

Central West Orana Renewable Energy Zone – Port to Renewable Energy Zone Road Upgrade Program

Minor works review of environmental
factors – Pull-over Bays

February 2025

Acknowledgement of Country

Transport for NSW acknowledges the Wonnarau, Wiradjuri, and Gamilaraay people, the traditional custodians of the land on which the Port to Renewable Energy Zone Road Upgrade Program (Pull-over Bays) is proposed.

We pay our respects to their Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of NSW.

Many of the transport routes we use today – from rail lines, to roads, to water crossings – follow the traditional Songlines, trade routes and ceremonial paths in Country that our nation's First Peoples followed for tens of thousands of years.

Transport for NSW is committed to honouring Aboriginal peoples' cultural and spiritual connections to the land, waters and seas and their rich contribution to society.



Category	Item	Value	Unit
Category 1	Item 1.1	100	kg
	Item 1.2	200	kg
	Item 1.3	300	kg
	Item 1.4	400	kg
	Item 1.5	500	kg
Category 2	Item 2.1	600	kg
	Item 2.2	700	kg
	Item 2.3	800	kg
	Item 2.4	900	kg
	Item 2.5	1000	kg
Category 3	Item 3.1	1100	kg
	Item 3.2	1200	kg
	Item 3.3	1300	kg
	Item 3.4	1400	kg
	Item 3.5	1500	kg
Category 4	Item 4.1	1600	kg
	Item 4.2	1700	kg
	Item 4.3	1800	kg
	Item 4.4	1900	kg
	Item 4.5	2000	kg

Approval and authorisation

Approved by	Dimitri Perdikaris – Senior Manager Renewables Transportation
Signed	<i>D Perdikaris</i>
Date	19/03/2025

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1. Introduction

The purpose of the minor works review of environmental factors (REF) is to describe the proposal, to document the likely impacts of the proposal on the environment, to detail mitigation measures to be implemented and to determine whether or not the proposal can proceed. For the purposes of this work Transport for NSW (Transport) is the proponent and determining authority under Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The description of the proposed works and assessment of associated environmental impacts has been undertaken in the context of section 171 of the Environmental Planning and Assessment Regulation 2021, Guidelines for Division 5.1 Assessments (DPE, 2022), the *Biodiversity Conservation Act 2016* (BC Act), the *Fisheries Management Act 1994* (FM Act) and the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth) (EPBC Act).

In doing so the REF helps to fulfil the requirements of section 5.5 of the EP&A Act including that Transport examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the activity.

The findings of the REF would be considered when assessing:

- Whether the proposal is likely to have a significant impact on the environment and therefore the necessity for an environmental impact statement to be prepared and approval to be sought from the Minister for Planning and Public Spaces under Division 5.2 of the EP&A Act.
- The significance of any impact on threatened species as defined by the BC Act and/or FM Act, in section 1.7 of the EP&A Act and therefore the requirement for a Species Impact Statement or a Biodiversity Development Assessment Report
- The potential for the proposal to significantly impact a matter of national environmental significance, including nationally listed threatened biodiversity matters, or the environment of Commonwealth land. Where a significant impact is considered likely on nationally listed biodiversity matters, either the proposal must be reconsidered or a project REF must be prepared.

2. The proposal

2.1 Strategic background

The NSW Government is leading the development of Renewable Energy Zones (REZ) to deliver renewable energy generation and storage, supported by high voltage transmission infrastructure across NSW. REZs will play a vital role in delivering clean, affordable and reliable electricity for homes, businesses and industry in NSW to help replace the State's existing coal power stations as they come to their scheduled end of operational life.

REZs will group new renewable energy generation infrastructure into locations where it can be efficiently stored and transmitted across NSW. Five regions have been identified for the development of REZs; the Central-West Orana, South-West, New England, Hunter-Central Coast and Illawarra regions of NSW. With some of the best renewable energy resources in the world, NSW is in a unique position to benefit from emerging low-cost technologies like wind, solar, batteries and pumped hydro.

The Central West Orana Renewable Energy Zone (CWO REZ) will unlock at least three gigawatts (GW) of new network capacity by the mid-2020s and the NSW Government is proposing to increase the intended network capacity to six gigawatts. Construction of the transmission infrastructure and generation projects in the CWO REZ will require delivery of large and heavy components, most notably wind turbine components, high-voltage transformers, and synchronous condensers.

The proposed generators will use common routes to transport over-sized and/or over-mass (OSOM) components from the Port of Newcastle to the CWO REZ. An assessment was undertaken by Arcadis (2024) for various types of OSOM vehicles using common routes from the Port of Newcastle to the CWO REZ and took into consideration road traffic conditions, travel times, average speeds, driver fatigue management requirements, passing lane requirements, overnight rest places, stopping places for conducting load checks and completing travel diaries, and school times in rural towns.

The purpose of the Arcadis (2024) assessment was to identify suitable locations for OSOM vehicles to pull over based on:

- where OSOM transportation is required to stop for fatigue management and overnight rest in accordance with the *Heavy Vehicle (Fatigue Management) National Regulation (NSW)*
- attach and detach push / pull trucks to OSOM vehicles
- opportunities for pull over bays to let general traffic pass based on a 10 minute traffic delay nominated threshold, in accordance with *Transport for NSW Technical Direction – Traffic Control*

It was found that common routes used for OSOM transportation generally have existing facilities available for the above requirements. These are formalised heavy vehicle rest stops, overtaking lanes, wide pavement areas at intersections and existing gravel bays. However, the Arcadis (2024) assessment identified and recommends an additional eight pull-over bays at specific areas based on a self-nominated performance criteria of keeping general traffic delay resulting from OSOM transportation to under 10 minutes. This 10 minute delay refers to the time a general road user may be delayed by a single OSOM vehicle when unable to pass it on the road. Existing facilities would be utilised for fatigue management and overnight rest. Accordingly, the NSW Government has requested that Energy Corporation (EnergyCo) carry out the required work to facilitate these improvements, as recommended, along the State Road Network to facilitate the OSOM transportation (Figure 2-1) to the REZ.

This Minor Works Review of Environmental Factors (MWREF) assesses the proposed pull-over bays to allow OSOM vehicles and traffic to pass. The proposed pull-over bays are located in Singleton, Muswellbrook, Upper Hunter and Warrumbungle LGAs.

The proposal assessed in this report is for the modification of the pull-over bays only. The operation of the necessary OSOM vehicle movements will be assessed as part of the planning approval for individual generation projects.

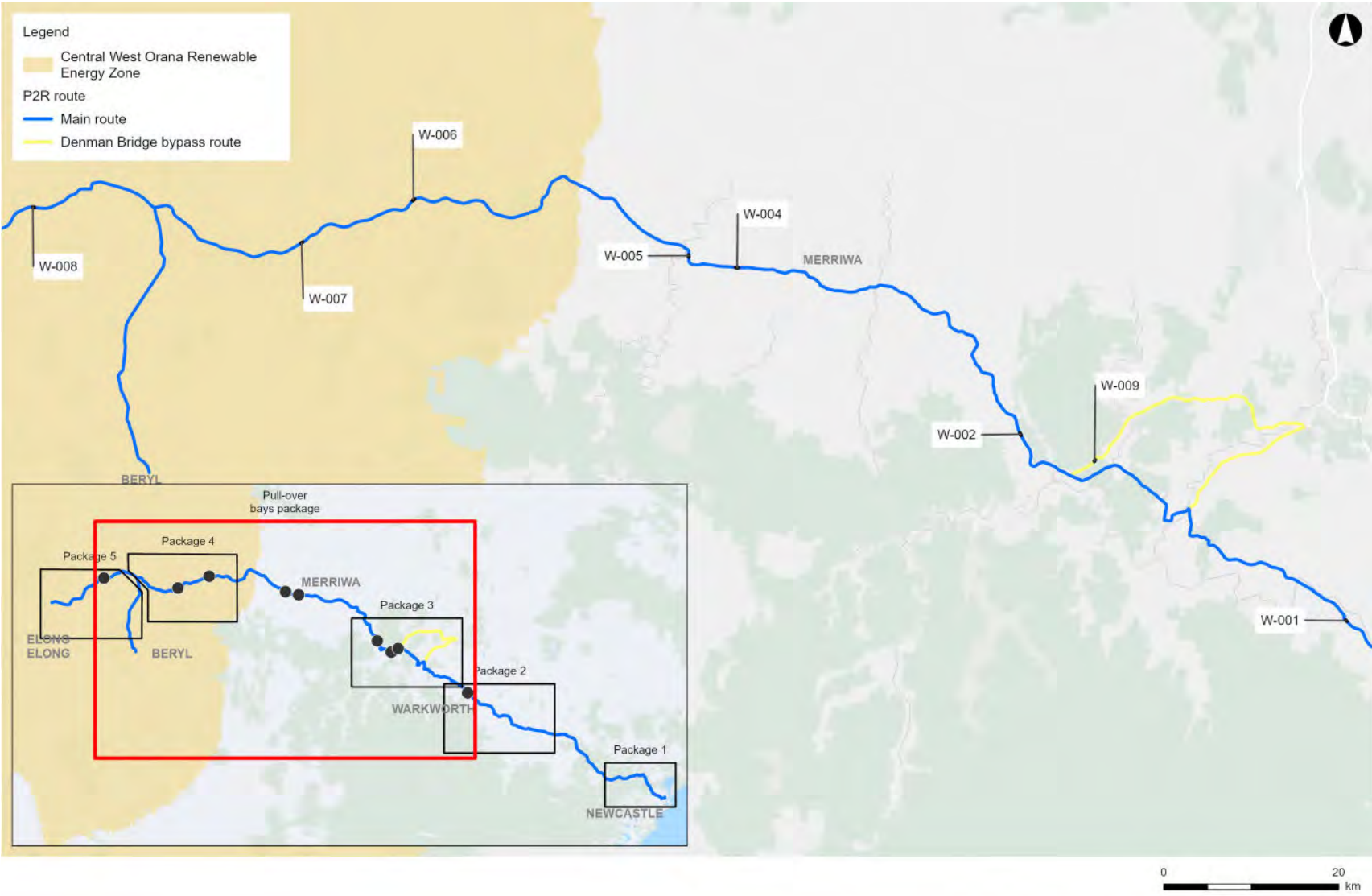


Figure 2-1: Proposed program of pull-over bay extensions

2.2 Description

2.2.1 Proposal location

Table 2-1: Proposal location details

Location details	
Title	Central West Orana Renewable Energy Zone – Port to REZ Road Upgrade Program. Minor Works Review of Environmental Factors – Pull-over bays
Road name and number	Golden Highway (road number 27)
Closest crossroad(s)	Denman Road, Poppong Street, Pirbil Street, Wybong Road, <u>Tongy Road</u>
Local government area	Singleton Local Government Area, Muswellbrook Local Government Area, Upper Hunter Local Government Area, Warrumbungle Local Government Area
Transport for NSW region	North and West regions

2.2.2 Proposal description

Transport for NSW (Transport), on behalf of EnergyCo, proposes to carry out minor roadside modifications at 8 locations along the P2R route for OSOM movements between the Port of Newcastle and the CWO REZ to provide pull-over bays for OSOM vehicles. The locations are located across the Singleton, Muswellbrook, Upper Hunter and Warrumbungle LGAs (refer to Figure 2-1).

For all locations, the design for pull-over bays proposes placement of spray seal / wearing course over the placed hardstand and where impacted, as well as installation and relocation of road infrastructure (such as guide posts and signage), and additional marking of informal heavy vehicle stopping areas.

The pull-over bays would be used temporarily for about 10 to 15 minutes by OSOM vehicles to let general traffic pass along the Port of Newcastle to the CWO REZ route. These bays differ from vehicle rest areas as they would not be used as full-time parking areas or overnight stopping zones.

Key features of the proposal at specific locations are described below and shown in Figure 2-2 to Figure 2-9.

Golden Highway, Jerrys Plains (W-001)

- Formalising an existing pull-over bay (110 metres in length excluding tapers, 4 metres wide) on Golden Highway, east of Poppong Street, including removal of exotic grasses and topsoil stripping
- Installation of a road kerb at the back of the proposed bay
- Existing swale replaced by a gutter due to the required grading slope on the existing northern driveway. Existing culvert crossing would be removed due to lack of sufficient space to reinstate and resulting level change in vicinity.
- Provision for 0.8 metre wide nature strip behind the proposed road kerb, with additional 1.2 metre width of cleared area for future footpath allowance
- Existing Ausgrid overhead line to be modified to maintain safe clearance to OSOM vehicles
- Installation of two additional Ausgrid power poles
- Removal of existing culvert to accommodate the adjusted slope required for the pull-over bay. With the adjusted slope, there is insufficient space between the pull-over bay and footpath to create a culvert with enough depth for the driveway.
- Installation of four new 'No Stopping' signs
- Two existing driveways to be reinstated to maintain private property access

Golden Highway, Sandy Hollow (W-002)

- Excavation for new pull-over bay (110 metres in length excluding tapers, 7.2 metres wide) on Golden Highway, at Sandy Hollow, including removal of exotic grasses and topsoil stripping

- Relocation of an existing speed limit sign
- Installation of five new 'No stopping' signs.

Golden Highway, one kilometre west of Glenroy Road (W-004)

- Excavation for new pull-over bay (100 metres in length excluding tapers, 7 metres wide) on Golden Highway, west of Glenroy Road, including removal of exotic grasses and topsoil stripping
- Relocation of existing Telstra communication line to the back of earthworks
- Temporary construction access to Lot 134 DP 665386 to accommodate earthworks required for the relocation of the existing Telstra communication line
- Realignment of property fence to the cadastral boundary of Lot 134 DP 665386
- Removal of native and exotic grasses, as well as one tree associated with Grey Box White Box grassy open woodland on basalt hills in the Merriwa region upper Hunter Valley (PCT 483), to accommodate the pull-over bay on the southbound verge of Golden Highway
- Installation of five new 'No Stopping' signs.

Golden Highway, 2.2 kilometres east of Pembroke Road (W-005)

- Excavation for new pull-over bay (110 metres in length excluding tapers, 7 metres wide) on Golden Highway, east of Pembroke Road, including removal of native and exotic grasses and topsoil stripping
- Open channel realignment, as existing swale is disturbed by the proposed pull-over bay
- Partial acquisition of Lot 3 DP 436812 to accommodate the earthworks required to construct the new pull-over bay and the proposed open channel realignment
- Installation of five new 'No Stopping' signs.

Golden Highway and Tongy Road (W-006)

- Excavation for new pull-over bay (110 metres in length excluding tapers, 7 metres wide) on Golden Highway, opposite the intersection with Tongy Road, including removal of native and exotic grasses and topsoil stripping
- Installation of a gutter to direct water flow along the new pavement
- Open channel realignment, as the existing swale is disturbed by the proposed pull-over bay
- Partial acquisition of Lot 7306 DP 1141566 to accommodate the earthworks required to construct the new pull-over bay and the proposed open channel realignment
- Installation of five new 'No Stopping' signs and relocation of a wayfinding sign.

Golden Highway, Leadville (W-007)

- Excavation for new pull-over bay (110 metres in length excluding tapers, 6.75 metres wide) on Golden Highway, west of Melrose Road, including removal of native and exotic grasses and topsoil stripping
- Installation of five new 'No Stopping' signs.

Golden Highway, west of Dunedoo (W-008)

- Excavation for new pull-over bay (110 metres in length excluding tapers, 7 metres wide) on Golden Highway, west of Minermoorang Road, including removal of native and exotic grasses and topsoil stripping
- Open drain realignment, as existing swale is disturbed by the proposed pull-over bay
- Installation of five new 'No Stopping' signs
- One existing driveway to be reinstated to maintain private property access.

Wybong Road (W-009)

- Earthworks for new pavement, including excavation to sgrade level (70 metres in length excluding tapers, 4.5 metres wide) for the extension of an existing pull-over bay

- Utilisation of existing gravel bay to minimise disturbance extent
- Removal of exotic grasses and topsoil stripping, as well as removal of about 60 square metres of Western Hunter Dwyers Red Gum-Pine Woodland (PCT 3774) and Western Hunter Currwang Low Forest (PCT 3773) located on the northbound verge of Wybong Road, to accommodate the pull-over bay
- Open drain realignment, as existing swale is disturbed by the proposed pull-over bay
- Partial acquisition of Lot 100 DP 1118411 to accommodate the earthworks required to construct the new pull-over bay
- Installation of four new 'No Stopping' signs.

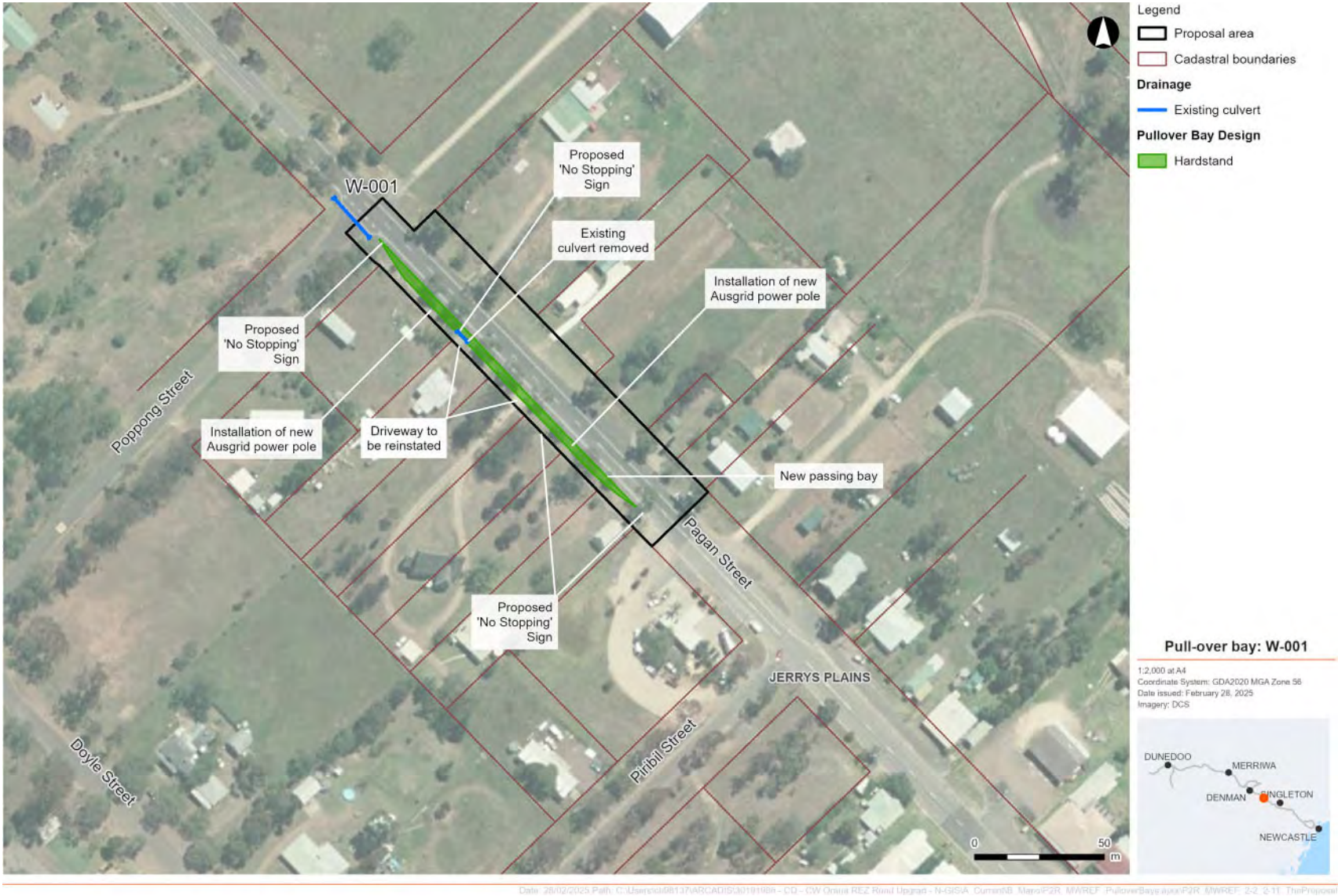


Figure 2-2: The proposal - Golden Highway, Jerrys Plains (W-001)

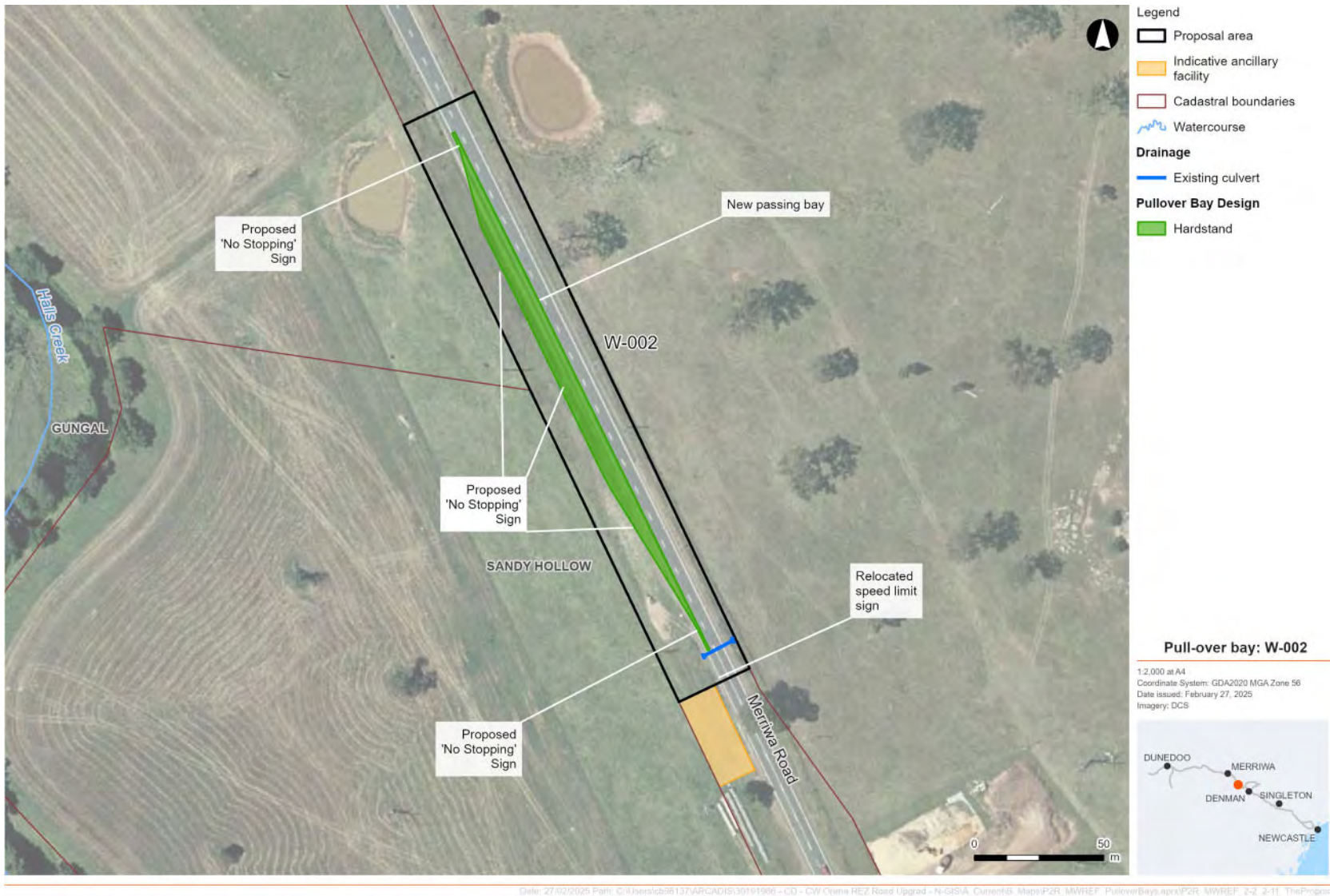
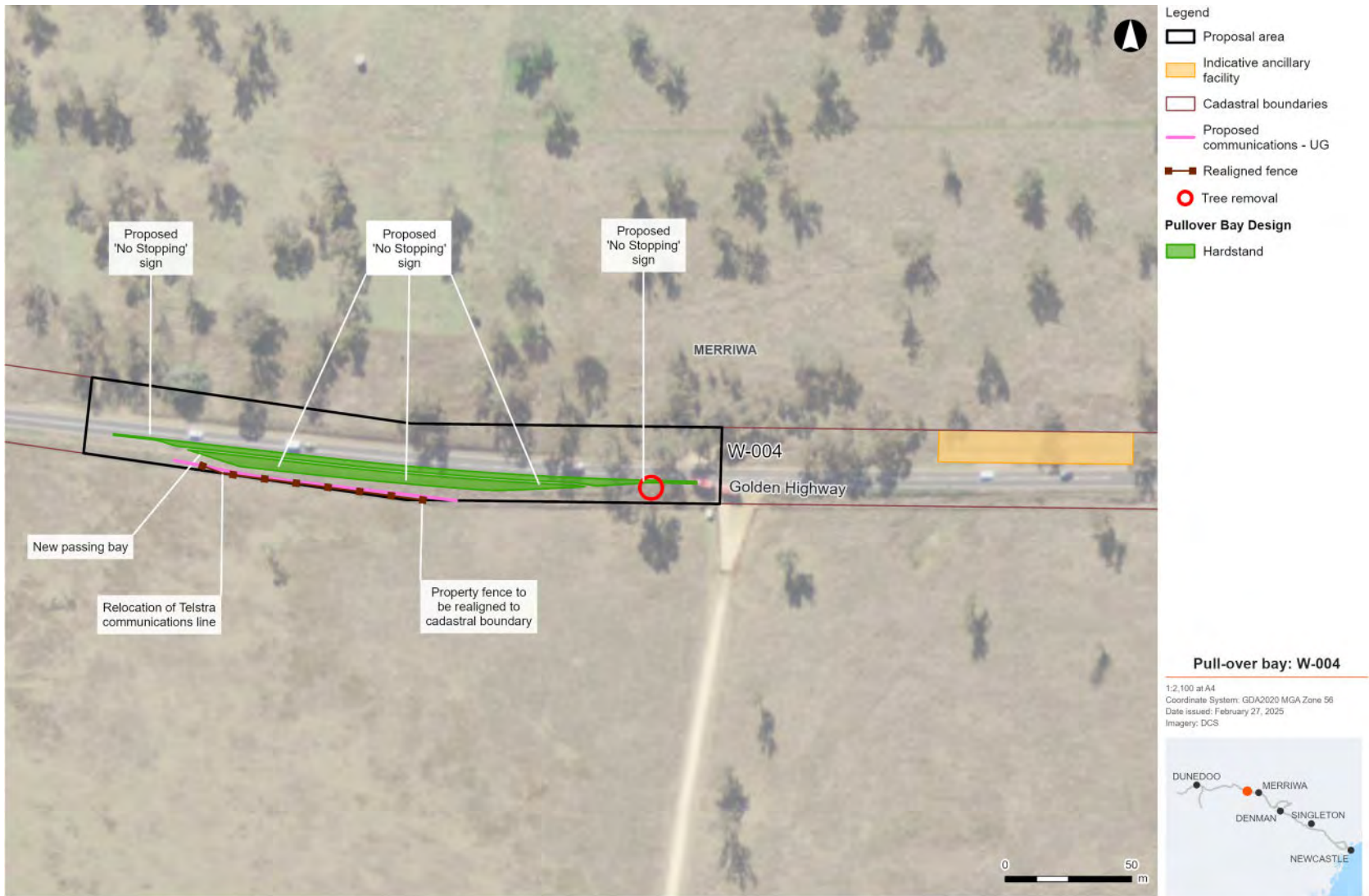


Figure 2-3: The proposal - Golden Highway, Sandy Hollow (W-002)



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Figure 2-4: The proposal - Golden Highway, one kilometre west of Glenroy Road (W-004)

