal and sub-coastal tall open forests, tropical savannahs crossed by wooded or forested watercourses, woodlands, the edges of rainforests and gallery forests along watercourses, and wetlands that include *Melaleuca* and *Casuarina* species. The species typically nests in tall trees within 1 km of permanent water and occurs in habitats that support a high abundance of bird species (DCCEEW, 2024).	**Unlikely to occur** This species has been previously recorded in the Online Search Extent, however no WildNet records were recorded within proximity to the Project Area. The Study Area does intersect the known species potential habitat distribution (DCCEEW, 2024). Suitable habitat of tall forests, riparian woodlands and woodlands within proximity to watercourses are not mapped within the Project Area, therefore, this species is unlikely to occur.

Species	EPBC Act status	NC Act status	Habitat requirements	Likelihood of occurrence
Neochmia ruficauda ruficauda Star finch (eastern)	E	E	The species occurs in low numbers in central Queensland. Mainly inhabits grasslands and grassy woodlands in close proximity to permanent freshwater. Species are closely associated to habitats that consist certain tree species, including *Eucalyptus coolabah, Eucalyptus tereticornis, Eucalyptus tessellaris, Melaleuca leucadendra, Eucalyptus camaldulensis* and *Casuarina cunninghamii* (DCCEEW, 2024).	**Unlikely to occur** This species has been historically recorded within the Online Search Extent and within proximity to the Study Area, near Mount Isa and Cloncurry, however, these historical records are pre 1990, which are not reliable and may not be definitive to the eastern subspecies. Historical records pre 1990 have been recorded near Townsville, however, these records are not reliable. No recent or reliable records have been recorded within the Study Area. The Study Area is within of the known species habitat distribution east of Cloncurry (DCCEEW, 2024). Although, suitable habitat of grasslands and grassy woodlands in proximity to permanent freshwater exists within the eastern section of the Study Area, from Torrens Creek to Woodstock, however no recordings have been recorded within the Study Area, therefore, it is unlikely for this species to occur.
Tyto novaehollandiae kimberli Masked owl	V	V	This species occurs from the Kimberly in WA across north Australia through to Mackay in QLD. This species has been recorded in riparian forest, rainforest, open forest, Melaleuca swamps and edges of mangroves and margins of sugar cane fields (Higgins, 1999).	**Unlikely to occur** This species has not be recorded within the Online Search Extent. No recordings have been recorded within the Study Area or Project Area, with the majority of confirmed recordings located in NT or along the east coast near Townsville. The Study Area intersects the known species potential habitat distribution (DCCEEW, 2024). Suitable habitat of rainforests or open forests were absent within the Study Area and Project Area. Therefore, this species is unlikely to occur.

Species	EPBC Act status	NC Act status	Habitat requirements	Likelihood of occurrence
Falco hypoleucos Grey falcon	V	V	The species occurs in arid and semi-arid zones of Australia. The species is mainly found in areas of less than 500 mm in rainfall, except when wet years are followed by drought, where species becomes more widespread. However, it is essentially always confined to the arid and semi-arid zones (DCCEEW, 2024). The Grey falcon occurs frequently in timbered lowland plains, particularly acacia shrublands crossed by tree-lined watercourses. It has been observed hunting over treeless tussock grasslands and open woodland, especially in winter (DCCEEW, 2024).	**Unlikely to occur** This species was recorded within the Online Search Extent, however, no WildNet records were recorded within the Online Search Extent. This species predominantly utilises semi-arid to arid habitats of large tussock grasslands to forage, with most of Australia within the known species likely habitat distribution. The Study Area intersects small patches of known species potential habitat distribution (DCCEEW, 2024). The Project Area has been field verified as containing non-remnant grassland dominated by buffel grass with small patches containing scattered *Acacia tephrina* and sandalwood (*Santalum lanceolatum*). Hence, suitable habitat of arid and semi-arid shrublands and grasslands are not mapped as occuring within the Project Area. Therefore, it is unlikely for this species to occur.

Species	EPBC Act status	NC Act status	Habitat requirements	Likelihood of occurrence
Macroderma gigas Ghost bat	V	E	The ghost bat is known from three particularly location, the Northern Pilbara and Kimberley in Western Australia and the top end of Queensland, where the species occurs in small, isolated pockets within each region. Preferred habitats include rainforest areas, vine shrub, open woodlands and arid zone, and roosts in caves, rock crevices and old mine shafts (DCCEEW, 2024).	**Unlikely to occur** This species was recorded within the Online Search Extent, however, no WildNet records were recorded within the Online Search Extent. The nearest record for this species is located approximately 13 km (1996) north of Hughenden Camp. It is believed this species is highly dispersed and can travel large distances periodically and seasonally depending on weather conditions or foraging opportunities. Very limited records are present due to the lack of available call data. This species may utilise the vast number of abandoned or historical mines scattered within the Online Search Extent as suitable areas for roosting. The Study Area is within of the known species habitat distribution (DCCEEW, 2024). Suitable habitat of vine shrub, open woodlands and cleared paddocks for foraging and other roosting habitat of caves and rocky crevices has been mapped within the Study Area. However, the Project Area has been field verified as containing non-remnant grassland dominated by buffel grass with small patches containing scattered *Acacia tephrina* and sandalwood (*Santalum lanceolatum*). Therefore, this species is unlikely to occur.

Species	EPBC Act status	NC Act status	Habitat requirements	Likelihood of occurrence
Egernia rugosa Yakka skink	V	V	The species is typically found in open dry sclerophyll forest or woodland. This skink uses refuges in dense ground vegetation, in hollow logs, cavities in soil-bound root systems and beneath rocks. It occurs from the coast of QLD to the hinterland of sub-humid to semi-arid eastern QLD from Cape York to approximately the QLD/NSW border (DCCEEW, 2024).	**Unlikely to occur** This species was recorded within the Online Search Extent, however, no WildNet records were recorded within the Online Search Extent. The Study Area does intersect a small patch of the known species potential habitat distribution west of Hughenden (DCCEEW, 2024). However, it is noted that the Study Area is located well outside of the current known species likely habitat distribution east of the White Mountains National Park near Torrens Creek. Suitable habitat of coastal dry sclerophyll forests or woodlands are also absent within the Study Area and Project Area, therefore, it is unlikely for this species to occur.

Table 3: Likelihood of occurrence assessment for listed migratory species in Hughenden Camp

Species	Habitat requirements	Migratory patterns	Hughenden Camp
Migratory Birds			
Actitis hypoleucos Common sandpiper	This sandpiper is a shoreline bird common to most coastlines of Australia. It forages in shallow marine, estuarine and freshwater environments (DCCEEW, 2024).	This sandpiper breeds in Eurasia and migrates south arriving in Australia from July onwards. Species arrives in QLD in August (DCCEEW, 2024).	**Unlikely to occur** This species has been recorded within the Online Search Extent, although, no records have been recorded within the Project Area or Study Area. The species can occur in both coastal and inland wetland environments, with all of Australia within the known species potential habitat distribution, but it has a very sparse and patchy known species likely habitat distribution inland (DCCEEW, 2024). Suitable foraging habitat of inland wetlands have not been mapped within the Study Area, therefore, it is unlikely for this species to occur.
Apus pacificus Fork-tailed swift	The fork-tailed swift is a non-breeding visitor to all states and territories of Australia (Higgins, 1999) and is almost exclusively aerial and mainly occur over foothills an in coastal areas in Australia. It is widespread but scattered throughout Australia (DCCEEW, 2024).	The fork-tailed swift usually arrives in northern Australia to head south around October (DCCEEW, 2024). It is a highly mobile species whilst within Australia.	**Unlikely to occur** This species has been recorded within the Online Search Extent and within proximity to the Study Area. Historical recordings have been recorded within 1.2 km (1992) north of the Project Area. The Study Area is within of the known species habitat distribution (DCCEEW, 2024). However, no suitable habitat is located within the Project Area. Therefore, it is unlikely likely for this species to occur.
Charadrius veredus Oriental plover	Occurs in both coastal and inland areas, mostly in northern Australia. Commonly recorded along the north-western coast, between Exmouth Gulf and Derby in WA. After arriving in Australia, they occur in coastal habitats such as estuarine mudflats and sandbanks, on sandy or rocky ocean beaches or nearby reefs, or in near-coastal grasslands, before dispersing further inland (DCCEEW, 2024). Thereafter they usually inhabit flat, open, semi-arid or arid grasslands, where the grass is short and sparse, and	This species breeds in the northern hemisphere and flies south for the boreal winter. It leaves breeding grounds in July, arriving in Australia between September and October. Departs Australia in February to April (DCCEEW, 2024).	**Unlikely to occur** This species has been previously recorded within the Online Search Extent and within proximity to the Study Area. This species has been recorded within 1.2 km (1994) north of the Project Area. The species can occur in both coastal habitats and inland grassland environments, although, the known species potential habitat distribution occurs west of Julia Creek (DCCEEW, 2024). The Study Area is within of the known species habitat distribution (DCCEEW, 2024). However, no suitable habitat of flat, open semi-arid and arid grasslands are mapped within the Study Area is

Species	Habitat requirements	Migratory patterns	Hughenden Camp
	interspersed with hard, bare ground, such as claypans, dry paddocks, and cattle camps.		located within the Project Area. Therefore, it is unlikely likely for this species to occur.
Gallinago hardwickii Latham's Snipe	Generally solitary or in loose congregations of few individuals (Higgins and Davies, 1996). Habitat includes permanent and ephemeral wetlands with dense vegetation for cover. Distribution covers east and southeast Australia, and breeding occurs in Japan and eastern Russia (DCCEEW, 2024). Departs from breeding grounds from July through to November. Flocks start to arrive in Australia in July (Higgins and Davies, 1996). Birds commence the return journey in late February, passing over the QLD coast heading north (DCCEEW, 2024).	This species breeds in Japan and in far eastern Russia during winter in the southern hemisphere (DCCEEW, 2024). After the breeding season, this species migrates to Australia summer in the southern hemisphere (DCCEEW, 2024). The Latham's snipe depart their breeding grounds in Japan or Russia from July to Novemeber and arrive in northern Austrakua from July to Novemeber (DCCEEW, 2024). After arriving in northern Australia, the species migrates southward along the coastline where they arrive in south-eastern Asutarlia between August and January (DCCEEW, 2024).	**Unlikely to occur** This species was recorded within the Online Search Extent, although, no WildNet records have been recorded within the Online Search Extent. The Study Area intersects the known species potential habitat (DCCEEW, 2024). Suitable foraging habitat of permanent or ephemeral wetlands with dense vegetation coverage are not mapped within the Study Area or Project Area. Therefore, this species is unlikely to occur.
Calidris acuminata Sharp-tailed sandpiper	Inhabits the muddy margins of freshwater wetlands. Forages on bare substrate or in shallow water. Inhabits coastal and inland waters throughout Australia (DCCEEW, 2024). Departs breeding grounds in late June, moving down through Asia and New Guinea. Arrives in Australia mid-August. Returns to breeding grounds in April (DCCEEW, 2024).	This species breeds in northern Siberia from late June to July (DCCEEW, 2024). After the breeding season, this species migrates in flocks of less than a thousand to non-breeding areas south of the Equator, where most of the world's population occur migrate to Australia (DCCEEW, 2024). Most of the population in Australia move sotuh across the continent to south-east Australia (DCCEEW, 2024).	**Unlikely to occur** This species was recorded within the Online Search Extent, although, no WildNet records have been recorded within the Online Search Extent. The species can occur in both coastal and inland waterways and wetlands, with all of Australia within the known species potential habitat distribution, but it has a very sparse and patchy known species likely habitat distribution inland (DCCEEW, 2024). Suitable foraging habitats of bare substrate and shallow water wetlands are not mapped within the Study Area or Project Area, therefore, it is unlikely for this species to occur.
Motacilla cinerea Grey wagtail	This species has sparse, scattered historical records throughout the Australian mainland, coasts and coastal waters (DCCEEW, 2024).	Breeding occurs in Europe and Asia and migrates to tropical regions in Asia, Africa and Australia during the boreal winter (DCCEEW, 2024).	**Unlikely to occur** This species was recorded within the Online Search Extent, although, no WildNet records have been recorded within the Online Search Extent. The Study Area does not intersect the known species potential habitat distribution west of Balfes Creek to Mount Isa (DCCEEW, 2024). Suitable foraging habitat of wetlands exlusively along the coasts are absent within the Study

Species	Habitat requirements	Migratory patterns	Hughenden Camp
			Area and Project Area. Therefore, it is unlikely for this species to occur.
Motacilla flava Yellow wagtail	Species is found in highly variable habitats, but typically found in open grassy flats near water. Habitats include open areas of low vegetation such as grasslands, pastures, sports fields and damp open areas (DCCEEW, 2024). Occurs throughout Australian mainland and coasts.	Breeds in Europe, Russia and Asia, wintering in Australia during the Australian summer (DCCEEW, 2024).	**Unlikely to occur** This species was recorded within the Online Search Extent, although, no WildNet records have been recorded within the Online Search Extent. Most records of this species have been recorded on the coast near Townsville or north towards Cairns. Suitable foraging habitat of wetlands exclusively along the coasts are absent within the Study Area and Project Area. Therefore, it is unlikely for this species to occur.
Cuculus optatus Oriental cuckoo	Non-breeding migrant to Australia. A largely terrestrial species preferring forested, open woodland or shrubland habitats. It also has a preference for Australia's coastal areas (DCCEEW, 2024).	This bird breeds in Eurasia and migrates south arriving in Australia from September to April. (DCCEEW, 2024).	**Unlikely to occur** This species was recorded within the Online Search Extent, although, no WildNet records have been recorded within the Online Search Extent. This species prefers coastal and near coastal habitats, but is known to occur within inland habitats. However, suitable habitat of woodlands and shublands are not mapped within the Study Area. Therefore, this species is unlikely to occur.
Calidris melanotos Pectoral sandpiper	The species prefers coastal and near coastal wetland habitats that have open fringing mudflats and low, emergent or fringing vegetation (Higgins and Davies, 1996). Species is widespread but scattered throughout inland and coastal Queensland with most individuals occurring around Cairns (DCCEEW, 2024).	Breeding occurs in northern Russia and North America, and the species is transient through Central America and the Caribbean while on corridor to non-breeding areas in South America. There are also scattered records from Hawaii, Polynesia and Australasia (DCCEEW, 2024).	**Unlikely to occur** This species was recorded within the Online Search Extent, although, no WildNet records have been recorded within the Online Search Extent. The species can occur in both coastal and inland wetland environments, with all of Australia within the known species potential habitat distribution, but it has a very sparse and patchy known species likely habitat distribution inland (DCCEEW, 2024). However, suitable foraging habitat of large open wetlands with mudflats and low emergent or fringing vegetation is absent within the Study Area and Project Area, as well as this species prefers coastal and near coastal wetland habitats. Therefore, this species is unlikely to occur.

Appendix E

Flora and Fauna Species List

Flora and Fauna Species List

Native or Invasive	Class	Species name	Common name
Invasive	Plant	*Cenchrus ciliaris*	Buffel grass
Invasive	Plant	*Salsola kali*	Saltwort
Invasive	Plant	*Sida acuta*	Common wireweed
Invasive	Plant	*Sida cordifolia*	Flannel weed
Invasive	Plant	*Argemone mexicana*	Mexican poppy
Invasive	Plant	*Senna septemtrionalis*	Smooth senna
Invasive	Plant	*Gomphrena species*	Globe amaranth
Invasive	Plant	*Calamus australis*	Wait a while vine
Invasive	Plant	*Vachellia nilotica*	Acacia nilotica
Native	Plant	*Acacia tephrina*	Boree
Native	Plant	*Geijera parviflora*	Wilgera
Native	Plant	*Lysphyllum cunninghami*	Kimberley bauhinia
Native	Plant	*Acacia victoriai*	Bardi bush
Native	Plant	*Vachellia farnsiana*	Sweet acacia
Native	Plant	*Denhamia cunninghami*	Narrow-leaf maytenus
Native	Plant	*Eremophila mitchelli*	False sandalwood
Native	Plant	*Bothrichloa ewartiana*	Desert bluegrass
Native	Plant	*Sporobolous actinocladis*	Katoora katoora grass ray
Native	Plant	*Enneapogon sp.*	Leafy nineawn
Native	Plant	*Alectryon oliafolia*	Western rosewood
Native	Plant	*Vachellia bidwillii*	Corkwood wattle
Native	Plant	*Prostanthera incisa*	Native thyme
Native	Aves	*Milvus migrans*	Black kite
Native	Aves	*Anthus novaeseelandiae*	Australasian pipit
Native	Aves	*Ardeotis australis*	Australian bustard
Native	Aves	*Ocyphaps lophotes*	Crested pigeon
Native	Aves	*Grallina cyanoleuca*	Magpie-lark
Native	Aves	*Rhipidura leucophrys*	Willie wagtail
Native	Mammalia	*Equus caballus*	Horse, brumby
Native	Aves	*Manorina melanocephala*	Noisy miner
Native	Aves	*Cracticus tibicen*	Australian magpie
Native	Aves	*Corvus orru*	Torresian crow
Native	Aves	*Eolophus roseicapillus*	Galah
Native	Aves	*Coracina novaehollandiae*	Black-faced Cuckoo-shrike

Appendix F

MSES report for Lot Plan 129SP119557

Queensland Government

Department of Environment, Science and Innovation

Environmental Reports

Matters of State Environmental Significance

For the selected area of interest

Lot: 129 Plan: SP119557

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 point of interest.

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 1994). 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 a field survey may be required to validate values on the ground.

Please direct queries about these reports to: Planning.Support@des.qld.gov.au

Disclaimer

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.

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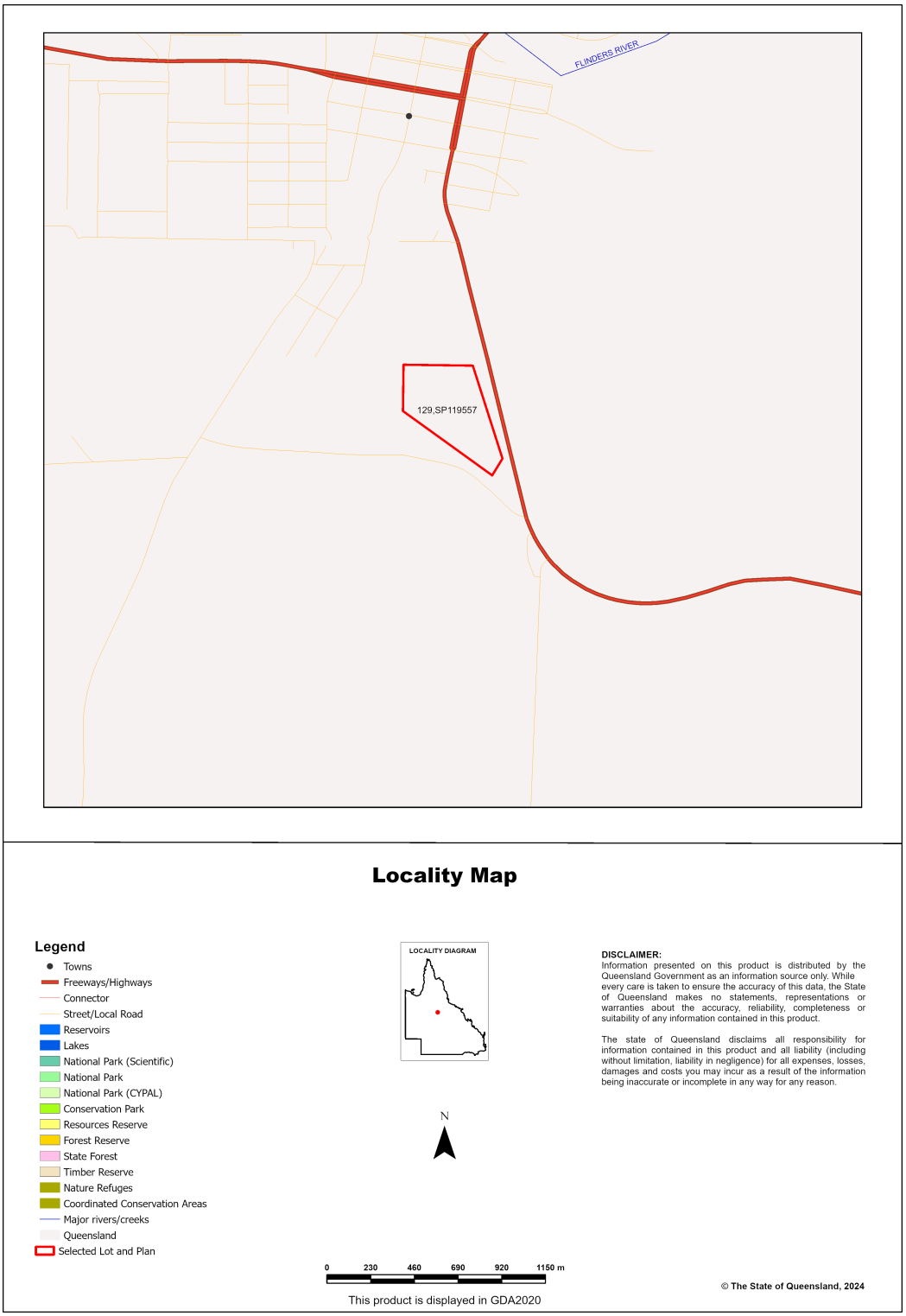
Assessment Area Details

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: Lot: 129 Plan: SP119557, with area 17.01 ha

Local Government(s)	Catchment(s)	Bioregion(s)	Subregion(s)
Flinders Shire	Flinders	Mitchell Grass Downs	Central 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	0 ha	0.0%
7b Special least concern animals	0 ha	0.0%
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)	0 ha	0.0%
8b Regulated Vegetation - Endangered/Of concern in Category C (regrowth)	0 ha	0.0%
8c Regulated Vegetation - Category R (GBR riverine regrowth)	0 ha	0.0%
8d Regulated Vegetation - Essential habitat	0 ha	0.0%
8e Regulated Vegetation - intersecting a watercourse	0.3 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

Not applicable

7b. Special least concern animals

Not applicable

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	None
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	V	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