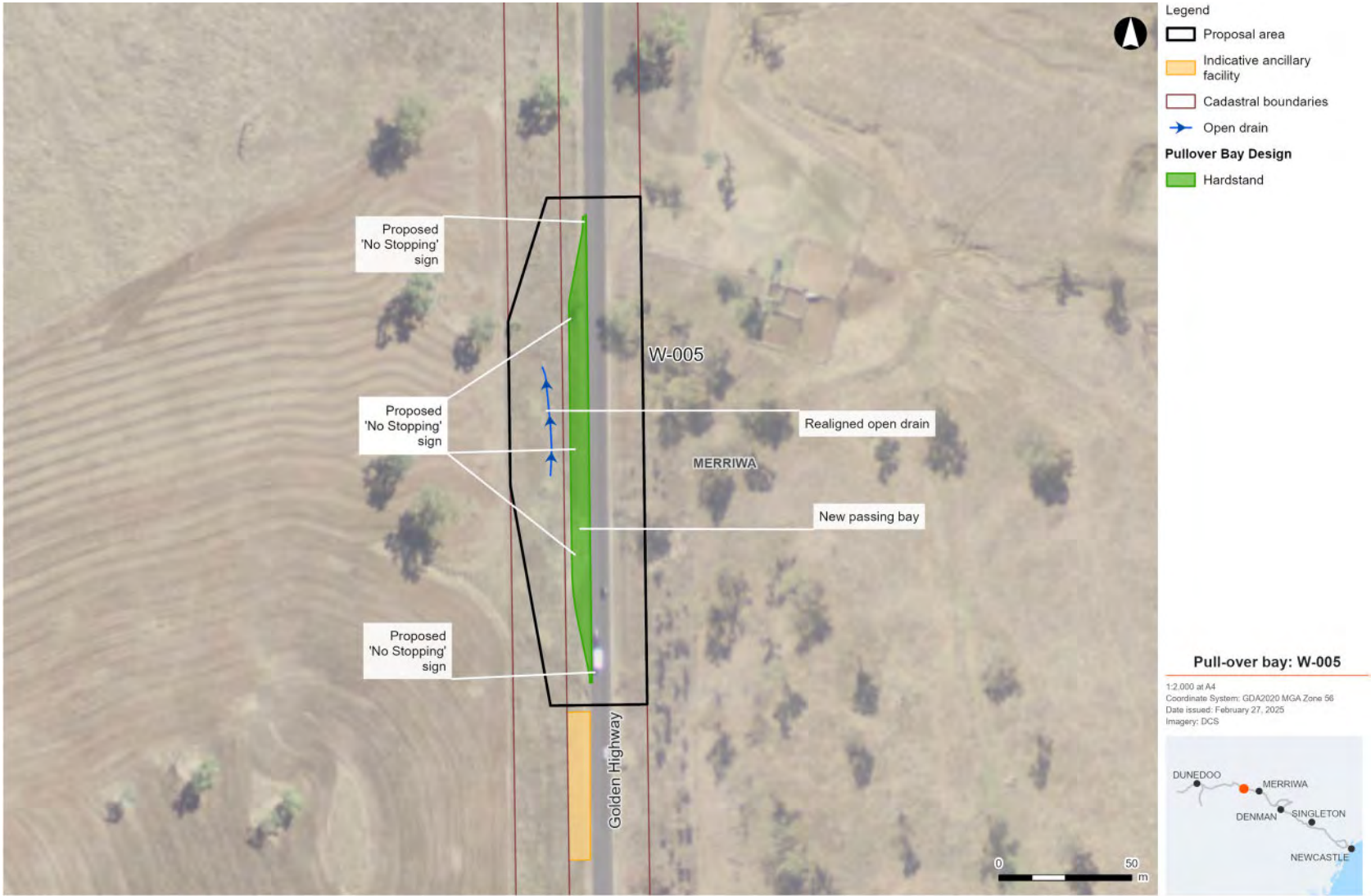


Figure 2-5: The proposal - Golden Highway, 2.2 kilometres east of Pembroke Road (W-005)

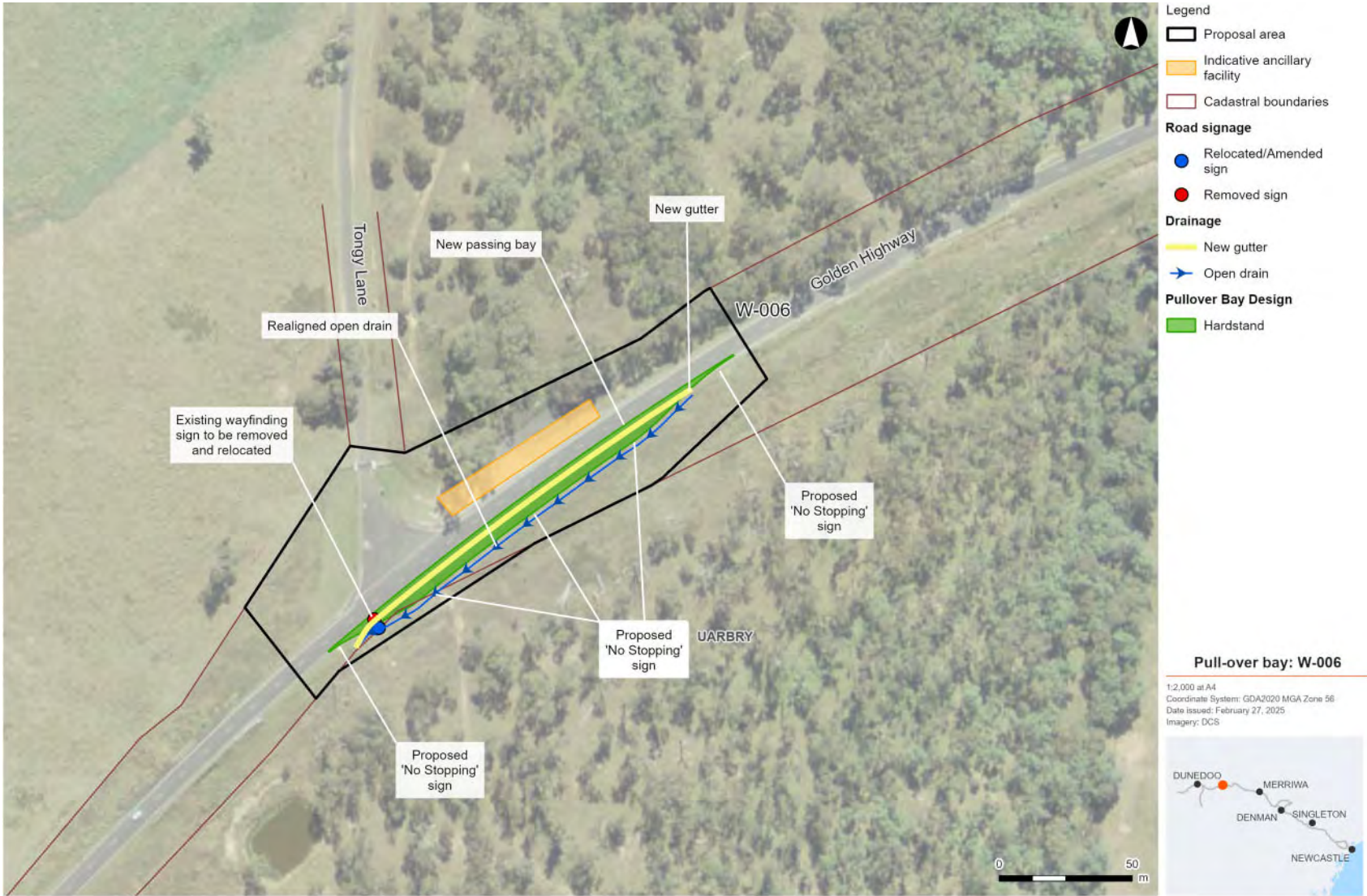


Figure 2-6: The proposal - Golden Highway and Tongy Road (W-006)

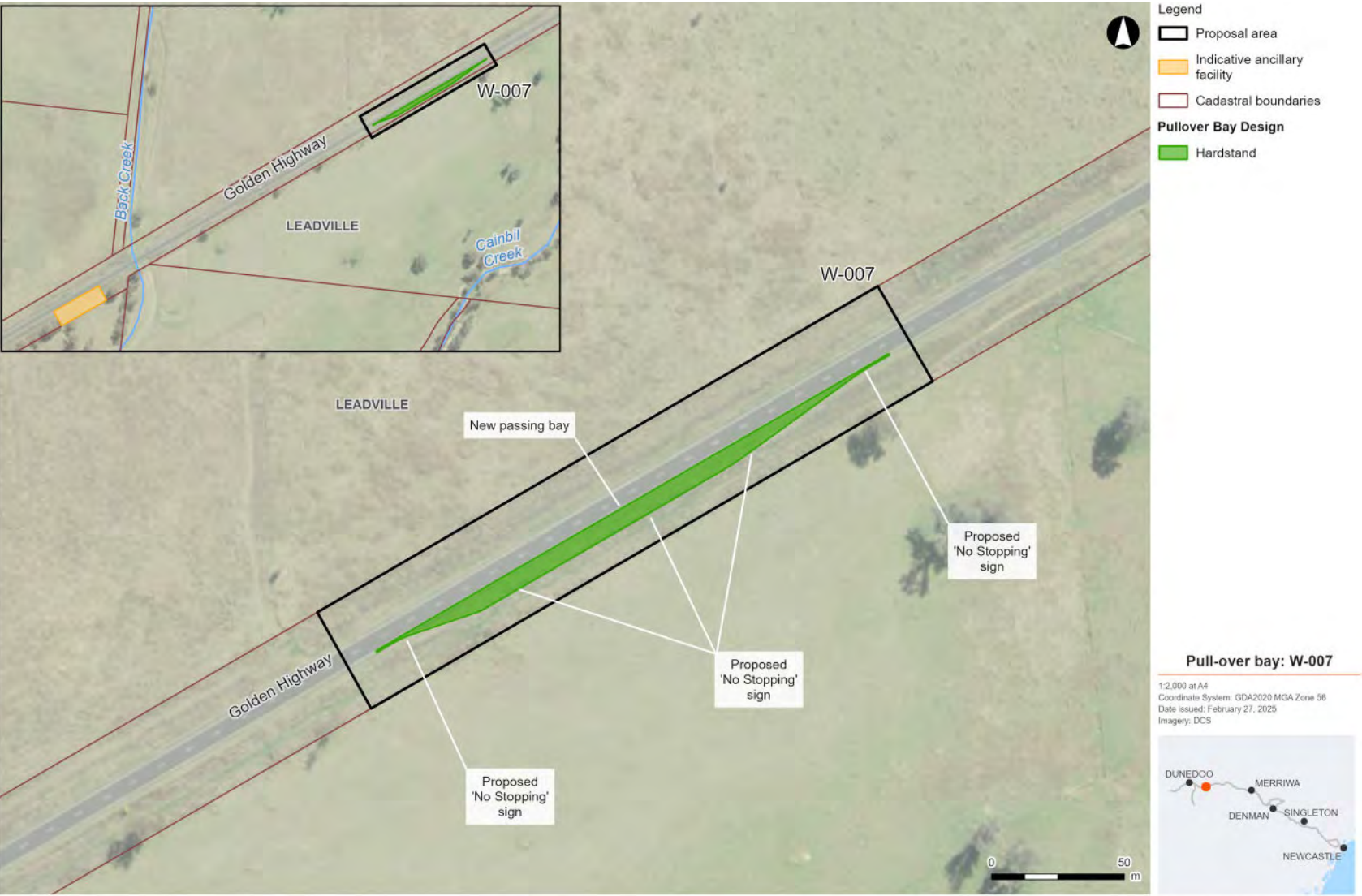


Figure 2-7: The proposal - Golden Highway, Leadville (W-007)

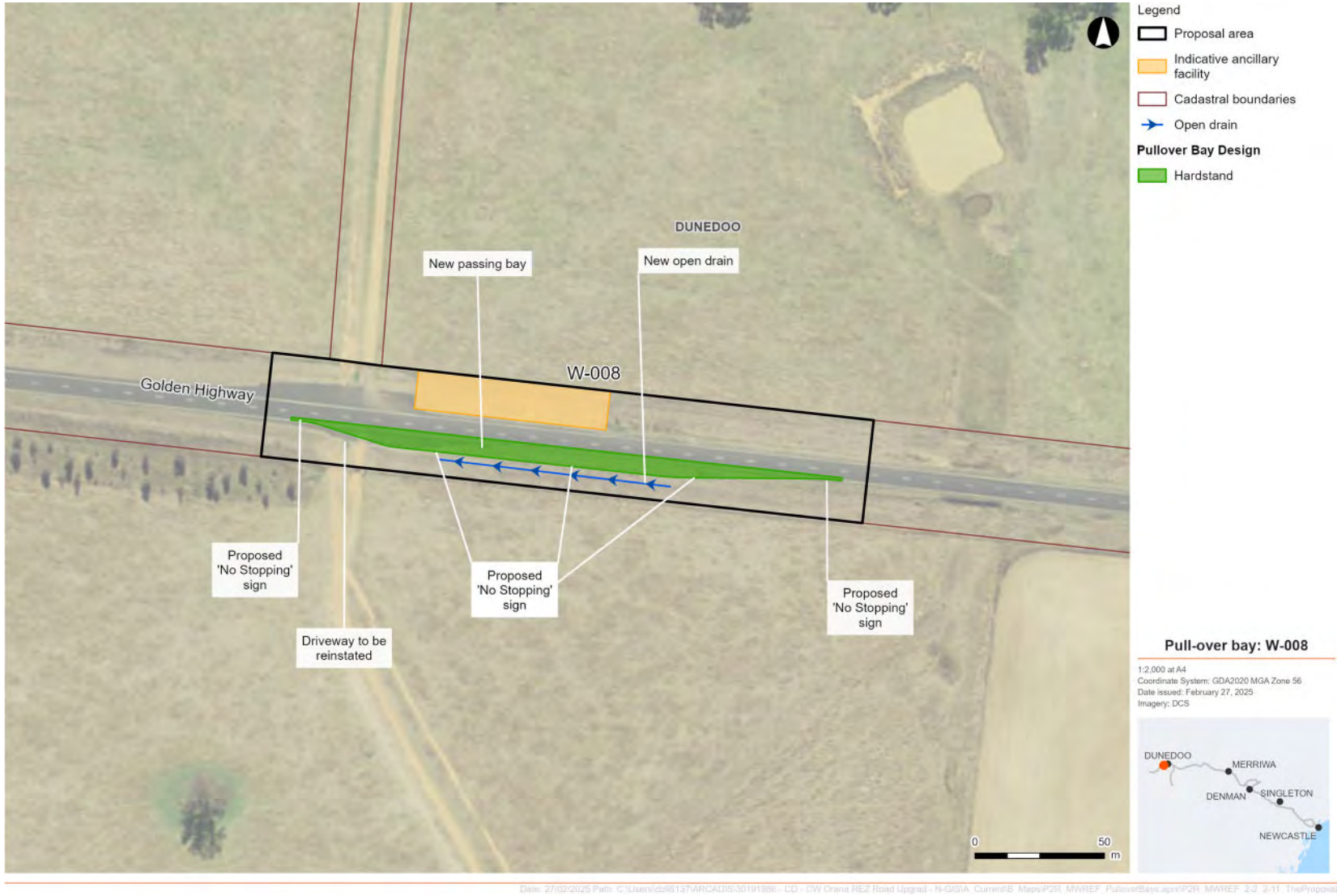


Figure 2-8: The proposal - Golden Highway, six kilometres west of Dunedoo (W-008)

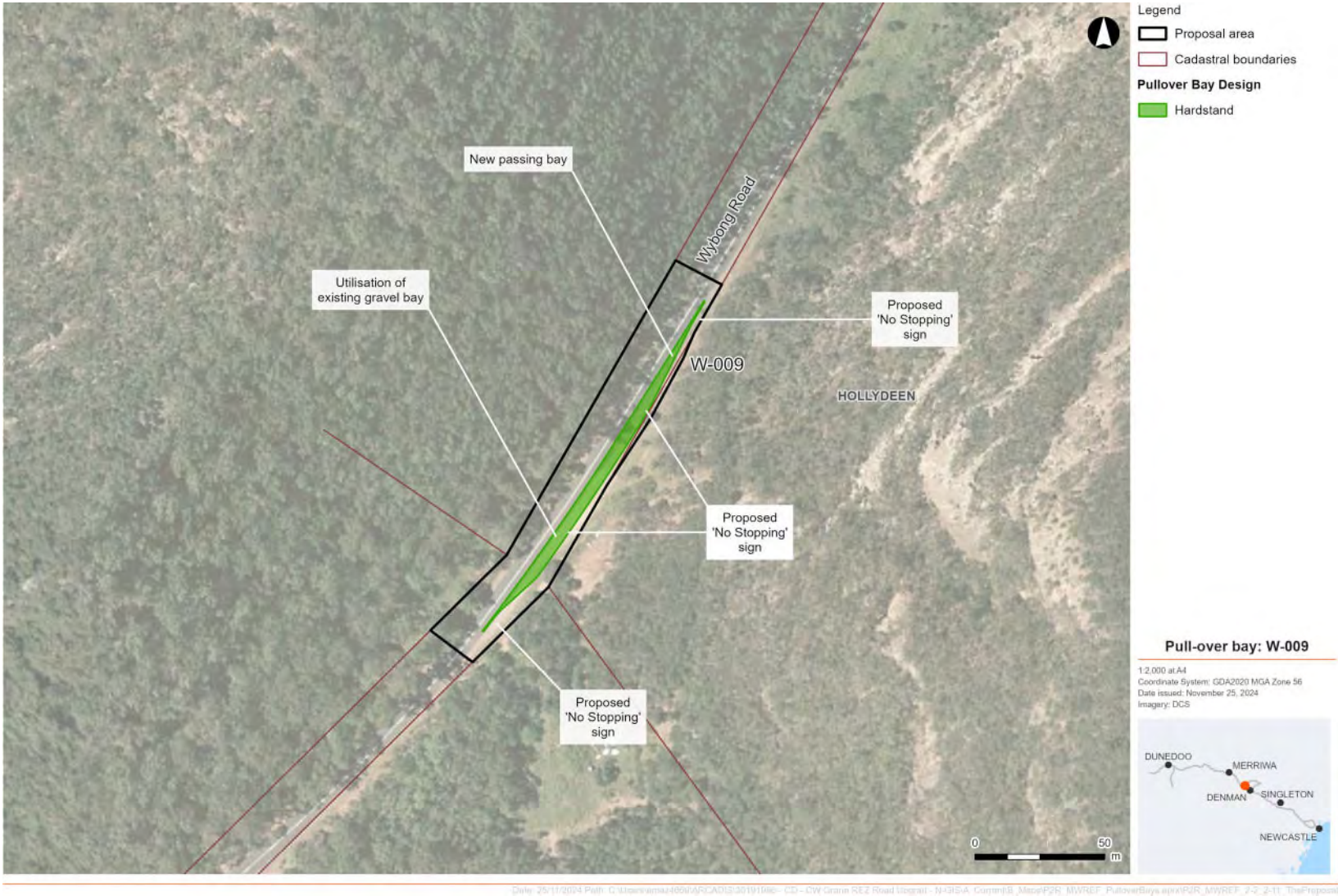


Figure 2-9: The proposal – Wybong Road (W-009)

Utility adjustments

Several services at Golden Highway, Jerrys Plains (W-001) and Golden Highway, one kilometre west of Glenroy Road (W-004) pull-over bay sites would be impacted by the proposed work. Impacted utilities within each proposal area, including the proposed actions are detailed in Table 2-2 and shown on Figure 2-10 and Figure 2-11.

Utility relocations would be designed to meet service provider specifications and be certified as required. Any adjustments will be done in consultation with utility providers, wholly within the assessed study area.

Relocation of Ausgrid assets is to be carried out in accordance with their internal environmental approval process and not subject of this MWREF.

Table 2-2: Utility adjustments

Pull-over Bay	Location	Owner	Asset	Proposed treatment
Golden Highway, Jerrys Plains (W-001)	Jerrys Plains	Ausgrid	Overhead high voltage lines	Existing overhead line to be modified to maintain safe clearance to OSOM vehicles. Installation of two new poles.
Golden Highway, one kilometre west of Glenroy Road (W-004)	Merriwa	Telstra	Communications	Relocate to back of new hardstand

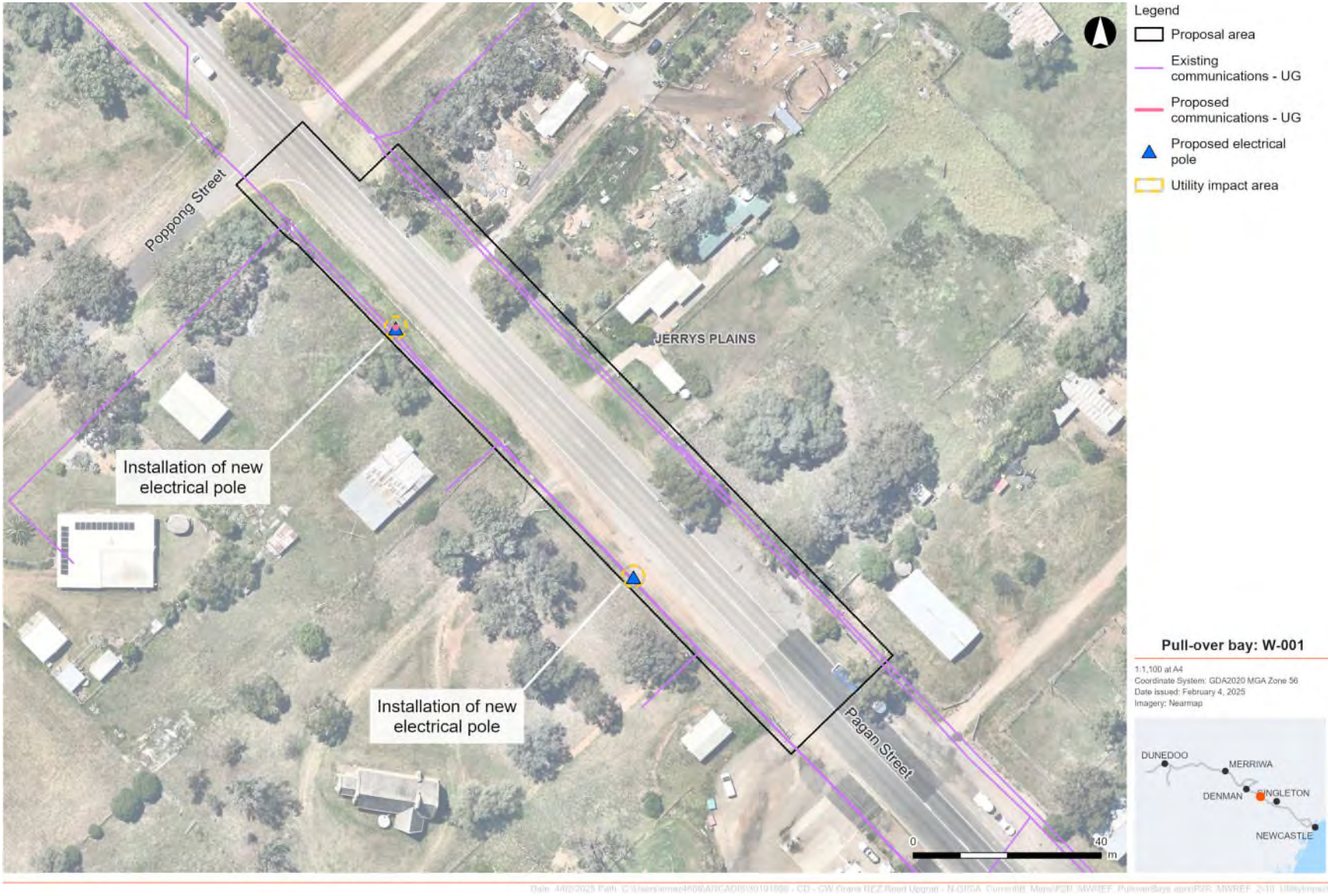


Figure 2-10: Utility impacts – Golden Highway, Jerrys Plains (W-001)



Figure 2-11: Utility impacts – Golden Highway, one kilometre west of Glenroy Road (W-004)

Construction staging

An indicative construction staging and scope is outlined in Table 2-3 with staging to be confirmed during detailed construction planning with the contractor.

Table 2-3: Indicative construction staging and scope

Construction stage	Scope
Enabling works	• installation of temporary traffic barriers and signage for construction, as required. • installation of traffic control as required for the works. • establishment of sediment controls, exclusion areas and other environmental controls where required. • establishment of site compounds, laydown, parking and stockpile areas.
Pull-over bay works	• tree clearing, vegetation removal and topsoil stripping. • demolition of existing kerb (where required) and sawcutting the edge of existing pavement at Golden Highway, Jerrys Plains (W-001). • earthworks, including excavation and trimming of subgrade. • utility adjustments and protection, as required. • placement of pavement subbase and basecourse layers. • drainage installation at Golden Highway, 2.2 kilometres east of Pembroke Road (W-005), Golden Highway and Tongy Road (W-006), Golden Highway, six kilometres west of Dunedoo (W-008), and Wybong Road (W-009) pull-over bay sites. • spary seal/asphalt wearing course placement. • signage adjustments and installation of roadside furniture.
Finishing works	• removal of traffic barriers. • remove temporary construction equipment and any temporary stockpiles. • site clean up including removal of environmental controls where required. • remove any traffic controls.

Construction traffic access and management

Access to proposal areas would be direct via the highway and main roads.

Parking and temporary storage of plant and materials to facilitate the upgrade works would occur within the road corridor in the vicinity of each upgrade (refer to Section 2.2.4).

Further detail and an assessment of traffic and transport impacts are provided in Section 3.6 (Traffic and transport).

Construction equipment

A range of plant and equipment would be used during construction of the proposal. An indicative list of plant and equipment is provided below with final selection of plant and equipment to be determined by the construction contractor:

- hand tools
- excavators
- concrete vibrator
- road trucks
- vacuum truck
- dump truck
- concrete truck
- jackhammer
- pneumatic hammer
- road saw
- mechanical spreader
- duct rodder
- cable reel trailer
- locator
- plate compactor
- light vehicles
- kerb machine
- power generator
- truck compressor
- vibratory roller
- asphalt truck and sprayer
- smooth drum roller
- backhoe
- feller buncher
- trencher
- motor grader
- crane
- insulated elevated work platform (EWP)

Construction hours

Construction work for the proposal would be prioritised during standard construction hours as follows:

- Monday to Friday: 7:00 am to 6:00 pm
- Saturday: 8:00 am to 1:00 pm
- Sunday and public holidays: No work.

However, to minimise traffic impacts and to ensure the safety of workers, it is expected that some activities would need to be undertaken outside of standard working hours including but not limited to the proposed pull over bay in Jerrys Plains on the Golden Highway (W-001). Any works outside of standard construction hours would be in accordance with a Road Occupancy Licence (ROL).

Any work with impulsive or tonal noise emissions will be carried out in accordance with the Construction Noise and Vibration Guideline (Roads) (Transport for NSW, 2023) and EPA Interim Construction Noise Guideline (ICNG) (NSW DECC, 2009).

The community would be kept informed of proposed upcoming work and contact information. Any impacted residents or businesses would be consulted regarding the proposed construction hours at least five working days prior to commencement of work.

Property acquisition

The proposal requires the partial acquisition of land at one property under private ownership to accommodate the construction of the Wybong Road (W-009) pull-over bay sites. This is shown on Figure 2-12. The owner of the affected property would be consulted with, and ongoing consultation would occur during detailed design and construction stages.

The pull-over bay sites at Golden Highway and Tongy Road (W-006) and Golden Highway, 2.2 kilometres east of Pembroke Road (W-005) encroach on land mapped as being owned by NSW Department of Planning and Environment (Crown land). This is shown on Figure 2-13 and Figure 2-14. Prior to construction, a lease or licence for the Crown lands would be sought from the NSW Department of Planning, Housing and Infrastructure in accordance with the *Crown Land Management Act 2016*.

The proposal does not require property acquisition at the other pull-over bay sites, as no encroachment onto private property or boundary fence adjustment works is needed to accommodate the upgrades. Any interface with private properties including the consideration of additional mitigation measures to maintain property access is detailed and assessed in Section 3.8 (Socio-economic).

Table 2-4: Proposed property acquisition

Location	Acquisition type	Approximate area (m ²)	Current owner	Lot and DP	Works proposed
Golden Highway, one kilometre west of Glenroy Road (W-004)	Temporary construction access	160	Private	Lot 134, DP665386	Earthworks required to relocate the Telstra communications line would encroach upon this private property
Golden Highway, 2.2 kilometres east of Pembroke Road (W-005)	Lease or licence	680	Crown	Lot 3, DP 436812	Earthworks required to establish the pull-over bay would encroach upon this private property
Golden Highway and Tongy Road (W-006)	Lease or licence	400	Crown	Lot 7306, DP 1141566	Realignment of existing drainage channel would encroach upon this property
Wybong Road (W-009)	Partial acquisition	65	Private	Lot 100, DP 1118411	Earthworks required to establish the pull-over bay would encroach upon this private property

Golden Highway, one kilometre west of Glenroy Road (W-004)

Earthworks required for the relocation of the existing Telstra communications line at the Golden Highway, one kilometre west of Glenroy Road (W-004) pull-over bay site has the potential to encroach on the private property (Lot 134, DP665386) (refer to Figure 2-4). While relocation of the communications line would not encroach on the property, the earthworks have the potential to. Property boundary adjustments would not be required to accommodate this activity; however, formal agreement will be required from the landowner for the proposed work within the property (Lot 134, DP665386) and the temporary use of the land (about 160 square metres). During construction, access to the proposal area through this property may also be required. EnergyCo will liaise with the affected landowner regarding the work required within the property (Lot 134, DP665386) and to determine the possibility of avoiding encroachment altogether.



Figure 2-12: Partial property acquisition – Wybong Road (W-009)



Figure 2-13: Encroachment of Crown land – Golden Highway, 2.2 kilometres east of Pembroke Road (W-005)

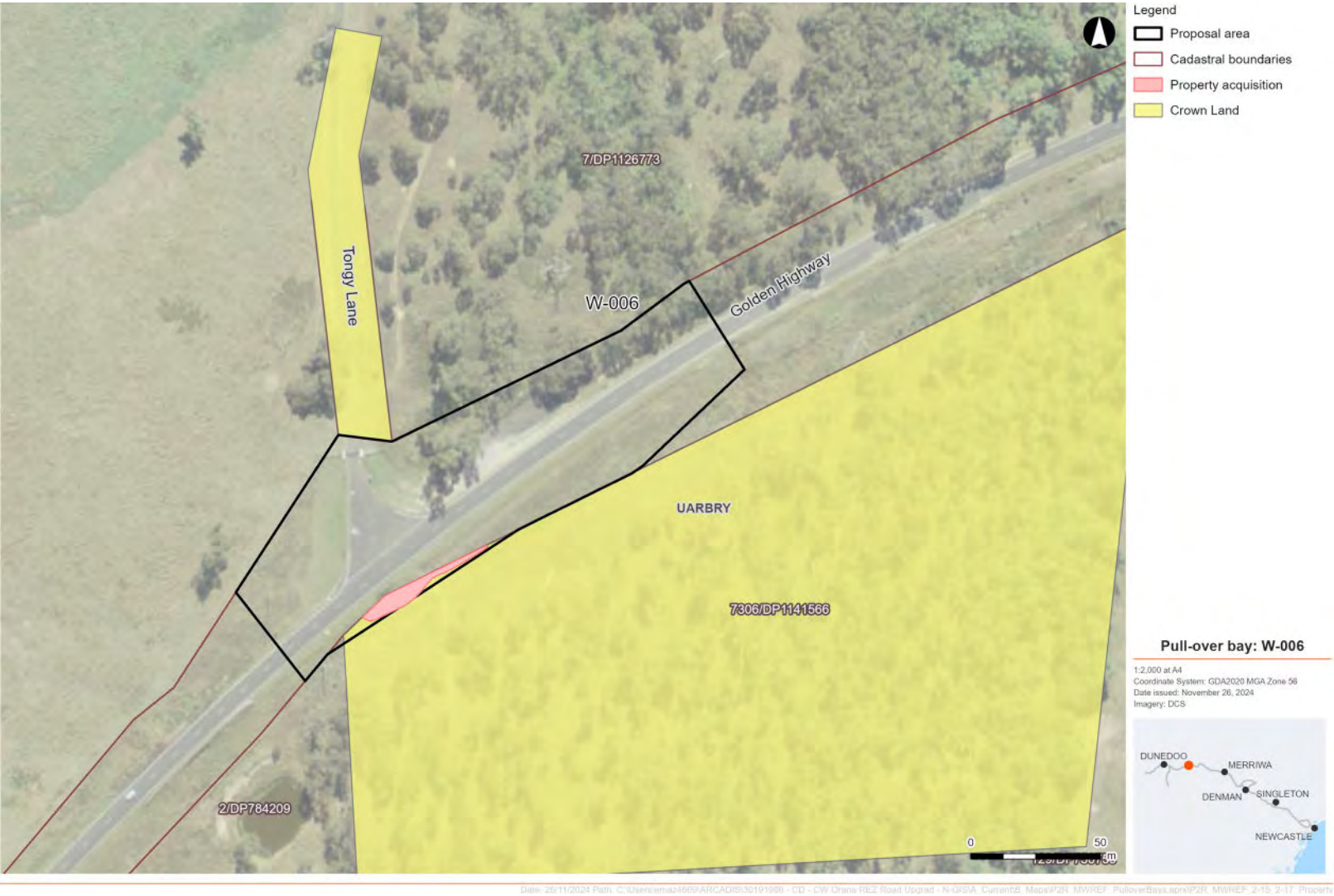


Figure 2-14: Encroachment of Crown land – Golden Highway and Tongy Road (W-006)

2.2.3 Proposal objectives and design criteria

The objective of the proposal is to facilitate the safe delivery of OSOM components from the Port of Newcastle to the Central West Orana Renewable Energy Zone.

The design criteria for the proposal include:

- minimise constructability impacts including utilities and services
- minimise property acquisition
- minimise environmental and social overall impacts.

2.2.4 Ancillary facilities

Table 2-5: Ancillary facilities

Ancillary facilities		
Will the proposal require the use or installation of a compound site? Given the minor works proposed, installation of a compound site would not be required for the proposal. Temporary equipment laydown, materials, workforce parking and small-scale worker amenities would be located adjacent to the proposed pull-over bay works within the road reserve or in areas of cleared land. Potential locations of these laydown areas are shown on Figure 2-2 to Figure 2-9 and include: • Golden Highway, Jerrys Plains (W-001): eastern corner of Pringle Street and Lonsdale Street within the road reserve. • Golden Highway, Sandy Hollow (W-002): south of the pull-over bay • Golden Highway, one kilometre west of Glenroy Road (W-004): northeast of the pull-over bay in a cleared area • Golden Highway, 2.2 kilometres east of Pembroke Road (W-005): south of the pull-over bay in a cleared area • Golden Highway and Tongy Road (W-006): existing laydown area on the northeast corner of Golden Highway and Tongy Road. • Golden Highway, Leadville (W-007): cleared area west of the pull-over bay • Golden Highway, six kilometres west of Dunedoo (W-008): grassed area within the road corridor, located north of the Golden Highway. The locations above are indicative only and are not reflective of the exact size required for the facility. The locations would be confirmed by the construction contractor and any alternative or additional laydown areas, would be required to meet the criteria outlined below. Temporary leasing of private property may be required for a laydown area in the vicinity of Wybong Road (W-009). This is due to limited cleared land within the vicinity of the pull-over bay. With the exception of being located within the road reserve, any area chosen for this pull-over bay would be required to meet the criteria outlined below. Any affected property owner(s) would be consulted with prior to and during construction of the Wybong Road (W-009) pull-over bay.	Yes ☐	No ☒
Will the proposal require the use or installation of a stockpile site? Any stockpiling required for the proposal would be carried out adjacent to the proposed works in the road reserve and in areas of cleared land. Given the nature of the proposed works, any stockpiles will be relatively small and short-lived.	Yes ☒	No ☐
Are any other ancillary facilities required (e.g. temporary plants, parking areas, access tracks)? Where possible, equipment laydown, workforce parking and small-scale amenities would be located within road reserve areas adjacent to each of the proposed pull-over bay works. Locations would be confirmed prior to construction, but would be required to demonstrate compliance with the following criteria: • located in the road corridor • no native vegetation removal • obvious previous disturbance • 50 metres from waterways • AHIMS search carried out	Yes ☒	No ☐

Ancillary facilities		
• away from sensitive receivers. However, where there is limited space within the road corridor areas within private properties, in the vicinity of the proposed pull-over bay works, could be selected. Any temporary leasing of these areas would be carried out in consultation with property owners. Compliance with this criteria must be demonstrated in accordance with Safeguard G2 in Table 4-1, otherwise further assessment may be required.		

2.2.5 Proposed date of commencement

Subject to approval, construction is expected to commence in 2025.

2.2.6 Estimated length of construction period

Construction at each pull-over bay, weather permitting, is expected to take about:

- Golden Highway, Jerrys Plains (W-001): Six months
- Golden Highway, Sandy Hollow (W-002): Three months
- Golden Highway, one kilometre west of Glenroy Road (W-004): Three months
- Golden Highway, 2.2 kilometres east of Pembroke Road (W-005): Three months
- Golden Highway and Tongy Road (W-006): Three months
- Golden Highway, Leadville (W-007): Three months
- Golden Highway, six kilometres west of Dunedoo (W-008): Three months
- Wybong Road (W-009): Three months.

2.3 Need and options

2.3.1 Strategic need

The existing OSOM route provides a lot of existing facilities that can be used to allow OSOM vehicles to stop for fatigue management and overnight rest, attach and detach push/pull trucks and pull over to let general traffic pass. The proposal would allow for existing traffic safety conditions on the road network to be maintained and would reduce traffic delays during OSOM transportation of large and heavy components. The proposal aligns with the following regulation and guideline:

- *Heavy Vehicle (Fatigue Management) National Regulation (NSW):*
 - This regulation contains provisions for offences related to fatigue management. Under the legislation, the core duty of a driver is that they must not drive a fatigue-regulated heavy vehicle on a road while impaired by fatigue. The proposal is in accordance with this regulation by providing OSOM vehicles with pull-over bays to stop for fatigue management.
- Transport for NSW Technical Direction – Traffic Control:
 - This guideline provides the requirements for temporary traffic management at Transport construction and maintenance work sites, including the operation of OSOM vehicles through the road network. The regulation identifies the need for pull-over bays within long work sites. The proposal aligns with this guideline through the provision of pull-over bays, providing opportunities to let general traffic pass based on a 10 minute traffic delay nominated threshold.
- NSW Heavy Vehicle Access Policy (Transport for NSW, 2024)
 - This policy outlines a five-year roadmap to enhance access for the safest, most sustainable, and productive heavy vehicles on NSW state roads. A key focus is expanding access and optimising network capacity, including improved heavy vehicle stopping areas for fatigue management. Fatigue, recognised in the policy as a leading factor in serious heavy vehicle incidents, is addressed through this proposal, which provides OSOM vehicles with pull-over bays for effective fatigue management.

The proposal would align with the objectives of the following local strategic plans:

- Muswellbrook Local Strategic Planning Statement 2020-2040 (Muswellbrook Shire Council, 2020)
- Singleton Community Strategic Plan 2032 (Singleton City Council, 2022)
- Upper Hunter Community Strategic Plan 2032 (Upper Hunter Shire Council, 2022)
- Warrumbungle Shire Council Community Strategic Plan 2022/2037 (Warrumbungle Shire Council, 2022).

Muswellbrook Local Strategic Planning Statement 2020-2040

The proposal would also align with the objectives of the Muswellbrook Local Strategic Planning Statement 2020-2040 (Muswellbrook Shire Council, 2020) through its support for jobs and investment in the renewable energy sector. An objective of the Muswellbrook Local Strategic Planning Statement 2020-2040 (Muswellbrook Shire Council, 2020) is to deliver investment through the themes of opportunities for creativity, jobs and investment, improved wellbeing, safety and belonging, and enhanced environmental, natural assets and scenic qualities.

Singleton Community Strategic Plan 2032

The proposal would also align with the objectives of the Singleton Community Strategic Plan 2032 (Singleton City Council, 2022). The Singleton Community Strategic Plan 2032 will be delivered through the themes of transport connectivity and support sustainable alternatives and increase the use of renewable energy. The proposal is aligned with the statement's themes through its support for transport connectivity and investment in the renewable energy sector.

Upper Hunter Community Strategic Plan 2032

An objective of the Upper Hunter Community Strategic Plan is for the upgrade and maintenance of the road network and bridges. The proposal would align with the objectives of the Upper Hunter Community Strategic Plan 2032 (Upper Hunter Shire Council, 2022) and will be delivered through the themes of a connected community, protected environment, thriving economy, quality infrastructure and responsible governance.

Warrumbungle Shire Council Community Strategic Plan (Reviewed) 2017-2032

An objective of the Warrumbungle Shire Council Community Strategic Plan is the readiness for climate change through adaptation and mitigation strategies and ensuring local roads are safe and functional. The proposal would also align with this objective and will be delivered through the themes of caring for the environment, civic leadership, strengthening the local economy and supporting community life.

2.3.2 Assessment background

A Traffic Impact Study and route assessment was carried out by AECOM (2023), on behalf of EnergyCo, to determine the preferred route to transport components to generator sites located in the CWO REZ. The report concluded that the most efficient and minimal environmental impact route for the transportation of components from Port of Newcastle to CWO REZ would be via the State Highway network, specifically the P2R route shown in Figure 2-1.

A further assessment was undertaken by Arcadis (2024) for various types of OSOM vehicles using the P2R route taking into consideration road traffic conditions, travel times, average speeds, driver fatigue management requirements, passing lane requirements, overnight rest places, stopping places for conducting load checks and completing travel diaries, and school times in rural towns.

The eight pull-over bays assessed in this report were identified as required to minimise traffic disruption along the OSOM route.

2.3.3 Options considered

Options considered, and the advantages and disadvantages associated with each, are identified below and summarised in Table 2-6.

- **Option 1 'Do nothing':** No modifications to existing or installation of pull-over bays
- **Option 2 'The proposal':** Undertake pull-over bays as outlined in Section 2.2.2.

Table 2-6: Analysis of options

Objective	Option 1 'Do-nothing'	Option 2 'The proposal'
To facilitate safe delivery of over-sized and over-massed components from the Port of Newcastle to the CWO REZ	Option 1 would involve not undertaking any modifications or installation of pull-over bays. Greater traffic disruptions and delays could result by not undertaking pull-over bay modifications for the transport of OSOM components to CWO REZ, as frequency of OSOM movements using the route increases. This option may increase risk to existing traffic safety conditions during delivery of OSOM components from the Port of Newcastle to the CWO REZ. Does not meet objective.	Option 2 would provide additional space for OSOM vehicles to manoeuvre into the pull-over bays while minimising disruption to the general traffic network and broader community. Extending the pull-over bays and shoulders along the existing State Highway network is the most efficient and cost-effective way to maintain existing traffic safety conditions and minimise delays during transportation of components for renewable energy projects in CWO. This option meets the objective to facilitate safe delivery of OSOM components from the Port of Newcastle to the CWO REZ. Meets objective.

2.3.4 Design refinements

Consideration was given to minimising impacts to property, existing infrastructure (including road, bridges, rail), utilities, and native vegetation.

Design refinements were able to reduce the following impacts from initial concept design:

- Golden Highway, Jerrys Plains (W-001): Extent of bay shortened to avoid impacts to existing utilities, culverts and driveway on the northern and southern ends, and bay narrowed to avoid impact to existing power pole on the southern end.
- Golden Highway, Sandy Hollow (W-002): Moved further north to minimise impact on properties and avoid tree removal of Central West Valleys White Box Forest (PCT 3388)
- Golden Highway, one kilometre west of Glenroy Road (W-004): Location selected to avoid greater impact on patches of vegetation Grey Box x White Box grassy open woodland on basalt hills in the Merriwa region, upper Hunter Valley (PCT 483) within the vicinity and improve line of sight
- Golden Highway, 2.2 kilometres east of Pembroke Road (W-005): Moved further north to avoid impact on vegetation Yellow Box grassy woodland on basalt soils of the upper Hunter (PCT 1695)
- Golden Highway and Tongy Road (W-006): Moved to the southern verge of Golden Highway to avoid impact on vegetation Rough-Barked Apple - red gum - Yellow Box woodland on alluvial clay to loam soils on valley flats in the northern NSW South Western Slopes Bioregion and Brigalow Belt South Bioregion (PCT 281) and avoid OSOM vehicles crossing the east-bound lane to access the pull-over bay
- Golden Highway, Leadville (W-007): Moved away from watercourses and vegetation
- Golden Highway, six kilometres west of Dunedoo (W-008): Moved due to line of sight issue at the top of a hill about one kilometre away, a located on the southern verge to avoid OSOM vehicles crossing the east-bound lane to access the pull-over bay
- Wybong Road (W-009): Existing bay and was slightly moved to the north to minimise impacts to vegetation Western Hunter Dwyers Red Gum-Pine Woodland (PCT 3774) and Western Hunter Currwang Low Forest (PCT 3773).

2.3.5 Preferred option

Option 2 is the preferred option as it meets the proposal objective while Option 1 does not.

The preferred option has also been considered against the following design criteria provided in Table 2-7Table 2-7.

Table 2-7: Assessment against development criteria

Design criteria	Option 2 'The proposal'
Minimise constructability impacts including to utilities and services	Impacts to utilities have been minimised through the design refinement process, including avoidance of utility impacts at most pull-over bays. Construction of the pull-over bay at Golden Highway, Jerrys Plains (W-001) will have the potential to impact the following utilities: • Singleton Council watermain – north verge • Telstra communications asset – south verge • AusGrid overhead high voltage cable – westbound verge. Impact extent to utilities at this pull-over bay has been minimised to the greatest extent practicable through the design refinement process. Meets criterion.
Minimise land use and community impacts	The proposal would be carried out primarily within road reserve and along the existing state network. The proposal would encroach upon the following properties for works carried out at the following pull-over bays: • Golden Highway, one kilometre west of Glenroy Road (W-004): Lot 134, DP 655386 (private property) • Golden Highway, 2.2 kilometres east of Pembroke Road (W-005): Lot 3, DP 436812 (Crown land) • Golden Highway and Tongy Road (W-006): Lot 7306, DP1141566 (Crown land) • Wybong Road (W-009): Lot 100, DP1118411 (private property). No road closures would be required given the minor works proposed. Traffic control activities around construction works would potentially be required, particularly at Golden Highway, Jerrys Plains (W-001) however, detours and full lane closures are not proposed. Access to properties within the vicinity would be maintained throughout construction. Meets criterion.
Minimise property acquisition	Partial acquisition of Lot 100, DP1118411 is proposed for the works at Wybong Road (W-009) pull-over bay site and would be carried out in accordance with the provisions of the <i>Land Acquisition (Just Terms) Compensation Act 1991</i>. The proposal would potentially involve temporary construction access at the property Lot 134, DP 655386 adjacent to the Golden Highway, one kilometre west of Glenroy Road (W-004) pull-over bay site to accommodate earthworks required for the relocation of the Telstra communications line. Works proposed at the Golden Highway, 2.2 kilometres east of Pembroke Road (W-005) and Golden Highway and Tongy Road (W-006) pull-over bay sites would encroach upon adjacent Crown land (Lot 3, DP 436812 and Lot 7306, DP1141566). Prior to construction, a lease or licence for the Crown lands would be sought from the NSW Department of Planning, Housing and Infrastructure in accordance with the <i>Crown Land Management Act 2016</i>. All affected landowners would be consulted with prior to construction. Meets criterion.
Minimise environmental and social impacts	Environmental impacts are expected from the proposal, such as traffic, noise, air quality, tree trimming, and erosion and runoff. With implementation of safeguards listed in Table 4-1, the environmental impacts are considered minor. The need for tree removal has been minimised or avoided at several pull-over bays including: • Golden Highway, Sandy Hollow (W-002): Moved further north to minimise impact on properties and avoid tree removal of Central West Valleys White Box Forest (PCT 3388)

Design criteria	Option 2 ‘The proposal’
	- Golden Highway, 2.2 kilometres east of Pembroke Road (W-005): Moved further north to avoid impact on vegetation Yellow Box grassy woodland on basalt soils of the upper Hunter (PCT 1695) - Golden Highway and Tongy Road (W-006): Moved to the southern verge of Golden Highway to avoid impact on vegetation Rough-Barked Apple - red gum - Yellow Box woodland on alluvial clay to loam soils on valley flats in the northern NSW South Western Slopes Bioregion and Brigalow Belt South Bioregion (PCT 281) - Wybong Road (W-009): Existing bay and was slightly moved to the north to minimise impacts to vegetation Western Hunter Dwyers Red Gum-Pine Woodland (PCT 3774) and Western Hunter Currwang Low Forest (PCT 3773). Social impacts would support the development of renewable energy projects by providing additional space for OSOM vehicles to manoeuvre through the proposed pull-over bays along the existing State Road Network. Meets criterion.

2.3.6 Justification for the proposal

The proposal is required to maintain existing traffic safety conditions and minimise delays during the transportation of OSOM vehicles from the Port of Newcastle to the CWO REZ. As outlined in Section 2.1, the additional pull-over bays would allow OSOM vehicles to pull over to let general traffic pass.

The proposal would minimise disruption to traffic and the general community by providing sufficient space for OSOM vehicles to pull off the road and allow general traffic to safely pass along the Port of Newcastle to the CWO REZ route. In doing so, driver delays would be kept under 10 minutes which would result in reduced driver frustration.

Design of the proposal has considered minimisation of impacts to existing infrastructure, utilities, property, and native vegetation. Residual impacts can be managed through the implementation of nominated safeguards in Table 4-1.

2.4 Statutory and planning framework

2.4.1 State Environmental Planning Policy (Transport and Infrastructure) 2021

The State Environmental Planning Policy (Transport and Infrastructure) 2021 (Transport and Infrastructure SEPP) aims to facilitate the effective delivery of infrastructure across the State. This includes roads and road infrastructure facilities, and port, wharf or boating facilities.

Section 2.109 of the Transport and Infrastructure SEPP permits development on any land for the purpose of a road or road infrastructure facilities to be carried out by or on behalf of a public authority without consent. As the proposal is development for the purposes of a road or road infrastructure facilities and is to be carried out by or on behalf of Transport, it can be assessed under Division 5.1 of the EP&A Act. Development consent from Council is not required.

The proposal is not located on land reserved under the *National Parks and Wildlife Act 1974* and does not require development consent or approval under:

- State Environmental Planning Policy (Resilience and Hazards) 2021
- State Environmental Planning Policy (Precincts – Eastern Harbour City) 2021
- State Environmental Planning Policy (Precincts – Central River City) 2021
- State Environmental Planning Policy (Precincts – Western Parkland City) 2021
- State Environmental Planning Policy (Precincts – Regional) 2021
- State Environmental Planning Policy (Planning Systems) 2021.

2.4.2 Other relevant legislation and environmental planning instruments

As described above, Section 2.109 of the SEPP (Transport and Infrastructure) permits Transport to carry out development for the purpose of road without consent. As a result, while development for roads would be permissible in the above land zones, consent from Singleton, Muswellbrook, Upper Hunter and Warrumbungle Council is not required for the proposal.

Notwithstanding this, the objectives of the land use zones and the proposal's consistency with the objectives listed in each of the Singleton, Muswellbrook, Upper Hunter and Warrumbungle LEPs are described below.

Singleton Local Environmental Plan (2013)

Golden Highway, Jerrys Plains (W-001) is located within the Singleton LGA, which is subject to the Singleton Local Environmental Plan 2013 (Singleton LEP 2013). The proposal area is zoned as SP2 Infrastructure under the Singleton LEP 2013. Table 2-8 outlines the zoning applicable to land zoned under Singleton LEP 2013.

Table 2-8: Singleton LEP 2013 zoning applicable to the proposal

LEP zoning	Proposal area location	LEP objectives	Proposal consistency with objectives
SP2 Infrastructure	Golden Highway, Jerrys Plains (W-001)	to provide for infrastructure and related uses to prevent development that is not compatible with or that may detract from the provision of infrastructure.	The proposal will require upgrade of non formalised pull-over bay and remains consistent with the objectives of SP2 Infrastructure.

Muswellbrook Local Environmental Plan (2009)

Golden Highway, Sandy Hollow (W-002) and Wybong Road (W-009) are located in the Muswellbrook LGA, which is subject to the Muswellbrook Local Environmental Plan 2009 (Muswellbrook LEP 2009). The proposal area is zoned as RU1 Primary Production and C3 Environmental Management under the Muswellbrook LEP 2009. Table 2-9 outlines the zoning applicable to land zoned under Muswellbrook LGA.

Table 2-9: Muswellbrook LEP 2009 zoning applicable to the proposal

LEP zoning	Proposal area location	LEP objectives	Proposal consistency with objectives
RU1 Primary Production	Golden Highway (W-002)	- to encourage sustainable primary industry production by maintaining and enhancing the natural resource base. - to encourage diversity in primary industry enterprises and systems appropriate for the area. - to minimise the fragmentation and alienation of resource lands. - to minimise conflict between land uses within this zone and land uses within adjoining zones. - to protect the agricultural potential of rural land not identified for alternative land use, and to minimise the cost to the community of providing, extending and maintaining public amenities and services. - to maintain the rural landscape character of the land in the long term. - to ensure that development for the purpose of extractive industries, underground mines (other than surface works associated with underground mines) or open cut mines (other than open cut mines from the surface of the flood plain), will not— a. destroy or impair the agricultural production potential of the land or, in the case of underground mining, unreasonably restrict or otherwise affect any other development on the surface, or b. detrimentally affect in any way the quantity, flow and quality of water in either subterranean or surface water systems, or c. visually intrude into its surroundings, except by way of suitable screening. - to protect or conserve (or both)—	The proposal will not impact upon the function of the zoning area and will remain consistent with the objectives of RU1 Primary production.

LEP zoning	Proposal area location	LEP objectives	Proposal consistency with objectives
		a. soil stability by controlling development in accordance with land capability, and b. trees and other vegetation, and c. water resources, water quality and wetland areas, and their catchments and buffer areas, and d. valuable deposits of minerals and extractive materials by restricting development that would compromise the efficient extraction of those deposits.	
C3 Environmental Management	Wybong Road (W-009)	• to protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values. • to provide for a limited range of development that does not have an adverse effect on those values. • to maintain, or improve in the long term, the ecological values of existing remnant vegetation of significance including wooded hilltops, river valley systems, major scenic corridors and other local features of scenic attraction. • to limit development that is visually intrusive and ensure compatibility with the existing landscape character. • to allow agricultural activities that will not have an adverse impact on the environmental and scenic quality of the existing landscape. • to promote ecologically sustainable development. • to ensure that development in this zone on land that adjoins land in the land zoned C1 National Parks and Nature Reserves is compatible with the objectives for that zone.	The proposal will not impact upon the function of the zoning area and will remain consistent with the objectives of C3 Environmental Management.

Upper Hunter Local Environmental Plan (2013)

Golden Highway, one kilometre west of Glenroy Road (W-004) and Golden Highway, 2.2 kilometres east of Pembroke Road (W-005) are located within the Upper Hunter LGA, which is subject to the Upper Hunter Local Environmental Plan 2013 (Upper Hunter LEP). The proposal area is zoned as SP2 Infrastructure and RU1 Primary Production under the Upper Hunter LEP. Table 2-10 outlines the zoning applicable to land zoned under Upper Hunter LEP.

Table 2-10: Upper Hunter LEP 2013 zoning applicable to the proposal

LEP zoning	Proposal area location	LEP objectives	Proposal consistency with objectives
SP2 Infrastructure	Golden Highway, one kilometre west of Glenroy Road (W-004) Golden Highway, 2.2 kilometres east of Pembroke Road (W-005)	• to provide for infrastructure and related uses • to prevent development that is not compatible with or that may detract from the provision of infrastructure.	The proposal will not impact on the function of the zoning area and will remain consistent with the objectives of SP2 Infrastructure.
RU1 Primary production	Golden Highway, one kilometre west of Glenroy Road (W-004) Golden Highway, 2.2 kilometres east of Pembroke Road (W-005)	• to encourage sustainable primary industry production by maintaining and enhancing the natural resource base. • to encourage diversity in primary industry enterprises and systems appropriate for the area. • to minimise the fragmentation and alienation of resource lands. • to minimise conflict between land uses within this zone and land uses within adjoining zones.	The proposal will not impact on the function of the zoning area and will remain consistent with the objectives of RU1 Primary production.

Warrumbungle Local Environmental Plan 2013

Golden Highway and Tongy Road (W-006), Golden Highway, Leadville (W-007) and Golden Highway, six kilometres west of Dunedoo (W-008) are located in Warrumbungle LGA, which is subject to the Warrumbungle Local Environmental Plan 2013 (Warrumbungle LEP). The proposal area is zoned as SP2 Infrastructure and RU1 Primary Production under the Upper Hunter LEP. Table 2-11 outlines the zoning applicable to land zoned under Warrumbungle LEP.

Table 2-11: Warrumbungle LEP 2013 zoning applicable to the proposal

LEP zoning	Proposal area location	LEP objectives	Proposal consistency with objectives
SP2 Infrastructure	Golden Highway and Tongy Road (W-006) Golden Highway, Leadville (W-007) Golden Highway, six kilometres west of Dunedoo (W-008)	- to provide for infrastructure and related uses - to prevent development that is not compatible with or that may detract from the provision of infrastructure.	The proposal will not impact on the function of the zoning area and will remain consistent with the objectives of SP2 Infrastructure.
RU1 Primary production	Golden Highway, six kilometres west of Dunedoo (W-008)	- to protect the agricultural value of rural land. - to maintain the rural landscape character of the land in the long term. - to ensure that development does not unreasonably increase demand for public services or public facilities. - to ensure that development for the purposes of extractive industries, underground mines (other than surface works associated with underground mines) or open cut mines (other than open cut mines from the surface of the flood plain) will not- - destroy or impair the agricultural production potential of the land or, in the case of underground mining, unreasonably restrict or otherwise affect any other development on the surface, or - detrimentally affect the quantity, flow and quality of water in either subterranean or surface water systems, or - visually intrude into its surroundings, except by way of suitable screening.	The proposal will not impact on the function of the zoning area and will remain consistent with the objectives of RU1 Primary production.

The application of Singleton LEP, Muswellbrook LEP, Upper Hunter LEP and Warrumbungle LEP, and other relevant legislation and environmental planning instruments is considered in Table 2-12.

Table 2-12: Review of other legislation and environmental planning instruments

Legislation	Overview	Approval required?
NSW Legislation		
<i>Roads Act 1993</i>	Under this Act, state authorities such as Transport for NSW are given the ability to carry out activities such as construction and upgrades on roads in NSW. Section 138 provides that consent from the appropriate roads authority is required for road work and other work within a road corridor. Consent is typically provided in the form of a Road Occupancy Licence obtained by the construction contractor prior to work beginning. This may include temporary closures of roads and regulation of traffic to ensure construction can be completed. As well, this Act permits Transport for NSW to acquire land for the purposes of road work, in line with the <i>Land Acquisition (Just Terms Compensation) Act 1991</i> .	Yes A Road Occupancy Licence (ROL) would need to be obtained by the construction contractor from the relevant roads authority before beginning any work that requires road possession and closures.