(No results)

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)

Not applicable

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

Not applicable

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

Not applicable

8d. Regulated Vegetation - Essential habitat

Not applicable

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

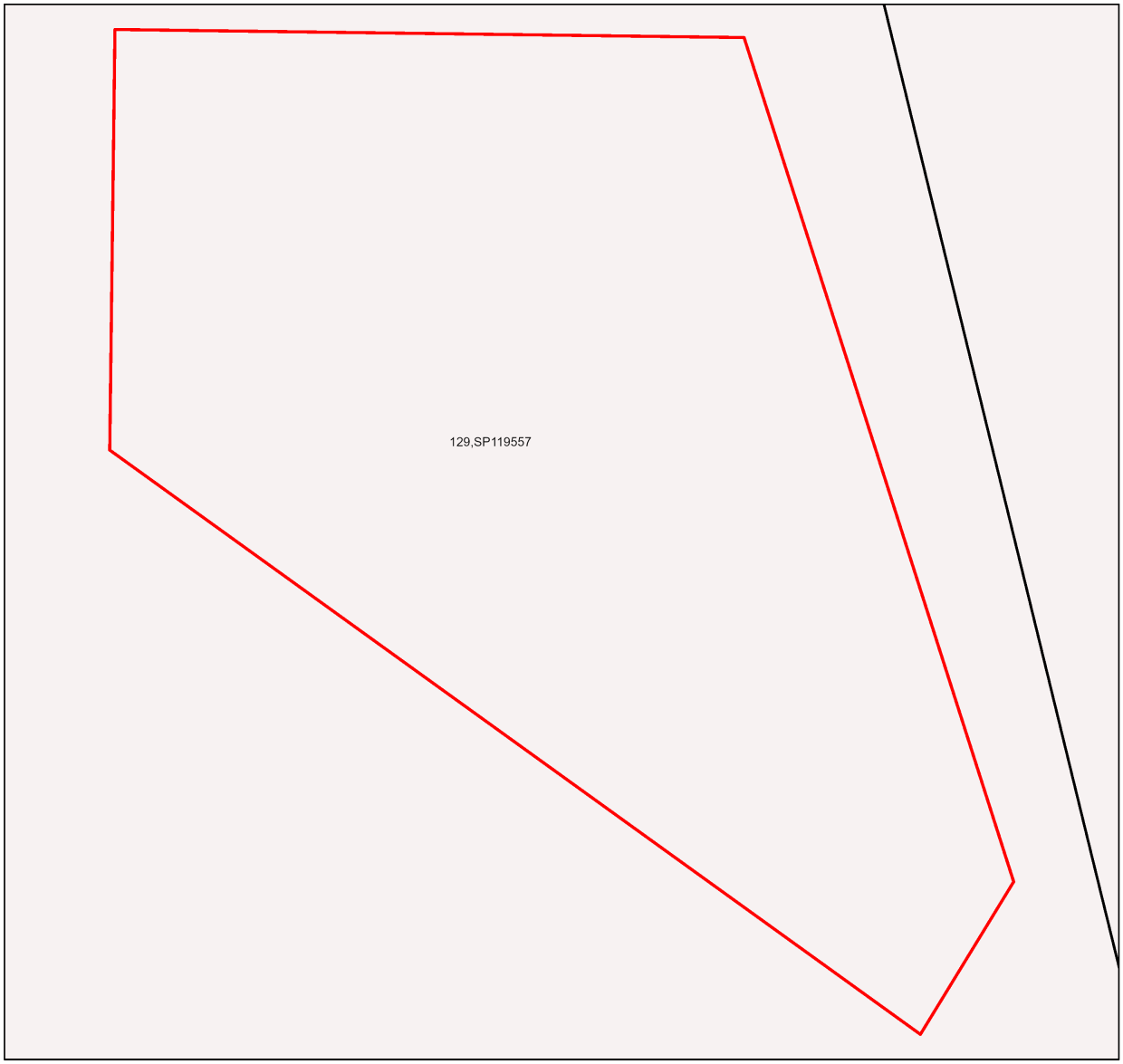
(No results)

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

(No results)

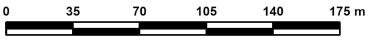
Refer to **Map 5 - MSES - Offset Areas** for an overview of the relevant MSES.

Map 1 - MSES - State Conservation Areas



MSES - State Conservation Areas

- Towns
- Freeways/Highways
- Secondary roads
- Major rivers/creeks
- Protected area (estates, nature refuges, special wildlife reserves)
- Declared fish habitat area (A and B areas)
- Marine park (highly protected)
- Selected Lot and Plan



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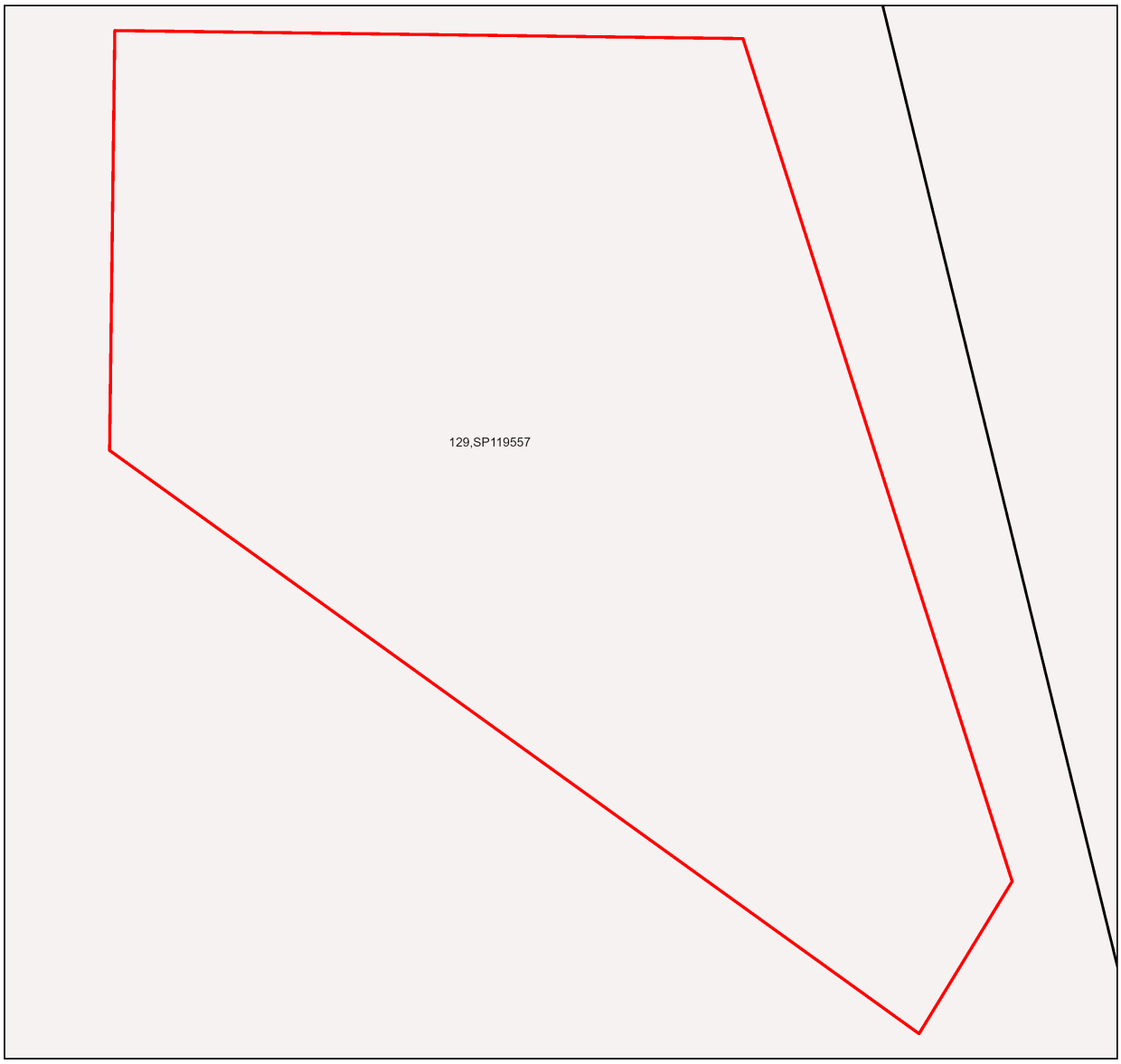
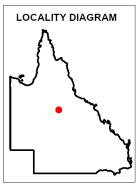
Map 2 - MSES - Wetlands and Waterways



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
- Selected Lot and Plan

LOCALITY DIAGRAM



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N

0 35 70 105 140 175 m

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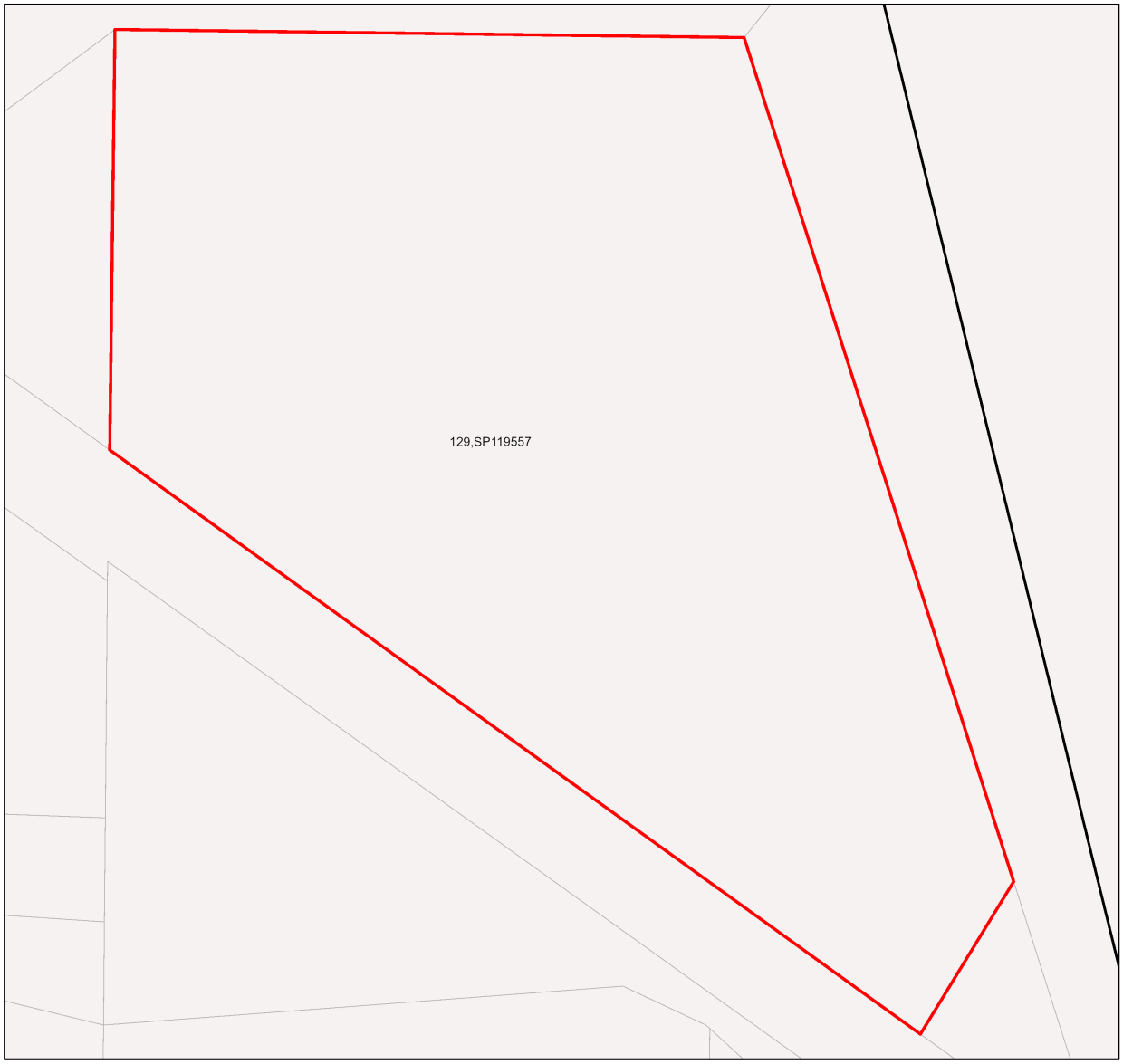
Map 3a - MSES - Species - Threatened (endangered or vulnerable) wildlife and special least concern animals



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)
- Selected Lot and Plan

N

0 35 70 105 140 175 m

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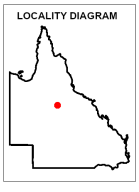
Map 3b - MSES - Species - Koala habitat area (SEQ)

MSES - Species
Koala habitat area (SEQ)

- Towns
- Freeways/Highways
- Secondary roads
- Major rivers/creeks
- Koala habitat area (core)
- Koala habitat area (locally refined)
- Selected Lot and Plan

LOCALITY DIAGRAM



0 31 62 93 124 155 m

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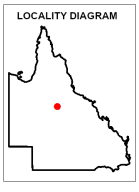
The represented layers for SEQ 'koala habitat area-core' and 'koala habitat area- locally refined' in MSES are sourced directly from the regulatory mapping under the Nature Conservation (Koala) Conservation Plan 2017. Whilst every effort is made to ensure the information remains current, there may be 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.

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)
- Selected Lot and Plan



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 31 62 93 124 155 m

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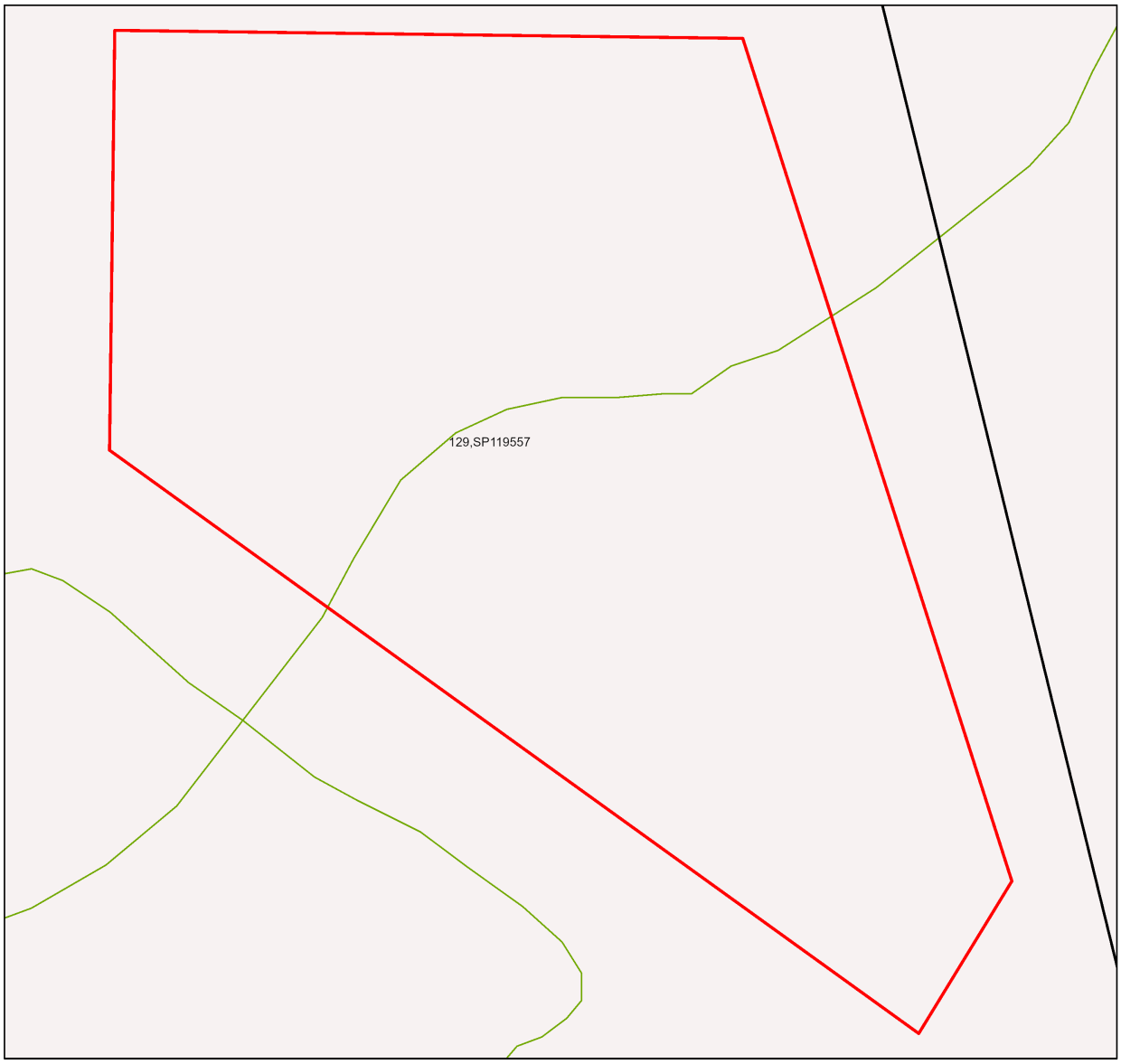
Map 4 - MSES - Regulated Vegetation



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)
- Selected Lot and Plan

N

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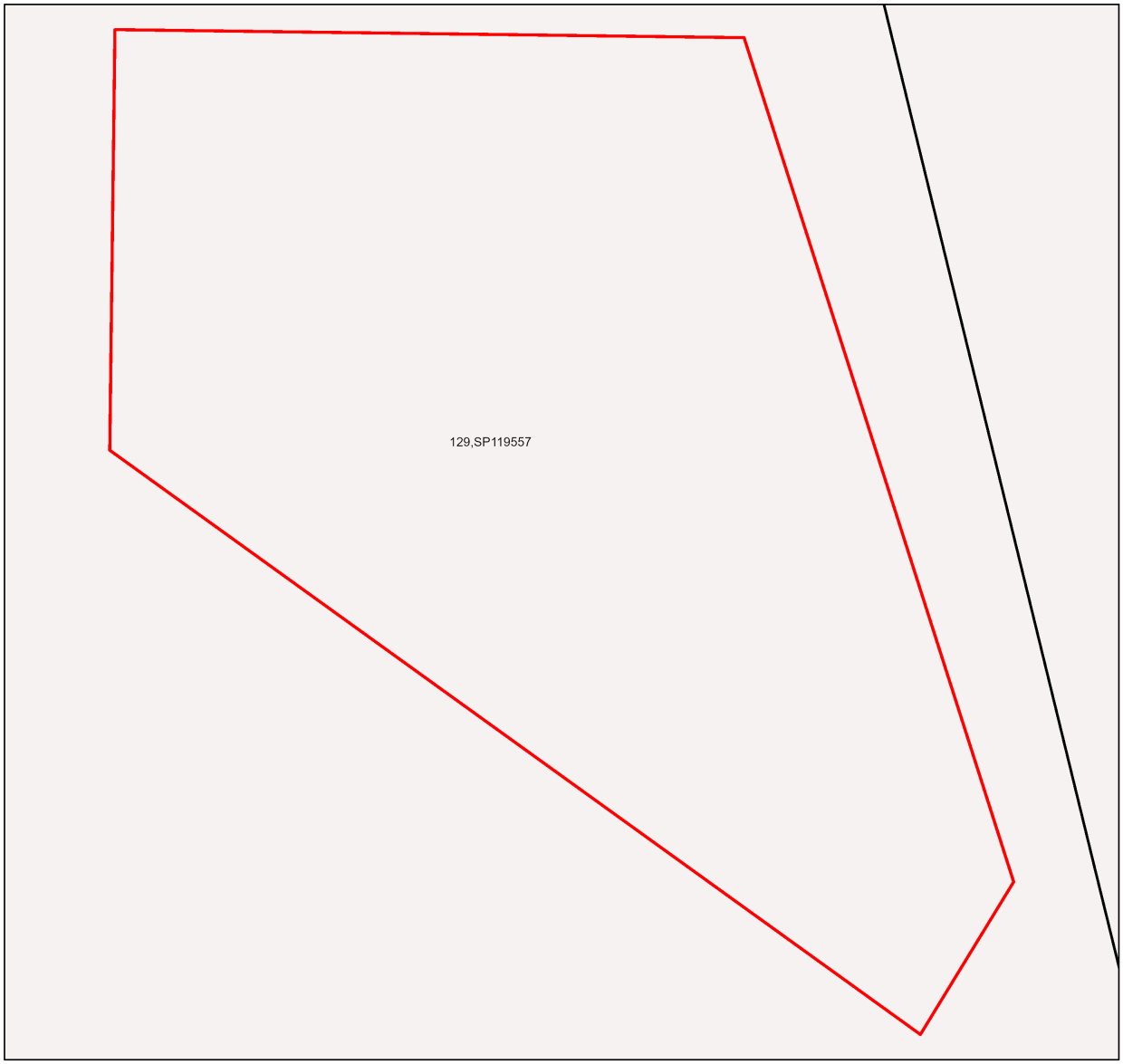
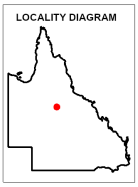
Map 5 - MSES - Offset Areas



MSES - Offsets

- Towns
- Freeways/Highways
- Secondary roads
- Major rivers/creeks
- Legally secured offset area (offset register)
- Legally secured offset area (vegetation offsets)
- Selected Lot and Plan

LOCALITY DIAGRAM



N

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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 DES
Regulated Vegetation Map	Vegetation management - regulated vegetation management map

Appendix 3 - Acronyms and Abbreviations

AOI	- Area of Interest
DESI	- Department of Environment, Science and Innovation
EP Act	- Environmental Protection Act 1994
EPP	- Environmental Protection Policy
GDA94	- Geocentric Datum of Australia 1994
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

Appendix G

Field survey data forms

J0105.1 Pre-clearance Surveys

A data collection form to inform pre-clearance survey reports

HV004, Hughenden Camp 2, 1, June 29, 2023

10/11/2023, 2:18:21 AM UTC

Site details

Mobilisation ID	HV004
CuS Property ID	Hughenden Camp 2
Site ID	1
Field Team	Jack Caleo, Jasmine Kamp
Site Surveyor(s)	Jack Caleo, Jasmine Kamp
Date	June 29, 2023
Time	11:58

Photos

Regional Ecosystems

Mapped RE(s)	Non-remnant
Verified RE	Non-remnant

Watersources

Distance to Nearest Water Source (1 Item)

Distance to Nearest Water Source - 1. Seasonal drainage line , 195 meters

Type of Water Source	Seasonal drainage line
Distance	195 meters
Bearing	-176 °
Waterbodies present within 1km	Seasonal

Waterbodies present 1-3km	Seasonal
Watersource notes	

Desktop Habitat Mapping

Southern Black-throated Finch	No
Squatter Pigeon (Southern)	No
Koala	No
Night Parrot	No
Australian Painted Snipe	No
Painted Honeyeater	No
Julia Creek Dunnart	No
Ornamental Snake	No
Plains Death Adder	No

Field Verified Habitat

SBTF

SBTF Verified Habitat?	No
Grassy, open woodland/forest?	
Dominated by Eucs, Acacia or Melaleuca ?	
Within 1km of permanent water (breeding)?	
Comment	

Squatter pigeon

Squatter Pigeon Verified Habitat?	No
Open forest/woodlands dominated by Euc, Corymbia, Acacia or Callitris, and;	
Remnant, regrowth or partly modified vegetation, and;	
Within 3km of water bodies or courses?	
Squatter pigeon nests present (breeding)?	
Comment	

Koala

Koala Verified Habitat?	No
Koala Habitat Type	
Comment	

Night parrot

Night Parrot Verified Habitat?	No
Arid/semi-arid grassland dominated by spinifex?	
Night parrot nests present (breeding)?	
Comment	

Australia painted snipe

Painted Snipe Verified Habitat?	No
Fringe of permanent/temporary shallow, brackish/freshwater wetland?	
Low patchy vegetation, lignum and/or cane grass?	
Nests present? (Found in ground scrapes filled with leaf litter amongst reeds and tussocks)	
Comment	

Painted honeyeater

Painted Honeyeater Verified Habitat?	No
Woodland, riparian or Acacia scrub ecosystem?	
Comment	

Julia Creek Dunnart

Julia Creek Dunnart Verified Habitat?	No
Tussock Mitchell Grass grasslands with cracking clay soils?	
Comment	

Ornamental snake

Ornamental Snake Verified Habitat?	No

Remnant vegetation in close proximity to gilgai mounds and depressions?	
Woodland/shrubland (preferably Brigalow) in low lying area with abundant deep cracking clays?	
Comment	

Plains death adder

Plains Death Adder Verified Habitat?	No
Flat, treeless, cracking-soil riverine floodplain?	
Comment	

Other EVNT

Pink Gidgee	No
Black Ironbark	No
Waxy Cabbage Palm	No
Red Goshawk Nests	No

Site Description

General Site Description	Non rem grassland
Broad Habitat Type	Grassland
Situation	Unspecified plain, flat gentle slopes, undulating terrain
Geology	Sedimentary
Slope	Very gentle 1-2
Soil Texture	Clay <0.002mm
Soil Colour	Brown
Notes	

Vegetation

Vegetation Description	Grassland
Dominant stratum	Grassland
Average Canopy Height	
Dominant/Characteristic Species	
Emergent Species	
Emergent Cover %	
T1 Species	

T1 Cover %	
T2 Species	
T2 Cover %	
S1 Species	
S1 Cover %	
Ground Cover Species	Cenchrus ciliaris, salsola kali,
Ground Cover %	80

Disturbances

Erosion	No
Weeds	Yes
Weed presence	Minor
Other disturbances	Light grazing
Disturbance notes	

Habitat Characteristics

Habitat features within 50m x 50m (1/10ha) centred on survey point.

Small Hollows (<20cm)	No
Large Hollows (>20cm)	No
Small Logs (<20cm)	Yes
Abundance	Scattered (1-5)
Estimated Abundance	
Notes	
Large logs (>20cm)	No
Boulders	No
Cliffs/Outcrops	No
Ground Termite Mounds	No
Arboreal Termite Mounds	No
Mistletoes	No
Exfoliating Bark	No
Leaf Litter	No
Native Grass Cover	No
Bare Ground	Yes
Abundance	Common (10-50% cover)
Estimated Abundance	
Notes	20
Flowering Eucalypts	No

Soil Cracks	Yes
Abundance	Scattered (<10% of ground layer)
Estimated Abundance	
Notes	
Gilgai	No

Fauna Observations

Fauna Signs	Tracks
Species Observed	
Notes	

J0105.1 Pre-clearance Surveys

A data collection form to inform pre-clearance survey reports

HV004, Hughenden Camp 2, 2, June 29, 2023

10/11/2023, 2:19:38 AM UTC

Site details

Mobilisation ID	HV004
CuS Property ID	Hughenden Camp 2
Site ID	2
Field Team	Jack Caleo, Jasmine Kamp
Site Surveyor(s)	Jack Caleo, Jasmine Kamp
Date	June 29, 2023
Time	13:56

Photos

Regional Ecosystems

Mapped RE(s)	Non-remnant
Verified RE	Non-remnant

Watersources

Distance to Nearest Water Source (1 Item)

Distance to Nearest Water Source - 1. Trough , 57 meters

Type of Water Source	Trough
Distance	57 meters
Bearing	9 °
Waterbodies present within 1km	Seasonal
Waterbodies present 1-3km	Seasonal
Watersource notes	

Desktop Habitat Mapping

Southern Black-throated Finch	No
Squatter Pigeon (Southern)	No
Koala	No
Night Parrot	No
Australian Painted Snipe	No
Painted Honeyeater	No
Julia Creek Dunnart	No
Ornamental Snake	No
Plains Death Adder	No

Field Verified Habitat

SBTF

SBTF Verified Habitat?	No
Grassy, open woodland/forest?	
Dominated by Eucs, Acacia or Melaleuca ?	
Within 1km of permanent water (breeding)?	
Comment	

Squatter pigeon

Squatter Pigeon Verified Habitat?	No
Open forest/woodlands dominated by Euc, Corymbia, Acacia or Callitris, and;	
Remnant, regrowth or partly modified vegetation, and;	
Within 3km of water bodies or courses?	
Squatter pigeon nests present (breeding)?	
Comment	

Koala

Koala Verified Habitat?	No
Koala Habitat Type	
Comment	

Night parrot

Night Parrot Verified Habitat?	No
Arid/semi-arid grassland dominated by spinifex?	
Night parrot nests present (breeding)?	
Comment	

Australia painted snipe

Painted Snipe Verified Habitat?	No
Fringe of permanent/temporary shallow, brackish/freshwater wetland?	
Low patchy vegetation, lignum and/or cane grass?	
Nests present? (Found in ground scrapes filled with leaf litter amongst reeds and tussocks)	
Comment	

Painted honeyeater

Painted Honeyeater Verified Habitat?	No
Woodland, riparian or Acacia scrub ecosystem?	

Comment	

Julia Creek Dunnart

Julia Creek Dunnart Verified Habitat?	No
Tussock Mitchell Grass grasslands with cracking clay soils?	
Comment	

Ornamental snake

Ornamental Snake Verified Habitat?	No
Remnant vegetation in close proximity to gilgai mounds and depressions?	
Woodland/shrubland (preferably Brigalow) in low lying area with abundant deep cracking clays?	
Comment	

Plains death adder

Plains Death Adder Verified Habitat?	No
Flat, treeless, cracking-soil riverine floodplain?	
Comment	

Other EVNT

Pink Gidgee	No
Black Ironbark	No
Waxy Cabbage Palm	No
Red Goshawk Nests	No

Site Description

General Site Description	Non-rem
Broad Habitat Type	Grassland
Situation	Unspecified plain, flat gentle slopes, undulating terrain
Geology	Sedimentary
Slope	Very gentle 1-2
Soil Texture	Clay <0.002mm
Soil Colour	Brown

Notes	

Vegetation

Vegetation Description	Grassland
Dominant stratum	Grassland
Average Canopy Height	
Dominant/Characteristic Species	
Emergent Species	
Emergent Cover %	
T1 Species	
T1 Cover %	
T2 Species	
T2 Cover %	
S1 Species	
S1 Cover %	
Ground Cover Species	Sida acuta, cenchrus ciliaris
Ground Cover %	40

Disturbances

Erosion	No
Weeds	Yes
Weed presence	Minor
Other disturbances	Heavy grazing, Tracks, Garbage
Disturbance notes	

Habitat Characteristics

Habitat features within 50m x 50m (1/10ha) centred on survey point.

Small Hollows (<20cm)	No
Large Hollows (>20cm)	No
Small Logs (<20cm)	No
Large logs (>20cm)	No
Boulders	No
Cliffs/Outcrops	No
Ground Termite Mounds	No
Arboreal Termite Mounds	No
Mistletoes	No

Exfoliating Bark	No
Leaf Litter	No
Native Grass Cover	No
Bare Ground	Yes
Abundance	Abundant (>50% cover)
Estimated Abundance	
Notes	60
Flowering Eucalypts	No
Soil Cracks	No
Gilgai	No

Fauna Observations

Fauna Signs	Tracks, Scats
Species Observed	
Notes	

J0105.1 Pre-clearance Surveys

A data collection form to inform pre-clearance survey reports

HV004, Hughenden Camp 2, 4, June 29, 2023

10/23/2023, 5:23:19 AM UTC

Site details

Mobilisation ID	HV004
CuS Property ID	Hughenden Camp 2
Site ID	4
Field Team	Jack Caleo, Jasmine Kamp
Site Surveyor(s)	Jack Caleo, Jasmine Kamp
Date	June 29, 2023
Time	12:40

Photos

Regional Ecosystems

Mapped RE(s)	
Verified RE	Non-rem

Watersources

Distance to Nearest Water Source (1 Item)

Distance to Nearest Water Source - 1. Seasonal drainage line , 265 meters

Type of Water Source	Seasonal drainage line
Distance	265 meters
Bearing	-18 °
Waterbodies present within 1km	Dam
Waterbodies present 1-3km	Dam
Watersource notes	

Desktop Habitat Mapping

Southern Black-throated Finch	No
Squatter Pigeon (Southern)	No
Koala	No
Night Parrot	No
Australian Painted Snipe	No
Painted Honeyeater	No
Julia Creek Dunnart	No
Ornamental Snake	No
Plains Death Adder	No

Field Verified Habitat

SBTF

SBTF Verified Habitat?	No
Grassy, open woodland/forest?	No
Dominated by Eucs, Acacia or Melaleuca ?	No
Within 1km of permanent water (breeding)?	No
Comment	

Squatter pigeon

Squatter Pigeon Verified Habitat?	No
Open forest/woodlands dominated by Euc, Corymbia, Acacia or Callitris, and;	No
Remnant, regrowth or partly modified vegetation, and;	No
Within 3km of water bodies or courses?	No
Squatter pigeon nests present (breeding)?	No
Comment	

Koala

Koala Verified Habitat?	No
Koala Habitat Type	
Comment	

Night parrot

Night Parrot Verified Habitat?	No
Arid/semi-arid grassland dominated by spinifex?	No
Night parrot nests present (breeding)?	No
Comment	

Australia painted snipe

Painted Snipe Verified Habitat?	No
Fringe of permanent/temporary shallow, brackish/freshwater wetland?	No
Low patchy vegetation, lignum and/or cane grass?	No
Nests present? (Found in ground scrapes filled with leaf litter amongst reeds and tussocks)	No
Comment	

Painted honeyeater

Painted Honeyeater Verified Habitat?	No
Woodland, riparian or Acacia scrub ecosystem?	No

Comment	

Julia Creek Dunnart

Julia Creek Dunnart Verified Habitat?	No
Tussock Mitchell Grass grasslands with cracking clay soils?	No
Comment	

Ornamental snake

Ornamental Snake Verified Habitat?	No
Remnant vegetation in close proximity to gilgai mounds and depressions?	No
Woodland/shrubland (preferably Brigalow) in low lying area with abundant deep cracking clays?	No
Comment	

Plains death adder

Plains Death Adder Verified Habitat?	No
Flat, treeless, cracking-soil riverine floodplain?	No
Comment	

Other EVNT

Pink Gidgee	No
Black Ironbark	No
Waxy Cabbage Palm	No
Red Goshawk Nests	No

Site Description

General Site Description	Grassland
Broad Habitat Type	Grassland
Situation	Unspecified plain, flat gentle slopes, undulating terrain
Geology	Sedimentary
Slope	Very gentle 1-2
Soil Texture	Clay <0.002mm
Soil Colour	Brown

Notes	

Vegetation

Vegetation Description	Grassland with emergent acacia species
Dominant stratum	Grassland
Average Canopy Height	4m
Dominant/Characteristic Species	
Emergent Species	Acacia tephrina, wilgera
Emergent Cover %	5
T1 Species	
T1 Cover %	
T2 Species	
T2 Cover %	
S1 Species	Acacia tephrina, alectryon oliafolia
S1 Cover %	10
Ground Cover Species	Cenchrus ciliaris, sida cordifolia, sida acuta
Ground Cover %	80

Disturbances

Erosion	No
Weeds	Yes
Weed presence	Minor
Other disturbances	Heavy grazing
Disturbance notes	

Habitat Characteristics

Habitat features within 50m x 50m (1/10ha) centred on survey point.

Small Hollows (<20cm)	No
Large Hollows (>20cm)	No
Small Logs (<20cm)	No
Large logs (>20cm)	No
Boulders	No
Cliffs/Outcrops	No
Ground Termite Mounds	No
Arboreal Termite Mounds	No
Mistletoes	No

Exfoliating Bark	No
Leaf Litter	No
Native Grass Cover	No
Bare Ground	Yes
Abundance	Common (10-50% cover)
Estimated Abundance	
Notes	20
Flowering Eucalypts	No
Soil Cracks	Yes
Abundance	Scattered (<10% of ground layer)
Estimated Abundance	
Notes	
Gilgai	No

Fauna Observations

Fauna Signs	Tracks, Scats
Species Observed	
Notes	

J0105.1 Pre-clearance Surveys

A data collection form to inform pre-clearance survey reports

HV004, Hughenden Camp 2, 5, June 29, 2023

10/23/2023, 5:24:07 AM UTC

Site details

Mobilisation ID	HV004
CuS Property ID	Hughenden Camp 2
Site ID	5
Field Team	Jack Caleo, Jasmine Kamp
Site Surveyor(s)	Jack Caleo, Jasmine Kamp
Date	June 29, 2023
Time	12:30

Photos

Regional Ecosystems

Mapped RE(s)	
Verified RE	Non-rem

Watersources

Distance to Nearest Water Source (1 Item)

Distance to Nearest Water Source - 1. Seasonal drainage line , 146 meters

Type of Water Source	Seasonal drainage line
Distance	146 meters
Bearing	-4 °
Waterbodies present within 1km	Dam
Waterbodies present 1-3km	Dam
Watersource notes	

Desktop Habitat Mapping

Southern Black-throated Finch	No
Squatter Pigeon (Southern)	No
Koala	No
Night Parrot	No
Australian Painted Snipe	No
Painted Honeyeater	No
Julia Creek Dunnart	No
Ornamental Snake	No
Plains Death Adder	No

Field Verified Habitat

SBTF

SBTF Verified Habitat?	No
Grassy, open woodland/forest?	No
Dominated by Eucs, Acacia or Melaleuca ?	No
Within 1km of permanent water (breeding)?	No
Comment	

Squatter pigeon

Squatter Pigeon Verified Habitat?	No
Open forest/woodlands dominated by Euc, Corymbia, Acacia or Callitris, and;	No
Remnant, regrowth or partly modified vegetation, and;	No
Within 3km of water bodies or courses?	Yes
Squatter pigeon nests present (breeding)?	No
Comment	

Koala

Koala Verified Habitat?	No
Koala Habitat Type	
Comment	

Night parrot

Night Parrot Verified Habitat?	No
Arid/semi-arid grassland dominated by spinifex?	No
Night parrot nests present (breeding)?	No
Comment	

Australia painted snipe

Painted Snipe Verified Habitat?	No
Fringe of permanent/temporary shallow, brackish/freshwater wetland?	No
Low patchy vegetation, lignum and/or cane grass?	No
Nests present? (Found in ground scrapes filled with leaf litter amongst reeds and tussocks)	No
Comment	

Painted honeyeater

Painted Honeyeater Verified Habitat?	No
Woodland, riparian or Acacia scrub ecosystem?	No

Comment	

Julia Creek Dunnart

Julia Creek Dunnart Verified Habitat?	No
Tussock Mitchell Grass grasslands with cracking clay soils?	No
Comment	

Ornamental snake

Ornamental Snake Verified Habitat?	No
Remnant vegetation in close proximity to gilgai mounds and depressions?	No
Woodland/shrubland (preferably Brigalow) in low lying area with abundant deep cracking clays?	No
Comment	

Plains death adder

Plains Death Adder Verified Habitat?	No
Flat, treeless, cracking-soil riverine floodplain?	No
Comment	

Other EVNT

Pink Gidgee	No
Black Ironbark	No
Waxy Cabbage Palm	No
Red Goshawk Nests	No

Site Description

General Site Description	Grassland
Broad Habitat Type	Grassland
Situation	Unspecified plain, flat gentle slopes, undulating terrain
Geology	Sedimentary
Slope	Gentle incline 3-6
Soil Texture	Clay <0.002mm
Soil Colour	Brown

Notes	

Vegetation

Vegetation Description	Grassland with emergent acacia species
Dominant stratum	Grassland
Average Canopy Height	4m
Dominant/Characteristic Species	
Emergent Species	Acacia tephrina
Emergent Cover %	10
T1 Species	
T1 Cover %	
T2 Species	
T2 Cover %	
S1 Species	Acacia tephrina, alectryon oliafolia
S1 Cover %	30
Ground Cover Species	Cenchrus ciliaris,
Ground Cover %	80

Disturbances

Erosion	No
Weeds	Yes
Weed presence	Minor
Other disturbances	Garbage, Light grazing
Disturbance notes	

Habitat Characteristics

Habitat features within 50m x 50m (1/10ha) centred on survey point.

Small Hollows (<20cm)	No
Large Hollows (>20cm)	No
Small Logs (<20cm)	Yes
Abundance	Abundant (>10)
Estimated Abundance	
Notes	
Large logs (>20cm)	No
Boulders	Yes
Abundance	Scattered (1-5)

Estimated Adundance	
Notes	
Cliffs/Outcrops	No
Ground Termite Mounds	No
Arboreal Termite Mounds	No
Mistletoes	No
Exfoliating Bark	No
Leaf Litter	No
Native Grass Cover	No
Bare Ground	Yes
Abundance	Common (10-50% cover)
Estimated Abundance	
Notes	20
Flowering Eucalypts	No
Soil Cracks	No
Gilgai	No

Fauna Observations

Fauna Signs	Tracks, Scats
Species Observed	
Notes	

J0105.1 Pre-clearance Surveys

A data collection form to inform pre-clearance survey reports

HV004, Hughenden Camp 2, 6, June 29, 2023

10/23/2023, 5:25:02 AM UTC

Site details

Mobilisation ID	HV004
CuS Property ID	Hughenden Camp 2
Site ID	6
Field Team	Jack Caleo, Jasmine Kamp
Site Surveyor(s)	Jack Caleo, Jasmine Kamp
Date	June 29, 2023
Time	13:40

Photos

Regional Ecosystems

Mapped RE(s)	
Verified RE	Non-rem

Watersources

Distance to Nearest Water Source (1 Item)

Distance to Nearest Water Source - 1. Seasonal drainage line, 29 meters

Type of Water Source	Seasonal drainage line
Distance	29 meters
Bearing	-178 °
Waterbodies present within 1km	Dam
Waterbodies present 1-3km	Dam
Watersource notes	

Desktop Habitat Mapping

Southern Black-throated Finch	No
Squatter Pigeon (Southern)	No
Koala	No
Night Parrot	No
Australian Painted Snipe	No
Painted Honeyeater	No
Julia Creek Dunnart	No
Ornamental Snake	No
Plains Death Adder	No

Field Verified Habitat

SBTF

SBTF Verified Habitat?	No
Grassy, open woodland/forest?	No
Dominated by Eucs, Acacia or Melaleuca ?	No
Within 1km of permanent water (breeding)?	No
Comment	

Squatter pigeon

Squatter Pigeon Verified Habitat?	No
Open forest/woodlands dominated by Euc, Corymbia, Acacia or Callitris, and;	No
Remnant, regrowth or partly modified vegetation, and;	No
Within 3km of water bodies or courses?	No
Squatter pigeon nests present (breeding)?	No
Comment	

Koala

Koala Verified Habitat?	No
Koala Habitat Type	
Comment	

Night parrot

Night Parrot Verified Habitat?	No
Arid/semi-arid grassland dominated by spinifex?	No
Night parrot nests present (breeding)?	No
Comment	

Australia painted snipe

Painted Snipe Verified Habitat?	No
Fringe of permanent/temporary shallow, brackish/freshwater wetland?	No
Low patchy vegetation, lignum and/or cane grass?	No
Nests present? (Found in ground scrapes filled with leaf litter amongst reeds and tussocks)	No
Comment	

Painted honeyeater

Painted Honeyeater Verified Habitat?	No
Woodland, riparian or Acacia scrub ecosystem?	No

Comment	

Julia Creek Dunnart

Julia Creek Dunnart Verified Habitat?	No
Tussock Mitchell Grass grasslands with cracking clay soils?	No
Comment	

Ornamental snake

Ornamental Snake Verified Habitat?	No
Remnant vegetation in close proximity to gilgai mounds and depressions?	No
Woodland/shrubland (preferably Brigalow) in low lying area with abundant deep cracking clays?	No
Comment	

Plains death adder

Plains Death Adder Verified Habitat?	No
Flat, treeless, cracking-soil riverine floodplain?	No
Comment	

Other EVNT

Pink Gidgee	No
Black Ironbark	No
Waxy Cabbage Palm	No
Red Goshawk Nests	No

Site Description

General Site Description	Grassland
Broad Habitat Type	Grassland
Situation	Alluvial plain or flat, alluvium, flooplain
Geology	Sedimentary
Slope	Very gentle 1-2
Soil Texture	Clay <0.002mm
Soil Colour	Brown

Notes	

Vegetation

Vegetation Description	Grassland with occasional acacia shrubs
Dominant stratum	Grassland
Average Canopy Height	2-3m
Dominant/Characteristic Species	
Emergent Species	
Emergent Cover %	
T1 Species	
T1 Cover %	
T2 Species	
T2 Cover %	
S1 Species	Acacia tephrina, Vachellia bidwillii, wait a while vine, alectryon oliafolia, Vachellia farnsiana
S1 Cover %	20
Ground Cover Species	Cenchrus ciliaris, sida cordifolia, sida acuta, Mexican poppy, native thyme, smooth senna
Ground Cover %	70

Disturbances

Erosion	No
Weeds	Yes
Weed presence	Minor
Other disturbances	Light grazing, Garbage
Disturbance notes	

Habitat Characteristics

Habitat features within 50m x 50m (1/10ha) centred on survey point.