Legislation	Overview	Approval required?
<i>Protection of the Environment Operations Act 1997 (POEO Act)</i>	Under this Act, activities listed as 'scheduled activities' under Schedule 1 of the POEO Act require an Environment Protection Licence issued by the Environment Protection Authority (EPA).	No The proposal does not involve a 'scheduled activity' under Schedule 1 of the POEO Act. Accordingly, an Environment Protection Licence is not required for the proposal. However, in accordance with Part 5.7 of the POEO Act, Transport would notify the EPA of any pollution incidents that occur onsite.
<i>Protection of the Environment Operations Regulation 2014</i>	This regulation implements the POEO Act by providing specifications on waste management, transport and disposal.	No The proposal requires all wastes, including contaminated wastes to be identified and classified with the NSW EPA's Waste Classification Guidelines, with appropriate records and disposal dockets retained for audit purposes. Disposal of contaminated waste will be completed in accordance with the POEO Act, <i>Protection of the Environment Operations (Waste) Regulation 2014</i> .
<i>Waste Avoidance and Resource Recovery Act</i>	The objects of the Act are to encourage the most efficient use of resources and to reduce environmental harm in accordance with the principles of ecologically sustainable development and to ensure that resource management options are considered against a hierarchy of the following order: 1. avoidance of unnecessary resource consumption 2. resource recovery (including reuse, reprocessing, recycling and energy recovery) and disposal to provide for the continual reduction in waste generation.	No The proposal requires that the resource management hierarchy be adopted to avoid unnecessary consumption, followed by resource recovery and then disposal as a last resort.
<i>National Parks and Wildlife Act 1974 (NPW Act)</i>	This Act provides for the conservation and management of nature and objects, places and features of cultural value. It is the primary legislation for the protection of Aboriginal cultural heritage in NSW. Part 6 of the NPW Act provides protection for all Aboriginal objects and Aboriginal places in NSW. Under Section 90 of the Act, where harm to an Aboriginal object or Aboriginal place cannot be avoided, an Aboriginal Heritage Impact Permit is required before the disturbance of Aboriginal objects or places.	No The proposal is unlikely to disturb any objects of Aboriginal cultural heritage significance (refer to Section 3.5 (Aboriginal cultural heritage)). The Transport <i>Procedure for Aboriginal Cultural Heritage Consultation and Investigation</i> (PACHCI) (Transport for NSW, 2011) was followed. A Stage 1 PACHCI assessment was carried out for the proposal by a Transport Aboriginal cultural heritage advisor and is provided in Appendix D. The outcomes of the assessment concludes that the proposal is unlikely to have an impact on Aboriginal cultural heritage and may proceed in accordance with the environmental assessment.
<i>Heritage Act 1977 (Heritage Act)</i>	This Act provides for the conservation of buildings, work, relics and places that are of historic, scientific, cultural, social, archaeological, architectural, natural or aesthetic significance to the state. Matters protected under the Heritage Act include items subject to an Interim Heritage Order and items listed on the State Heritage Register, the heritage schedules of local council LEPs, and the heritage and conservation registers established under Section 170 of the Heritage Act by NSW state government agencies (Section 170 Registers). The Heritage Act also provides for the protection of archaeological 'relics', being any deposit, object or	No The proposal is unlikely to impact any heritage items (refer to Section 3.5 (Non-Aboriginal heritage)). There are two local heritage items, St James' Anglican Church and Jerrys Plains Catholic Church, and one conservation area, Jerrys Plains Conservation Area, at the Golden Highway, Jerrys Plains pull-over bay (W-001). Works carried out at this pull-over bay would not include demolition, relocation or alterations to the exterior of any heritage

Legislation	Overview	Approval required?
	material evidence that relates to the non-Aboriginal settlement of NSW and is of State or local heritage significance.	items within Jerrys Plains Heritage Conservation Area. A conservative vibration assessment indicated that the St James' Anglican Church and nearest residence to W-001 (both located within Jerrys Plains Conservation Area) are located within the minimum working distances of 68 metres and 25 metres for heritage and standard structures, respectively. Due to possible exceedance at the nearby structures resulting from a worst-case assessment, all vibratory causing plant and equipment used at this location will be operated in accordance with safeguard NV5 to ensure possible ground vibration impacts remain below relevant threshold levels at the nearby structures. With this safeguard in place, vibration impacts are not anticipated for structures within the conservation area in the vicinity of the proposal. As such, the proposal is not anticipated to impact the heritage items and heritage significance of Jerrys Plains Conservation Area.
Environmental planning instruments		
<i>Singleton Local Environmental Plan 2013</i> <i>Muswellbrook Local Environmental Plan 2009</i> <i>Upper Hunter Local Environmental Plan 2013</i> <i>Warrumbungle Local Environmental Plan 2013</i>	The relevant land zones and objectives apply to the proposal: • SP2 – Infrastructure (Road) • RU1 – Primary production • RU5 – Village • C3 – Environmental Management.	No Developments comprising roads are permitted without consent on land zones SP2 (Infrastructure), RU1 (Primary production, RU5 (Village), RU5 (Village) and C3 (Environmental management). Section 2.109 of Transport and Infrastructure SEPP enables the proposal to be carried out as development permitted without consent and assessed under Part 5 of the EP&A Act. Development consent from Council is not required.

2.5 Community engagement and agency consultation

2.5.1 SEPP (Transport and Infrastructure) consultation

Part 2.2 of the SEPP (Transport and Infrastructure) contains provisions for public authorities to consult with local councils and other public authorities prior to the commencement of certain types of development. Refer to Table 2-13, Table 2-14 and Table 2-15 below.

Table 2-13: Consultation required with Council

Is consultation with Council required under sections 2.10 – 2.12 and 2.14 of the SEPP (Transport and Infrastructure)?		
Are the works likely to have a substantial impact on the stormwater management services which are provided by council? Open channel realignments are proposed at the Golden Highway, 2.2 kilometres east of Pembroke Road (W-005), Golden Highway and Tongy Road (W-006), Golden Highway, six kilometres west of Dunedoo (W-008), and Wybong Road (W-009) and would mimic existing water flow conditions. This work would not impact the existing stormwater management services provided by Singleton Council, Muswellbrook Council, Upper Hunter Council and Warrumbungle Council.	Yes ☐	No ☒
Are the works likely to generate traffic to an extent that will strain the capacity of the existing road system in a local government area? The pull-over bays proposed are minor in scale and as such, substantial traffic impacts during construction are not anticipated. The traffic capacity of the existing road network would remain as existing during operation of the proposal.	Yes ☐	No ☒
Will the works involve connection to a council owned sewerage system? If so, will this connection have a substantial impact on the capacity of the system?	Yes ☐	No ☒
Will the works involve connection to a council owned water supply system? If so, will this require the use of a substantial volume of water? No connection to a council owned water supply system is required by the proposal. Water utilised for construction would be sourced from a contracted supplier and transported to the proposal areas when required.	Yes ☐	No ☒
Will the works involve the installation of a temporary structure on, or the enclosing of, a public place which is under local council management or control? If so, will this cause more than a minor or inconsequential disruption to pedestrian or vehicular flow? The Golden Highway, Jerrys Plain (W-001) pull-over bay site is located about 60 metres west of the St James Anglican Church (refer to Appendix B Figure 31). No direct impacts to St James Anglican Church are anticipated and therefore is not anticipated to cause disruption to pedestrian and or vehicular flow. Further detail on pedestrian access impacts is provided in Section 3.7 (Traffic and transport)	Yes ☐	No ☒
Will the works involve more than a minor or inconsequential excavation of a road or adjacent footpath for which council is the roads authority and responsible for maintenance? The proposed works generally involve the widening of pavement and or make allowances for OSOM vehicle movements from Port of Newcastle to CWO REZ on state roads.	Yes ☐	No ☒
Is there a local heritage item (that is not also a state heritage item) or a heritage conservation area in the study area for the works? If yes, does a heritage assessment indicate that the potential impacts to the heritage significance of the item/area are more than minor or inconsequential? The Jerrys Plains Conservation Area is located within Golden Highway, Jerrys Plains (W-001). A heritage assessment has been carried out in Section 3.6 (Non-Aboriginal heritage) and indicated impacts to this heritage-listed conservation area are not anticipated due to the minimal works to be undertaken for the construction of this pull-over bay and safeguards in place to manage potential vibration impacts. The heritage significance of this conservation area would remain intact and unaffected by the proposal.	Yes ☒	No ☐
Is the proposal within the coastal vulnerability area and inconsistent with a certified coastal management program applying to that land?	Yes ☐	No ☒
Are the works located on flood liable land? If so, will the works change flooding patterns to more than a minor extent?	Yes ☐	No ☒

Is consultation with Council required under sections 2.10 – 2.12 and 2.14 of the SEPP (Transport and Infrastructure)?		
Note: Flood liable land means land that is susceptible to flooding by the probable maximum flood event, identified in accordance with the principles set out in the Floodplain Development Manual: the management of flood liable land (nsw.gov.au). Publicly accessible flood data and reports for areas in and within the vicinity of the proposal did not confirm whether the proposal areas are on flood prone land. It should be noted however, Golden Highway, Jerrys Plains (W-001) is in proximity of the Hunter River flooding risk, located about 140 metres to its east. Pull-over bay sites at W-005 and W-006 are within proximity to Krui River (about 100 metres north) and Talbragar River (about 165 metres north-west), respectively, and are therefore potentially located within the respective floodplains. However the scope of work is limited to hardstand construction, utility relocations, minor tree removal and pruning, and minor drainage works. Therefore, the proposal is unlikely to alter floodplain storage at each of the locations due to the minor work proposed. Given that the works would not change flooding patterns, no consultation is required with Singleton Council, Muswellbrook Council, Upper Hunter Council and Warrumbungle Council regarding works on flood liable land in accordance with the Transport and Infrastructure SEPP.		

Table 2-14: Consultation with other public authorities

Is consultation with a public authority (other than Council) required under sections 2.13, 2.15 and 2.16 of the SEPP (Transport and Infrastructure)?		
Are the works located on flood liable land? (to any extent) If so, do the works comprise more than minor alterations or additions to, or the demolition of, a building, emergency works or routine maintenance? Note: Flood liable land means land that is susceptible to flooding by the probable maximum flood event, identified in accordance with the principles set out in the Floodplain Development Manual: the management of flood liable land (nsw.gov.au). Publicly accessible flood data and reports for areas in and within the vicinity of the proposal did not confirm whether the proposal areas are located on flood prone land. The pull-over bay sites could potentially be located within the Hunter River flooding risk, Krui River and Talbragar River floodplains given the distances of these sites from the respective rivers. However, the proposed work does not comprise more than minor alterations to the existing road reserve. Given that the proposal would not alter floodplain storage or change flooding patterns, no consultation is required with other public authorities regarding works on flood liable land per the Transport and Infrastructure SEPP.	Yes ☐	No ☒
Are the works adjacent to a national park, nature reserve or other area reserved under the National Parks and Wildlife Act 1974, or on land acquired under that Act?	Yes ☐	No ☒
Are the works on land in Zone C1 National Parks and Nature Reserves or in a land use zone equivalent to that zone?	Yes ☐	No ☒
Do the works include a fixed or floating structure in or over navigable waters?	Yes ☐	No ☒
Are the works for the purpose of residential development, an educational establishment, a health services facility, a correctional facility or group home in bush fire prone land?	Yes ☐	No ☒
Would the works increase the amount of artificial light in the night sky and that is on land within the dark sky region as identified on the dark sky region map? (Note: the dark sky region is within 200 kilometres of the Siding Spring Observatory) The proposal is located within the dark sky region, with the nearest pull-over bay site (W-008) located about 87 kilometres south east from the Siding Spring Observatory. While works would be prioritised during the day for the proposal, night works is likely required at Golden Highway, Jerrys Plains (W-001) which is located about 250 kilometres south east from the Observatory. Given the distance, an increase of artificial light within the dark sky region is not expected due to works carried out at W-001 given the distance. However, night works could potentially occur at the other	Yes ☒	No ☐

Is consultation with a public authority (other than Council) required under sections 2.13, 2.15 and 2.16 of the SEPP (Transport and Infrastructure)?		
pull-over bay sites, thereby temporarily increasing the amount of artificial light in the night sky during construction activities. There will be no impact during the operational phase.		
Consultation letters were issued on the 7 th of November 2024 to the Director of the Siding Spring Observatory and Warrumbungle Shire Council (refer to Appendix G), and a response from the Director of Siding Spring Observatory was received on 11 th November 2024 confirming that the temporary nature of the proposed lighting during construction is unlikely to significantly impact the night sky brightness above the Observatory. Further information on the consultation letter and feedback from the Director of Siding Spring Observatory is provided in Section 2.5.2 below.		
No response from the Warrumbungle Shire Council have been received at the time of preparing this report.		
Further assessment on potential light pollution is provided in Section 3.10 (Landscape character and visual amenity).		
Are the works on buffer land around the defence communications facility near Morundah? (Note: refer to Defence Communications Facility Buffer Map referred to in clause 5.15 of Lockhart LEP 2012, Narrandera LEP 2013 and Urana LEP 2011).	Yes ☐	No ☒
Are the works on land in a mine subsidence district within the meaning of the <i>Mine Subsidence Compensation Act 1961</i>?	Yes ☐	No ☒
Are the works on, or reasonably likely to have an impact on, a part of the Willandra Lakes Region Work Heritage Property?	Yes ☐	No ☒
Are the works within a Western City operational area specified in Schedule 2 of the <i>Western Parkland City Authority Act 2018</i> with a capital value of \$30 million or more?	Yes ☐	No ☒

Table 2-15: Notification of council and occupiers of adjoining land

Do Council and occupiers of adjoining land need to be notified under section 2.111 of the SEPP (Transport and Infrastructure)?		
Does the proposal include a car park intended for the use by commuters using regular bus services?	Yes ☐	No ☒
Does the proposal include a bus depot?	Yes ☐	No ☒
Does the proposal include a permanent road maintenance depot or associated infrastructure, such as garages, sheds, tool houses, storage yards, training facilities and workers amenities?	Yes ☐	No ☒
Ancillary activities would be limited to temporary workforce parking and laydown areas on the road verge or in areas of cleared land adjacent to each of the pull-over bays.		

2.5.2 Other agency and community engagement

Consultation with Singleton Council, Muswellbrook Council, Upper Hunter Council and Warrumbungle Council

An outcome of the assessment above has determined that consultation with local councils would not be required for this proposal given the minor scale of work proposed. Nonetheless, Singleton Council, Muswellbrook Council, and Upper Hunter Council will be advised of the proposed works.

A consultation letter to Warrumbungle Council was issued on the 7th of November 2024 to outline the nature of the works within the dark sky region. No response from Warrumbungle Shire Council has been received at the time of preparing this report.

Consultation with Siding Spring Observatory

The proposal is located within the dark sky region, 87 kilometres south east from the Siding Spring Observatory at the nearest location. While works would be prioritised during the day for the proposal, night works could potentially occur at the pull-over bay sites, thereby increasing the amount of artificial light in the night sky during construction.

Consultation letters were issued on the 7th of November 2024 to the Director of the Siding Spring Observatory and Warrumbungle Shire Council (refer to [Appendix G](#)). The letters outlined the nature of the works being undertaken and that lighting would be required for night works at these intersections, temporarily increasing the amount of artificial light in the night sky during construction activities. The proposal would have no impact on the dark sky region during the operational phase. The Director of Siding Spring Observatory and Warrumbungle Shire Council were provided opportunity to provide comment.

A response from the Director of Siding Spring Observatory was received on 11th November 2024 confirming that the temporary nature of the proposed lighting during construction is unlikely to significantly impact the night sky brightness above the Observatory. It was recommended that lighting during construction is directed at the construction activities as needed and lights are shielded to minimise the escape of light above the horizontal.

No response from Warrumbungle Shire Council has been received at the time of preparing this report.

Ongoing or future consultation

Broad community engagement activities were not carried out with the local community due to the minor scope of work and short duration of activities. However, prior to the commencement of works, Transport would communicate any change in traffic conditions to the local community within the area surrounding the proposal. Suitable signage would be installed to inform road users of any changes to traffic conditions prior to, and during, construction.

Prior to the commencement of works, Transport would communicate with the community via the following communication methods:

- Transport's website
- update to livetraffic NSW
- subscribers to regular emails on upcoming road closures.

Consultation would be undertaken with affected property owners and local businesses within the vicinity of the proposal sites, and broader industry groups including:

- Hunter Thoroughbred Breeders Association
- NSW Minerals Council
- businesses, schools, and organisations within the vicinity of Golden Highway, Jerrys Plains pull-over bay site (W-001). This is due to the location of works within Jerrys Plains town centre.

Transport would discuss details of the proposal, duration of works and working hours, changed traffic or access arrangements, estimated OSOM movements throughout operation of the proposal, and how to lodge a complaint or obtain more information (contact name and details).

3. Environmental assessment

This chapter provides a detailed description of the potential environmental impacts associated with the construction and operation of the proposal. All aspects of the environment potentially impacted upon by the proposal are considered. This includes consideration of the factors specified in s171 of the Environmental Planning and Assessment Regulation 2021.

The matters of national environmental significance under the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth) (EPBC Act) are also considered in [Appendix A](#). Site-specific safeguards are provided to ameliorate the identified potential impacts.

All environmental assessment figures are provided in [Appendix B](#).

3.1 Soil

Table 3-1: Soil

Description of existing environmental and potential impacts		
Are there any known occurrences of salinity or acid sulfate soils in the area? A review of the Australian Soil Resource Information System's (ASRIS, 2018) online Acid Sulfate Soil risk map was carried out on 2 April 2024. All pull-over bays contain either low or extremely low probability of acid sulfate soils occurring. If potential or actual acid sulfate soils were encountered, these soils would be managed in accordance with Transport's <i>Guidelines for the Management of Acid Sulphate Materials 2005</i>. A search of the eSPADE website (Office of Environment and Heritage, 2023), conducted on the 2 April 2024 identified all pull-over bays are located within areas of low to high overall salinity hazard. Figures with saline soil mapping are provided in Appendix B (Appendix B Figure 1 to Appendix B Figure 8). Soil salinity management would be carried out in accordance with the NSW Department of Primary Industries (2014) Salinity Training Handbook.	Yes ☐	No ☒
Does the proposal involve the disturbance of large areas (e.g., >2ha) for earthworks? The proposal would disturb an area of about 0.76 hectares for earthworks, requiring an estimated excavation of about 2,372 cubic metres of soils across the pull-over bays sites to accommodate the new pavement, utility adjustments and drainage works.	Yes ☐	No ☒
Does the site have constraints for erosion and sedimentation controls such as steep gradients or narrow corridors? The proposed pull-over bay works would be carried out on a generally flat topography within the existing road corridor but within narrow corridors, especially at those sites that encroach into private properties. Nevertheless, the proposed works would pose low to negligible erosion and sediment risks or constraints. The small extent of exposed soils expected at each of the pull-over bays indicates that implementing appropriate erosion and sediment controls would be adequate to manage any potential risks.	Yes ☐	No ☒
Are there any sensitive receiving environments that are located in or nearby the likely proposal area or that would likely receive stormwater discharge from the proposal? Sensitive receiving environments include (but are not limited to) wetlands, state forests, national parks, nature reserves, rainforests, drinking water catchments). The nearest sensitive receiving environment within the vicinity of the proposal includes a tributary of Hall Creek that leads to Goulburn River, 20 metres north of Golden Highway, Sandy Hollow pull-over site (W-002). Other waterways range from 50-470 metres from each pull-over bay site, as detailed in Section 3.2 (Waterways and water quality). Changes to the existing stormwater drainage system has the potential to introduce soil erosion, potentially impacting downstream water quality, via the stormwater network or onsite runoff. The sensitive environment likely to receive the greatest amount of discharge from works is Golden Highway, Sandy Hollow (W-002) as it is the closest to the nearest waterway. Construction of the pull-over bays would include the additional hardstand extensions of existing pavement. The increased pavement areas would be minor in the context of the overall hydrology and given short-lived nature of ground disturbance needed to construct the extension works, the works are unlikely to have any substantial impact on surface water flows within the catchments.	Yes ☐	No ☒
Is there any evidence within or nearby the likely footprint of potential contamination? A search of the NSW Environment Protection Authority (EPA) Contaminated Land Register (NSW EPA, 2024) was carried out on 9 April 2024 for contaminated sites regulated by the EPA under the <i>Contaminated Land Management Act 1997</i> or the <i>Environmentally Hazardous Chemicals Act 1985</i>. No records were found within one kilometre of the proposal sites. Illegal dumping was observed within along the southbound verge of Wybong Road (W-009) pull-over bay site (refer to Appendix B Figure 46) and within the adjacent property (Lot 100 DP111841). The presence of dumped materials indicate a potential for soil contamination at this site and possibility that dumping may have occurred at other locations where pull-over bays are proposed. All illegally dumped materials identified within or adjacent to the proposal area would require disposal prior to construction of the pull-over bay sites (safeguard M7). Additionally, an unexpected find procedure for	Yes ☒	No ☐

Description of existing environmental and potential impacts		
potential or actual contaminated soils will be included in the construction environmental management documentation in accordance with Safeguard E7.		
Is the likely proposal footprint in or nearby highly sloping landform? Wybong Road (W-009) pull-over bay site is surrounded by highly elevated sandstone platforms that ranges from 220 metres at the site up to 270 - 310 metres at the top of the platforms. The small extent of exposed soils expected at the pull-over bays indicates that implementing appropriate erosion and sediment controls would be adequate to manage any potential risks.	Yes ☒	No ☐
Is the proposal likely to result in more than 2.5ha (area) of exposed soil? The proposal would disturb an area of about 0.76 hectares for earthworks, requiring an estimated excavation of about 2,372 cubic metres of soils across the pull-over bays sites to accommodate the new pavement, utility adjustments and drainage works. Safeguards are provided below which would be used to manage potential erosion and sediment impacts near the proposal works area.	Yes ☐	No ☒
Additional information pertaining to soil and contamination risk. A desktop database search and review of publicly available information was undertaken to identify the potential for soil impacts. The sources consulted included: • The Australian Soil Resource Information System (ASRIS) maps (2024) • eSPADE (Office of Environment and Heritage, 2024). Construction activities would involve movement and use of vehicles across exposed ground, and transport of materials to and from the proposal areas. There is potential for soil erosion to occur across the proposal footprint. Safeguards would be in place to minimise the potential for soil erosion impacts.		

Safeguards

Table 3-2: Soil safeguards and management measures

Numbering	Impact	Environmental safeguards	Responsibility	Timing
E1	Soils	Erosion and sediment control measures are to be implemented (in accordance with the Landcom/Department of Housing <i>Managing Urban Stormwater, Soils and Construction Guidelines</i> (the Blue Book)) and maintained to: • minimise sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets • reduce water velocity and capture sediment on site • minimise the amount of material transported from site to surrounding pavement surfaces • divert clean water around the site.	Contractor	Construction
E2	Soils	All erosion and sedimentation controls implemented will be checked and maintained on a regular basis (including clearing of sediment from behind barriers) and records kept and provided on request.	Contractor	Construction
E3	Soils	Work areas are to be stabilised progressively during the works.	Contractor	Construction
E4	Soils	The maintenance of established stockpile sites is to be in accordance with Transport's <i>Stockpile Site Management Guideline</i> (EMS-TG-10).	Contractor	Construction
E5	Soils	Potential or actual acid sulfate soils are to be managed in accordance with Transport's <i>Guidelines for the Management of Acid Sulphate Materials</i> 2005.	Contractor	Construction
E6	Soils	Any saline soils will be managed in accordance with NSW Department of Primary Industries (2014) <i>Salinity Training Handbook</i> .	Contractor	Construction

Numbering	Impact	Environmental safeguards	Responsibility	Timing
E7	Contamination	An unexpected find procedure for potential or actual contaminated soils will be included in the construction environmental management documentation.	Contractor	Construction
E8	Soils	A progressive erosion and sediment control plan will be prepared for the works.	Contractor	Pre-construction and construction
E9	Soils	Erosion and sediment control measures will not to be removed until the works are complete, and areas are stabilised.	Contractor	Construction

3.2 Waterways and water quality

Table 3-3: Waterways and water quality

Description of existing environmental and potential impacts			Yes ☒	No ☐																													
Is the proposal located within, adjacent to or near a waterway? The proposal is located in the Hunter River Catchment and the Goulburn River Catchment and is within the vicinity of several water bodies. These water bodies and their location from the proposal areas are summarised in Table 3-4 and shown in Appendix B (Appendix B Figure 9 to Appendix B Figure 16). Table 3-4: Water bodies within the vicinity of the proposal <table border="1"> <thead> <tr> <th>Proposal area</th> <th>Name of water body</th> <th>Location from the proposal (approximate)</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Golden Highway, Jerrys Plains (W-001)</td> <td>Tributary of Redmanvale Creek</td> <td>70 metres north</td> </tr> <tr> <td>Hunter River</td> <td>140 metres east</td> </tr> <tr> <td>Golden Highway, Sandy Hollow (W-002)</td> <td>Tributary of Hall Creek</td> <td>20 metres north</td> </tr> <tr> <td>Golden Highway, one kilometre west of Glenroy Road (W-004)</td> <td>Tributary of Killoe Creek</td> <td>470 metres north</td> </tr> <tr> <td>Golden Highway, 2.2 kilometres east of Pembroke Road (W-005)</td> <td>Tributary of Krui River</td> <td> 100 metres north - Krui River 300 metres west </td> </tr> <tr> <td>Golden Highway and Tongy Road (W-006)</td> <td>Tributary of Talbragar River</td> <td> 165 metres north-west 450 metres west of the Talbragar River </td> </tr> <tr> <td>Golden Highway, Leadville (W-007)</td> <td>Canbail Creek and Back Creek</td> <td> 260 metres north of Canbail Creek 280 metres east of Back Creek </td> </tr> <tr> <td>Golden Highway, six kilometres west of Dunedoo (W-008)</td> <td>Tributary of Talbragar River</td> <td>90 metres east</td> </tr> <tr> <td>Wybong Road (W-009)</td> <td>Tributary of Reedy Creek</td> <td>250 metres east</td> </tr> </tbody> </table>			Proposal area	Name of water body	Location from the proposal (approximate)	Golden Highway, Jerrys Plains (W-001)	Tributary of Redmanvale Creek	70 metres north	Hunter River	140 metres east	Golden Highway, Sandy Hollow (W-002)	Tributary of Hall Creek	20 metres north	Golden Highway, one kilometre west of Glenroy Road (W-004)	Tributary of Killoe Creek	470 metres north	Golden Highway, 2.2 kilometres east of Pembroke Road (W-005)	Tributary of Krui River	100 metres north - Krui River 300 metres west	Golden Highway and Tongy Road (W-006)	Tributary of Talbragar River	165 metres north-west 450 metres west of the Talbragar River	Golden Highway, Leadville (W-007)	Canbail Creek and Back Creek	260 metres north of Canbail Creek 280 metres east of Back Creek	Golden Highway, six kilometres west of Dunedoo (W-008)	Tributary of Talbragar River	90 metres east	Wybong Road (W-009)	Tributary of Reedy Creek	250 metres east		
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The nearest sensitive receiving environment within the vicinity of the proposal includes a tributary of Hall Creek that leads to Goulburn River, 20 metres north of Golden Highway, Sandy Hollow pull-over site (W-002). Given the minor works for proposed pull-over bays, the proposal is not likely to impact any surrounding waterbodies.																																	
Is the location known to flood or be prone to water logging? A review of Singleton Council, Muswellbrook Council, Upper Hunter Council and Warrumbungle Council flooding mapping did not confirm whether the proposal areas are on flood prone land. However, Golden Highway, Jerrys Plains (W-001) is in proximity of the Hunter River flooding risk, located about 140 metres to its east. Pull-over bay sites at W-005 and W-006 are within proximity to Krui River (about 100 metres north) and Talbragar River (about 165 metres north-west), respectively, and are therefore potentially located within the respective floodplains. The scope of work is limited to hardstand construction, utility relocations, minor tree removal and			Yes ☒	No ☐																													

Description of existing environmental and potential impacts		
pruning, and minor drainage works. Therefore, the proposal is unlikely to alter floodplain storage and flooding patterns at each of the locations due to the minor work proposed.		
Weather forecasts would be monitored prior to and throughout the works.		
Is the proposal located within a regulated catchments covered by chapter 6 of State Environmental Planning Policy (Biodiversity and Conservation) 2021 (SEPP (Biodiversity and Conservation))? The proposal is located within the Hunter River Catchment, which is not included as a regulated catchment in the SEPP (Biodiversity and Conservation).	Yes ☐	No ☒
Would the proposal be undertaken on a bridge or ferry?	Yes ☐	No ☒
Is the proposal likely to require the extraction of water from a local water course (not mains)? Water required for the proposal including but not limited to dust suppression and fill compaction would be sourced from potable town water. Where applicable some construction water may be sourced from adjacent farm dams, however this use would be subject to consultation and approval of landowners prior to this use.	Yes ☐	No ☒