Small Hollows (<20cm)	No
Large Hollows (>20cm)	No
Small Logs (<20cm)	Yes
Abundance	Common (6-10)
Estimated Abundance	
Notes	
Large logs (>20cm)	No
Boulders	No
Cliffs/Outcrops	No

Ground Termite Mounds	No
Arboreal Termite Mounds	No
Mistletoes	No
Exfoliating Bark	No
Leaf Litter	No
Native Grass Cover	No
Bare Ground	Yes
Abundance	Common (10-50% cover)
Estimated Abundance	
Notes	30
Flowering Eucalypts	No
Soil Cracks	Yes
Abundance	Common (10-50% of ground layer)
Estimated Abundance	
Notes	
Gilgai	No

Fauna Observations

Fauna Signs	Diggings, Scats, Tracks
Species Observed	
Notes	

J0105.1 Pre-clearance Surveys

A data collection form to inform pre-clearance survey reports

HV004, Hughenden Camp 2, 7, June 29, 2023

10/23/2023, 5:25:50 AM UTC

Site details

Mobilisation ID	HV004
CuS Property ID	Hughenden Camp 2
Site ID	7
Field Team	Jack Caleo, Jasmine Kamp
Site Surveyor(s)	Jack Caleo, Jasmine Kamp
Date	June 29, 2023
Time	12:17

Photos

Regional Ecosystems

Mapped RE(s)	
Verified RE	Non-rem

Watersources

Distance to Nearest Water Source (1 Item)

Distance to Nearest Water Source - 1. Seasonal drainage line , 29 meters

Type of Water Source	Seasonal drainage line
Distance	29 meters
Bearing	122 °
Waterbodies present within 1km	Dam
Waterbodies present 1-3km	Dam
Watersource notes	

Desktop Habitat Mapping

Southern Black-throated Finch	No
Squatter Pigeon (Southern)	No
Koala	No
Night Parrot	No
Australian Painted Snipe	No
Painted Honeyeater	No
Julia Creek Dunnart	No
Ornamental Snake	No
Plains Death Adder	No

Field Verified Habitat

SBTF

SBTF Verified Habitat?	No
Grassy, open woodland/forest?	No
Dominated by Eucs, Acacia or Melaleuca ?	No
Within 1km of permanent water (breeding)?	Yes
Comment	

Squatter pigeon

Squatter Pigeon Verified Habitat?	No
Open forest/woodlands dominated by Euc, Corymbia, Acacia or Callitris, and;	No
Remnant, regrowth or partly modified vegetation, and;	No
Within 3km of water bodies or courses?	Yes
Squatter pigeon nests present (breeding)?	No
Comment	

Koala

Koala Verified Habitat?	No
Koala Habitat Type	
Comment	

Night parrot

Night Parrot Verified Habitat?	No
Arid/semi-arid grassland dominated by spinifex?	No
Night parrot nests present (breeding)?	No
Comment	

Australia painted snipe

Painted Snipe Verified Habitat?	No
Fringe of permanent/temporary shallow, brackish/freshwater wetland?	No
Low patchy vegetation, lignum and/or cane grass?	No
Nests present? (Found in ground scrapes filled with leaf litter amongst reeds and tussocks)	No
Comment	

Painted honeyeater

Painted Honeyeater Verified Habitat?	No
Woodland, riparian or Acacia scrub ecosystem?	No

Comment	

Julia Creek Dunnart

Julia Creek Dunnart Verified Habitat?	No
Tussock Mitchell Grass grasslands with cracking clay soils?	No
Comment	

Ornamental snake

Ornamental Snake Verified Habitat?	No
Remnant vegetation in close proximity to gilgai mounds and depressions?	No
Woodland/shrubland (preferably Brigalow) in low lying area with abundant deep cracking clays?	No
Comment	

Plains death adder

Plains Death Adder Verified Habitat?	No
Flat, treeless, cracking-soil riverine floodplain?	No
Comment	

Other EVNT

Pink Gidgee	No
Black Ironbark	No
Waxy Cabbage Palm	No
Red Goshawk Nests	No

Site Description

General Site Description	Grassland
Broad Habitat Type	Grassland
Situation	Alluvial plain or flat, alluvium, flooplain
Geology	Sedimentary
Slope	Very gentle 1-2
Soil Texture	Clay <0.002mm
Soil Colour	Brown

Notes	

Vegetation

Vegetation Description	Grassland with emergent acacia species
Dominant stratum	Grassland
Average Canopy Height	5m
Dominant/Characteristic Species	
Emergent Species	Acacia tephrina, lysphyllum cunninghami
Emergent Cover %	5
T1 Species	
T1 Cover %	
T2 Species	
T2 Cover %	
S1 Species	Acacia tephrina, denhamia cunninghami, alectryon oliafolia, Vachellia farnesiana
S1 Cover %	20
Ground Cover Species	Cenchrus ciliaris, gomphrena sp., bothrichloa ewartiana
Ground Cover %	80

Disturbances

Erosion	Yes
Erosion severity	Moderate
Weeds	Yes
Weed presence	Minor
Other disturbances	Light grazing, Garbage
Disturbance notes	

Habitat Characteristics

Habitat features within 50m x 50m (1/10ha) centred on survey point.

Small Hollows (<20cm)	No
Large Hollows (>20cm)	No
Small Logs (<20cm)	Yes
Abundance	Abundant (>10)
Estimated Abundance	
Notes	
Large logs (>20cm)	No
Boulders	Yes

Abundance	Common (6-10)
Estimated Adundance	
Notes	
Cliffs/Outcrops	No
Ground Termite Mounds	No
Arboreal Termite Mounds	No
Mistletoes	No
Exfoliating Bark	No
Leaf Litter	No
Native Grass Cover	Yes
Abundance	Scattered (<10% cover)
Estimated Cover	80
Notes	
Bare Ground	Yes
Abundance	Common (10-50% cover)
Estimated Abundance	
Notes	20
Flowering Eucalypts	No
Soil Cracks	No
Gilgai	No

Fauna Observations

Fauna Signs	Tracks, Scats, Nests
Species Observed	
Notes	

J0105.1 Pre-clearance Surveys

A data collection form to inform pre-clearance survey reports

HV004, Hughenden Camp 2, 8, June 29, 2023

10/23/2023, 5:26:35 AM UTC

Site details

Mobilisation ID	HV004
CuS Property ID	Hughenden Camp 2
Site ID	8
Field Team	Jack Caleo, Jasmine Kamp
Site Surveyor(s)	Jack Caleo, Jasmine Kamp
Date	June 29, 2023
Time	13:33

Photos

Regional Ecosystems

Mapped RE(s)	
Verified RE	Non-rem

Watersources

Distance to Nearest Water Source (1 Item)

Distance to Nearest Water Source - 1. Seasonal drainage line , 63 meters

Type of Water Source	Seasonal drainage line
Distance	63 meters
Bearing	147 °
Waterbodies present within 1km	Dam
Waterbodies present 1-3km	Dam
Watersource notes	

Desktop Habitat Mapping

Southern Black-throated Finch	No
Squatter Pigeon (Southern)	No
Koala	No
Night Parrot	No
Australian Painted Snipe	No
Painted Honeyeater	No
Julia Creek Dunnart	No
Ornamental Snake	No
Plains Death Adder	No

Field Verified Habitat

SBTF

SBTF Verified Habitat?	No
Grassy, open woodland/forest?	No
Dominated by Eucs, Acacia or Melaleuca ?	No
Within 1km of permanent water (breeding)?	Yes
Comment	

Squatter pigeon

Squatter Pigeon Verified Habitat?	No
Open forest/woodlands dominated by Euc, Corymbia, Acacia or Callitris, and;	No
Remnant, regrowth or partly modified vegetation, and;	No
Within 3km of water bodies or courses?	Yes
Squatter pigeon nests present (breeding)?	No
Comment	

Koala

Koala Verified Habitat?	No
Koala Habitat Type	
Comment	

Night parrot

Night Parrot Verified Habitat?	No
Arid/semi-arid grassland dominated by spinifex?	No
Night parrot nests present (breeding)?	No
Comment	

Australia painted snipe

Painted Snipe Verified Habitat?	No
Fringe of permanent/temporary shallow, brackish/freshwater wetland?	No
Low patchy vegetation, lignum and/or cane grass?	No
Nests present? (Found in ground scrapes filled with leaf litter amongst reeds and tussocks)	No
Comment	

Painted honeyeater

Painted Honeyeater Verified Habitat?	No
Woodland, riparian or Acacia scrub ecosystem?	No

Comment	

Julia Creek Dunnart

Julia Creek Dunnart Verified Habitat?	No
Tussock Mitchell Grass grasslands with cracking clay soils?	No
Comment	

Ornamental snake

Ornamental Snake Verified Habitat?	No
Remnant vegetation in close proximity to gilgai mounds and depressions?	No
Woodland/shrubland (preferably Brigalow) in low lying area with abundant deep cracking clays?	No
Comment	

Plains death adder

Plains Death Adder Verified Habitat?	No
Flat, treeless, cracking-soil riverine floodplain?	No
Comment	

Other EVNT

Pink Gidgee	No
Black Ironbark	No
Waxy Cabbage Palm	No
Red Goshawk Nests	No

Site Description

General Site Description	Grassland
Broad Habitat Type	Grassland
Situation	Alluvial plain or flat, alluvium, flooplain
Geology	Sedimentary
Slope	Very gentle 1-2
Soil Texture	Clay <0.002mm
Soil Colour	Brown

Notes	

Vegetation

Vegetation Description	Grassland with acacia shrubs
Dominant stratum	Grassland
Average Canopy Height	
Dominant/Characteristic Species	
Emergent Species	
Emergent Cover %	
T1 Species	
T1 Cover %	
T2 Species	
T2 Cover %	
S1 Species	Acacia tephrina
S1 Cover %	10
Ground Cover Species	Cenchrus ciliaris
Ground Cover %	70

Disturbances

Erosion	No
Weeds	Yes
Weed presence	Minor
Other disturbances	Light grazing
Disturbance notes	

Habitat Characteristics

Habitat features within 50m x 50m (1/10ha) centred on survey point.

Small Hollows (<20cm)	No
Large Hollows (>20cm)	No
Small Logs (<20cm)	No
Large logs (>20cm)	No
Boulders	No
Cliffs/Outcrops	No
Ground Termite Mounds	No
Arboreal Termite Mounds	No
Mistletoes	No

Exfoliating Bark	No
Leaf Litter	No
Native Grass Cover	Yes
Abundance	Scattered (<10% cover)
Estimated Cover	70
Notes	
Bare Ground	Yes
Abundance	Common (10-50% cover)
Estimated Abundance	
Notes	30
Flowering Eucalypts	No
Soil Cracks	No
Gilgai	No

Fauna Observations

Fauna Signs	Tracks
Species Observed	
Notes	

J0105.1 Pre-clearance Surveys

A data collection form to inform pre-clearance survey reports

HV004, Hughenden Camp 2, 9, June 29, 2023

10/23/2023, 5:27:35 AM UTC

Site details

Mobilisation ID	HV004
CuS Property ID	Hughenden Camp 2
Site ID	9
Field Team	Jack Caleo, Jasmine Kamp
Site Surveyor(s)	Jack Caleo, Jasmine Kamp
Date	June 29, 2023
Time	12:02

Photos

Regional Ecosystems

Mapped RE(s)	
Verified RE	Non-rem

Watersources

Distance to Nearest Water Source (1 Item)

Distance to Nearest Water Source - 1. Seasonal drainage line , 100 meters

Type of Water Source	Seasonal drainage line
Distance	100 meters
Bearing	103 °
Waterbodies present within 1km	Dam
Waterbodies present 1-3km	Dam
Watersource notes	

Desktop Habitat Mapping

Southern Black-throated Finch	No
Squatter Pigeon (Southern)	No
Koala	No
Night Parrot	No
Australian Painted Snipe	No
Painted Honeyeater	No
Julia Creek Dunnart	No
Ornamental Snake	No
Plains Death Adder	No

Field Verified Habitat

SBTF

SBTF Verified Habitat?	No
Grassy, open woodland/forest?	No
Dominated by Eucs, Acacia or Melaleuca ?	No
Within 1km of permanent water (breeding)?	No
Comment	

Squatter pigeon

Squatter Pigeon Verified Habitat?	No
Open forest/woodlands dominated by Euc, Corymbia, Acacia or Callitris, and;	
Remnant, regrowth or partly modified vegetation, and;	
Within 3km of water bodies or courses?	
Squatter pigeon nests present (breeding)?	
Comment	

Koala

Koala Verified Habitat?	No
Koala Habitat Type	
Comment	

Night parrot

Night Parrot Verified Habitat?	No
Arid/semi-arid grassland dominated by spinifex?	
Night parrot nests present (breeding)?	
Comment	

Australia painted snipe

Painted Snipe Verified Habitat?	No
Fringe of permanent/temporary shallow, brackish/freshwater wetland?	
Low patchy vegetation, lignum and/or cane grass?	
Nests present? (Found in ground scrapes filled with leaf litter amongst reeds and tussocks)	
Comment	

Painted honeyeater

Painted Honeyeater Verified Habitat?	No
Woodland, riparian or Acacia scrub ecosystem?	

Comment	

Julia Creek Dunnart

Julia Creek Dunnart Verified Habitat?	No
Tussock Mitchell Grass grasslands with cracking clay soils?	
Comment	

Ornamental snake

Ornamental Snake Verified Habitat?	No
Remnant vegetation in close proximity to gilgai mounds and depressions?	
Woodland/shrubland (preferably Brigalow) in low lying area with abundant deep cracking clays?	
Comment	

Plains death adder

Plains Death Adder Verified Habitat?	No
Flat, treeless, cracking-soil riverine floodplain?	
Comment	

Other EVNT

Pink Gidgee	No
Black Ironbark	No
Waxy Cabbage Palm	No
Red Goshawk Nests	No

Site Description

General Site Description	Grassland
Broad Habitat Type	Grassland
Situation	Unspecified plain, flat gentle slopes, undulating terrain
Geology	Sedimentary
Slope	Gentle incline 3-6
Soil Texture	Clay <0.002mm
Soil Colour	Brown

Notes	

Vegetation

Vegetation Description	Grassland with emergent species
Dominant stratum	Grassland
Average Canopy Height	6m
Dominant/Characteristic Species	
Emergent Species	Acacia victoriai
Emergent Cover %	5
T1 Species	
T1 Cover %	
T2 Species	
T2 Cover %	
S1 Species	Eremophila mitchelli, Vachellia farnesiana, alectryon oliofloia, Vachellia nilotica
S1 Cover %	10
Ground Cover Species	Cenchrus ciliaris, sporobolous actinocladis, enneapogon sp
Ground Cover %	70

Disturbances

Erosion	No
Weeds	Yes
Weed presence	Minor
Other disturbances	Light grazing
Disturbance notes	

Habitat Characteristics

Habitat features within 50m x 50m (1/10ha) centred on survey point.

Small Hollows (<20cm)	No
Large Hollows (>20cm)	No
Small Logs (<20cm)	Yes
Abundance	Scattered (1-5)
Estimated Abundance	
Notes	
Large logs (>20cm)	No
Boulders	Yes
Abundance	Common (6-10)

Estimated Adundance	
Notes	
Cliffs/Outcrops	No
Ground Termite Mounds	No
Arboreal Termite Mounds	No
Mistletoes	Yes
Abundance	Scattered (1-5)
Estimated Abundance	
Notes	
Exfoliating Bark	No
Leaf Litter	No
Native Grass Cover	Yes
Abundance	Scattered (<10% cover)
Estimated Cover	70
Notes	10
Bare Ground	Yes
Abundance	Common (10-50% cover)
Estimated Abundance	
Notes	30
Flowering Eucalypts	No
Soil Cracks	No
Gilgai	No

Fauna Observations

Fauna Signs	Tracks, Scats
Species Observed	
Notes	

Appendix H

Hughenden Camp Architectural Drawings

COPPERSTRING 2032 CAMPS

HUGHENDEN - CAMP & LAYDOWN

Non-Resident Worker Accommodation

Drawing Index

Sketch Design only
NOT FOR CONSTRUCTION

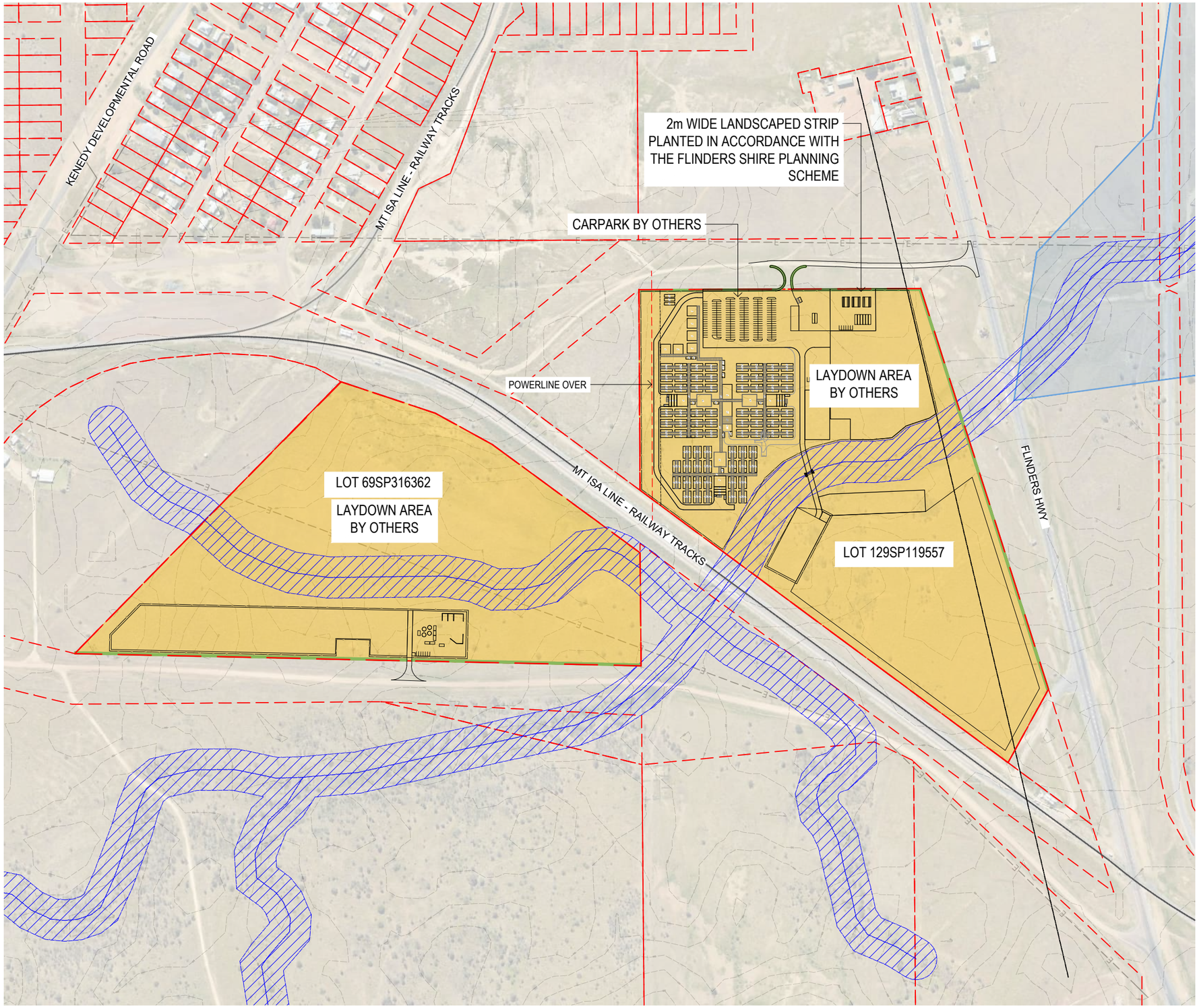
Revision	Change ID	Description	Date
01		MID Submission - 90% client review	23.08.23
02		MID Submission	06.09.23

PROJECT: CopperString 2032 Camps
ADDRESS: Hughenden
CLIENT: UGL / CPB JV
JOB #: 2339

drawing **Cover Page and Drawing Index**
scale N/A (A3 paper)
date 06.09.2023
dwg # CU2-HU00-DRG-PAS-400-0001_02

7/59 WILLIAM STREET
LAUNCESTON TAS 7250
P: 03 6334 4899
E: admin@denman.studio

DAVID DENMAN + ASSOCIATES



LEGEND

- LAND ACQUISITION AREA
- FLOODPLAIN EXTENT
- DCDB CADASTRE
- WATERCOURSE - DIGITISED
- BUSHFIRE HAZARD - MEDIUM RISK
- BUSHFIRE HAZARD - BUFFER ZONE
- 123 CONTOURS - 1m INTERVAL (NOT SURVEYED)
- WATERCOURSE SETBACK - 25m
- E ERGON HV TRANSMISSION LINE

0m 250m

Sketch Design only
NOT FOR CONSTRUCTION

Revision	Change ID	Description	Date
01	--	FOR REVIEW	05.07.23
02	--	FOR REVIEW	18.07.23
03	--	MID Submission - 90% client review	23.08.23
04	--	MID Submission	06.09.23