Safeguards

Table 3-5: Water quality safeguards and management measures

Numbering	Impact	Environmental safeguards	Responsibility	Timing
W1	Water quality	An emergency spill kit will be kept onsite at all times during works. All staff are to be made aware of the location of the spill kit and trained in its use.	Contractor	Construction
W2	Water quality	If a spill occurs, Transport's Environmental Incident Procedure 2023 will be followed and the Transport Project Manager notified as soon as practicable.	Contractor	Construction
W3	Flooding	The Bureau of Meteorology flood forecasting and warning service is to be monitored for possible flooding to the Hunter River, Tralbragar River and Krui River. In the event a flood warning is issued where flooding could occur at the work site(s), then the site(s) would be stabilised to minimise erosion extent and sediment runoff, plant and mobile equipment moved to higher ground where possible, and any remaining equipment on site stabilised to mitigate risk of floating offsite. Measures to remain until flooding has subsided and warnings cancelled.	Contractor	Construction
W4	Water usage	Any water used for construction would be sourced from approved locations. If on private land, landowner consent would be required prior to use of these water sources.	Contractor	Construction and Pre-construction

3.3 Noise and vibration

Table 3-6: Noise and vibration

Description of existing environmental and potential impacts		
Are there any residential properties or other noise sensitive areas near the location of the proposal that may be affected by the work (i.e., church, school, hospital)? The location of existing noise sensitive receivers is shown in Appendix B (Appendix B Figure 17 to Appendix B Figure 24). The proposal is surrounded by the following sensitive receivers that may be impacted during construction during out of hours (night) works (OOHW). These are detailed below:	Yes ☒	No ☐

Description of existing environmental and potential impacts																		
- Golden Highway, Jerrys Plains (W-001): Residential receivers surround the proposed pull-over bay site with closest receiver being approximately 15 metres to the west of the proposal and several businesses including BP, Robin Hood Bar and Bistros and Jerrys Plains Veterinary Hospital are located within proximity of the proposal site. Jerrys Plains Police Station, Jerrys Plains Public School and St James Church are located about 60 metres from the proposed pull-over bay site. - Golden Highway, Sandy Hollow (W-002): The surrounding land is zone as primary production (RU1). The nearest residential receiver is located 230 metres to the south-east of the pull-over bay site. - Golden Highway, one kilometre west of Glenroy Road (W-004): The surrounding land is zone as primary production (RU1). The nearest residential receiver is about 670 metres to the south of the pull-over bay site. - Golden Highway, Leadville (W-007): The surrounding land is zone as primary production (RU1). The nearest residential receiver is located about 375 metres to the east of the pull-over bay site. - Golden Highway, six kilometres west of Dunedoo (W-008): The surrounding land is zone as primary production (RU1). The nearest residential receiver is located about 900 metres to the south-east of the pull-over bay site. - Wybong Road (W-009): The surrounding land is zone as environmental management (C3). Two residential receivers are located near the pull-over bay site. The nearest receivers are located about 490 metres north and 530 metres to the south of the pull-over bay site. No other residential property or other sensitive receivers are in close proximity to the proposal.																		
Is the proposal going to be undertaken only during standard working hours? Standard working hours - Monday-Friday: 7:00am to 6.00pm - Saturday: 8.00am to 1.00pm - Sunday and Public Holidays: no work Construction works would be prioritised during standard working hours (daytime) as identified above. However, to minimise traffic impacts, some works may be required to be undertaken outside standard construction hours, as identified in Table 3-7. Where required, works outside of standard hours will be permitted by a road occupancy licence (ROL) in response to possible traffic and or safety impacts. Construction activities at all the pull-over bays would be carried out with barriers or traffic diversions, with no road closures or substantial detours proposed. Table 3-7: Out-of-hours construction time periods <table border="1"> <thead> <tr> <th>Period</th> <th>Monday-Friday</th> <th>Saturday</th> <th>Sunday</th> </tr> </thead> <tbody> <tr> <td>Out-of-hours (day)</td> <td>-</td> <td>7 am – 8 am 1 pm – 6 pm</td> <td>8 am – 6 pm</td> </tr> <tr> <td>Out-of-hours (evening)</td> <td>6 pm – 10 pm</td> <td>6 pm – 10 pm</td> <td>6 pm – 10 pm</td> </tr> <tr> <td>Out-of-hours (night)</td> <td>10 pm – 7 am</td> <td>10 pm – 8 am</td> <td>6 pm – 7 am</td> </tr> </tbody> </table>	Period	Monday-Friday	Saturday	Sunday	Out-of-hours (day)	-	7 am – 8 am 1 pm – 6 pm	8 am – 6 pm	Out-of-hours (evening)	6 pm – 10 pm	6 pm – 10 pm	6 pm – 10 pm	Out-of-hours (night)	10 pm – 7 am	10 pm – 8 am	6 pm – 7 am	Yes ☐ No ☒	Yes ☐ No ☒
Period	Monday-Friday	Saturday	Sunday															
Out-of-hours (day)	-	7 am – 8 am 1 pm – 6 pm	8 am – 6 pm															
Out-of-hours (evening)	6 pm – 10 pm	6 pm – 10 pm	6 pm – 10 pm															
Out-of-hours (night)	10 pm – 7 am	10 pm – 8 am	6 pm – 7 am															
Is any explosive blasting required for the proposal?	Yes ☐ No ☒	Yes ☐ No ☒																
Would construction noise or vibration from the proposal affect sensitive receivers? The Transport for NSW 'Construction Noise Estimator Tool' (Transport noise tool) has been used to assess construction noise and vibration impacts of the proposal. This assessment has been carried out to consider the impacts from local road works. The results of the assessment are shown in Appendix C. A noise area category has been selected to represent each proposal area based on the sensitive receivers within the vicinity (identified above). The noise area categories selected for the proposal areas are detailed below. The R1 category has been selected to represent the Golden Highway, Jerrys Plains pull-over bay (W-001). The R1 category presents nearby residences with a posted speed limit of 50 km/h in Jerrys Plains. There is line of sight to the proposal area from the nearest residential receiver.	Yes ☒ No ☐	Yes ☐ No ☒																

Description of existing environmental and potential impacts

The R2 category has been selected as the representative noise area category for the remaining pull-over bays. The R2 category is representative of an area with isolated residences within a vicinity of a highway with a speed limit of 100 kilometres per hour. There is line of sight to the proposal area from the nearest residential receiver for all residential receivers except for W-005, W-006, and W-009 pull-over bay sites. This category includes the following proposed pull-over bays:

- Golden Highway, Sandy Hollow (W-002)
- Golden Highway, one kilometre west of Glenroy Road (W-004)
- Golden Highway, 2.2 kilometres east of Pembroke Road (W-005)
- Golden Highway and Tongy Road (W-006)
- Golden Highway, Leadville (W-007)
- Golden Highway, six kilometres west of Dunedoo (W-008)
- Wybong Road (W-009).

Construction noise assessment

A distance based (scenario) assessment was selected for all pull-over bays, with 'local road works' selected as the applicable construction scenarios for all the pull-over bays. A conservative approach has been adopted in the noise assessment, assuming OOHW for all pull-over bay sites.

The predicted noise levels at each receiver are conservative, as they are based on modelling the noise source at the edge of the proposal area at the closest point to the receiver. In reality, the noise source would be further away in most cases, at the location where the pavement works are actually occurring within the proposal area and not at the boundary extent.

Residential receivers

Residential receivers located within noise affected distances have the potential to experience construction noise levels above the rating background level (RBL). Noise affected distances for local road works, as well as pavement and asphaltting, are provided in Table 3-8 for each assessment time period and noise area category. Developed settlements (urban and suburban) and lines of sight have been assumed in estimating construction noise impacts.

Table 3-8: Noise affected distances for residential receivers – 'Local road works' scenario

Noise area category and scenario		Noise affected distances (metres)				
		Standard hours (Day)	Out of hours (Day)	Out of hours (Evening)	Out of hours (Night)	Highly affected distance
R1 (Local road works)	With line of sight	500	740	1085	1560	45
R2 (Local road works)	With line of sight	330	500	740	1085	45
	Without line of sight	215	330	500	740	25

Based on Table 3-8, the following impacts are expected for receivers **with** line of sight to the proposed work:

- R1 category:
 - during local road works in the day period, those within 500 metres of the proposal area have the potential to experience levels above the RBL. Night works are expected to impact residential receivers within 1560 metres. Receivers within 45 metres may be highly noise affected.
- R2 category:
 - during local road works in the day period, those within 330 metres of the proposal area have the potential to experience levels above the RBL. Receivers within 45 metres may be highly noise affected. Night works are expected to impact residential receivers within 1085 metres. Receivers within 45 metres may be highly noise affected.

Based on Table 3-8, the following impacts are expected for receivers **without** line of sight to the proposed work:

- R2 category:
 - during local road works in the day period, those within 215 metres of the proposal area have the potential to experience levels above the RBL. Receivers within 25 metres may be highly noise

Description of existing environmental and potential impacts

affected. Night works are expected to impact residential receivers within 740 metres. Receivers within 25 metres may be highly noise affected.

Receivers in proximity to the following pull over bays are beyond the noise affected distance in Table 3-8, specifically the 740 metre threshold for OOHW (night), and as such, not expected to be impacted by the proposal:

- Golden Highway, 2.2 kilometres east of Pembroke Road (W-005)
- Golden Highway and Tongy Road (W-006).

Noise impacts are anticipated for the following pull-over bay sites, where the nearest sensitive receiver to each site is within the 1085-metre (with line of sight) or 740-metre (without line of sight) threshold for OOHW (night):

- Golden Highway, Jerrys Plains (W-001): nearest sensitive receiver is within the 1560-metre threshold for OOHW (night)
- Golden Highway, Sandy Hollow (W-002): nearest sensitive receiver is within 1085-metre threshold for OOHW (night)
- Golden Highway, one kilometre west of Glenroy Road (W-004): nearest sensitive receiver is within the 1085-metre threshold for OOHW (night)
- Golden Highway, Leadville (W-007): nearest sensitive receiver is within 1085-metre threshold for OOHW (night)
- Golden Highway, six kilometres west of Dunedoo (W-008): nearest sensitive receiver is within 1085-metre threshold for OOHW (night)
- Wybong Road (W-009): nearest sensitive receiver is within 1085-metre threshold for OOHW (night).

Further detail on the noise assessment is provided below.

Local road works – R1 category (Line of sight)

The noise assessment carried out for the Golden Highway, Jerrys Plains (W-001) pull-over bay site is based on the predicted construction noise impacts outside of construction hours for local road works and in developed settlements (urban and suburban) with line of sight. Table 3-9 provides the recommended additional mitigation measures for each perception category for residential receivers with line of sight to the proposal area. The impact distances for each perception level at the Golden Highway, Jerrys Plains (W-001) pull-over bay is shown on Appendix B Figure 25 of [Appendix B](#).

Table 3-9: Predicted noise impact outside of standard construction hours for local road works – R1 category

Perception	Noise management level, $L_{Aeq}(15 \text{ min})$ dBA			
	RBL, dBA	Predicted noise level, dBA	Impact distance (metres)	Recommended additional mitigation measure
Noticeable	30	35	1560	N
Clearly audible		40	1085	N, R2, DR
Moderately intrusive		50	500	N, PC, SN, R2, DR
Highly intrusive		60	215	AA, N, PC, SN, R2, DR
Highly noise affected		75	45	N, PC, RO

N=Notification, R =Respite Period 2, DR=Duration respite, PC=Phone calls, SN=Specific notifications, AA=Alternative accommodation, RO=Respite offer

The nearest potentially affected residential receiver to Golden Highway, Jerrys Plains (W-001) is located about 15 metres west of the proposed pull-over bay and has line of sight to the proposal area. The receiver is located within the impact distance of 45 metres to be considered 'highly noise affected' (construction noise levels 70 dBA or above) during night-time works based on Table 3-9.

Sleep disturbance is anticipated for this residential receiver and others within the 280-metre affected distance.

As a result, mitigation measures are required for potentially affected noise residential receivers, in line with *Construction Noise and Vibration Guideline* (Transport for NSW, 2023). The applicable mitigation measures are summarised in Table 3-15.

Description of existing environmental and potential impacts

Local road works – R2 category (Line of sight)

The noise assessment carried out for the following pull-over bay sites are based on the predicted construction noise impacts outside of construction hours for local road works and in developed settlements (urban and suburban) with line of sight:

- Golden Highway, Sandy Hollow (W-002)
- Golden Highway, one kilometre west of Glenroy Road (W-004)
- Golden Highway, Leadville (W-007)
- Golden Highway, six kilometres west of Dunedoo (W-008).

Table 3-10 provides the recommended additional mitigation measures for each perception category for residential receivers with line of sight to the proposal area. The impact distances for each perception level at the above pull-over bay sites are shown on Appendix B Figure 26 to Appendix B Figure 29 of [Appendix B](#).

Table 3-10: Predicted noise impact outside of standard construction hours for local road works – R2 category (with line of sight)

Perception	Noise management level, $L_{Aeq}(15 \text{ min})$ dBA			
	RBL, dBA	Predicted noise level, dBA	Impact distance (metres)	Recommended additional mitigation measure
Noticeable	35	40	1085	N
Clearly audible		45	740	N, R2, DR
Moderately intrusive		55	330	N, PC, SN, R2, DR
Highly intrusive		65	140	AA, N, PC, SN, R2, DR
Highly noise affected		75	45	N, PC, RO

N=Notification, R =Respite Period 2, DR=Duration respite, PC=Phone calls, SN=Specific notifications, AA=Alternative accommodation, RO=Respite offer

Local road works – R2 category (Without line of sight)

The noise assessment carried out for the Wybong Road (W-009) pull-over bay site is based on the predicted construction noise impacts outside of construction hours for local road works and in developed settlements (urban and suburban) without line of sight. Table 3-11 provides the recommended additional mitigation measures for each perception category for residential receivers with line of sight to the proposal area. The impact distances for each perception level at the Wybong Road (W-009) pull-over bay is shown on Appendix B Figure 30 of [Appendix B](#).

Table 3-11: Predicted noise impact within standard construction hours for local road works – R2 category (without line of sight)

Perception	Noise management level, $L_{Aeq}(15 \text{ min})$ dBA			
	RBL, dBA	Predicted noise level, dBA	Impact distance (metres)	Recommended additional mitigation measure
Noticeable	35	40	740	N
Clearly audible		45	500	N, R2, DR
Moderately intrusive		55	215	N, PC, SN, R2, DR
Highly intrusive		65	85	AA, N, PC, SN, R2, DR
Highly noise affected		75	25	N, PC, RO

N=Notification, PC=Phone calls, RO=Respite offer

Non-residential Receivers

The noise affected distances for non-residential receivers all assume direct line of sight to the proposal areas and the construction noise impacts on non-residential receivers would only apply when the premises are in use.

Description of existing environmental and potential impacts

Non-residential receivers within the vicinity of other proposal areas are operational during the day-time period except for BP and the Robin Hood Bar and Bistros. While construction activities would be prioritised during standard construction hours, some construction may be carried out OOH (night) for the pull-over bay sites. As such, noise impacts are being assessed during standard construction hours and OOH (night) as outlined in Table 3-12 and Table 3-13. The noise assessment has applied the R1 category.

Table 3-12: Noise affected distances for non-residential receivers – Standard hours

Scenario	Noise Management Level $L_{Aeq(15\text{ min})}$ (dBA)			
	Industrial Premise	Offices, retail outlets	Place of Worship	Classroom at schools and other educational institutions
	75	70	55	55
Noise affected distance (metres)				
Local road works	45	65	330	330

Table 3-13: Noise affected distances for non-residential receivers – Night-time period (outside of standard hours)

Scenario	Noise Management Level $L_{Aeq(15\text{ min})}$ (dBA)		
	Industrial Premise	Offices, retail outlets	Place of Worship
	75	70	55
Noise affected distance (metres)			
Local road works	45	85	330

The nearest non-residential noise sensitive receivers to the Golden Highway, Jerrys Plains (W-001) include BP (30 metres away), Robin Hood Bar and Bistros (170 metres away) and Jerrys Plains Veterinary Hospital (190 metres away). Jerrys Plains Police Station, Jerrys Plains Public School and St James Church are located 60 metres south-east of the proposed pull-over bay site (refer to Appendix B Figure 17 of [Appendix B](#)).

BP is located within the noise affected distances during standard hours (65 metre distance) and night-time period (85 metre distance) for 'offices, retail outlets'. This receiver is therefore likely to be noise affected during construction activities. Robin Hood Bar and Bistros, and Jerrys Plains Veterinary Hospital are not within the noise affected distances for 'offices, retail outlets' and are therefore unlikely to be noise affected.

Other non-residential receivers including Jerrys Plains Police Station and Jerrys Plains Public School are located within the noise affected distances identified in Table 3-12 for an 'office, retail outlet' (65 metres) and 'classroom at schools and other educational institutions' (330 metres). As such, both receivers are likely to be noise affected. St James Church may also be noise affected as it is located within 85 metres of the proposal area.

Additional mitigation measures triggered for the above non-residential receivers include notifications, phone calls and respite offers.

Construction vibration assessment

Construction vibration impacts have been considered based on the minimum working distances for equipment causing vibration. These distances provided in the Construction Noise and Vibration Guideline (Transport for NSW, 2023) are given in Table 3-14.

Table 3-14: Minimum working distances for construction vibration

Plant	Appropriate size	Minimum working distance (metres)		
		Structural damage (standard structures)	Structural damage (heritage structures)	Human comfort
Vibratory roller	1-2 tonne	5	14	15 to 20
	2-4 tonne	6	16	20
	4-6 tonne	12	33	40

Description of existing environmental and potential impacts

	7-13 tonne	15	41	100
	13-18 tonne	20	54	100
	>18 tonne	25	68	100
Jackhammer	Hand held	1	2	3

To provide a conservative assessment, potential impacts have been assessed using a vibratory roller (>18 tonnes) with a minimum working distance of 25 metres for standard structures and 68 metres for heritage structures.

The additional hardstand proposed along Golden Highway, Jerrys Plains (W-001) falls within the minimum working distances for the local heritage-listed building, St James Anglican Church (about 60 metres west) and the nearest residence (about 15 metres west). The work will involve earthworks and construction of granular pavement which may require the use of equipment such as vibratory rollers and excavators. Due to possible exceedance at the nearby structures resulting from a worst-case assessment, all vibratory causing plant and equipment used at this location will be operated in accordance with safeguard NV5 to ensure possible ground vibration impacts remain below relevant threshold levels at the nearby heritage structures.

With exception of W-001, other proposal areas do not have structures within the above minimum working distances. As such, structures within the vicinity of the remaining proposal areas are not anticipated to sustain structural damage. Environmental safeguards outlined in Table 3-15 would be in place to mitigate any potential vibration impacts.

Would operation of the proposal alter the noise environment for sensitive receivers? This might include, but not be limited to, altering the line or level of an existing carriageway, changing traffic flow, adding extra lanes, increasing traffic volume, increasing the number of heavy vehicles, removing obstacles that provide shielding including changing the angle of view of the traffic, changing the type of pavement, increasing traffic speeds by more than 10 kilometres per hour or installing audio-tactile line markings.

Yes
☒ No
☐

The scope of works primarily involves construction of granular pavement, with some utilities work, at each pull-over bay. During operation, noise impacts to receivers would be anticipated due to idling, acceleration and deceleration of OSOM vehicles at the pull-over bay sites. However, given the large distance of each site from receivers only the following pull-over bay sites would anticipate operational noise impacts:

- Golden Highway, Jerrys Plains (W-001)
- Golden Highway, Sandy Hollow (W-002)

It should be noted however, that Golden Highway, Jerrys Plains (W-001) site and the surrounding Jerrys Plains town is currently subject to informal heavy vehicle movements. Therefore, the proposed OSOM movements are not anticipated to differ substantially to the existing conditions. As such, operational noise impacts have only been assessed for Golden Highway, Sandy Hollow (W-002).

The estimated number of OSOM vehicles to utilise the Port to REZ route and the pull-over bay sites are currently unknown at this stage of reporting as this is largely dependent on individual renewable developments within the Central West Orana REZ. Additionally, without a representative 'plant' to base a noise assessment on and traffic modelling data to rely on it is difficult to assess the noise impacts of OSOM movements using the Transport noise tool.

The traffic noise assessment from the Environmental Impact Statement Noise Assessment carried out for Valley of the Winds wind farm (Marshall Day Acoustics, 2022) has been used to assume noise impacts for this proposal. The Valley of the Winds wind farm is proposed to be located in the Central-West Orana REZ south of Coolah in the Warrumbungle Shire of NSW. With OSOM movements proposed along the Port to REZ route to access the wind farm, the traffic noise assessment for this wind farm has been deemed suitable to assess potential noise impacts relating to OSOM movements at W-002.

'Black Stump Way' has been selected as the representative road as the existing daily traffic volume category (1,000 - 3,000) is the most similar to existing daily traffic volumes on Golden Highway (2,300 - 2,400). The results of the noise assessment estimate that the traffic noise level for the nearest receiver (about 10 metres) to Black Stump Way is anticipated to be 63 dB $L_{Aeq(15\text{ minute})}$, which is above the noise management level for a receiver in the R2 category (with line of sight). This is considered to be 'highly intrusive' in accordance with the Transport noise tool.

However, as the nearest residential receiver to W-002 is located 230 metres to the south-east the predicted noise levels may be overly conservative (i.e. higher) than those expected to be experienced by the receiver.

Description of existing environmental and potential impacts		
Nevertheless, any disruption would be of short duration only (up to 10 minutes) and managed through traffic control and with consultation with the affected landowner.		
Would the proposal result in vibration being experienced by any surrounding properties or infrastructure during operation?	Yes ☐	No ☒
The proposal would not result in operational vibration impacts as the scope of work is limited to the construction phase.		

Safeguards

Table 3-15: Noise and vibration safeguards and management measures

Numbering	Impact	Environmental safeguards	Responsibility	Timing
NV1	Noise and vibration	Construction noise and vibration will be managed in accordance with the <i>Construction Noise and Vibration Guideline</i> (CNVG) (Transport for NSW, 2023) and <i>Interim Construction Noise Guideline</i> (ICNG) (DECC, 2009).	Contractor	Construction
NV2	Noise and vibration	All sensitive receivers (e.g. local residents) likely to be affected will be notified at least five working days prior to commencement of any works associated with the activity that may have an adverse noise or vibration impact. The notification will provide details of: - the project - the construction period and construction hours - impacts and mitigation measures - contact information for project management staff - complaint and incident reporting - how to obtain further information.	Contractor	Pre-construction Construction
NV3	Noise and vibration	Any work with impulsive or tonal noise emissions will be carried out in accordance with the <i>Construction Noise and Vibration Guideline (Roads)</i> (Transport for NSW, 2023) and <i>EPA Interim Construction Noise Guideline</i> (ICNG) (NSW DECC, 2009).	Contractor	Construction
NV4	Noise and vibration	Additional noise mitigation measures are to be implemented where appropriate, as identified in Tables 3-10 to 3-11.	Contractor	Construction
NV5	Noise and vibration	Any vibratory causing plant or equipment used at W-001 must not encroach into their respective safe working distance to the locally heritage listed structures and nearby residence. If there is any risk of exceedance, a permanent vibration monitoring system must be installed for the duration of works (via flashing light, audible alarm, or SMS) to alert plant operators when vibration levels are approaching the cosmetic damage threshold. Vibratory causing works must cease prior to reaching the threshold and additional safeguards implemented to prevent cosmetic damage prior to recommencement of works. Safe working distances to be applied are outlined in Table 3-14 or alternatively, site specific distances can be applied provided attended vibration measures are carried out at the commencement of works and confirm that damage screening criteria won't be exceeded.	Contractor	Construction

3.4 Air quality

Table 3-16: Air quality

Description of existing environmental and potential impacts		
Is the proposal likely to result in large areas (>2ha) of exposed soils? The proposal would disturb an area of about 0.76 hectares for earthworks, requiring an estimated excavation of about 2,372 cubic metres of soils across the pull-over bays sites to accommodate the new pavement, utility adjustments and drainage works. Safeguards are provided below in Table 3-17 which would be used to manage potential erosion and sediment impacts near the proposal areas.	Yes ☐	No ☒
Are there any dust-sensitive receivers located within the vicinity of the proposal during the construction period? The following dust-sensitive receivers are located near the proposal areas: Golden Highway, Jerrys Plains (W-001): The proposal area is located in Jerrys Plains village where sensitive residential receivers surround the pull-over bay with the nearest receiver located 15 metres west of the proposal. Several non residential receivers are in proximity to the works and therefore, potentially sensitive to the proposal and include BP, Robin Hood Bar and Bistros and Jerrys Plains Veterinary Hospital, Jerrys Plains Police Station and Jerrys Plains Public School. The nearest non residential receiver is the BP located 10 metres to the east of the proposal site. There are no other sensitive receivers within 200 metres of the pull-over bay sites. The primary dust-generating activities during construction include excavation and spray seal/wearing course pavement at all proposed pull-over bays. This would be minor due to the limited scope of works and restriction of excavation to less than one metre. Potential dust emissions would be managed through the implementation of environmental management measures outlined in Table 3-17.	Yes ☒	No ☐
Is there likely to be an emission to air during construction? Emissions from plant and equipment is expected to be generated during construction, however, this is not expected to be discernible from the existing vehicle emissions on the roads.	Yes ☒	No ☐

Safeguards

Table 3-17: Air quality safeguards and management measures

Numbering	Impact	Environmental safeguards	Responsibility	Timing
A1	Air quality	Vehicles transporting waste or other materials that have a potential to produce odours or dust will be covered during transportation.	Contractor	Construction
A2	Air quality	Covering of vehicles transporting waste or other materials, as well as avoiding works that could generate dust onto sensitive receivers during strong winds or unfavourable weather conditions.	Contractor	Construction
A3	Air quality	Plant, vehicles and equipment will be maintained in good condition and in accordance with manufacturer's specifications.	Contractor	Construction
A4	Air quality	Plant and machinery will be turned off when not in use.	Contractor	Construction
A5	Air quality	Visual monitoring of air quality will be undertaken to verify the effectiveness of controls and enable early intervention.	Contractor	Construction
A6	Air quality	Work activities will be reprogrammed if the management measures are not adequately restricting dust generation.	Contractor	Construction

3.5 Aboriginal cultural heritage

Table 3-18: Aboriginal cultural heritage

Description of existing environmental and potential impacts		
Would the proposal involve disturbance in any area that has not been subject to previous ground disturbances? The proposal is located on existing developed land used as a roadway, and works would primarily be limited to the existing road corridor except for the following pull-over bay sites, which would encroach upon two private properties and Crown land: - Golden Highway, one kilometre west of Glenroy Road (W-004): Lot 134, DP 655386 (private property) - Golden Highway, 2.2 kilometres east of Pembroke Road (W-005): Lot 3, DP 436812 (Crown land) - Golden Highway and Tongy Road (W-006): Lot 7306, DP1141566 (Crown land) - Wybong Road (W-009): Lot 100, DP1118411 (private property). Minor excavation works would be required to construct the hardstand at the proposal areas. These areas have been previously disturbed and impacts to Aboriginal heritage are considered unlikely. Implementation of safeguards provided below in Table 3-19 would manage potential Aboriginal heritage impacts.	Yes ☐	No ☒
Has an online Aboriginal Heritage Information Management System (AHIMS) search been completed? Extensive searches of the Aboriginal Heritage Information Management System (AHIMS) were undertaken on 29 February 2024 (refer to Appendix D). These searches identified no registered Aboriginal sites within a 500-metre radius all proposal sites. Therefore, no known Aboriginal heritage items would be impacted during construction.	Yes ☒	No ☐
Is there potential for the proposal to impact on any items of Aboriginal cultural heritage? None of the items identified in the AHIMS searches carried out on 29 February 2024 would be impacted by the proposal. As the works are proposed in locations disturbed during road construction, the potential for encountering any intact and previously unknown objects or features of Aboriginal archaeological or cultural heritage significance is low. Stage 1 of the PACHCI concluded that construction works at the proposal areas would be unlikely to have any impact on Aboriginal cultural heritage. In the unlikely event that Aboriginal heritage items are uncovered during construction, steps in Transport's <i>Standard Management Procedure: Unexpected Heritage Items</i> would be followed.	Yes ☐	No ☒
Would the proposal involve the removal of mature native trees? Tree removal would be required at the following pull-over bays: - Golden Highway, one kilometre west of Glenroy Road (W-004): removal of one White Box tree, associated with PCT 483, would be required to accommodate the laydown of granular pavement - Wybong Road (W-009): pruning and removal of about 60 square metres of PCT 3774 and PCT 3773 would be required to accommodate the laydown of granular pavement. Further assessment of potential impacts to these trees is provided in Section 3.7 (Biodiversity).	Yes ☒	No ☒
Is the proposal consistent with the requirements of Transport's <i>Procedure for Aboriginal cultural heritage consultation and investigation</i> (PACHCI)? A Procedure for Aboriginal Cultural Heritage Investigation (PACHCI) was carried out on 5th December 2024. The proposal was assessed as being unlikely to have an impact on Aboriginal cultural heritage based on the following considerations: - the project is unlikely to harm known Aboriginal objects or places - the AHIMS search did not indicate moderate to high concentrations of Aboriginal objects or places in the study area - the study area does not contain landscape features that indicate the presence of Aboriginal objects, based on the Heritage NSW's <i>Due diligence Code of Practice for the Protection of Aboriginal objects in NSW</i> and the Transport for NSW's procedure - the cultural heritage potential of the study area appears to be reduced due to past disturbance	Yes ☒	No ☐

Description of existing environmental and potential impacts		
There is an absence of sandstone rock outcrops likely to contain Aboriginal art.		
The Stage 1 PACHCI assessment is provided in Appendix D .		
Additional information pertaining to Aboriginal cultural heritage risk A review of the National Native Title Tribunal was carried out on 6 March 2024. The search found no pending or determined Native Title Claims in relation to land impacted by the proposal. Further, preliminary results in the PACHCI assessment contained in Appendix D indicated that cultural heritage potential within the proposal area appeared to be reduced due to past disturbance.		