PROJECT: CopperString 2032 Camps
ADDRESS: Hughenden
CLIENT: UGL / CPB JV
JOB #: 2339

drawing LOCATION PLAN
scale 1:5000 (A3 paper)
date 06.09.2023
dwg # CU2-HU00-DRG-PAS-400-0002_04

7/59 WILLIAM STREET
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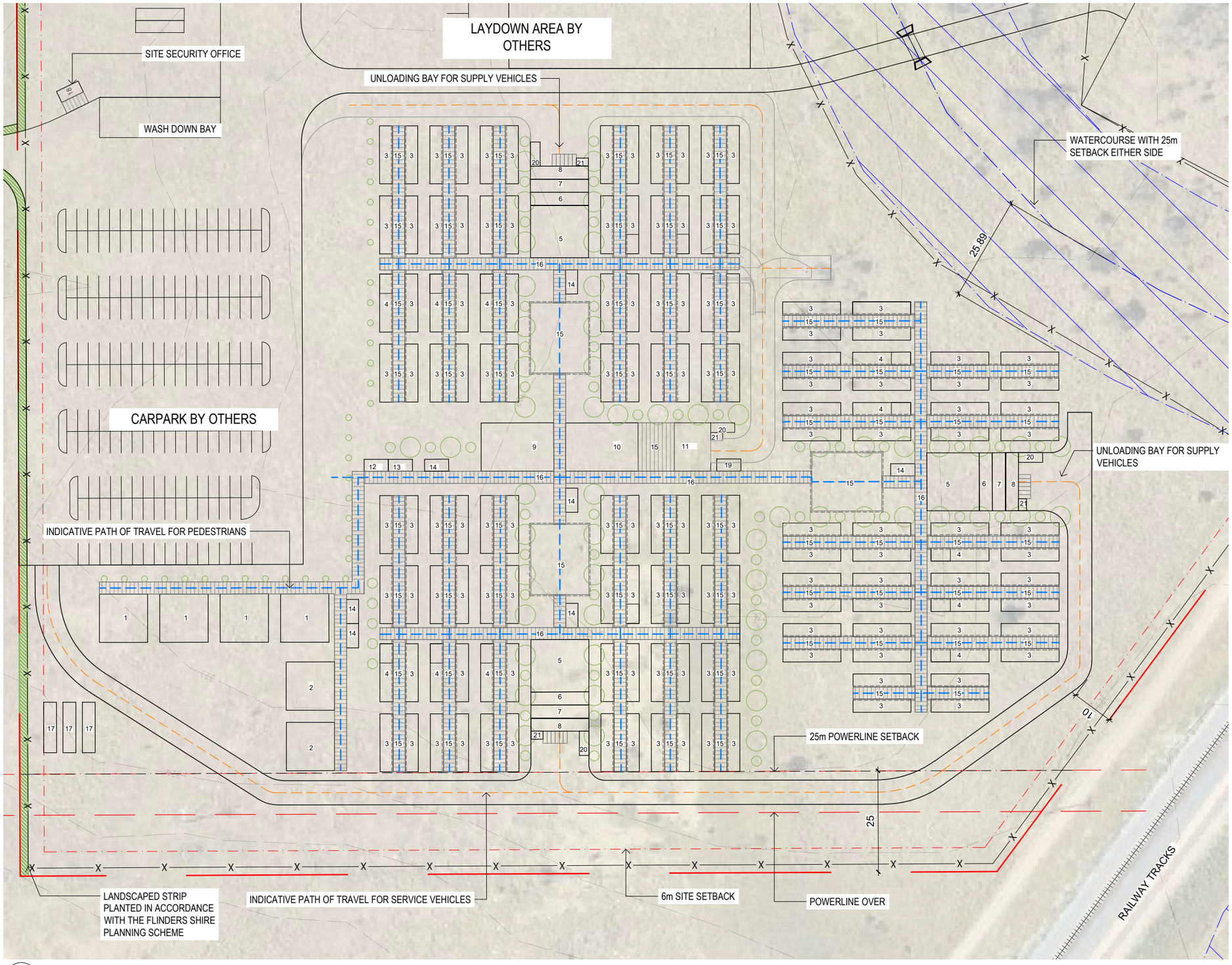
DAVID DENMAN + ASSOCIATES
denman.studio / architects



ACCOMMODATION CAMP SITE PLAN
SCALE 1:1000

LEGEND

- DCDB CADASTRE
- WATERCOURSE - DIGITISED
- BUSHFIRE HAZARD - MEDIUM RISK
- BUSHFIRE HAZARD - BUFFER ZONE
- BOUNDARY SETBACKS
- CONTOURS - 1m INTERVAL (NOT SURVEYED)
- SERVICE VEHICLE ACCESS WAY
- PEDESTRIAN ACCESS WAY
- WATERCOURSE SETBACK - 25m
- LANDSCAPED SCREENING
- PATHWAYS
- LANDSCAPE PLANTING

NOTES:
-Maintain a minimum distance of 3m between adjacent and opposite modules, where shown. Refer ground floor setout plan
-All residential units are to open onto a covered walkway with a minimum width of 3m with a waterproof roof with side ventilation along the entire length of each side for smoke ventilation (refer Accommodation Module drawings)
-Maintain an egress path with a minimum width of 1m

Camp Legend - Hughenden

ID No.	Name	Module Size m²	Qty	Total
1	Office	144	4	576 m²
2	Meeting Room	144	2	288 m²
3	Accommodation (3 Bed)	46.8	127	5943.6 m²
4	Accommodation (2 Bed) With Laundry	46.8	17	795.6 m²
5	Dining Room	46.8	12	561.6 m²
6	Servery	46.8	3	140.4 m²
7	Kitchen	46.8	3	140.4 m²
8	Food Store/ Prep	46.8	3	140.4 m²
9	Gym	72	3	216 m²
10	Recreation Room	72	3	216 m²
11	Wet Mess	72	1.5	108 m²
12	Site Reception	18	1	18 m²
13	First Aid	18	1	18 m²
14	WC Block	18	7	126 m²
15	Covered Outdoor Rec Area	N/A		4394.4 m²
16	Covered Walkway	N/A		495 L/M
17	Generator Unit	N/A	3	
18	Site Security (Inc. WC)	18	1	18 m²
19	Ice Room	18	1	18 m²
20	Refer Container	14.4	4	57.6 m²
21	Bin Area	N/A	4	
	Total Building Floor Area			**9381.6 m²**
	Total Covered Outdoor Rec Area			**4394.4 m²**
	Total Covered Walkway			**495 L/M**

Notes:

Final quantity and total area of amenities subject to review in detailed design phase.

0m — 50m

Sketch Design only
NOT FOR CONSTRUCTION

Revision	Change ID	Description	Date
04	--	FOR REVIEW	18.08.23
05	--	FOR REVIEW	21.08.23
06	--	MID Submission - 90% client review	23.08.23
07	--	MID Submission	06.09.23

PROJECT: CopperString 2032 Camps
ADDRESS: Hughenden
CLIENT: UGL / CPB JV
JOB #: 2339

drawing SITE PLAN
scale 1:1000 (A3 paper)
date 06.09.2023
dwg # CU2-HU00-DRG-PAS-400-0003_07

7/59 WILLIAM STREET
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Sketch Design only
NOT FOR CONSTRUCTION

Revision	Change ID	Description	Date
01		MID Submission - 90% client review	23.08.23
02		MID Submission	06.09.23

PROJECT:	CopperString 2032 Camps
ADDRESS:	Hughenden
CLIENT:	UGL / CPB JV
JOB #:	2339

drawing **Setout Plan**
scale 1:750 (A3 paper)
date 06.09.2023

dwg # CU2-HU00-DRG-PAS-400-0004_02

7/59 WILLIAM STREET
LAUNCESTON TAS 7250
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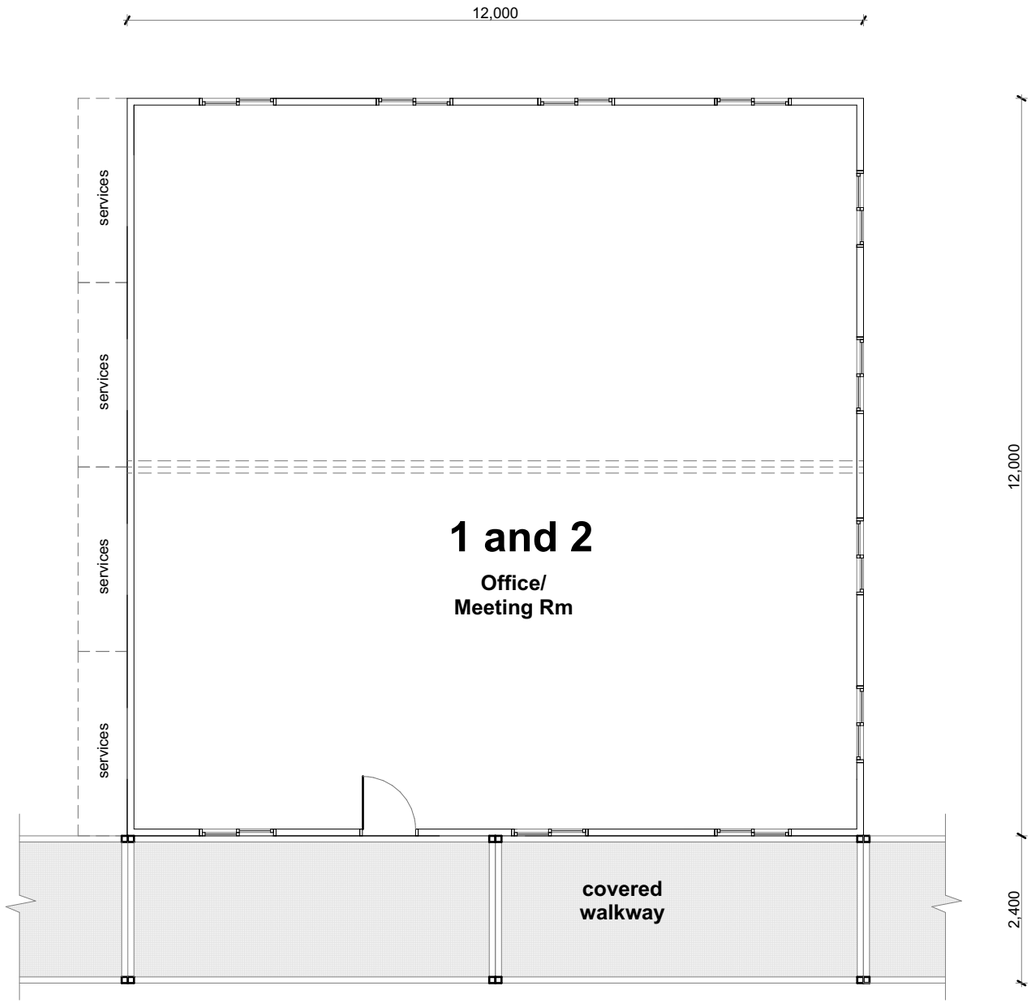
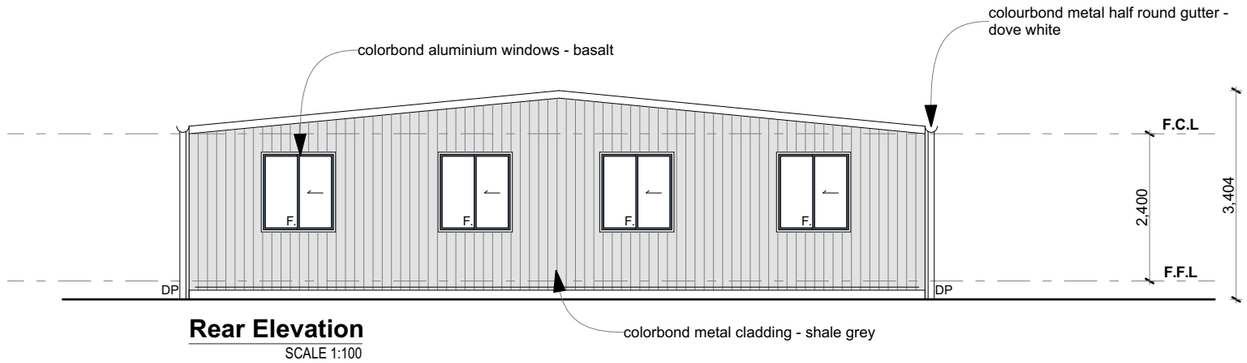
DAVID DENMAN + ASSOCIATES

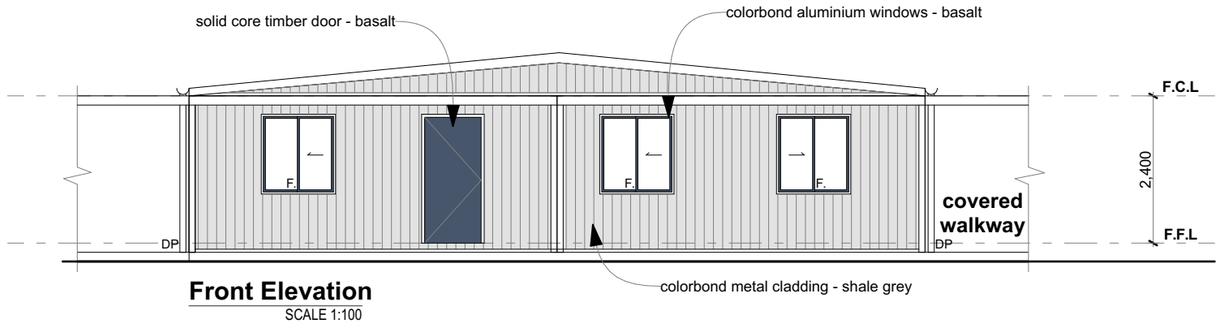
Notes:
1. Stormwater - gutters types, dp's and water tanks indicative only to be confirmed by hydraulic engineer at detailed design stage.
2. Height above ground to F.F.L. and footings to be confirmed by structural engineer at detailed design stage.
3. Window size and spacings subject to bracing requirements to be determined at detailed design stage.
4. Overall building height dimension nominal, pending final supplier shop drawings and details. No building to be taller than 8.5m.



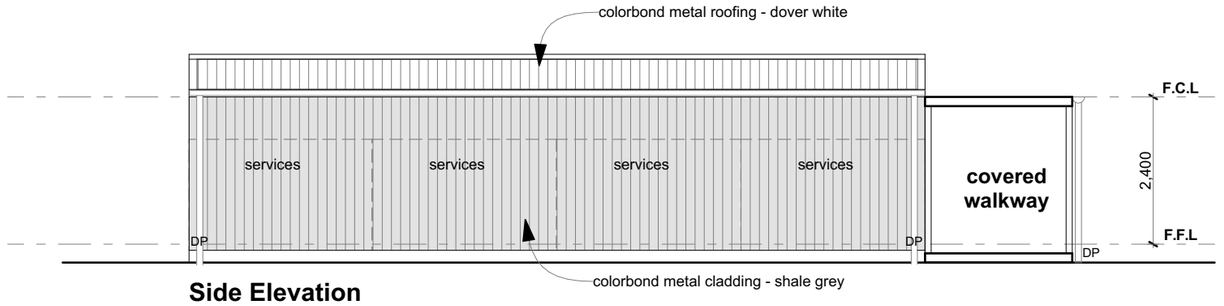
Floor Plan - Typical
SCALE 1:100



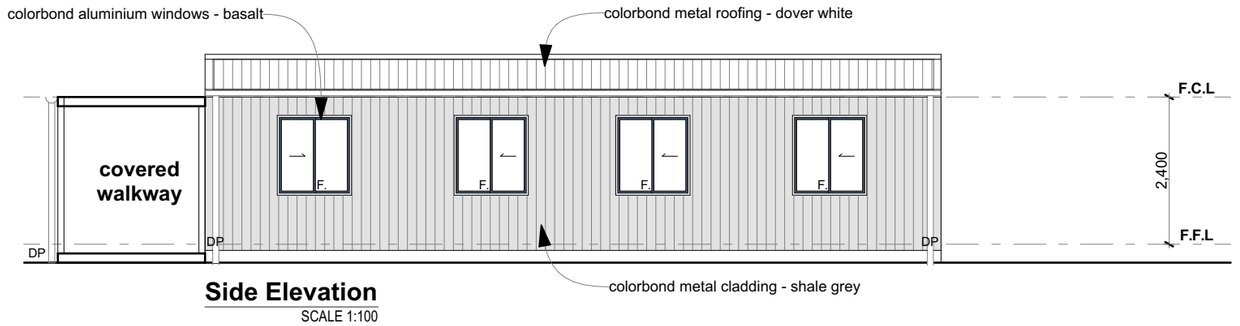
Rear Elevation
SCALE 1:100



Front Elevation
SCALE 1:100



Side Elevation
SCALE 1:100



Side Elevation
SCALE 1:100

1 - OFFICE
2 - MEETING ROOM

Sketch Design only
NOT FOR CONSTRUCTION

Revision	Change ID	Description	Date
01		MID Submission - 90% client review	23.08.23
02		MID Submission	06.09.23

PROJECT: CopperString 2032 Camps
ADDRESS: Hughenden
CLIENT: UGL / CPB JV
JOB #: 2339

drawing **Modules 1, 2 - Plans and Elevations**
scale 1:100 (A3 paper)
date 06.09.2023
dwg # CU2-HU00-DRG-PAS-400-0005_02

7/59 WILLIAM STREET
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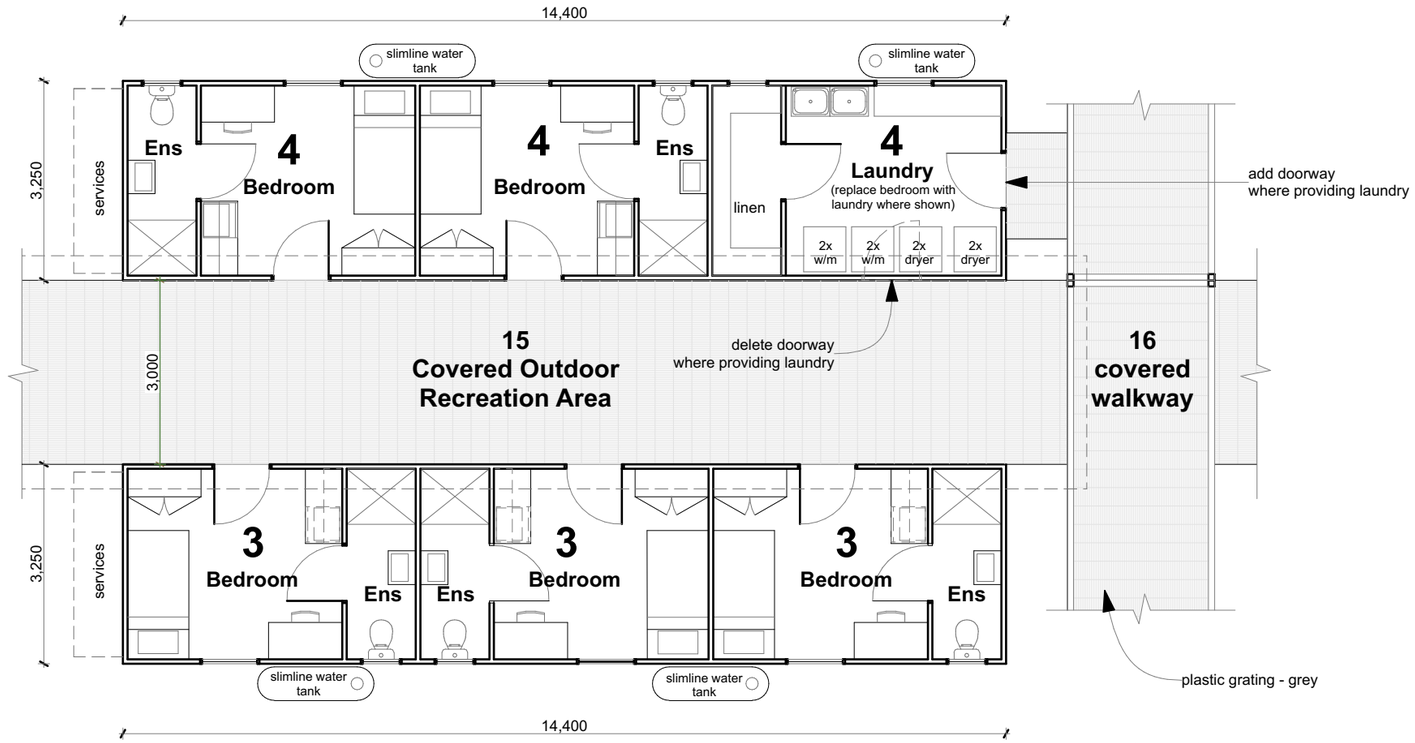
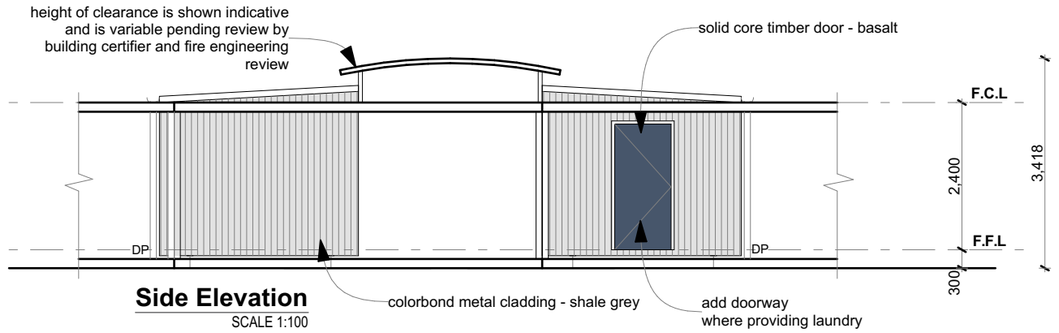
DAVID DENMAN + ASSOCIATES

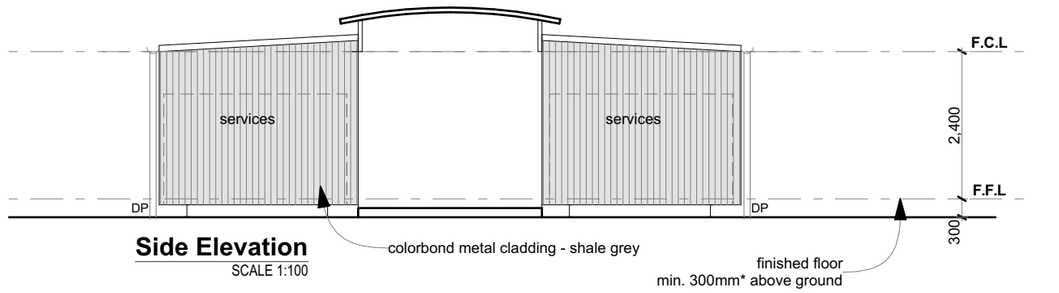


Floor Plans

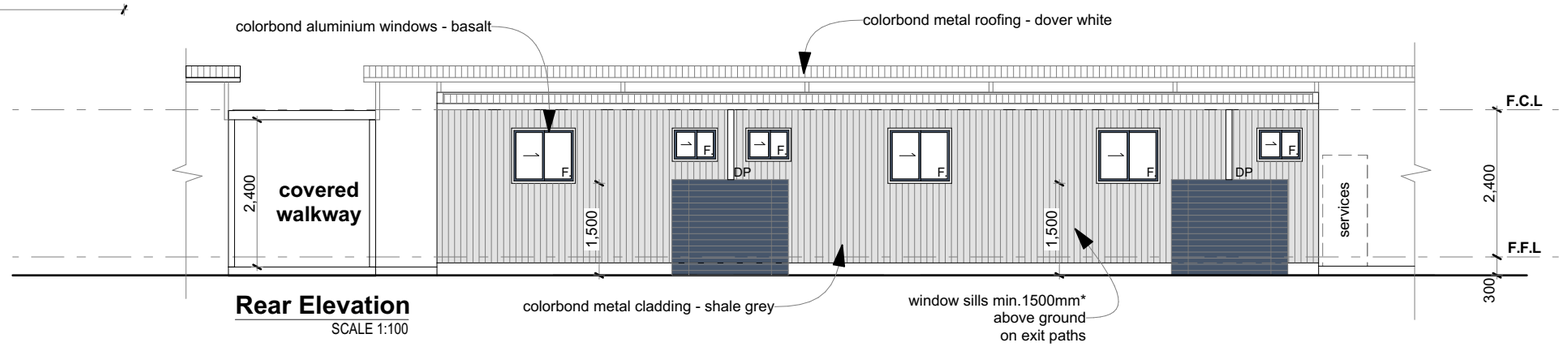
SCALE 1:100



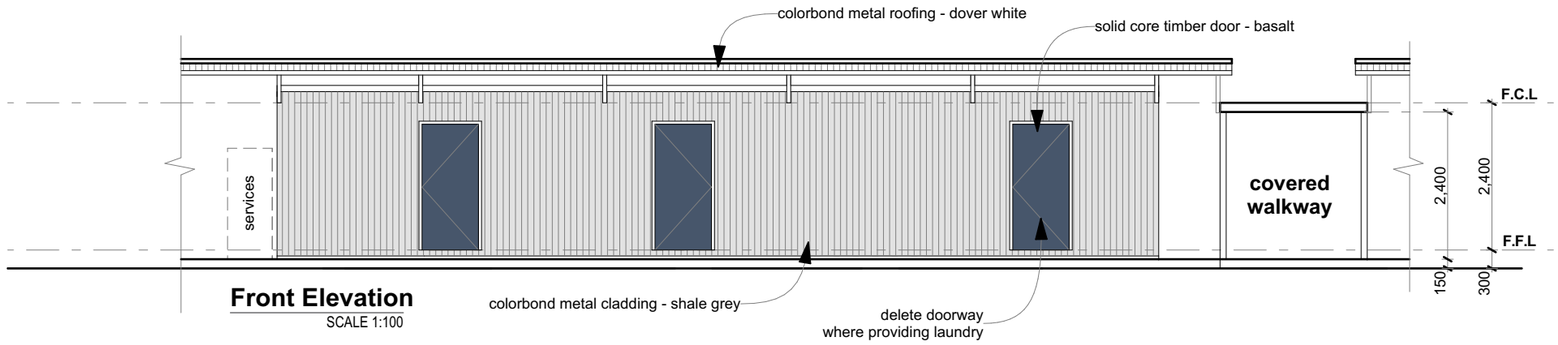
Side Elevation
SCALE 1:100



Side Elevation
SCALE 1:100



Rear Elevation
SCALE 1:100



Front Elevation
SCALE 1:100

Notes:
1. Stormwater - gutters types, dp's and water tanks indicative only to be confirmed by hydraulic engineer at detailed design stage.
2. Height above ground to F.F.L.and footings to be confirmed by structural engineer at detailed design stage.
3. Window size and spacings subject to bracing requirements to be determined at detailed design stage.
4. Overall building height dimension nominal, pending final supplier shop drawings and details. No building to be taller than 8.5m.

3 - ACCOMMODATION UNIT (3 bed)

4 - ACCOMMODATION UNIT (2 bed) with LAUNDRY

Sketch Design only
NOT FOR CONSTRUCTION

Revision	Change ID	Description	Date
01		MID Submission - 90% client review	23.08.23
02		MID Submission	06.09.23

PROJECT: CopperString 2032 Camps
ADDRESS: Hughenden
CLIENT: UGL / CPB JV
JOB #: 2339

drawing **Modules 3, 4 - Plans and Elevations**
scale 1:100 (A3 paper)
date 06.09.2023
dwg # CU2-HU00-DRG-PAS-400-0006_02

7/59 WILLIAM STREET
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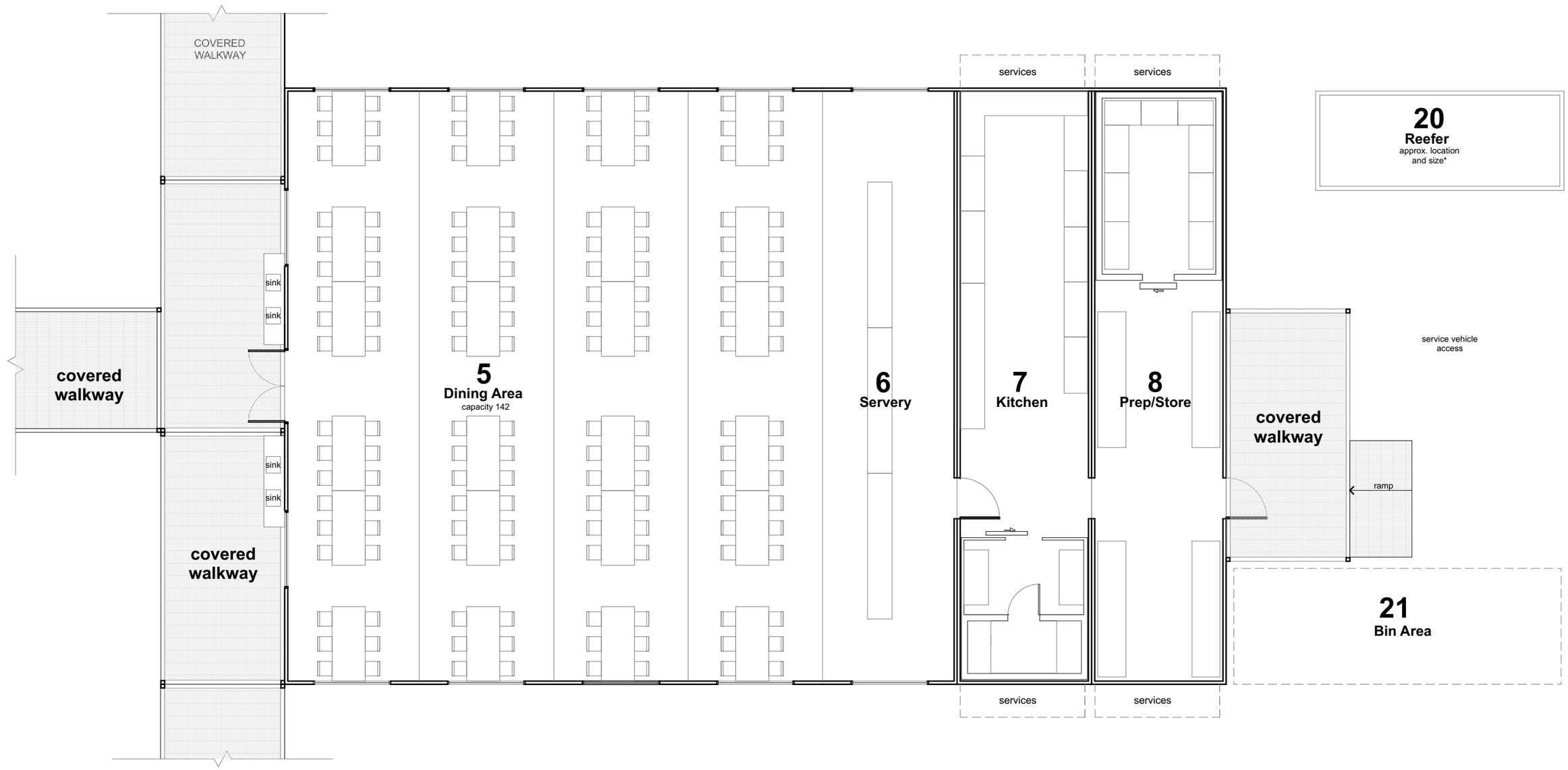

5 - DINING MODULE
6 - SERVERY MODULE
7 - KITCHEN MODULE
8 - FOOD STORE/ PREP

Floor Plan

SCALE 1:100

Notes:

1. Stormwater - gutters types, dp's and water tanks indicative only to be confirmed by hydraulic engineer at detailed design stage.
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Sketch Design only
NOT FOR CONSTRUCTION

Revision	Change ID	Description	Date
01		MID Submission - 90% client review	23.08.23
02		MID Submission	06.09.23

PROJECT: CopperString 2032 Camps
ADDRESS: Hughenden
CLIENT: UGL / CPB JV
JOB #: 2339

drawing **Modules 3, 4 - Plans**
scale 1:100 (A3 paper)
date 06.09.2023
dwg # CU2-HU00-DRG-PAS-400-0007_02

7/59 WILLIAM STREET
LAUNCESTON TAS 7250
P: 03 6334 4899
E: admin@denman.studio
DAVID DENMAN + ASSOCIATES

Notes:
1. Stormwater - gutters types, dp's and water tanks indicative only to be confirmed by hydraulic engineer at detailed design stage.
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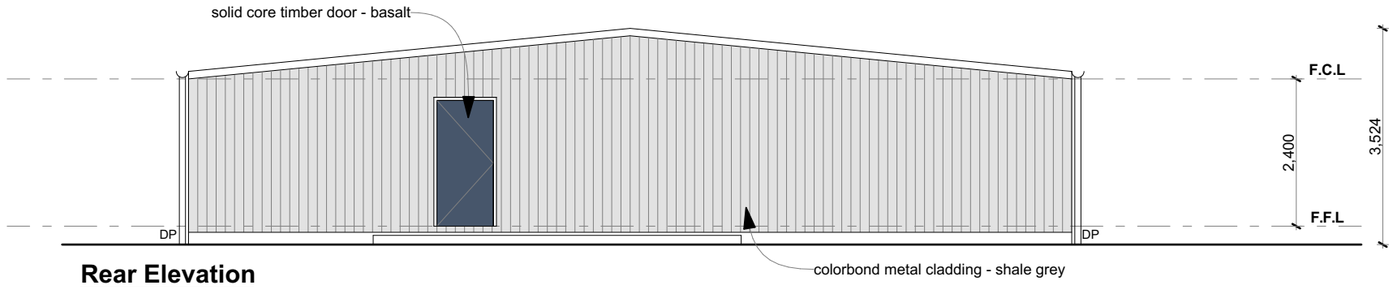
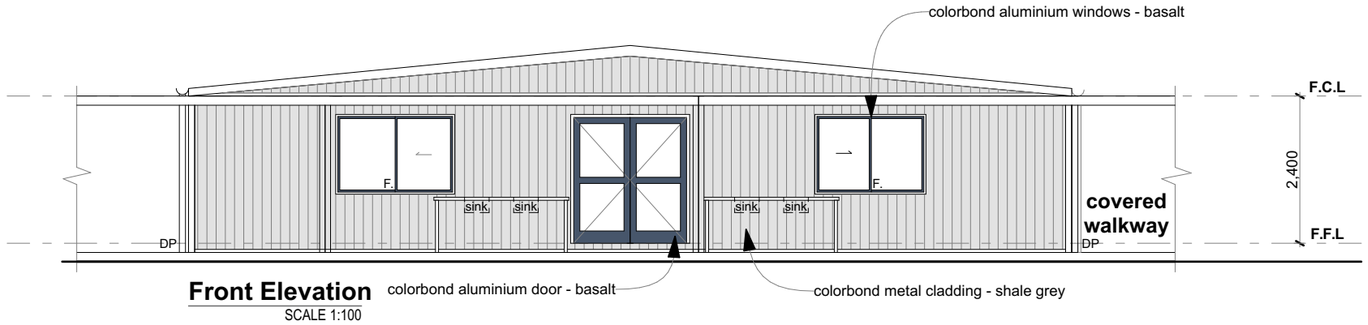
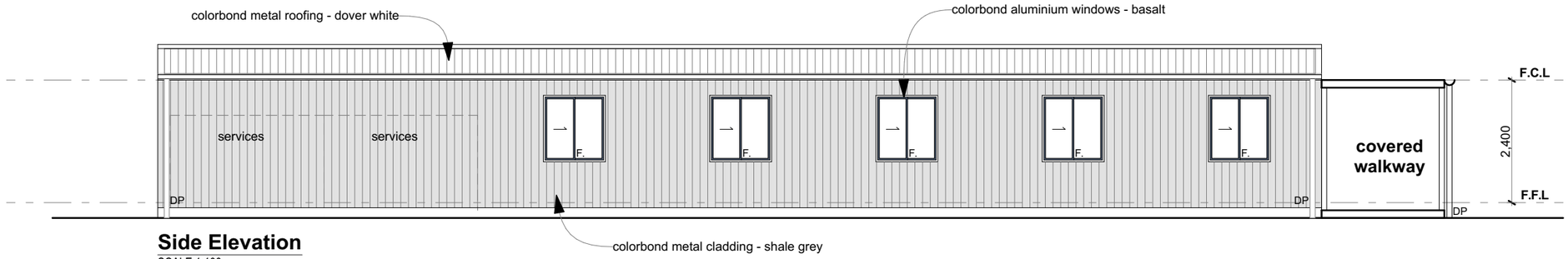


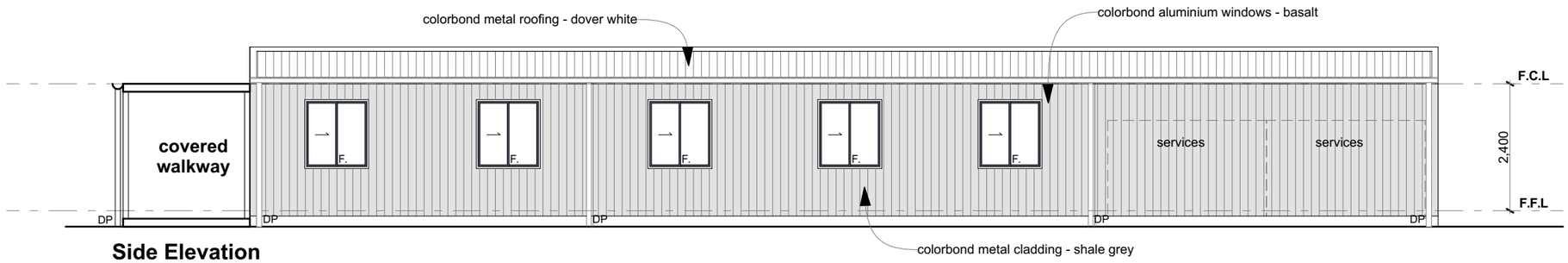
Rear Elevation
SCALE 1:100



Front Elevation
SCALE 1:100



Side Elevation
SCALE 1:100



Side Elevation
SCALE 1:100

5 - DINING MODULE
6 - SERVERY MODULE
7 - KITCHEN MODULE
8 - FOOD STORE/ PREP

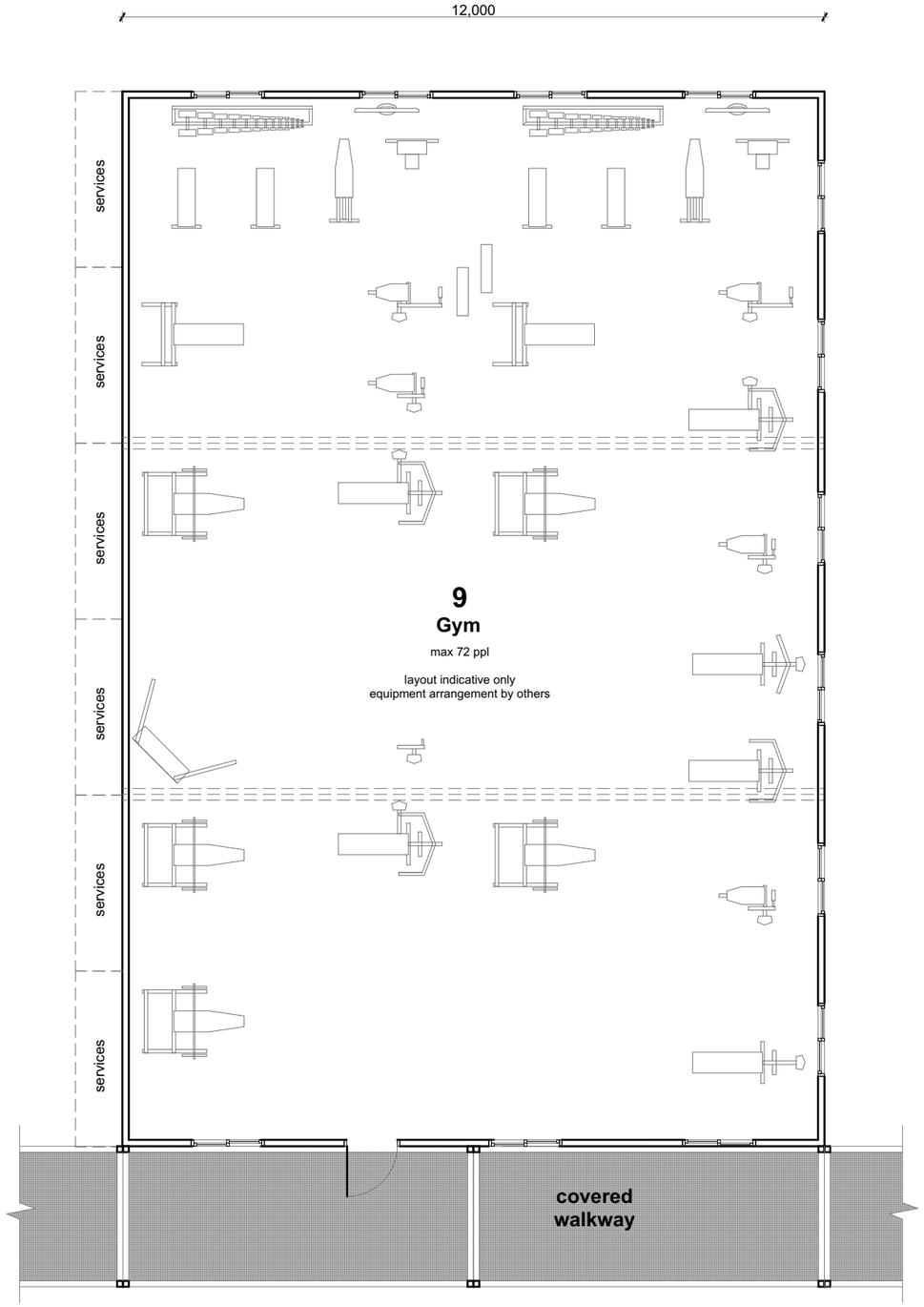
Sketch Design only
NOT FOR CONSTRUCTION

Revision	Change ID	Description	Date
01		MID Submission - 90% client review	23.08.23
02		MID Submission	06.09.23

PROJECT: CopperString 2032 Camps
ADDRESS: Hughenden
CLIENT: UGL / CPB JV
JOB #: 2339

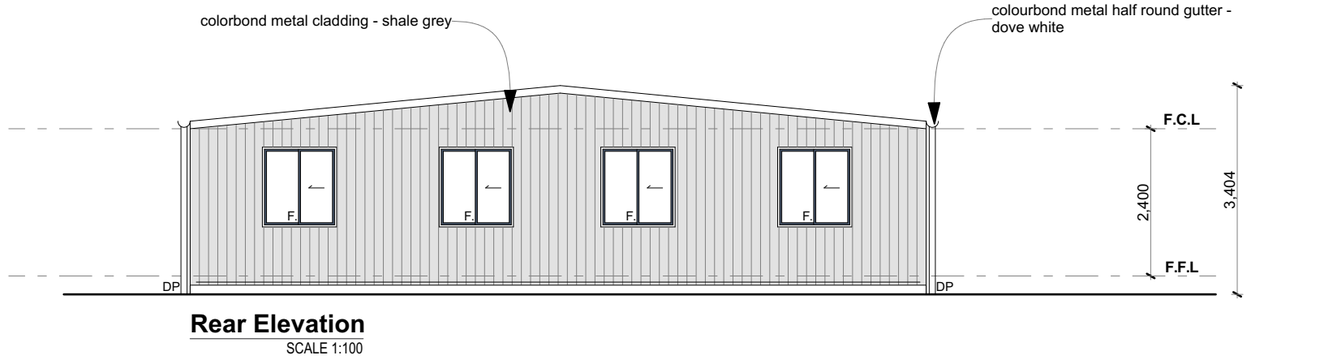
drawing **Modules 5, 6, 7, 8 - Elevations**
scale 1:100 (A3 paper)
date 06.09.2023
dwg # CU2-HU00-DRG-PAS-400-0008_02

7/59 WILLIAM STREET
LAUNCESTON TAS 7250
P: 03 6334 4899
E: admin@denman.studio
DAVID DENMAN + ASSOCIATES



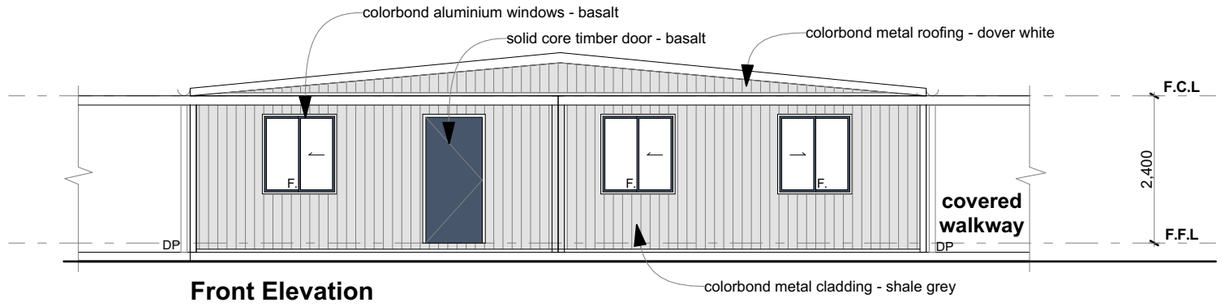
Floor Plan

SCALE 1:100



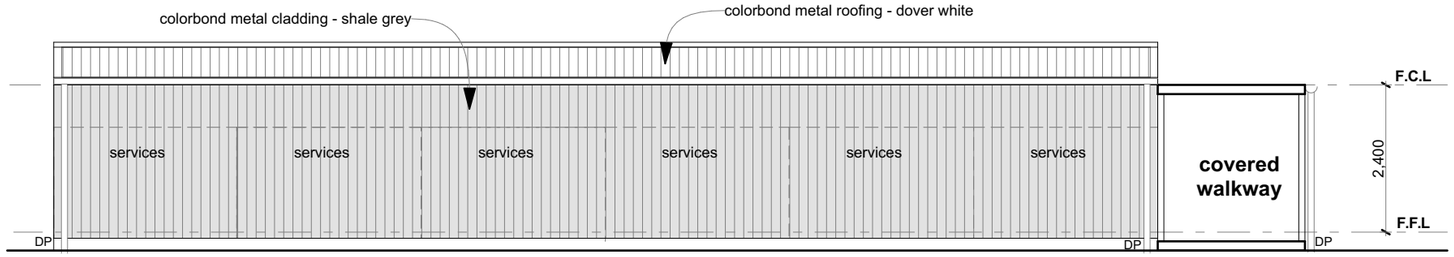
Rear Elevation

SCALE 1:100



Front Elevation

SCALE 1:100



Side Elevation

SCALE 1:100

Side Elevation

SCALE 1:100

Notes:

1. Stormwater - gutters types, dp's and water tanks indicative only to be confirmed by hydraulic engineer at detailed design stage.
2. Height above ground to F.F.L.and footings to be confirmed by structural engineer at detailed design stage.
3. Window size and spacings subject to bracing requirements to be determined at detailed design stage.
4. Overall building height dimension nominal, pending final supplier shop drawings and details. No building to be taller than 8.5m.