Safeguards

Table 3-19: Aboriginal cultural heritage safeguards and management measures

Numbering	Impact	Environmental safeguards	Responsibility	Timing
AH1	Aboriginal cultural heritage	If Aboriginal heritage items are uncovered during the works, all works in the vicinity of the find must cease and the Transport for NSW Aboriginal cultural heritage officer and regional environment manager contacted immediately. Steps in Transport’s <i>Standard Management Procedure: Unexpected Heritage Items</i> must be followed.	Contractor	Construction

3.6 Non-Aboriginal heritage

Table 3-20: Non-Aboriginal heritage

Description of existing environmental and potential impacts																										
Have online heritage database searches been completed?					Yes ☒	No ☐																				
• Transport (including legacy Roads and Maritime) section 170 register • NSW Heritage database • Commonwealth Heritage List, established under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) • Maritime heritage database • Australian Heritage Places Inventory • Singleton LEP 2013 • Musswellbrook LEP 2009 • Upper Hunter LEP 2013 • Warrumbungle LEP 2013 • State Environmental Planning Policy (Transport and Infrastructure) 2021. The above searches were completed on 2 April 2024 and are attached in Appendix E.																										
Are there any items of non-Aboriginal heritage or heritage conservation areas listed on relevant heritage databases/registers that are located within the vicinity of the proposal? A review of the Singleton LEP, Muswellbrook LEP, Upper Hunter LEP and Warrumbungle LEP and State Environmental Planning Policy (Transport and Infrastructure) 2021 indicate that there are three non-Aboriginal heritage items and one conservation area in and or within the vicinity of the proposal. These sites are summarised in Table 3-21. Table 3-21: Non-Aboriginal heritage items within the vicinity of the proposal area					Yes ☒	No ☐																				
<table><thead><tr><th>Item</th><th>Heritage significance</th><th>Description</th><th>Address</th><th>Listing</th><th>Location (approximate)</th></tr></thead><tbody><tr><td>St James Anglican Church</td><td>Local</td><td>A heritage building currently used as a church</td><td>27-31 Pagan Street, Jerrys Plains</td><td>Singleton LEP listing I28</td><td>Curtilage of heritage item is located about four metres west of the W-001 pull-over bay. The Church itself is located about 60 metres west.</td></tr><tr><td>Jerrys Plains Catholic Church</td><td>Local</td><td>A heritage building currently used as a church</td><td>45-47 Pagan Street, Jerrys Plains</td><td>Singleton LEP listing I29</td><td>Curtilage of heritage item is located about 140 metres north-west of the W-001 pull-over bay The Church itself is located about 125 metres north-west.</td></tr><tr><td>Jerrys Plains Heritage Conservation Area</td><td>Local</td><td>A heritage conservation area</td><td>Pagan Street, Jerrys Plains</td><td>Singleton LEP listing C2</td><td>Located within the W-001 pull-over bay</td></tr></tbody></table>	Item	Heritage significance	Description	Address	Listing	Location (approximate)	St James Anglican Church	Local	A heritage building currently used as a church	27-31 Pagan Street, Jerrys Plains	Singleton LEP listing I28	Curtilage of heritage item is located about four metres west of the W-001 pull-over bay. The Church itself is located about 60 metres west.	Jerrys Plains Catholic Church	Local	A heritage building currently used as a church	45-47 Pagan Street, Jerrys Plains	Singleton LEP listing I29	Curtilage of heritage item is located about 140 metres north-west of the W-001 pull-over bay The Church itself is located about 125 metres north-west.	Jerrys Plains Heritage Conservation Area	Local	A heritage conservation area	Pagan Street, Jerrys Plains	Singleton LEP listing C2	Located within the W-001 pull-over bay		
Item	Heritage significance	Description	Address	Listing	Location (approximate)																					
St James Anglican Church	Local	A heritage building currently used as a church	27-31 Pagan Street, Jerrys Plains	Singleton LEP listing I28	Curtilage of heritage item is located about four metres west of the W-001 pull-over bay. The Church itself is located about 60 metres west.																					
Jerrys Plains Catholic Church	Local	A heritage building currently used as a church	45-47 Pagan Street, Jerrys Plains	Singleton LEP listing I29	Curtilage of heritage item is located about 140 metres north-west of the W-001 pull-over bay The Church itself is located about 125 metres north-west.																					
Jerrys Plains Heritage Conservation Area	Local	A heritage conservation area	Pagan Street, Jerrys Plains	Singleton LEP listing C2	Located within the W-001 pull-over bay																					

Description of existing environmental and potential impacts						
Collaroy Homestead group	Local	A homestead group including church, lockup, shearing shed and quarters and Soldiers Settlement Hall	Merriwa Road (900 Mudgee Road)	Upper Hunter LEP listing I146	Located directly adjacent to W-005 pull-over bay	
The Golden Highway, Jerrys Plains pull-over bay site (W-001) is located within the Jerrys Plains Heritage Conservation Area and about 60 metres west of the St James Anglican Church (refer to Appendix B Figure 31). Excavation and construction of granular pavement is proposed at this pull-over bay and may require equipment such as vibratory rollers and excavators. Based on a conservative assessment using a vibratory roller (>18 tonnes), works would fall within the minimum working distance of 68 metres for heritage structures. The work will involve earthworks and construction of granular pavement which may require the use of equipment such as vibratory rollers and excavators. Due to possible exceedance at the nearby structures resulting from a worst-case assessment, all vibratory causing plant and equipment used at this location will be operated in accordance with safeguard NV5 to ensure possible ground vibration impacts remain below relevant threshold levels at the nearby structures. Further assessment on potential vibration impacts is provided in Section 3.3 (Noise and vibration). Works carried out at this pull-over bay would not include demolition, relocation or alterations to the exterior of any heritage items within Jerrys Plains Heritage Conservation Area. However, the nearest structure to Golden Highway, Jerrys Plains pull-over bay site (W-001) (within the conservation area) is a residential receiver located about 15 metres west of the proposal. This structure falls within the minimum working distance of 25 metres for standard structures (refer to Table 3-14). As outlined above, safeguard NV5 would be in place to ensure possible vibration impacts remain below relevant threshold levels at the nearby structures. Environmental safeguards outlined in Table 3-15 would be in place to mitigate any potential vibration impacts. Therefore, the heritage value of the conservation area would not be impacted by the construction of the Golden Highway, Jerrys Plains (W-001) pull-over bay site. Implementation of safeguards provided below in Table 3-22 would manage potential non-Aboriginal heritage impacts.						
Is the proposal likely to impact trees that form part of a heritage listing or have other heritage value? Nominated trees for removal as described in Section 3.7 (Biodiversity) do not form part of a heritage listing or have other heritage value. Further assessment of potential impacts to trees is provided in Section 3.7.						Yes ☐ No ☒
Is the proposal likely to occur in or near features that indicate potential archaeological remains? The Golden Highway, Jerrys Plains (W-001) pull-over bay site is located within a previously disturbed area. Due to prior disturbance, risk of discovery of heritage items during any excavation works are considered low. The remaining pull-over bay sites are located in rural areas, adjacent to cleared and grassed land. There is the potential for archaeological remains to be found, though this is considered low. Nevertheless, an unexpected heritage finds protocol would be included in the construction management document in the event that a heritage item is discovered.						Yes ☐ No ☒

Safeguards

Table 3-22: Non-Aboriginal heritage safeguards and management measures

Numbering	Impact	Environmental safeguards	Responsibility	Timing
H1	Non-Aboriginal heritage	If unexpected archaeological remains are uncovered during the works, all works must cease in the vicinity of the material/find and the steps in Transport's <i>Standard Management Procedure: Unexpected Heritage Items</i> must be followed. Transport for NSW Senior Environment Specialist— Heritage must be contacted immediately.	Contractor	Construction
H2	Non-Aboriginal heritage	If any items defined as relics under the <i>NSW Heritage Act 1977</i> are uncovered during the works, all works must cease in the vicinity of the find and the Transport for NSW Senior Environment Specialist— Heritage contacted immediately.	Contractor	Construction

3.7 Biodiversity

Table 3-23: Biodiversity

Description of existing environmental and potential impacts				
Have relevant database searches been carried out? • BioNet threatened species records within the locality (e.g. 10km radius) • Regional vegetation mapping and BioNet Vegetation Classification database (including a search by the relevant CMA/s to identify potential TECs present) • NSW WeedWise (DPI) website • Commonwealth EPBC Act Protected Matters Search Tool (PMST) • NSW DPI Fisheries Spatial Data Portal. A search of the above databases was carried out on 2 April 2024 and are attached in Appendix F. Field surveys were carried out by an ecologist between 31 January to 2 February 2024.			Yes ☒	No ☐
Did the database searches identify any endangered ecological communities, threatened flora and/or threatened or protected fauna, or migratory species in or within the vicinity of the proposed works? Both Commonwealth and State listed matters must be considered. A review of threatened species databases records within 10 kilometres of the proposal areas using NSW OEH BioNet Wildlife search identified threatened fauna species as occurring or having potential to occur proposal areas (refer to Appendix F). Habitat preferences and distribution was reviewed for these species and the following assessments were made for each proposal area: • Golden Highway, Jerrys Plains (W-001): 20 potential threatened fauna species present under the BC Act and four threatened fauna species present under the EPBC Act • Golden Highway, Sandy Hollow (W-002): 142 potential threatened fauna species present under the BC Act and 11 threatened fauna species present under the EPBC Act • Golden Highway, one kilometre west of Glenroy Road (W-004): 3 potential threatened fauna species present under the BC Act and no threatened fauna species present under the EPBC Act • Golden Highway, 2.2 kilometres east of Pembroke Road (W-005): 37 potential threatened fauna species present under the BC Act and 1 threatened fauna species present under the EPBC Act • Golden Highway and Tongy Road (W-006): 44 potential threatened fauna species present under the BC Act and 3 threatened fauna species present under the EPBC Act • Golden Highway, Leadville (W-007): 146 potential threatened fauna species present under the BC Act and 3 threatened fauna species present under the EPBC Act • Golden Highway, six kilometres west of Dunedoo (W-008): 12 potential threatened fauna species present under the BC Act and 1 threatened fauna species present under the EPBC Act • Wybong Road (W-009): 162 potential threatened fauna species present under the BC Act and 10 threatened fauna species present under the EPBC Act. The nearest recorded sightings of fauna species (within a one-kilometre radius) to the proposal areas are summarised in Table 3-24. Table 3-24: Recorded sightings of species listed under the BC Act or EPBC Act within the vicinity of the proposal			Yes ☒	No ☐
Scientific and common name	Status *	Type of listing (BC Act or EPBC Act)	Approximate distance from works	Potential impacts
Spotted-tailed Quoli (<i>Dasyurus maculatus</i>)	V	BC Act	220 metres west from Golden Highway, Jerrys Plains (W-001) pull-over bay	None anticipated
Brush-tailed Rock-wallaby (<i>Petrogale penicillate</i>)	E	BC Act	160 metres west of Wybong Road (W-009) pull-over bay	None anticipated

Description of existing environmental and potential impacts

*V= vulnerable, E = endangered, CE = critically endangered, VEC = vulnerable ecological community EEC = endangered ecological community, CEEC = critically endangered ecological community M = Migratory

The EPBC PMST identified the following Matters of National Environmental Significance within a one-kilometre radius of the proposal areas, as shown in Table 3-25.

Table 3-25: Matters of National Environmental Significance

Pull-over Bay	Wetlands of international importance (Ramsar)	Threatened ecological community	Threatened species	Migratory species
Golden Highway, Jerrys Plains (W-001)	None	4	41	11
Golden Highway, Sandy Hollow (W-002)	None	4	38	10
Golden Highway, one kilometre west of Glenroy Road (W-004)	None	6	32	10
Golden Highway, 2.2 kilometres east of Pembroke Road (W-005)	None	6	32	10
Golden Highway and Tongy Road (W-006)	None	5	40	10
Golden Highway, Leadville (W-007)	None	2	35	10
Golden Highway, six kilometres west of Dunedoo (W-008)	None	6	44	9
Wybong Road (W-009)	None	4	40	10

The TECs and listed migratory species within a one-kilometre radius of the proposal areas are also unlikely to be affected. This is due to the highly constrained proposal boundary, limited duration and extent of works, and the restriction of most activities to the road reserve.
In the unlikely event that unexpected, threatened fauna or flora species are discovered during construction, works would be stopped, and the Transport's *Unexpected Threatened Species Find Procedure* would be followed.

Weeds

A review of the DPI Weedwise website was undertaken for the Hunter and Central West region. A list of 'priority weeds' present within the Hunter and Central West region is provided in [Appendix F](#).

Does the proposal involve pruning, trimming or removal of any tree/s?

Native vegetation has been mapped under the NSW State Vegetation Type Map (DPE, 2024) and shows the plant community types (PCTs) surrounding the proposal areas. Ground truthing was undertaken during ecology surveys between 31 January to 2 February 2024 to confirm the presence of PCTs as shown in [Appendix B](#) (Appendix B Figure 32 to Appendix B Figure 39).

The works are exempt from biodiversity offsets under the *TfNSW No Net Loss Guidelines* (2023) and/or the *TfNSW Tree and Hollow Replacement Guideline* (2023), as the trees requiring removal are within the disturbed zone of the existing road.

Golden Highway, Jerrys Plains (W-001)

Native trees have been identified along the eastbound verge of Golden Highway and within private properties. However, the proposed pull-over bay at the Golden Highway, Jerrys Plains (W-001) would be limited to the westbound verge of Golden Highway where no native trees are present. As such, no impacts to these trees are anticipated.

Yes ☒ No ☐

Description of existing environmental and potential impacts

Golden Highway, Sandy Hollow (W-002)

Two trees mapped as Central West Valleys White Box Forest (PCT 3388) have been identified along the southbound verge of Golden Highway (refer to Appendix B Figure 33). However, the proposed pull-over bay at the Golden Highway, Sandy Hollow (W-002) would be limited to the northbound verge of Golden Highway. As such, no impacts to these trees are anticipated.

One White Box tree (*Eucalyptus albens*) is present on the southern end of the proposal area, on the northbound verge of Golden Highway. The design for this pull-over bay has been shifted north to avoid impacts to this tree.

Golden Highway, one kilometre west of Glenroy Road (W-004)

A small patch of Grey Box White Box grassy open woodland on basalt hills in the Merriwa region, upper Hunter Valley (PCT 483) is within the proposal area of the Golden Highway, one kilometre west of Glenroy Road (W-004) pull-over bay (refer to Appendix B Figure 34). The ecology survey has indicated that the area identified as a patch of PCT 483 on aerial mapping comprises of one White Box tree (*Eucalyptus albens*). PCT 483 is associated with the TEC White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland. This TEC is listed as critically endangered under the BC Act and EPBC Act.

This patch of PCT 483 is in a disturbed condition due to the absent understorey, previous evidence of clearing, and presence of weeds at the bottom of the tree (refer to Appendix B Figure 42). This tree would require removal to accommodate the new granular pavement.

Golden Highway, 2.2 kilometres east of Pembroke Road (W-005)

Vegetation mapped as Yellow Box grassy woodland (PCT 1695) is located on the eastern side of Golden Highway, outside of the proposal area (refer to Appendix B Figure 35). No impact to this PCT is anticipated.

Golden Highway and Tongy Road (W-006)

Vegetation mapped as Rough-Barked Apple - red gum - Yellow Box woodland on alluvial clay to loam soils (PCT 281) is located behind the fence line along the eastbound verge of Golden Highway (refer to Appendix B Figure 36). No impact to this PCT is anticipated as the pull-over bay is proposed on the westbound verge of Golden Highway.

Golden Highway, Leadville (W-007)

No trees are within the proposal area for the pull-over bay at Golden Highway, Leadville (W-007). The nearest trees are within mapped Northwest Slopes Box-Blakelys Red Gum Woodland (PCT 3396) and Western Hunter Sandy Riparian Red Gum Shrub Forest (PCT 3530) shown on Appendix B Figure 37.

Golden Highway, six kilometres west of Dunedoo (W-008)

No trees are within the proposal area for the pull-over bay at Golden Highway, six kilometres west of Dunedoo (W-008). The nearest trees are within mapped PCT is Yellow Box grassy woodland on lower hillslopes and valley flats (PCT 437) as shown in Appendix B Figure 38.

Wybong Road (W-009)

Vegetation on either side of Wybong Road is mapped as Western Hunter Dwyers Red Gum-Pine Woodland (PCT 3774) with patches of Western Hunter Currwang Low Forest (PCT 3773) as shown in Appendix B Figure 39. PCT 3774 and PCT 3773 are not associated with any TEC under the BC Act or EPBC Act.

Some trees identified on the southbound verge of Wybong Road include *Acacia falcata*, *Acacia linearifolia*, and *Allocasuarina littoralis* which are mapped as PCT 3774 (refer to Appendix B Figure 46 to Appendix B Figure 48). Based on the ecology survey, the condition of this PCT is considered to be moderate due to the surrounding connectivity, vegetation structure and presence of a midstory.

The area is still subject to edge effects and disturbance from the road corridor, including a high exotic species coverage, and prior disturbance in the area. The proposed hardstand for the pull-over bay on the southbound verge of Golden Highway would require removal of about 60 square metres of PCT 3773 and PCT 3774. PCT 3773 and PCT 3774 do not correspond to any TEC under the BC Act or EPBC Act. It should be noted that this measurement is based on aerial mapping and a conservative calculation has been provided. Where feasible, tree pruning would be selected over tree removal during construction.

Summary of tree impacts

Tree removal would be required at the following pull-over bays:

- Golden Highway, one kilometre west of Glenroy Road (W-004): removal of one White Box tree, associated with PCT 483, would be required to accommodate the laydown of granular pavement

Description of existing environmental and potential impacts		
Wybong Road (W-009): pruning and removal of about 60 square metres of PCT 3774 and PCT 3773 would be required to accommodate the laydown of granular pavement. All other proposal areas would not be subject to tree removal, though grasses would require removal to accommodate the laydown of granular pavement. This is detailed below.		
Is the proposal likely to impact nationally listed threatened species, ecological communities or migratory species? As detailed in Table 3-25, the PMST findings indicated the potential for threatened species and migratory bird species to occur within the vicinity of the proposal area. Table 3-24 identifies recorded sightings for threatened species, of which none were recorded within the proposal areas. Therefore, impacts to threatened species and migratory species are not expected to occur. Additionally, no threatened ecological communities identified using the PMST were identified within the proposal areas during ecology site visits.	Yes ☐	No ☒
Would the proposal require the removal of any other vegetation? Exotic and native grasses would require removal at the following pull-over bays: - Golden Highway, Jerrys Plains (W-001): Exotic grasses (refer to Appendix B Figure 40 and Appendix B Figure 41) - Golden Highway, Sandy Hollow (W-002): Exotic grasses and shrubs - Golden Highway, one kilometre west of Glenroy Road (W-004): Native and exotic grasses - Golden Highway, 2.2 kilometres east of Pembroke Road (W-005): Native and exotic grasses (refer to Appendix B Figure 43) - Golden Highway and Tongy Road (W-006): Native and exotic forbs and grasses - Golden Highway, Leadville (W-007): Native and exotic grasses (refer to Appendix B Figure 44) - Golden Highway, six kilometres west of Dunedoo (W-008): Native and exotic grasses (refer to Appendix B Figure 45) - Wybong Road (W-009): Native and exotic grasses. There are no PCT derived grasslands mapped within the vicinity of the listed sites above that are proposed to be impacted.	Yes ☒	No ☐
Would the proposal require the removal of any tree hollows? The ecology survey did not indicate the presence of any tree hollows in the impacted trees.	Yes ☐	No ☒
Are there any known areas of outstanding biodiversity value or areas mapped as 'littoral rainforest' or 'coastal wetland' under chapter 2 of SEPP (Resilience and Hazards) in or within the vicinity of the proposed work? The proposal areas are not located within areas mapped as 'littoral rainforest' or 'coastal wetland'. There are no outstanding areas of biodiversity value located near or within the vicinity of the proposed work.	Yes ☐	No ☒
Would the proposal provide any additional barriers to the movement of wildlife? No works proposed would provide additional barriers to wildlife movement.	Yes ☐	No ☒
Would the proposal disturb any natural waterways or aquatic habitat? The increased pavement areas at the pull-over bays would be minor in the context of the overall hydrology and as such, would be unlikely to have any substantial impact on surface water flows within the catchments. Further, the small extent and temporary and short-lived nature of any ground disturbance likely at each site means that there is minimal risk of any substantial changes in water quality in the receiving waters due to the proposal. The open drain realignments proposed at Golden Highway, 2.2 kilometres east of Pembroke Road (W-005), Golden Highway and Tongy Road (W-006), Golden Highway, six kilometres west of Dunedoo (W-008), and Wybong Road (W-009) would mimic existing water flow conditions. As such, no impacts to waterways or aquatic habitat are anticipated. No other waterways or aquatic habitats are expected to be impacted due to the minor scope of works proposed.	Yes ☐	No ☒
Would the proposal impact (directly or indirectly) any potential microbat roosting or breeding habitat such as on bridges and culverts?	Yes ☐	No ☒

Description of existing environmental and potential impacts		
The scope of works is limited to minor extension of pull-over bays. Although there is the potential for existing culverts to serve as microbat roosting or breeding habitats, the ecologist survey has confirmed that there is no indication of these culverts being a habitat for microbats at all relevant pull-over bay sites including Golden Highway, one kilometre west of Glenroy Road (W-004), Golden Highway, 2.2 kilometres east of Pembroke Road (W-005) and Golden Highway and Tongy Road (W-006) (refer to Appendix E).		

Safeguards

Table 3-26: Biodiversity safeguards and management measures

Numbering	Impact	Environmental safeguards	Responsibility	Timing
B1	Biodiversity	If unexpected, threatened fauna or flora species are discovered, works will be stopped immediately and follow the Transport's <i>Unexpected Threatened Species Find Procedure</i> in Transport's <i>Biodiversity Guidelines 2011 – Guide 1</i> (Pre-clearing process).	Contractor	Construction
B2	Biodiversity	All construction work will be undertaken in accordance with Transport's <i>Biodiversity Guidelines, Protecting and Managing Biodiversity on RMS Projects, 2011</i> .	Contractor	Construction
B3	Biodiversity	The location and extent of all works will be clearly demarcated and communicated to all staff and contractors working within the area during site inductions and daily toolbox talks.	Contractor	Construction
B4	Biodiversity	Vegetation to be retained is to be protected in accordance with AS 4970-2009 – <i>Protection of trees on development sites</i> , and may require exclusion fencing of the Tree Protection Zones.	Contractor	Pre construction and construction
B5	Trees	Any tree trimming shall be no more than 20% of the canopy cover for each tree.	Contractor	Construction
B6	Trees	Any additional impact to trees from that identified in this MWREF may require further assessment.	Contractor	Pre construction and construction
B7	Trees	Tree removal and pruning will be undertaken by a suitably qualified arborist.	Contractor	Pre-construction
B8	Trees	Expected impact to PCT 3773 and PCT 3774 to be further reduced as far as reasonably practicable during detailed design of Wybong Road (W-009) pull over bay. Where trees do not pose an operational or maintenance hazard at this location, tree trimming will be prioritised over tree clearing.	Contractor	Pre construction and construction

3.8 Traffic and transport

Table 3-27: Traffic and transport

Description of existing environmental and potential impacts		
Is the proposal likely to result in detours or disruptions to traffic flow (vehicular, cycle and pedestrian) or access during construction? Construction activities proposed would be prioritised during standard construction hours, with some activities carried out during out of hours to minimise impacts to traffic. Any out of hours work would be in line with the window of time permitted under road occupancy licenses (ROLs), where required. Detours and substantial disruptions to traffic flow are not proposed at any of the pull-over bay sites. Traffic would be diverted around the road works as necessary and reduced temporary speed limits applied. Minor delays may be anticipated for traffic travelling through construction areas, potentially impacting road users accessing the mining and equine industries within Singleton, Muswellbrook and Upper Hunter LGAs. A Traffic Management Plan will be prepared by the Contractor and approved by Transport for NSW prior to any changes to road user movements, in accordance with safeguard T4. Access to properties may be temporarily impacted during construction due to the following pull-over bays: - Golden Highway, Jerrys Plains (W-001): Two existing driveways to properties at 25 and 35 Pagan Street are to be reinstated to maintain property access - Golden Highway, six kilometres west of Dunedoo (W-008): One existing driveway to property at 601 Golden Highway is to be reinstated to maintain property access. Consultation with affected property owners would be carried out to arrange alternate access arrangements during construction if required. Access to other local residences and businesses within the vicinity of the proposal areas would be maintained throughout construction, with a potential for minor delays at the following sites: - Golden Highway, Jerrys Plains (W-001): this pull-over bay site is located within Jerrys Plains, a rural town. The nearest business is a BP located about 25 metres south-west of the pull-over bay, with driveway access to the BP located directly adjacent to the pull-over bay site. Construction of the pull-over bay would remain clear of this access point; however, construction vehicle movements could potentially cause delays for traffic exiting and entering the BP from this driveway. These delays would be minor in nature and access to the BP would be maintained from Piribili Street and from another driveway on Golden Highway, further south of the pull-over bay site throughout construction. Minor delays could also potentially be experienced by other businesses within the vicinity of the pull-over bay site, including Robin Hood Bar and Bistros Jerrys Plains and Jerrys Plains veterinary Hospital, located about 170 and 190 metres south-east of the pull-over bay site respectively. - Golden Highway, Sandy Hollow (W-002): the nearest business is Cowan's Bus Service, located about 230 metres south-east from the pull-over bay site. There is also potential for vehicles accessing this business to experience minor delays. There are no other businesses within a 500-metre radius of the proposal sites. Businesses likely to be affected by proposed construction activities will be notified about upcoming work at least five days prior to it being carried out (safeguard C1). No formalised parking arrangements are available across all proposal sites, though informal parking on the roadside verge is evident within the vicinity of the Golden Highway, Jerrys Plains (W-001) pull-over bay site. This informal street parking would potentially be impacted by use of construction staff. However, given the minor works and duration this impact is anticipated to be minor in nature and temporary to the construction phase. There are no cyclist or pedestrian infrastructure within, or in the vicinity of, the proposal areas except for the Golden Highway, Jerrys Plains (W-001) pull-over bay site. While there are no formalised pedestrian paths such as pedestrian crossings, traffic lights or paved footpaths within, or in the vicinity of, this pull-over bay site, there is a pedestrian crossing sign about 95 metres south (refer to Figure 3-1). Included in proximity of this pull-over bay site, are businesses and the Jerrys Plains Public School, which indicates existing pedestrian movements through this area. No formal cyclist infrastructure exists within or in the proximity of the Golden Highway, Jerrys Plains (W-001)	Yes ☒	No ☐

Description of existing environmental and potential impacts

pull-over bay site. Pedestrian access around the proposed works will be maintained at all times. Where this cannot be achieved a safe diversion for pedestrians would be provided.



Figure 3-1: Pedestrian school sign located within the vicinity of Golden Highway, Jerrys Plains (W-001)

Is the proposal likely to result in detours or disruptions to traffic flow (vehicular, cycle and pedestrian) or access during operation?

Yes ☒ No ☐

Driveway access to several properties would be impacted during operation as summarised in Table 3-28. However, any disruption would be of short duration only (up to 10 minutes) and managed through traffic control and with consultation with the affected landowners.

Table 3-28: Impacted properties

Location	Address	Lot and DP	Description	Impact
Golden Highway, Jerrys Plains (W-001)	35 Pagan Street, Jerrys Plains	Lots 4 and 8, DP 758542	Residential property	The pull-over bay would be located along the property frontage and stopped OSOM vehicles would temporarily block the driveway.
	25 Pagan Street, Jerrys Plains	Lot 4, 5, 6 and 7, DP 1147127	Residential property	The pull-over bay would be located along the property frontage and stopped OSOM vehicles would temporarily block the driveway.

The Golden Highway, six kilometres west of Dunedoo (W-008) pull-over bay site is adjacent to a driveway providing access to 601 Golden Highway, Dunedoo (Lot 116, DP 754291)), a residential property. However, stopped OSOM vehicles would remain clear of the driveway and would not impact access during operation of the pull-over bay site.

The proposal would have minimal impact on existing road users and infrastructure. Otherwise, it is expected that traffic flow would benefit from construction of the pull-over bays as road users would be able to safely pass OSOM movements and their convoys.

Description of existing environmental and potential impacts		
Is the proposal likely to affect any other transport nodes or transport infrastructure (e.g., bus stops, bus routes) in the surrounding area? Or result in detours or disruptions to traffic flow (vehicular, cycle and pedestrian) or access during operation? Existing bus stops and bus routes would remain as the existing traffic environment. No detours or disruptions to traffic flow or access beyond that identified in Table 3-28 would be affected during operation.	Yes ☐	No ☒

Safeguards

Table 3-29: Traffic and transport safeguards and management measures

Numbering	Impact	Environmental safeguards	Responsibility	Timing
T1	Traffic and transport	Current traffic movements and property accesses will be maintained during the works.	Contractor	Pre-construction Construction
T2	Traffic and transport	Where works affect the free flow of traffic, a ROL will be obtained, and a Traffic Control Plan would be prepared in accordance with Transport's <i>Traffic Control at Worksites Manual (2003)</i> .	Contractor	Pre-construction Construction
T3	Traffic and transport	Appropriate signage (such as variable message signs) and supervision will be provided at all times to ensure that all construction work areas are controlled and that unauthorised personnel (e.g. pedestrians) are excluded from work areas.	Contractor	Construction
T4	Traffic and transport	Vehicle movement arrangements will be developed to limit impacts on other road users (including pedestrians, vehicles and cyclists) and the environment, with specific regard to other road works in the area, local traffic movement requirements and peak traffic volumes. A Traffic Management Plan shall be prepared by the Contractor and approved by Transport for NSW prior to any changes to road user movements and access.	Contractor	Pre-construction Construction
T5	Traffic and transport	Designated work areas within any road reserve will be delineated prior to the work commencing. This area would be the minimum required for safely undertaking the activity.	Contractor	Pre-construction
T6	Traffic and transport	Pedestrian access around the proposed works will be maintained at all times. Where this cannot be achieved a safe diversion for pedestrians should be provided.	Contractor	Construction

3.9 Socio-economic

Table 3-30: Socio-economic

Description of existing environmental and potential impacts		
Is the proposal likely to impact on local business? The nearest businesses at each proposal area include: - Golden Highway, Jerrys Plains (W-001): BP is located about 25 metres south-east of the proposal area. Robin Hood Bar and Bistros Jerrys Plains is located about 170 metres south-east and Jerrys Plains Veterinary Hospital is located about 190 metres south-east of the pull-over bay site - Golden Highway, Sandy Hollow (W-002): Cowan's Bus Service is located about 230 metres south-east of the pull-over bay site. There are no other businesses within a 500-metre radius of the proposal sites. As outlined in Section 1.1 (Traffic and transport), vehicle access to local businesses within the vicinity of Golden Highway, Jerrys Plains (W-001) and Golden Highway, Sandy Hollow (W-002) pull-over bay sites could experience potential delays during construction given their proximity to these sites. However, delays are anticipated to be minor. Consultation with affected business owners would be carried out to arrange alternate access arrangements during construction if required. The mining and equine industries are substantial sectors operating across Singleton, Muswellbrook and Upper Hunter LGAs. Minor delays may be anticipated for traffic travelling through construction areas, potentially impacting businesses within these industries that utilise the Port to REZ route for transportation and access. Consultation with the Hunter Thoroughbred Breeders Association and the NSW Minerals Council would be carried out prior to construction to inform stakeholders of the proposal and any potential impacts (safeguard C1). While construction works would be prioritised during daytime construction works at the Golden Highway, Jerry Plains pull-over bay site (W-001), some activities are likely to be undertaken out of hours. The commercial area located north of the Golden Highway, Jerrys Plains pull-over bay site (W-001) is accessed from the northbound lane on Golden Highway south of the proposed pull-over site. Businesses in this area, except for BP and Robin Hood Bar and Bistros, operate during standard hours and are therefore unlikely to be impacted by works carried out during the evening and night, as proposed for this pull-over bay. Mitigation measures outlined in Table 3-31 would be in place to minimise any noise impacts for BP and Robin Hood Bar and Bistros. Further detail on the noise assessment is provided in Section 3.3 (Noise and vibration).	Yes ☐	No ☒
Is the proposal likely to require any property acquisition? As detailed in Section 2.2.2 (Proposal description), the proposed works would encroach upon several properties across the proposed pull-over bay sites. Partial property acquisition of Lot 100, DP1118411 (private property) would be required to accommodate the Wybong Road (W-009) pull-over bay site. The proposal would potentially involve temporary construction access at the property Lot 134, DP 655386 adjacent to the Golden Highway, one kilometre west of Glenroy Road (W-004) pull-over bay site to accommodate earthworks required for the relocation of the Telstra communications line. Owners of the affected properties would be consulted with, and ongoing consultation would occur during detailed design and construction phases. Prior to construction, a lease or licence for the Crown lands would be sought from the NSW Department of Planning, Housing and Infrastructure in accordance with the <i>Crown Land Management Act 2016</i> for the following sites: - Golden Highway, 2.2 kilometres east of Pembroke Road (W-005): Lot 3, DP 436812 (Crown land) - Golden Highway and Tongy Road (W-006): Lot 7306, DP1141566 (Crown land).	Yes ☒	No ☐

Description of existing environmental and potential impacts		
Further detail on properties affected is provided in Section 2.2.2 (Proposal description).		
Is the proposal likely to alter any access for properties (either temporarily or permanently)? As detailed in Section 3.8 (Traffic and transport), stopped OSOM vehicles would temporarily block driveway access to the following properties within the vicinity of Golden Highway, Jerrys Plains (W-001): 35 Pagan Street, Jerrys Plains 25 Pagan Street, Jerrys Plains. However, any disruption would be of short duration only (up to 10 minutes) and managed through traffic control. Access to businesses and residential properties within the vicinity of other proposal areas would be maintained throughout construction and operation.	Yes ☒	No ☐
Is the proposal likely to alter any on-street parking arrangements (either temporarily or permanently)? There are no existing formal parking arrangements within or adjacent to the proposal areas. There is evidence that the area near Golden Highway, Jerrys Plains (W-001) has been used previously as informal parking on roadside verge. The proposed works would include signage that indicates that pullover bays are for OSOM movements only, not informal parking bays or rest areas for other road users.	Yes ☐	No ☒
Is the proposal likely to change pedestrian movements or pedestrian access (either temporarily or permanently)? While there are no formalised pedestrian paths within, or in the vicinity of, the Golden Highway, Jerrys Plains (W-001) pull-over bay site the proximity of this pull-over bay site to businesses and Jerrys Plains Public School indicates that pedestrian movements through this area is believed to exist. Pedestrian access around the proposed works will be maintained at all times, however, where this cannot be achieved a safe diversion for pedestrians will be provided. There is no formalised pedestrian path or evidence of pedestrian movement at the remaining proposed pull-over bays and as such, proposal at these sites is not expected to impact on pedestrian movements or access. Further detail on impacts to pedestrian movements are provided in Section 3.8 (Traffic and transport).	Yes ☐	No ☒
Is the proposal likely to impact on any items or places of social value to the community (either temporarily or permanently)? The proposal is not located within the vicinity of items and places of social value to the community. As outlined in Section 3.3 (Noise and vibration), the Golden Highway, Jerrys Plains (W-001) site is located within the Jerrys Plains Conservation Area and adjacent to a church that is a non-Aboriginal locally listed heritage structure. No direct impacts to this conservation area and heritage structure are proposed. A conservative vibration assessment indicated that the St James' Anglican Church and nearest residence to W-001 (both located within Jerrys Plains Conservation Area) are located within the minimum working distances of 68 metres and 25 metres for heritage and standard structures, respectively. Due to possible exceedance at the nearby structures resulting from a worst-case assessment, all vibratory causing plant and equipment used at this location will be operated in accordance with safeguard NV5 to ensure possible ground vibration impacts remain below relevant threshold levels at the nearby structures. With this safeguard in place, vibration impacts are not anticipated for structures within the conservation area in the vicinity of the proposal. As such, the proposal is not anticipated to impact the heritage items and heritage significance of Jerrys Plains Conservation Area.	Yes ☐	No ☒
Is the proposal likely to reduce or change visibility of any businesses, farms, tourist attractions or the like (either temporarily or permanently)?	Yes ☒	No ☐

Description of existing environmental and potential impacts		
Temporary visual amenity changes may occur for businesses and farming surrounding the proposal areas during construction. This would include temporary construction barriers and temporary fencing, lighting and plant and equipment. However, due to the nature and duration of the works, it is unlikely to cause long-term impacts to businesses, farms, or tourist attractions.		
Is the proposal likely to impact trees planted by a community group, Landcare group or by council or a tree that is a memorial or part of a memorial group e.g., has a plaque?	Yes ☐	No ☒
Is the proposal likely to impact trees that form part of a streetscape, an avenue or roadside planting?	Yes ☐	No ☒
As detailed in Section 3.7 (Biodiversity), vegetation removal is proposed at the following pull-over bays: - Golden Highway, one kilometre west of Glenroy Road (W-004): removal of one White Box tree, associated with PCT 483, would be required to accommodate the laydown of granular pavement - Wybong Road (W-009): pruning and removal of about 60 square metres of PCT 3773 and 3774 would be required to accommodate the laydown of granular pavement. It is unlikely for there to be specific value to these trees.		

Safeguards

Table 3-31: Socio-economic safeguards and management measures

Numbering	Impact	Environmental safeguards	Responsibility	Timing
C1	Socio-economic	Notification will be given to affected stakeholders prior to the works taking place. The notification is to include: - details of the proposal - duration of works and working hours - changed traffic or access arrangements - estimated OSOM movements throughout operation of the proposal - how to lodge a complaint or obtain more information (contact name and details). Notification should be a minimum of 7 calendar days prior to the start of works. Consultation will be undertaken with affected property owners and local businesses within the vicinity of the proposal sites, and broader industry groups including: - Hunter Thoroughbred Breeders Association - NSW Minerals Council - businesses, schools, and organisations within the vicinity of Golden Highway, Jerrys Plains pull-over bay site (W-001).	EnergyCo / Transport for NSW	Pre construction and Construction
C2	Socio-economic	Complaints received will be recorded and attended to promptly in accordance with the <i>Community Involvement Practice Notes and Resource Manual</i> (RTA, 1998).	Contractor	Construction

3.10 Landscape character and visual amenity

Table 3-32: Landscape character and visual amenity

Description of existing environmental and potential impacts		
Is the proposed work over or near an important physical or cultural element or landscape? (For example, heritage items and areas, distinctive or historic built form, National Parks, conservation areas, scenic highways etc.) As outlined in Section 3.6 (Non-Aboriginal heritage), the Golden Highway, Jerrys Plains pull-over bay (W-001) is located within the heritage listed Jerrys Plains Conservation Area and about 60 metres west of the St James Anglican Church (refer to Appendix B Figure 31). Excavation and construction of granular pavement is proposed at this pull-over bay and may require equipment such as vibratory rollers and excavators. Due to possible exceedance at the nearby structures resulting from a worst-case assessment, all vibratory causing plant and equipment used at this location will be operated in accordance with safeguard NV5 to ensure possible ground vibration impacts remain below relevant threshold levels at the nearest heritage item, St James Anglican Church, and nearest residence (about 15 metres west of the proposal area), within Jerrys Plains Heritage Conservation Area. Further assessment on potential vibration impacts is provided in Section 3.3 (Noise and vibration). Works carried out at this pull-over bay would be limited to the road reserve and no demolition, relocation or alterations in the exterior of any heritage items within Jerrys Plains Heritage Conservation Area are proposed. As discussed, indirect impacts including vibration impacts are unlikely to impact the nearest heritage item and residence to the pull-over bay and therefore would not impact the heritage significance of Jerrys Plains Conservation Area.	Yes ☒	No ☐
Would the proposal obstruct or intrude upon the character or views of a valued landscape or urban area? (For example, locally significant topography, a rural landscape or a park, a river, lake or the ocean or a historic or distinctive townscape or landmark) The proposed work is minor in scope and would only occur during the construction phase. The permanent visual alterations to the pull-over bay would primarily be confined to the existing road reserve. As such, though the pull-over bays are located within a rural landscape, the works would not substantially existing visual character and any impact on the existing environment would be minimal.	Yes ☐	No ☒
Would the proposal require the removal of mature trees or stands of vegetation, either native or introduced? The removal and/or pruning of several trees is proposed at the following sites to accommodate the construction of the pull-over bays. Impacts are summarised below: - Golden Highway, one kilometre west of Glenroy Road (W-004): removal of one White Box tree, associated with PCT 483, would be required to accommodate the laydown of granular pavement - Wybong Road (W-009): pruning and removal of about 60 square metres of PCT 3774 and PCT 3773 would be required to accommodate the laydown of granular pavement. Further assessment on tree impacts is provided in Section 3.7 (Biodiversity).	Yes ☒	No ☐
Would the proposal result in large areas of shotcrete visible from the road or adjacent properties?	Yes ☐	No ☒
Would the proposal involve new noise walls or visible changes to existing noise walls?	Yes ☐	No ☒
Would the proposal involve the removal or reuse of large areas of road corridor, landscape, either verges or medians? The proposal would involve the removal and reuse of small sections of road verge along the existing road corridor. The total disturbance area would be about 7,590 square metres (0.76 hectares). This is broken down by proposal area as follows: - Golden Highway, Jerrys Plains (W-001): 385 square metres - Golden Highway, Sandy Hollow (W-002): 1170 square metres - Golden Highway, one kilometre west of Glenroy Road (W-004): 1,356 square metres - Golden Highway, 2.2 kilometres east of Pembroke Road (W-005): 985 square metres - Golden Highway and Tongy Road (W-006): 1,025 square metres	Yes ☐	No ☒

Description of existing environmental and potential impacts		
- Golden Highway, Leadville (W-007): 895 square metres - Golden Highway, six kilometres west of Dunedoo (W-008): 1,240 square metres - Wybong Road (W-009): 535 square metres. The proposal would excavate about 2,372 cubic metres of soils across the pull-over bays sites to accommodate the new pavement, utility adjustments and drainage works. The proposed works are relatively minor and would not impact large areas of the existing road corridor or landscape.		
Would the proposal involve substantial changes to the appearance of a bridge (including piers, girders, abutments and parapets) that are visible from the road or residential areas? No work on existing bridges is proposed.	Yes ☐	No ☒
If involving lighting, would the proposal create unwanted light spillage on residential properties at night (in construction or operation)? In compliance with specific ROL requirements, there may be a need to carry out certain activities at night for worker and motorist safety. While works would be prioritised during standard construction hours, some night works may be required at locations including but not limited to the Golden Highway, Jerrys Plains pull-over bay site (W-001). During any night works, lighting would be directed away from sensitive receivers with direct line of sight. Therefore, the risk of unwanted light spillage on residential properties is negligible to non-existent during construction. There are no lighting requirements for operation of the proposal.	Yes ☐	No ☒
Would any new structures or features to be constructed, result in over shadowing to adjoining properties or areas? The most substantial works proposed include earthworks and extension of asphalt, a median reconstruction, and utilities relocation. These activities are not anticipated to cause overshadowing.	Yes ☐	No ☒
Additional information pertaining to landscape character and visual amenity risk. The proposal is located within the dark sky region (within 200 kilometres of the Siding Spring Observatory), at around 87 kilometres south east from the Siding Spring Observatory. While works would be prioritised during the day, night works may be required to construct the pull-over bays. Therefore, lighting would be required for night works at this intersection and thereby temporarily increasing the amount of artificial light in the night sky. Consultation has been carried out with the Director of Siding Spring Observatory (refer to Section 2.5 and Appendix G), confirming that the temporary nature of the proposed lighting during construction is unlikely to significantly impact the night sky brightness above the Observatory. To minimise lighting impacts during construction, all lighting used during night works would comply with the <i>Dark Sky Planning Guideline</i> (NSW Department of Planning and Environment, 2023) as per Safeguard L2.		

Safeguards

Table 3-33: Landscape character and visual amenity safeguards and management measures

Numbering	Impact	Environmental safeguards	Responsibility	Timing
L1	Lighting	Task lighting for construction works shall be directed away from sensitive receivers.	Contractor	Construction
L2	Lighting	Any temporary construction lighting required for works during the night-time period that is located within the Dark Sky Region will comply with the <i>Dark Sky Planning Guideline</i> (NSW Department of Planning and Environment, 2023).	Contractor	Construction

3.11 Waste

Table 3-34: Waste

Description of existing environmental and potential impacts		
Is the proposal likely to generate >200 tonnes of waste material (contaminated and /or non-contaminated material)? The proposal would disturb an area of about 0.76 hectares for earthworks, requiring an estimated excavation of about 2,372 cubic metres of soils across the pull-over bays sites to accommodate the new pavement, utility adjustments and drainage works. It is anticipated that >200 tonnes of waste material including concrete, asphalt, green waste and other waste types would be generated from the proposed works. The majority of this material is not likely to consist of contaminated material. All waste material will be disposed of at appropriately licensed waste facilities.	Yes ☒	No ☐
Is the proposal likely to require a licence from EPA? The proposal does not include any activities listed under Schedule 1 of the <i>Protection of the Environment Operations Act 1997</i> and therefore, an EPL is not required for this proposal.	Yes ☐	No ☒
Is the proposal likely to require the removal of asbestos?	Yes ☐	No ☒

Safeguards

Table 3-35: Waste safeguards and management measures

Numbering	Impact	Environmental safeguards	Responsibility	Timing
M1	Waste	Waste management measures will follow Transport's <i>Technical Guide: Management of road construction and maintenance waste</i> .	Contractor	Pre-construction
M2	Waste	The resource management hierarchy detailed by the <i>Waste Avoidance Resource Recovery Act 2001</i> will be adopted, namely avoid unnecessary consumption; resource recovery; and disposal as a last resort.	Contractor	Construction
M3	Waste	All waste will be treated in accordance with Transport's <i>Waste Minimisation and Management Guidelines</i> (RTA, 1998).	Contractor	Construction
M4	Waste	Waste material will not to be left on site once the works have been completed.	Contractor	Construction
M5	Waste	Prior to disposal, all wastes will be identified and classified with the NSW EPA's Waste Classification Guidelines, with appropriate records and disposal dockets retained for audit purposes.	Contractor	Construction
M6	Waste	Waste will not to be burnt on site.	Contractor	Construction
M7	Waste	Illegal dumping of waste identified within or adjacent to the proposal area would be disposed of prior to construction.	Contractor	Pre-construction

3.12 Climate change and greenhouse gas emissions

Table 3-36: Climate change and greenhouse gas emissions

Description of existing environmental and potential impacts		
Is the proposal located in an area likely to be permanently or tidally inundated in the future or subject to increased duration and intensity of flooding? As outlined in Section 3.2 (Waterways and water quality), a review of Singleton Council, Muswellbrook Council, Upper Hunter Council and Warrumbungle Council flooding mapping indicated that no assessment has been undertaken to determine the flood immunity of the proposed pull-over bays sites due to their regional localities. A review of the proximity of water bodies, floodplains and local extent of elevation indicates that some localised flooding could occur with large rainfall events. Weather forecasts would be monitored prior to and throughout the works.	Yes ☐	No ☒
Have opportunities for reduced energy consumption during construction and operation been considered. If yes, summarise actions taken e.g., material selection, local suppliers and construction staff, etc. The source and quantity of materials would be determined during the detailed design phase of the proposal and would consider the requirements of the Transport for NSW <i>Sustainable Design Guidelines – Version 4.0</i>. Materials would be sourced from local suppliers where practicable.	Yes ☐	No ☒
Greenhouse gas emissions sources during construction are likely to be largest from: • transporting materials to site • electricity usage for street furniture including lighting, electronic signage and variable message signs. During operation sources would include: • maintenance of the proposal which includes infrastructure and pavement repairs, and fuel use for the operation of the plant and equipment to perform the maintenance activities • use of the proposal by vehicles.		

Safeguards

No safeguards related to climate change and greenhouse gas emissions are provided.

3.13 Cumulative impact

Table 3-37: Cumulative impact

Description of existing environmental and potential impacts		
Are there other projects and developments in the study area which could add to potential impacts in both construction and operation?		Yes ☒ No ☐
There are a number of projects currently underway within the vicinity of the proposal. The closest projects within the vicinity are detailed in Table 3-38.		
Table 3-38: Past, present and future projects		
Project	Description	
Dolwende Quarry 'Dolwende' Property, Golden Highway Denman NSW 2328	This project involves the establishment of a new sandstone and conglomerate quarry, and the construction of a private haul road from the quarry to the Golden Highway. The project was approved in 2018 and construction has commenced.	
Muswellbrook Bypass – New England Highway Muswellbrook NSW 2333	This project involves the construction of a New England Highway bypass of Muswellbrook. The project is still in the approvals stage and the completion date is still be determined.	
CWO REZ	As outlined in Section 2.2.2, the proposal would facilitate the transport of large and heavy components from the Port of Newcastle to the CWO REZ. The CWO REZ consists of a series of solar and wind farm developments. The route selection, planning and operation of OSOM vehicle movements would be assessed and approved as part of each individual developer's respective environmental assessment and subject to the conditions of each relevant approval. As the proposal is required to facilitate the OSOM movements to the REZ, there would be no overlap.	
Port to REZ intersection upgrades	As outlined in Section 2.2.2, common routes will be used to transport OSOM components from the Port of Newcastle to the CWO REZ. To facilitate the OSOM movements to the REZ, upgrades to key intersections have been assessed and approved for construction. It is likely that the construction timeframe for these intersection upgrades would overlap with the proposal timeframes. During construction, this would manifest as minor traffic delays, visual impacts from construction work, and potentially noise and vibration. However, given the scale and duration of proposed work this is considered minor. Upon completion of construction works, no cumulative operational impacts are expected.	
With the exception of the Port to REZ intersection upgrades, it is unlikely the above projects would add to the potential construction impacts due to the isolated and short-term impacts associated with this proposal.		
The construction timeframes for the Port to REZ intersection upgrades are likely to overlap with the proposal timeframes, however given the scale and duration of proposed work this cumulative impact is considered minor.		
Operation of the proposal would minimise disruption to traffic and the general community by providing sufficient space for OSOM vehicles to pull off the road and allow general traffic to safely pass along the Port of Newcastle to the CWO REZ route. In doing so, driver delays would be kept under 10 minutes which would result in reduced driver frustration.		

Safeguards

Table 3-39: Cumulative safeguards and management measures

Numbering	Impact	Environmental safeguards	Responsibility	Timing
CU1	Cumulative construction impacts	The project team will liaise with concurrent projects during construction to minimise cumulative impacts.	Contractor	Construction
CU2	Cumulative construction impacts	The construction environmental management documentation will be revised to consider potential cumulative impacts from surrounding development activities as they become known. This would include a process to review and update mitigation measures as new works begin or if complaints are received.	Contractor	Construction

4. Summary of safeguards and environmental management measures

4.1 Safeguards and environmental management measures

This section provides a summary of the site-specific environmental safeguards and management measures identified in described in Chapter 3 of this MWREF. These safeguards will be implemented to reduce potential environmental impacts throughout construction and operation. A framework for managing the potential impacts is provided with reference to environmental management plans and relevant Transport QA specifications. Any potential licence and/or approval requirements required prior to construction are also listed.

Table 4-1: Summary of site-specific safeguards for proposed work

Factor	Safeguards
Soil	E1. Erosion and sediment control measures are to be implemented (in accordance with the Landcom/Department of Housing <i>Managing Urban Stormwater, Soils and Construction Guidelines</i> (the Blue Book)) and maintained to: • minimise sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets • reduce water velocity and capture sediment on site • minimise the amount of material transported from site to surrounding pavement surfaces • divert clean water around the site. E2. All erosion and sedimentation controls implemented will be checked and maintained on a regular basis (including clearing of sediment from behind barriers) and records kept and provided on request. E3. Work areas are to be stabilised progressively during the works. E4. The maintenance of established stockpile sites is to be in accordance with Transport's <i>Stockpile Site Management Guideline</i> (EMS-TG-10). E5. Potential or actual acid sulphate soils are to be managed in accordance with Transport's <i>Guidelines for the Management of Acid Sulphate Materials</i> 2005. E6. Any saline soils will be managed in accordance with <i>NSW Department of Primary Industries (2014) Salinity Training Handbook</i>. E7. An unexpected find procedure for potential or actual contaminated soils will be included in the construction environmental management documentation. E8. A progressive erosion and sediment control plan will be prepared for the works. E9. Erosion and sediment control measures will not to be removed until the works are complete, and areas are stabilised.
Waterways and water quality	W1. An emergency spill kit is to be kept onsite at all times during works. All staff are to be made aware of the location of the spill kit and trained in its use. W2. If a spill occurs, Transport's Environmental Incident Procedure 2023 will be followed and the Transport Project Manager notified as soon as practicable. W3. The Bureau of Meteorology flood forecasting and warning service is to be monitored for possible flooding to the Hunter River, Tralbragar River and Krui River. In the event a flood warning is issued where flooding could occur at the work site(s), then the site(s) would be stabilised to minimise erosion extent and sediment runoff, plant and mobile equipment moved to higher ground where possible, and any remaining equipment on site stabilised to mitigate risk of floating offsite. Measures to remain until flooding has subsided and warnings cancelled. W4. Any water used for construction would be sourced from approved locations. If on private land, landowner consent would be required prior to use of these water sources.

Factor	Safeguards
Noise and vibration	NV1. Construction noise and vibration will be managed in accordance with the <i>Construction Noise and Vibration Guideline</i> (CNVG) (Transport for NSW, 2023) and <i>Interim Construction Noise Guideline</i> (ICNG) (DECC, 2009). NV2. All sensitive receivers (e.g., local residents) likely to be affected will be notified at least five business days prior to commencement of any work associated with the activity that may have an adverse noise or vibration impact. The notification will provide details of: • the project • the construction period and construction hours • impacts and mitigation measures • contact information for project management staff • complaint and incident reporting • how to obtain further information. NV3. Any work with impulsive or tonal noise emissions will be carried out in accordance with the <i>Construction Noise and Vibration Guideline (Roads)</i> (Transport for NSW, 2023) and EPA <i>Interim Construction Noise Guideline (ICNG)</i> (NSW DECC, 2009). NV4. Additional noise mitigation measures are to be implemented where appropriate, as identified in Tables 3-10 to 3-11. NV5. Any vibratory causing plant or equipment used at W-001 must not encroach into their respective safe working distance to the locally heritage listed structures. If there is any risk of exceedance, a permanent vibration monitoring system must be installed for the duration of works (via flashing light, audible alarm, or SMS) to alert plant operators when vibration levels are approaching the cosmetic damage threshold. Vibratory causing works must cease prior to reaching the threshold and additional safeguards implemented to prevent cosmetic damage prior to recommencement of works. Safe working distances to be applied are outlined in Table 3-14 or alternatively, site specific distances can be applied provided attended vibration measures are carried out at the commencement of works and confirm that damage screening criteria won't be exceeded.
Air quality	A1. Vehicles transporting waste or other materials that have a potential to produce odours or dust are to be covered during transportation. A2. Covering of vehicles transporting waste or other materials, as well as avoiding works that could generate dust onto sensitive receivers during strong winds or unfavourable weather conditions. A3. Plant, vehicles and equipment will be maintained in good condition and in accordance with manufacturer's specifications. A4. Plant and machinery will be turned off when not in use. A5. Visual monitoring of air quality will be undertaken to verify the effectiveness of controls and enable early intervention. A6. Work activities will be reprogrammed if the management measures are not adequately restricting dust generation.
Aboriginal cultural heritage	AH1. If Aboriginal heritage items are uncovered during the works, all works in the vicinity of the find must cease and the Transport for NSW Aboriginal cultural heritage officer and regional environment manager contacted immediately. Steps in Transport's <i>Standard Management Procedure: Unexpected Heritage Items</i> must be followed.
Non-Aboriginal heritage	H1. If unexpected archaeological remains are uncovered during the works, all works are to cease in the vicinity of the material/find and the steps in Transport's <i>Standard Management Procedure: Unexpected Heritage Items</i> must be followed. Transport for NSW Senior Environment Specialist - Heritage is to be contacted immediately. H2. If any items defined as relics under the <i>NSW Heritage Act 1977</i> are uncovered during the works, all works are to cease in the vicinity of the find and the Transport for NSW Senior Environment Specialist - Heritage contacted immediately.