9 - GYM

Sketch Design only
NOT FOR CONSTRUCTION

Revision	Change ID	Description	Date
01		MID Submission - 90% client review	23.08.23
02		MID Submission	06.09.23

PROJECT: CopperString 2032 Camps
ADDRESS: Hughenden
CLIENT: UGL / CPB JV
JOB #: 2339

drawing **Module 9 - Plans and Elevations**
scale 1:100 (A3 paper)
date 06.09.2023

dwg # CU2-HU00-DRG-PAS-400-0009_02

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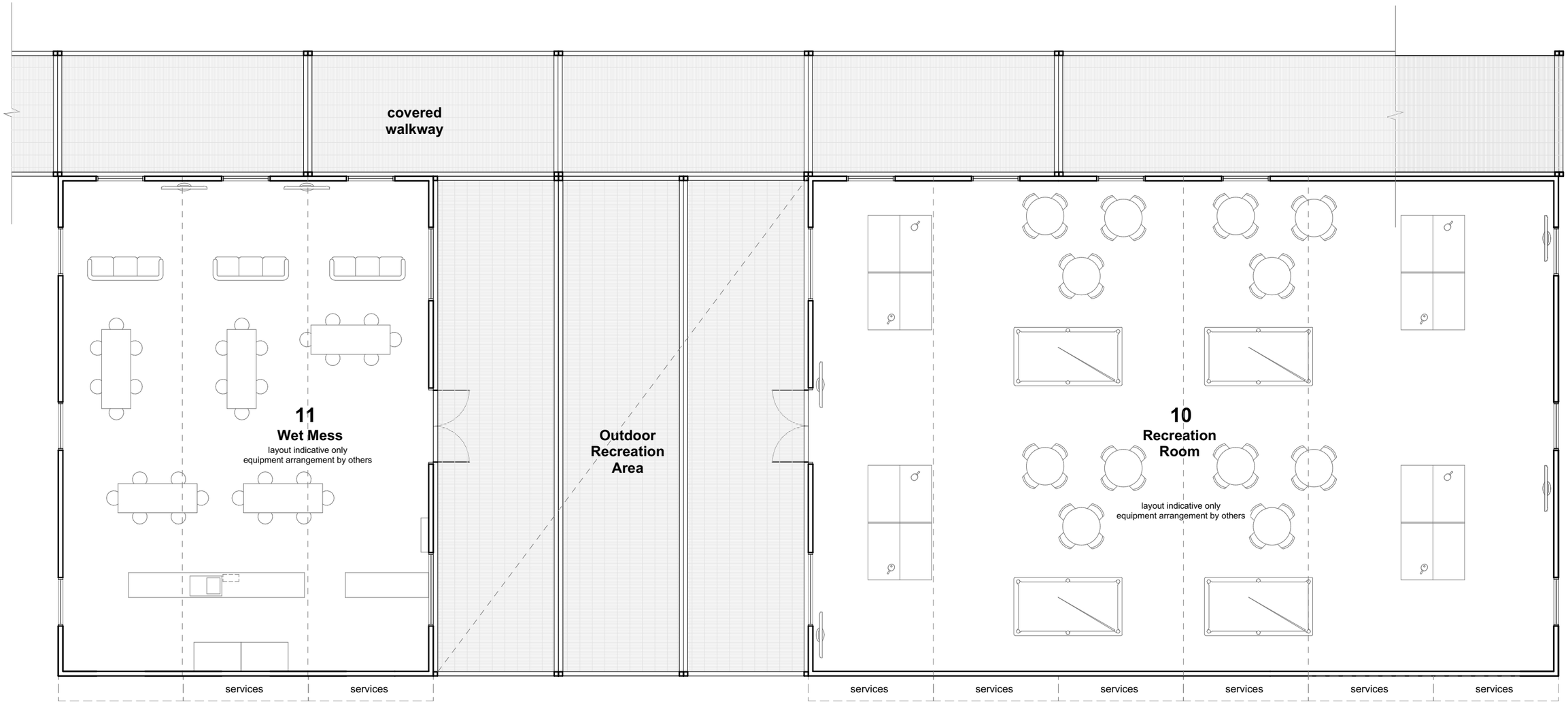
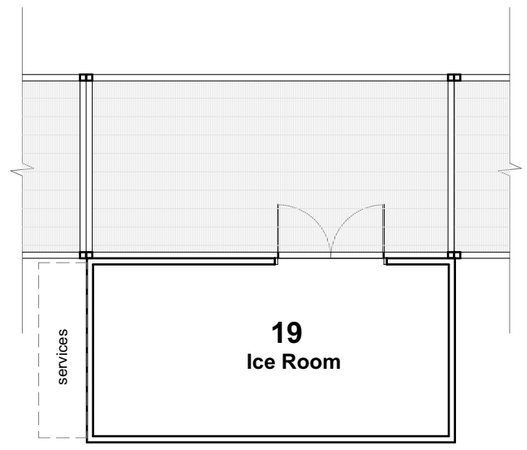


Floor Plan

SCALE 1:100



Notes:
1. Stormwater - gutters types, dp's and water tanks indicative only to be confirmed by hydraulic engineer at detailed design stage.
2. Height above ground to F.F.L.and footings to be confirmed by structural engineer at detailed design stage.
3. Window size and spacings subject to bracing requirements to be determined at detailed design stage.
4. Overall building height dimension nominal, pending final supplier shop drawings and details. No building to be taller than 8.5m.
5. Final dimension TBC in detailed design.

10 - RECREATION ROOM
11 - WET MESS

Sketch Design only
NOT FOR CONSTRUCTION

Revision	Change ID	Description	Date
01		MID Submission - 90% client review	23.08.23
02		MID Submission	06.09.23

PROJECT: CopperString 2032 Camps
ADDRESS: Hughenden
CLIENT: UGL / CPB JV
JOB #: 2339

drawing **Module 10, 11 - Plans**
scale 1:100 (A3 paper)
date 06.09.2023
dwg # CU2-HU00-DRG-PAS-400-0010_02

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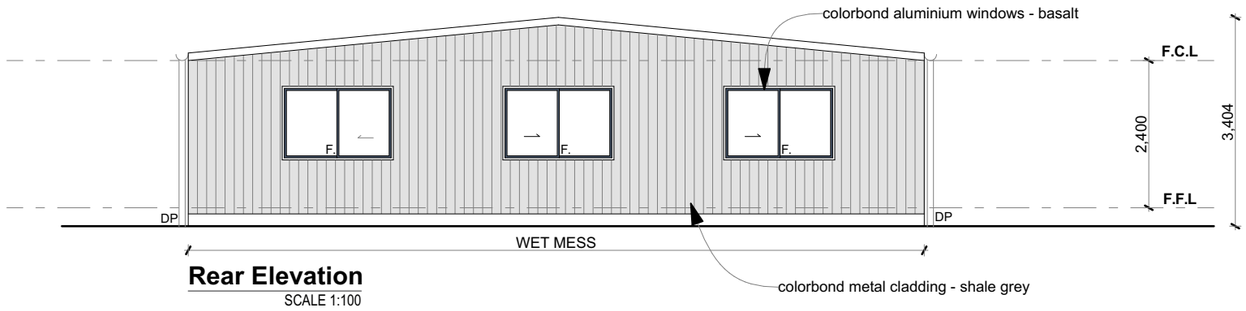
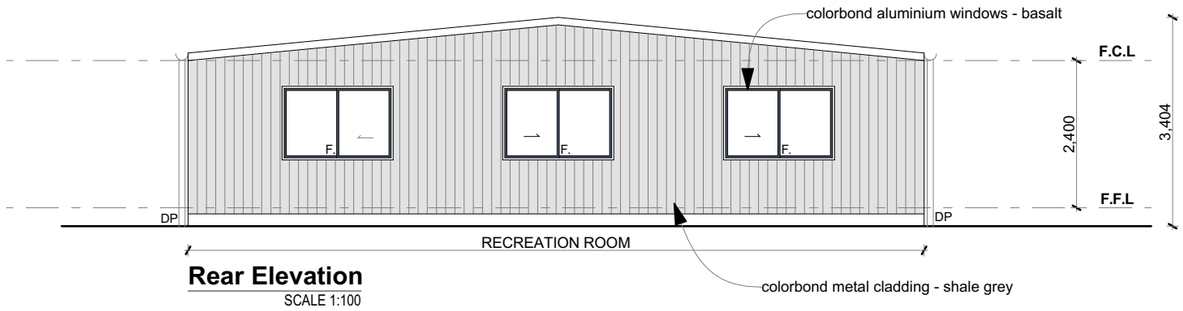
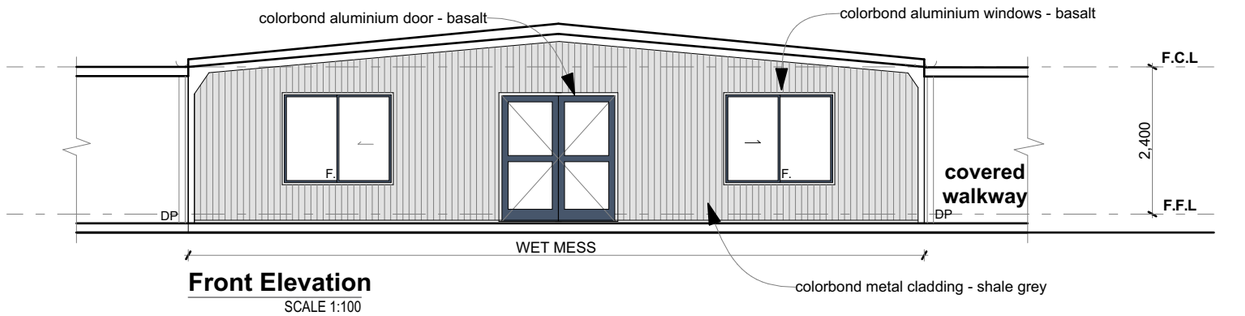


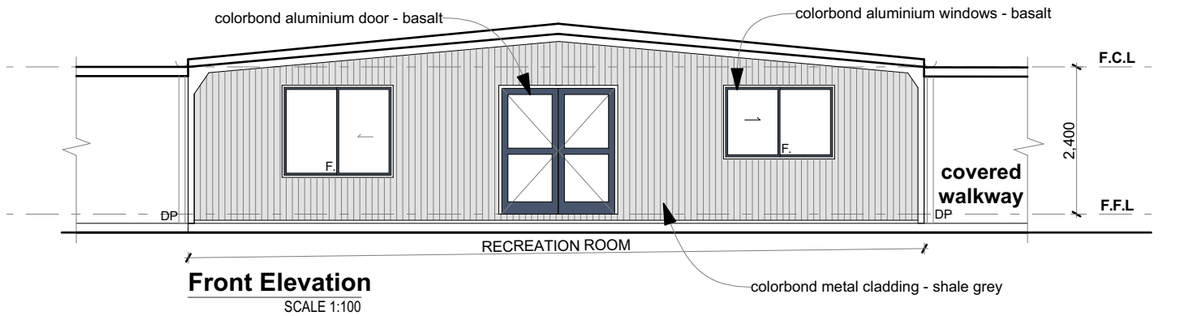
Rear Elevation
SCALE 1:100



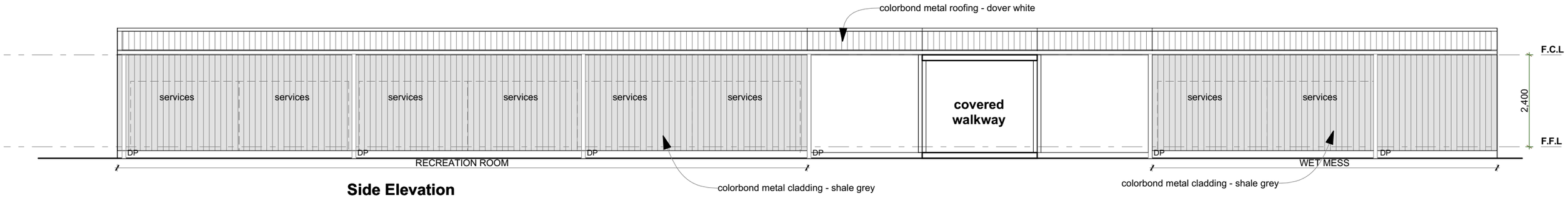
Rear Elevation
SCALE 1:100



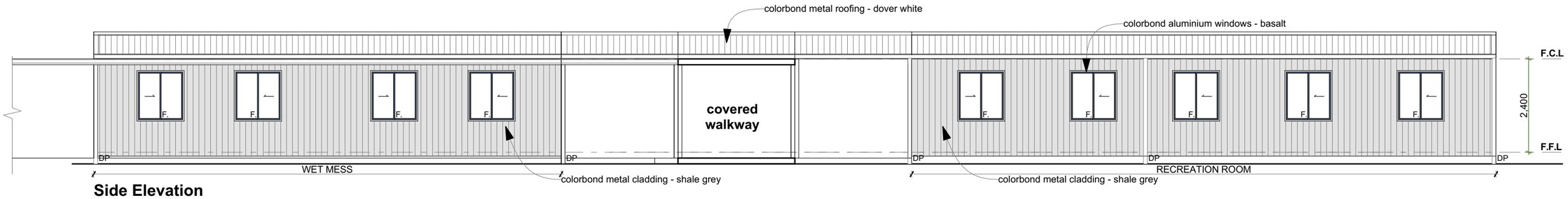
Front Elevation
SCALE 1:100



Front Elevation
SCALE 1:100



Side Elevation
SCALE 1:100



Side Elevation
SCALE 1:100

Notes:
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10 - RECREATION ROOM
11 - WET MESS

Sketch Design only
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PROJECT: CopperString 2032 Camps
ADDRESS: Hughenden
CLIENT: UGL / CPB JV
JOB #: 2339

drawing **Module 10, 11 - Elevations**
scale 1:100 (A3 paper)
date 06.09.2023
dwg # CU2-HU00-DRG-PAS-400-0011_02

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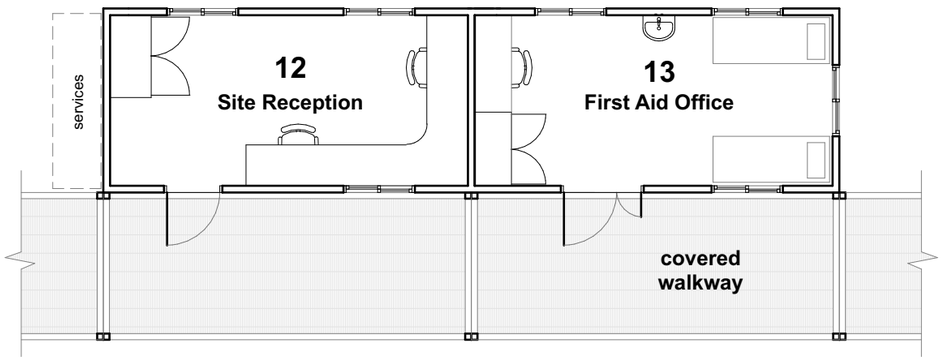

Floor Plan

SCALE 1:100

12 - SITE RECEPTION
13 - FIRST AID

Notes:
1. Stormwater - gutters types, dp's and water tanks indicative only to be confirmed by hydraulic engineer at detailed design stage.
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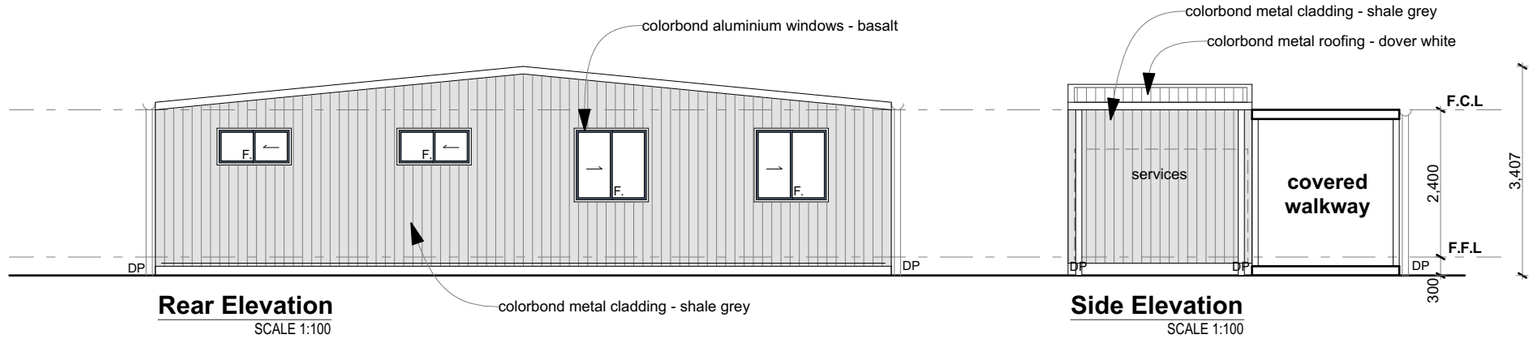
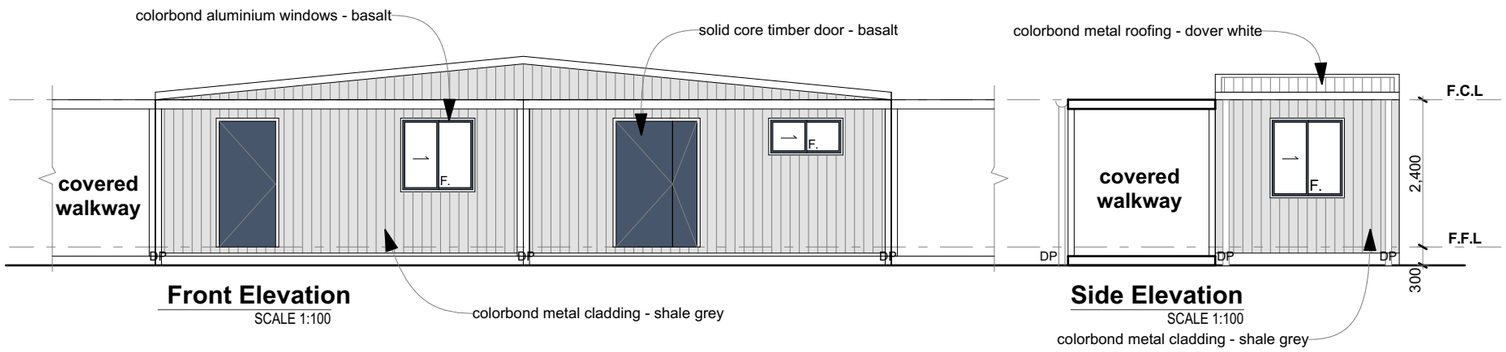
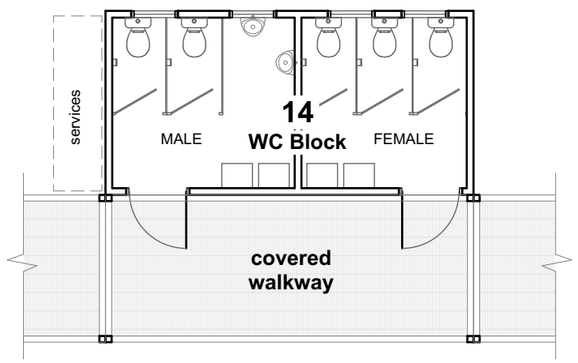


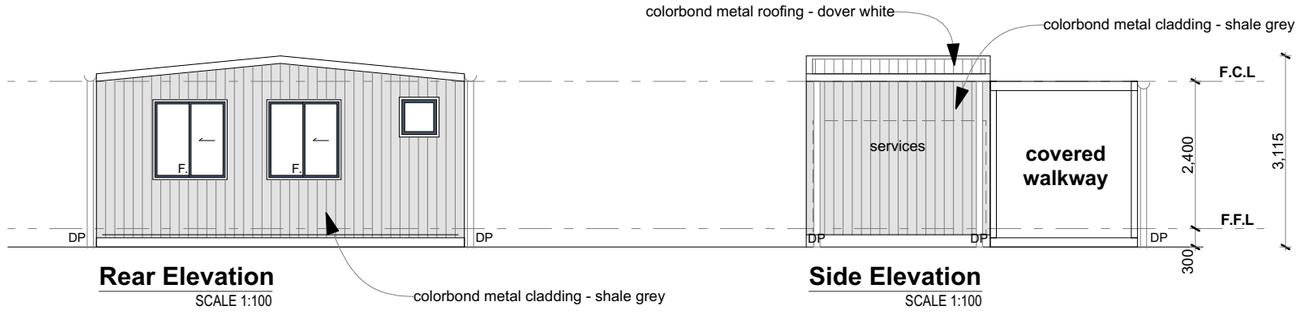


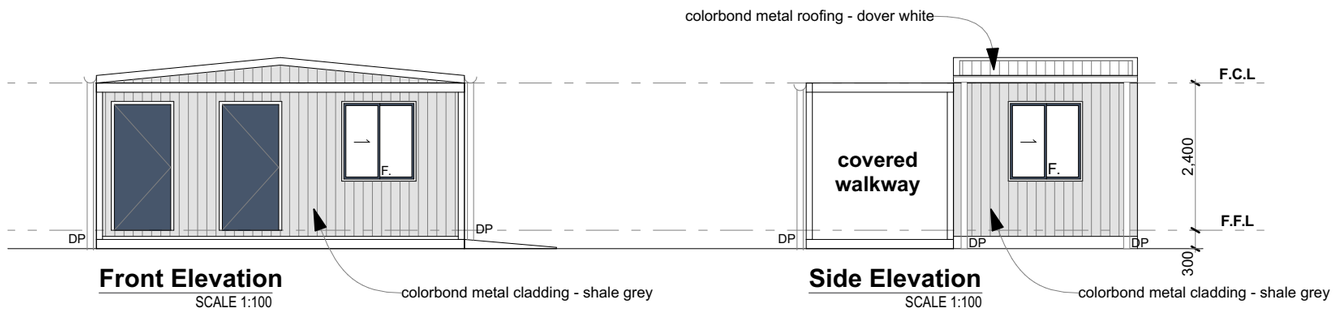


Floor Plan

SCALE 1:100

14 - TOILET BLOCK





Sketch Design only
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Revision	Change ID	Description	Date
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02		MID Submission	06.09.23

PROJECT: CopperString 2032 Camps
ADDRESS: Hughenden
CLIENT: UGL / CPB JV
JOB #: 2339

drawing **Module 12, 13, 14 - Plans and Elevations**
scale 1:100 (A3 paper)
date 06.09.2023
dwg # CU2-HU00-DRG-PAS-400-0012_02

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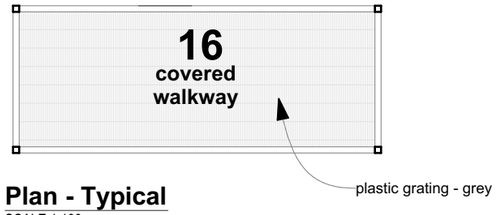
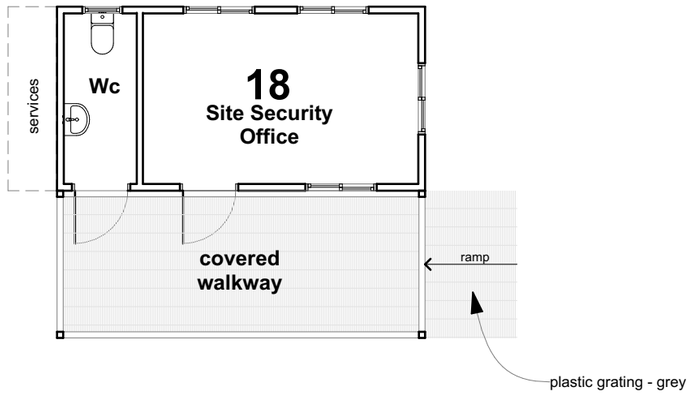


Plan - Typical
SCALE 1:100

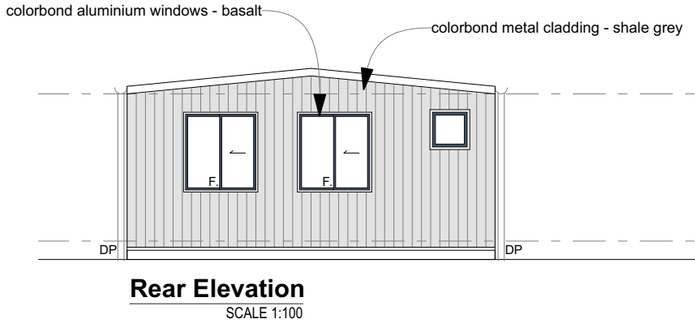
Long Elevation - Typical
SCALE 1:100

Short Elevation - Typical
SCALE 1:100

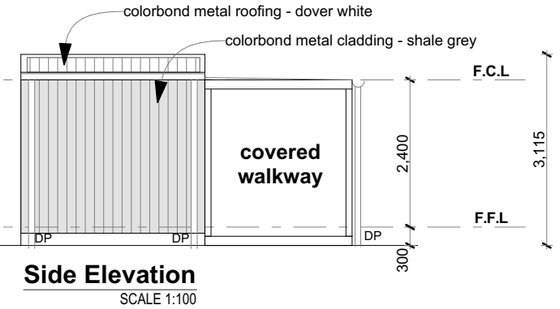
16 - COVERED WALKWAY



Floor Plan
SCALE 1:100

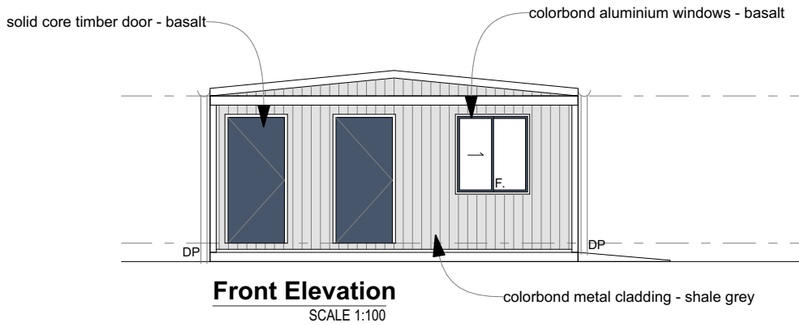


Rear Elevation
SCALE 1:100

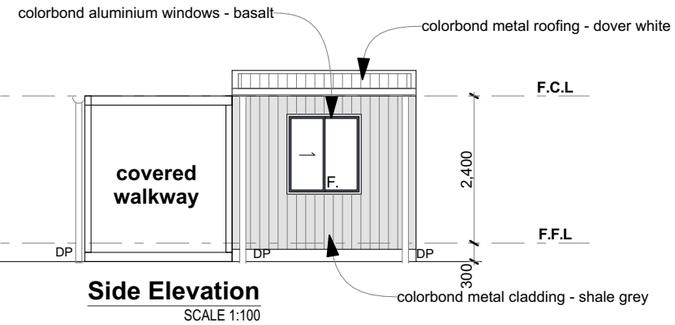


Side Elevation
SCALE 1:100

18 - SITE SECURITY OFFICE



Front Elevation
SCALE 1:100



Side Elevation
SCALE 1:100

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PROJECT: CopperString 2032 Camps
ADDRESS: Hughenden
CLIENT: UGL / CPB JV
JOB #: 2339

drawing **Modules 16 ,18 - Plans and Elevations**
scale 1:100 (A3 paper)
date 06.09.2023
dwg # CU2-HU00-DRG-PAS-400-0013_02

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Floor Plan

SCALE 1:100

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02		MID Submission	06.09.23

PROJECT: CopperString 2032 Camps
ADDRESS: Hughenden
CLIENT: UGL / CPB JV
JOB #: 2339

drawing **Covered Outdoor Recreation Areas**
scale 1:100 (A3 paper)
date 06.09.2023
dwg # CU2-HU00-DRG-PAS-400-0014_02

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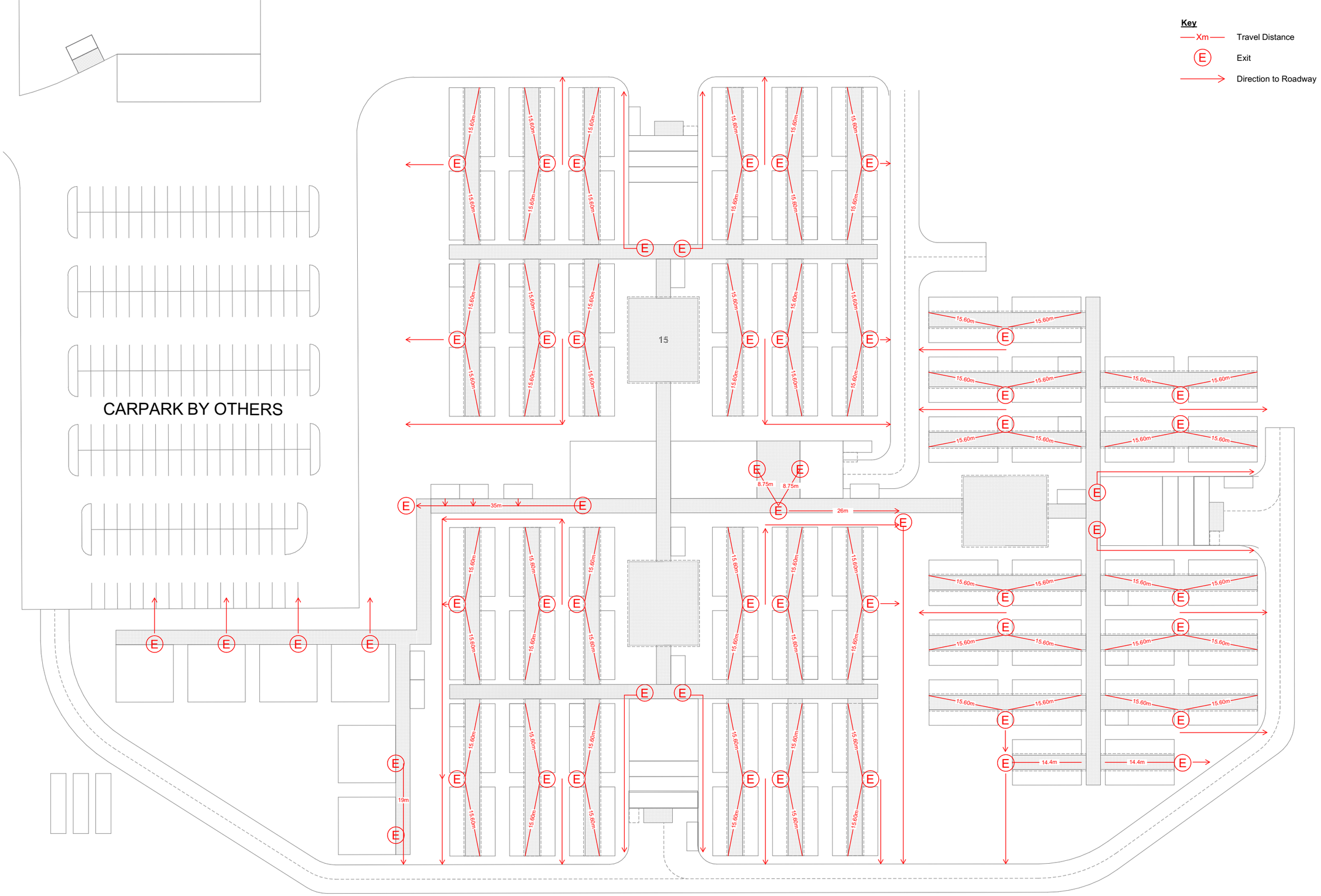
DENMAN.STUDIO + PARTNERS



Sketch Design only
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01		MID Submission - 90% client review	23.08.23
02		MID Submission	06.09.23

PROJECT: CopperString 2032 Camps
ADDRESS: Hughenden
CLIENT: UGL / CPB JV
JOB #: 2339

drawing **Egress Diagram**
scale 1:750 (A3 paper)
date 06.09.2023
dwg # CU2-HU00-DRG-PAS-400-0015_02

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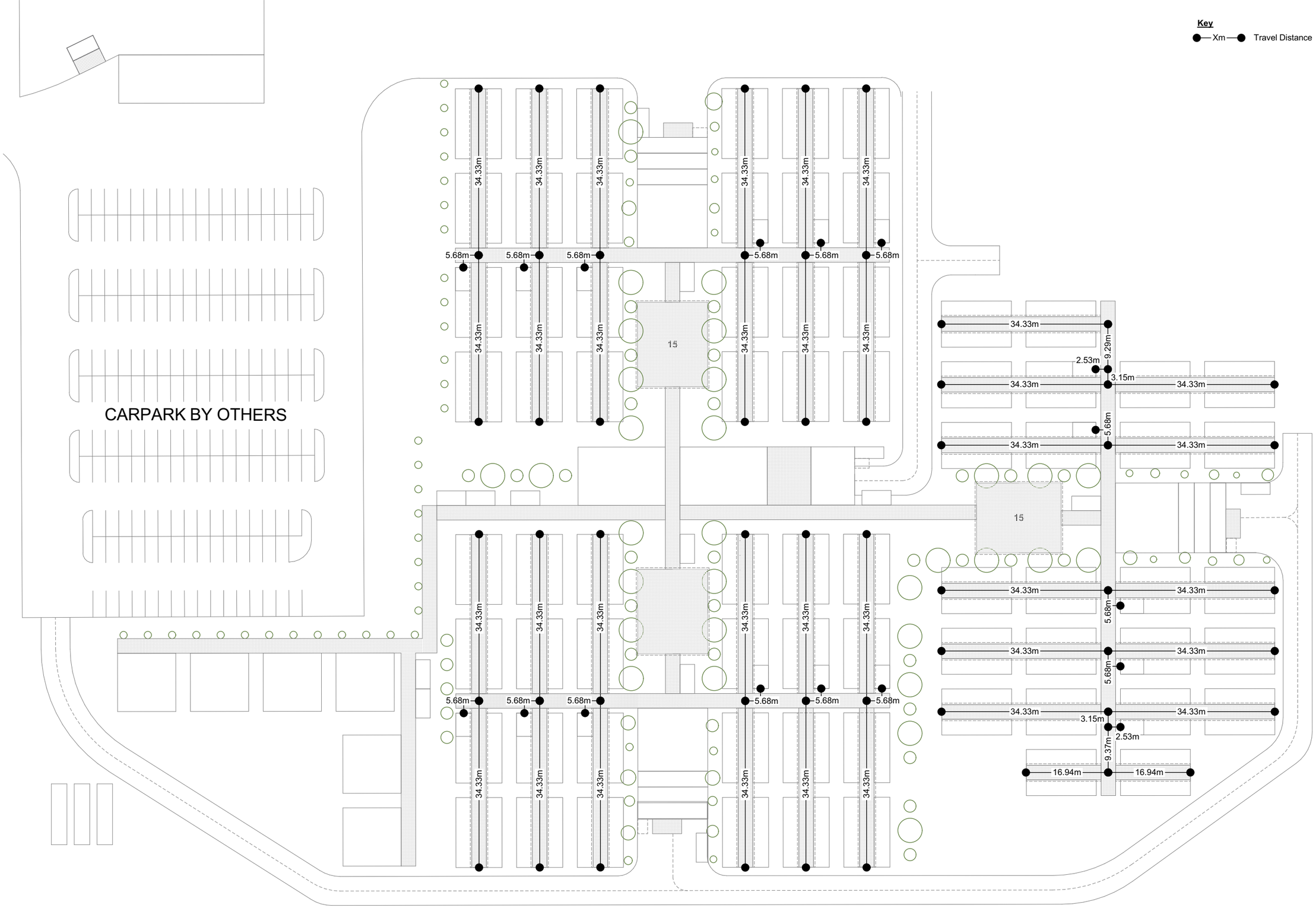

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PROJECT: CopperString 2032 Camps
ADDRESS: Hughenden
CLIENT: UGL / CPB JV
JOB #: 2339

drawing **Distance to Laundry Diagram**
scale 1:750 (A3 paper)
date 06.09.2023

dwg # CU2-HU00-DRG-PAS-400-0016_02

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DAVID DENMAN + ASSOCIATES
HEAMON, SERVICE + ARCHITECTURE

Sketch Design only
NOT FOR CONSTRUCTION

Revision	Change ID	Description	Date
01		MID Submission - 90% client review	23.08.23
02		MID Submission	06.09.23

PROJECT: CopperString 2032 Camps
ADDRESS: Hughenden
CLIENT: UGL / CPB JV
JOB #: 2339

drawing **Distance to Dining Room Diagram**
scale 1:750 (A3 paper)
date 06.09.2023

dwg # CU2-HU00-DRG-PAS-400-0017_02

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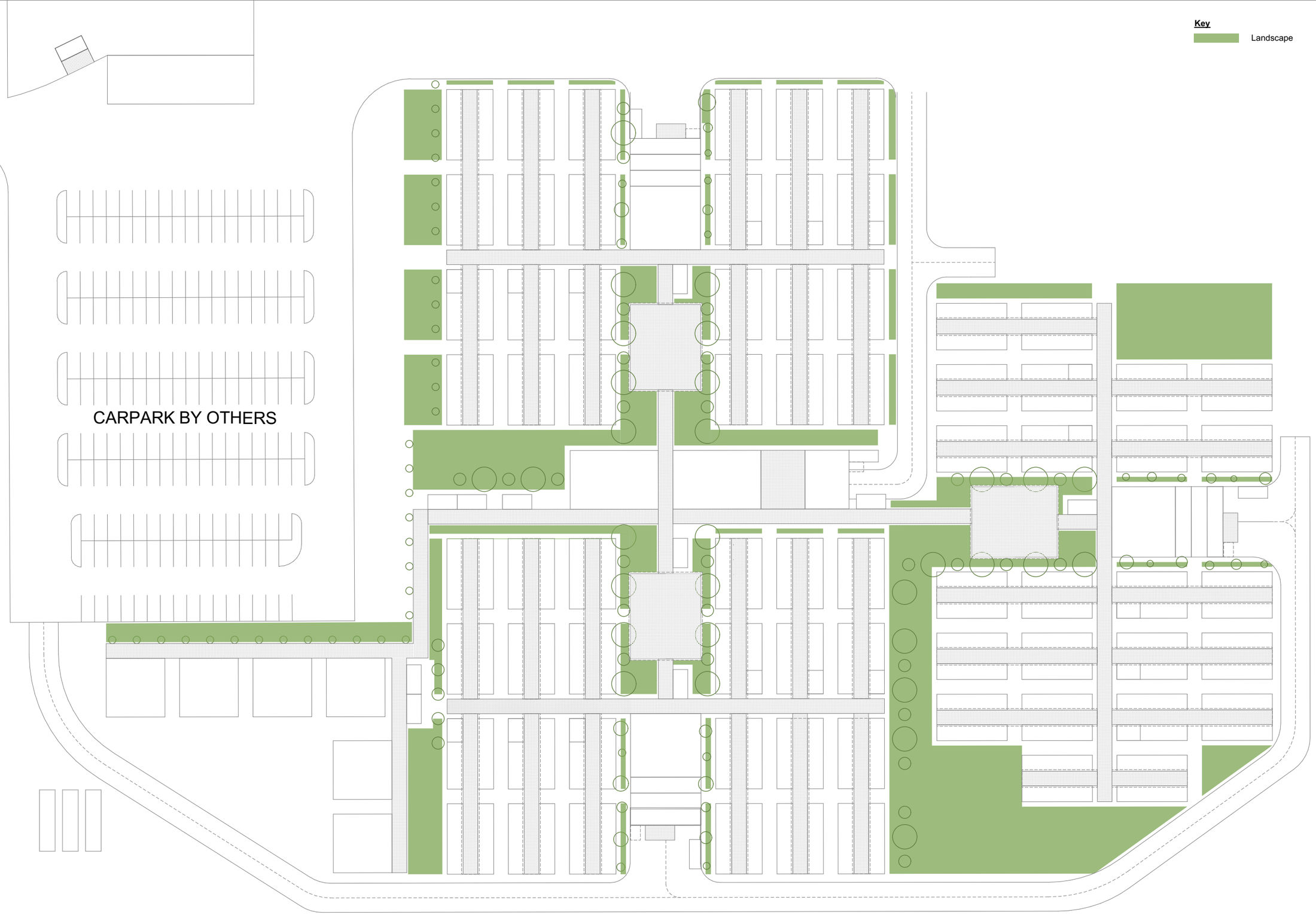

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PROJECT: CopperString 2032 Camps
ADDRESS: Hughenden
CLIENT: UGL / CPB JV
JOB #: 2339

drawing **Landscape Plan**
scale 1:750 (A3 paper)
date 06.09.2023

dwg # CU2-HU00-DRG-PAS-400-0018_02

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DAVID DENMAN + ASSOCIATES
LANDSCAPE ARCHITECTURE