Factor	Safeguards
Biodiversity	B1. If unexpected, threatened fauna or flora species are discovered, works will be stopped immediately and follow the Transport's <i>Unexpected Threatened Species Find Procedure</i> in Transport's <i>Biodiversity Guidelines 2011 – Guide 1</i> (Pre-clearing process). B2. All construction work will be undertaken in accordance with Transport's <i>Biodiversity Guidelines, Protecting and Managing Biodiversity on RMS Projects, 2011</i>. B3. The location and extent of all works will be clearly demarcated, including exclusion zones, and communicated to all staff and contractors working within the area during site inductions and daily toolbox talks. B4. Vegetation to be retained is to be protected in accordance with AS 4970-2009 – <i>Protection of trees on development sites</i> and may require exclusion fencing of the Tree Protection Zones. B5. Any tree trimming will be no more than 20% of the canopy cover for each tree. B6. Any additional impact to trees from that identified in this MWREF may require further assessment. B7. Tree removal and pruning will be undertaken by a suitably qualified arborist. B8. Expected impact to PCT 3773 and PCT 3774 to be further reduced as far as reasonably practicable during detailed design of Wybong Road (W-009) pull over bay. Where trees do not pose an operational or maintenance hazard at this location, tree trimming will be prioritised over tree clearing.
Traffic and transport	T1. Current traffic movements and property accesses will be maintained during the works. T2. Where works affect the free flow of traffic, a ROL will be obtained, and a Traffic Control Plan would be prepared in accordance with Transport's <i>Traffic Control at Worksites Manual (2003)</i>. T3. Appropriate signage (such as variable message signs) and supervision will be provided at all times to ensure that all construction work areas are controlled and that unauthorised personnel (e.g. pedestrians) are excluded from work areas. T4. Vehicle movement arrangements will be developed to limit impacts on other road users (including pedestrians, vehicles and cyclists) and the environment, with specific regard to other road works in the area, local traffic movement requirements and peak traffic volumes. A Traffic Management Plan shall be prepared by the Contractor and approved by Transport for NSW prior to any changes to road user movements and access. T5. Designated work areas within any road reserve will be delineated prior to the work commencing. This area would be the minimum required for safely undertaking the activity. T6. Pedestrian access around the proposed works will be maintained at all times. Where this cannot be achieved a safe diversion for pedestrians should be provided.
Socio-economic	C1. Notification will be given to affected stakeholders prior to the works taking place. The notification is to include: • details of the proposal • duration of works and working hours • changed traffic or access arrangements • estimated OSOM movements throughout operation of the proposal • how to lodge a complaint or obtain more information contact name and details. Notification should be a minimum of 7 calendar days prior to the start of works. Consultation will be undertaken with affected property owners and local businesses within the vicinity of the proposal sites, and broader industry groups including: • Hunter Thoroughbred Breeders Association • NSW Minerals Council • businesses, schools, and organisations within the vicinity of Golden Highway, Jerrys Plains pull-over bay site (W-001). C2. Complaints received will be recorded and attended to promptly in accordance with the Community Involvement Practice Notes and Resource Manual (RTA, 1998).

Factor	Safeguards
Landscape character and visual amenity	L1. Task lighting for construction works shall be directed away from sensitive receivers. L2. Any temporary construction lighting required for works during the night-time period that is located within the Dark Sky Region will comply with the <i>Dark Sky Planning Guideline</i> (NSW Department of Planning and Environment, 2023)
Waste	M1. Waste management measures will follow Transport's <i>Technical Guide: Management of road construction and maintenance waste</i>. M2. The resource management hierarchy detailed by the <i>Waste Avoidance Resource Recovery Act 2001</i> will be adopted, namely avoid unnecessary consumption; resource recovery; and disposal as a last resort. M3. All waste will be treated in accordance with Transport's <i>Waste Minimisation and Management Guidelines</i> (RTA, 1998). M4. Waste material will not to be left on site once the works have been completed. M5. Prior to disposal, all wastes will be identified and classified with the NSW EPA's Waste Classification Guidelines, with appropriate records and disposal dockets retained for audit purposes. M6. Waste will not be burnt on site. M7. Illegal dumping of waste identified within or adjacent to the proposal area would be disposed of prior to construction.
Climate change and greenhouse gas emissions	None identified.
Cumulative impacts	CU1. The project team will liaise with concurrent projects during construction to minimise cumulative impacts. CU2. The construction environmental management document will be revised to consider potential cumulative impacts from surrounding development activities as they become known. This would include a process to review and update mitigation measures as new works begin or if complaints are received.

4.2 Licensing and approvals

Table 4-2: Summary of licensing and approvals required

Instrument	Requirement	Timing
<i>Road Occupancy Licence from relevant roads authority</i>	For any disruptions and or lane closures	Prior to start of construction

4.3 Other requirements

Table 4-3: Other requirements

Requirement	Yes ☒	No ☐
Environmental management plan sent to SMES or their delegate (ESL) for review.		

5. Certification, review and determination

5.1 Certification

This minor works REF provides a true and fair review of the proposal in relation to its potential effects on the environment. It addresses, to the fullest extent possible, all matters affecting or likely to affect the environment as a result of the proposal.

Prepared by:

Signature



Name: Tracy Lam
Position: Graduate Environmental Consultant
Company name: Arcadis
Date: 27/02/2025

Minor works REF reviewed by:

Signature



Name: Kate Wiggins
Position: Environmental Lead
Company name: Arcadis
Date: 27/02/2025

5.2 Environment and sustainability staff review

The minor works REF has been reviewed and considered against the requirements of sections 5.5 and 5.7 of the EP&A Act.

In considering the proposal this assessment has examined and taken into account to the fullest extent possible, all matters affecting or likely to affect the environment by reason of that activity as addressed in the minor works REF and associated information. This assessment is considered to be in accordance with the factors required to be considered under section 171 of the Environmental Planning and Assessment Regulation 2021.

The proposal described in this minor works REF will have some environmental impacts which can be ameliorated satisfactorily. Having regard to the safeguards and management measures proposed, this assessment has considered that these impacts are unlikely to be significant and therefore an approval for the proposal does not need to be sought under Division 5.2 of the EP&A Act.

The assessment has considered the potential impacts of the activity on areas of outstanding value and on threatened species, ecological communities or their habitats for both terrestrial and aquatic species as defined by the *Biodiversity Conservation Act 2016* and the *Fisheries Management Act 1994*.

The proposal described in the minor works REF will not affect areas of outstanding value. The activity described in the minor works REF will not significantly affect threatened species ecological communities or their habitats. Therefore, a species impact statement is not required.

The assessment has also addressed the potential impacts of the activity on matters of national environmental significance and any impacts on the environment of Commonwealth land and concluded that there will be no significant impacts. Therefore, there is no need for a referral to be made to the Australian Government Department of Climate Change, Energy, the Environment and Water for a decision by the Commonwealth Minister for the Environment on whether assessment and approval is required under the *Environment Protection and Biodiversity Conservation Act 1999*.

The minor works REF is considered to meet all relevant requirements.

6. Definitions

Table 6-1: Definitions

Term	Definition
AEP	Annual exceedance probability
AHIMS	Aboriginal Heritage Information Management System
ARTC	Australian Rail Track Corporation
BC Act	<i>Biodiversity Conservation Act 2016</i>
CEMP	Construction Environmental Management Plan
CNVG	Construction Noise and Vibration Guideline
CWO REZ	Central West Orana Renewable Energy Zone
DPI	Department of Industries
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPA	Environmental Protection Authority
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)</i>
EPL	Environmental Protection Licence
EnergyCo	Energy Corporation of NSW
FM Act	<i>Fisheries Management Act 1994</i>
GW	Gigawatt
ICNG	Interim Construction Noise Guideline
LEP	Local Environmental Plan
LGA	Local Government Area
Minor works REF	Minor Works Review of Environmental Factors
Muswellbrook LEP 2009	Muswellbrook Local Environmental Plan 2009
NML	Noise management level
NPW Act	<i>National Parks and Wildlife Act 1974</i>
NSW OEH	New South Wales Office of Environment and Heritage, now currently known as the New South Wales Environment and Heritage department of the state government
NVMP	Noise and Vibration Management Plan
OSOM	Over-sized and over-mass components
PACHCI	<i>TfNSW Procedure for Aboriginal cultural heritage consultation and investigation</i>
PCT	Plant Community Type
PMST	Protected Matters Search Tool
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
RBL	Rating background level
REF	Review of Environmental Factors
ROL	Road occupancy licenses

Term	Definition
SEPP (Biodiversity and Conservation)	State Environmental Planning Policy (Biodiversity and Conservation) 2021
SEPP (Transport and Infrastructure)	State Environmental Planning Policy (Transport and Infrastructure) 2021
TEC	Threatened ecological communities
TMP	Traffic Management Plan
TMC	Traffic Management Centre
Transport	Transport for NSW
Transport noise tool	Transport for NSW 'Construction Noise Estimator Tool'
Singleton LEP 2013	Singleton Local Environmental Plan 2013
Upper Hunter LEP	Upper Hunter Local Environmental Plan 2013
Warrumbungle LEP	Warrumbungle Local Environmental Plan 2013

Appendix A: Consideration of State and Commonwealth environmental factors

Environmental Planning and Assessment Regulation 2021 section 171(2) factors

The following factors, listed in section 171(2) of the Environmental Planning and Assessment Regulation 2021, have been considered to assess the likely impacts of the proposal on the natural and built environment. This consideration is required to comply with sections 5.5 and 5.7 of the EP&A Act.

Table A1: Consideration of section 171 of the EP&A Regulation factors

Factor	Description of impact	Duration and extent
a) Environmental impact on the community.	Construction of the proposal would potentially introduce short term noise impacts. These impacts would be minimised through the implementation of the safeguards and environmental management measures outlined in Section 4.1 of this minor works REF. In the long term, the proposal would facilitate the safe delivery of over-sized and over-massed components from the Port of Newcastle to the CWO REZ.	Short-term negative (minor) Long-term, positive
b) The transformation of the locality.	The proposed works would be primarily limited to pull-over upgrades within the existing road reserve. Accordingly, there would be no transformation of the locality.	Nil
c) Any environmental impact on the ecosystems of the locality.	The proposal would result in vegetation removal at: - Golden Highway, one kilometre west of Glenroy Road (W-004): removal of one White Box tree, associated with PCT 483, would be required to accommodate the laydown of granular pavement - Wybong Road (W-009): pruning and removal of about 60 square metres of PCT 3774 and PCT 3773 would be required to accommodate the laydown of granular pavement. Tree removal would have a minor environmental impact on existing ecosystems.	Short-term negative (minor)
d) Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality.	The proposal would result in a reduction in the aesthetic quality of the locality as a result of noise and visual impacts during construction. These impacts would be minimised through the implementation of the safeguards and environmental management measures outlined in Section 4.1 of this minor works REF.	Short-term negative (minor)
e) Any effect on any locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations.	The proposal would not impact cultural heritage or places of heritage value given that limited scope of works within the existing road reserve.	Nil
f) Any impact on the habitat of protected fauna (within the	There would be no impact on the habitat of protected fauna (within the meaning of the <i>Biodiversity and Conservation Act 2016</i>).	Nil

Factor	Description of impact	Duration and extent
meaning of the Biodiversity and Conservation Act 2016).		
g) Any endangering of a species of animal, plant or other form of life, whether living on land, in water or in the air.	It is unlikely that the proposal would endanger any species of animal, plant or other form of life, whether living on land, in water or in the air.	Nil
h) Any long-term effects on the environment	In the long term, the proposal would facilitate the safe delivery of over-sized and over-massed components from the Port of Newcastle to the CWO REZ.	Long-term positive
i) Any degradation of the quality of the environment.	Construction of the proposal would potentially impact trees and groundcover. These impacts would be minimised through the implementation of the safeguards and environmental management measures outlined in Section 4.1 of this minor works REF.	Short-term negative
j) Any risk to the safety of the environment.	The proposal would not pose any safety risks to the environment.	Nil
k) Any reduction in the range of beneficial uses of the environment.	The proposal would not reduce the range of beneficial uses of the environment.	Nil
l) Any pollution of the environment.	The proposal has the potential to produce pollution during construction. These impacts would be minimised through the implementation of the safeguards and environmental management measures outlined in Section 3.4 of this minor works REF.	Short-term negative
m) Any environmental problems associated with the disposal of waste	The proposal would not result in any environmental problems associated with the disposal of waste. All waste material will be disposed of at appropriately licensed waste facilities. Reuse of other waste materials is not proposed as part of this proposal, however recycling facilities may accept such waste and reuse on other civil applications.	Nil
n) Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply.	The proposal is unlikely to increase demands on resources (natural or otherwise) that are, or likely to become, in short supply.	Nil
o) The cumulative environmental effect with other existing or likely future activities.	The proposal is unlikely to have cumulative environmental effects with other existing or likely future activities.	Nil
p) Any impact on coastal processes and coastal hazards, including those under projected climate change conditions.	The proposal would not impact coastal processes and coastal hazards, including those projected climate change conditions.	Nil
q) Applicable local strategic planning statements, regional	The proposal aligns with the Cessnock Community Strategic Plan 2036 and Port of Newcastle Plan – Port Master Plan 2040 by facilitating the safe delivery of over-	Long-term positive

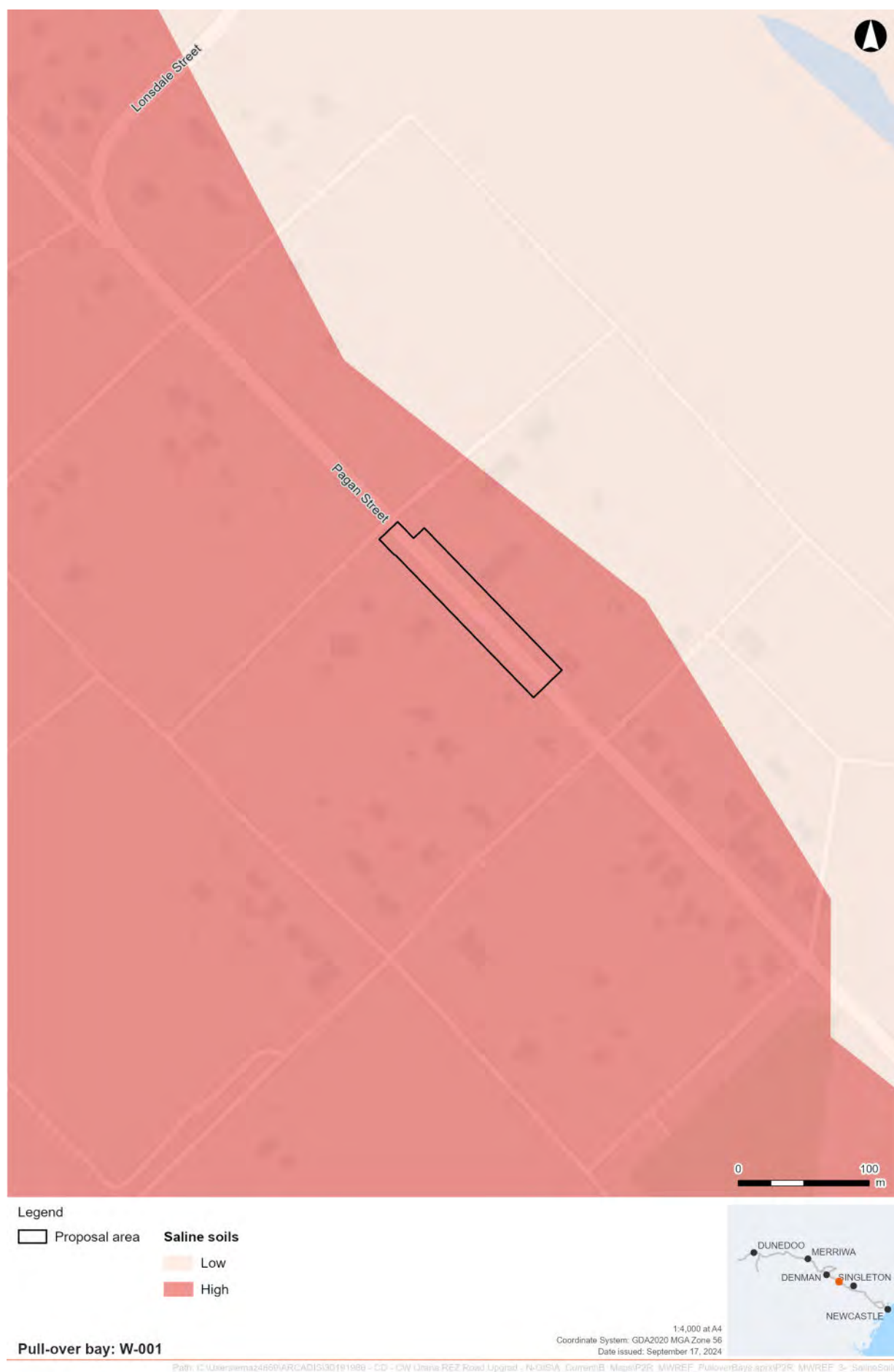
Factor	Description of impact	Duration and extent
strategic plans or district strategic plans made under the Act, Division 3.1	sized and over-massed components from Port of Newcastle to the CWO REZ. The proposal aligns with the following objectives: - to provide better transport links and improving the road network - to utilise existing road and rail transport assets to improve freight efficiency.	
r) Other relevant environmental factors		In considering the potential impacts of this proposal all relevant environmental factors have been considered, refer to Chapter 3 of this assessment.

Matters of National Environmental Significance

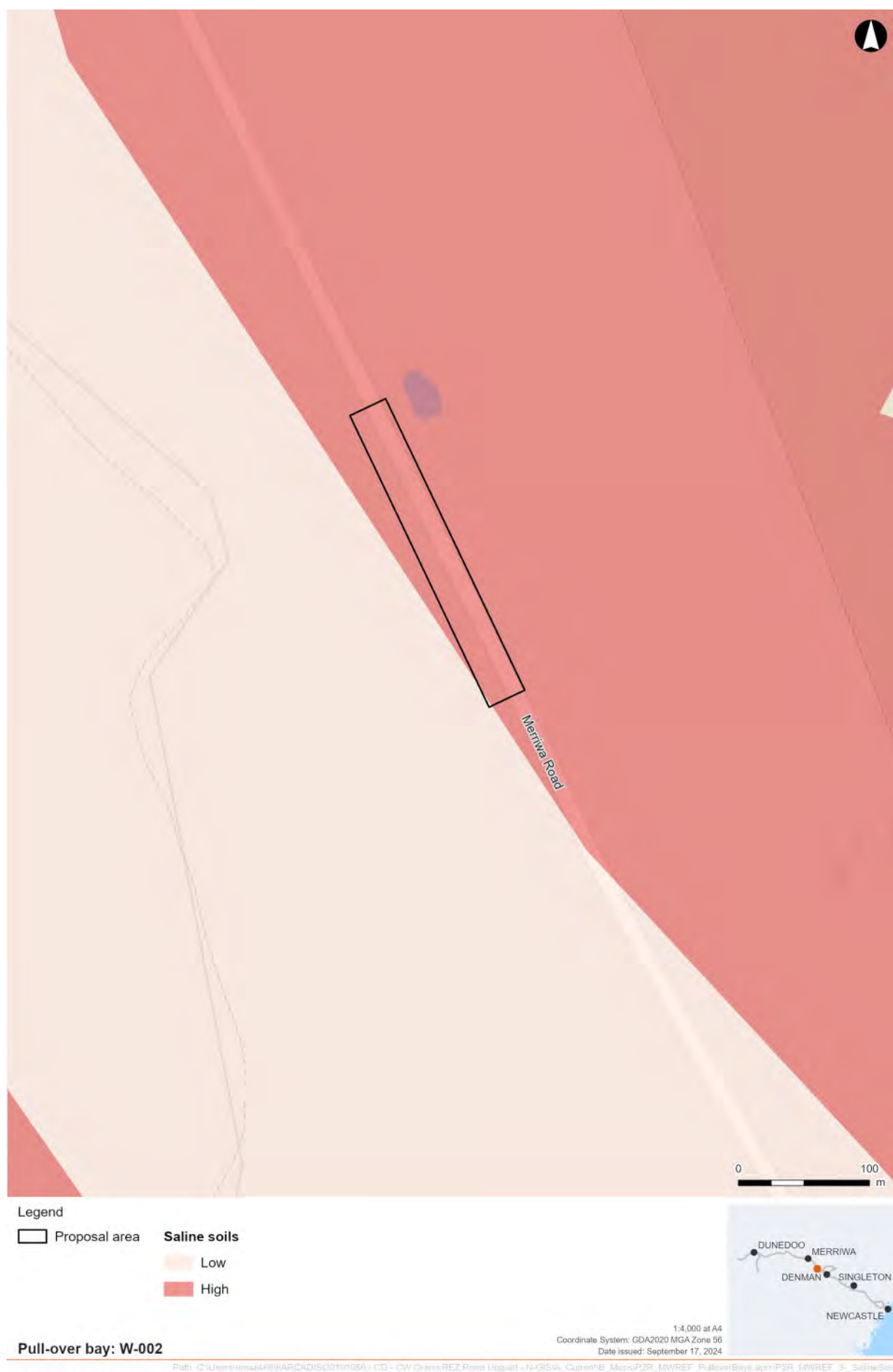
Table A2: Matters of national environmental significance

Environmental factor	Impact
a) Any impact on a World Heritage property?	Nil
b) Any impact on a National Heritage place?	Nil
c) Any impact on a wetland of international importance (often called 'Ramsar' wetlands)?	Nil
d) Any impact on nationally threatened species, ecological communities or migratory species?	Nil
e) Any impact on a Commonwealth marine area?	Nil
f) Does the proposal involve a nuclear action (including uranium mining)?	Nil
Additionally, any impact (direct or indirect) on the environment of Commonwealth land?	Nil

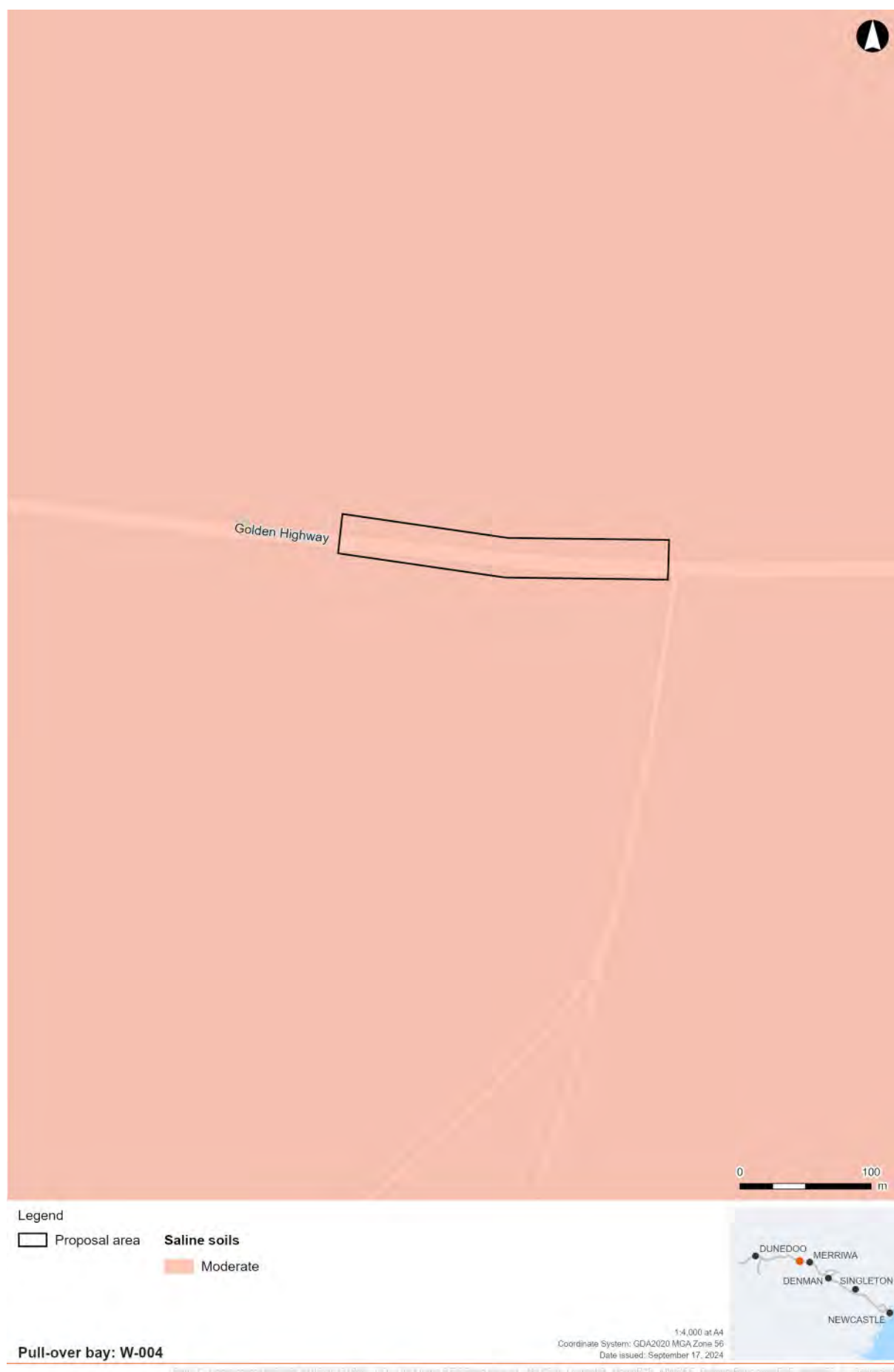
Appendix B: Environmental assessment figures



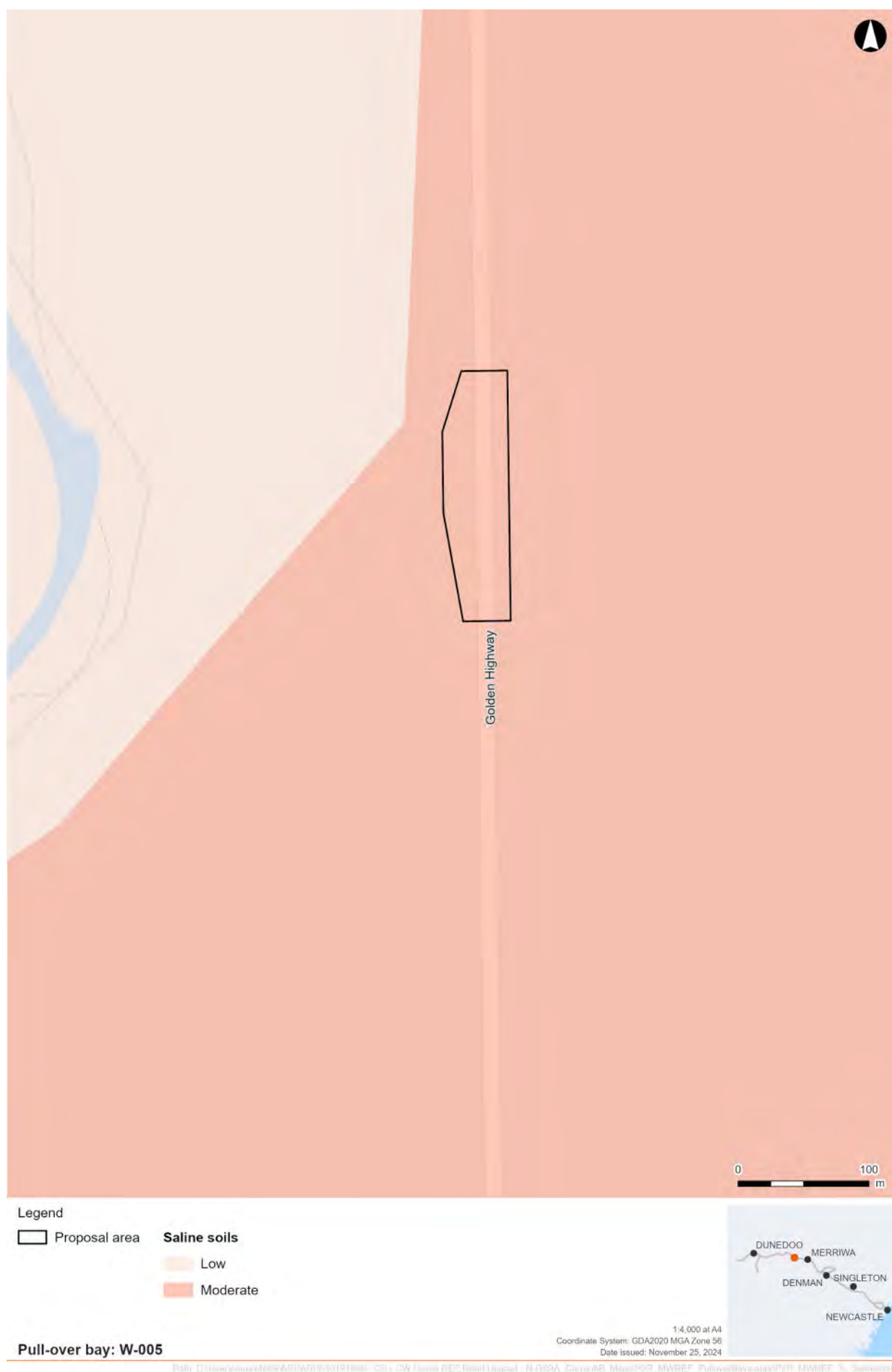
Appendix B Figure 1: Saline soils – Golden Highway, Jerrys Plains (W-001)



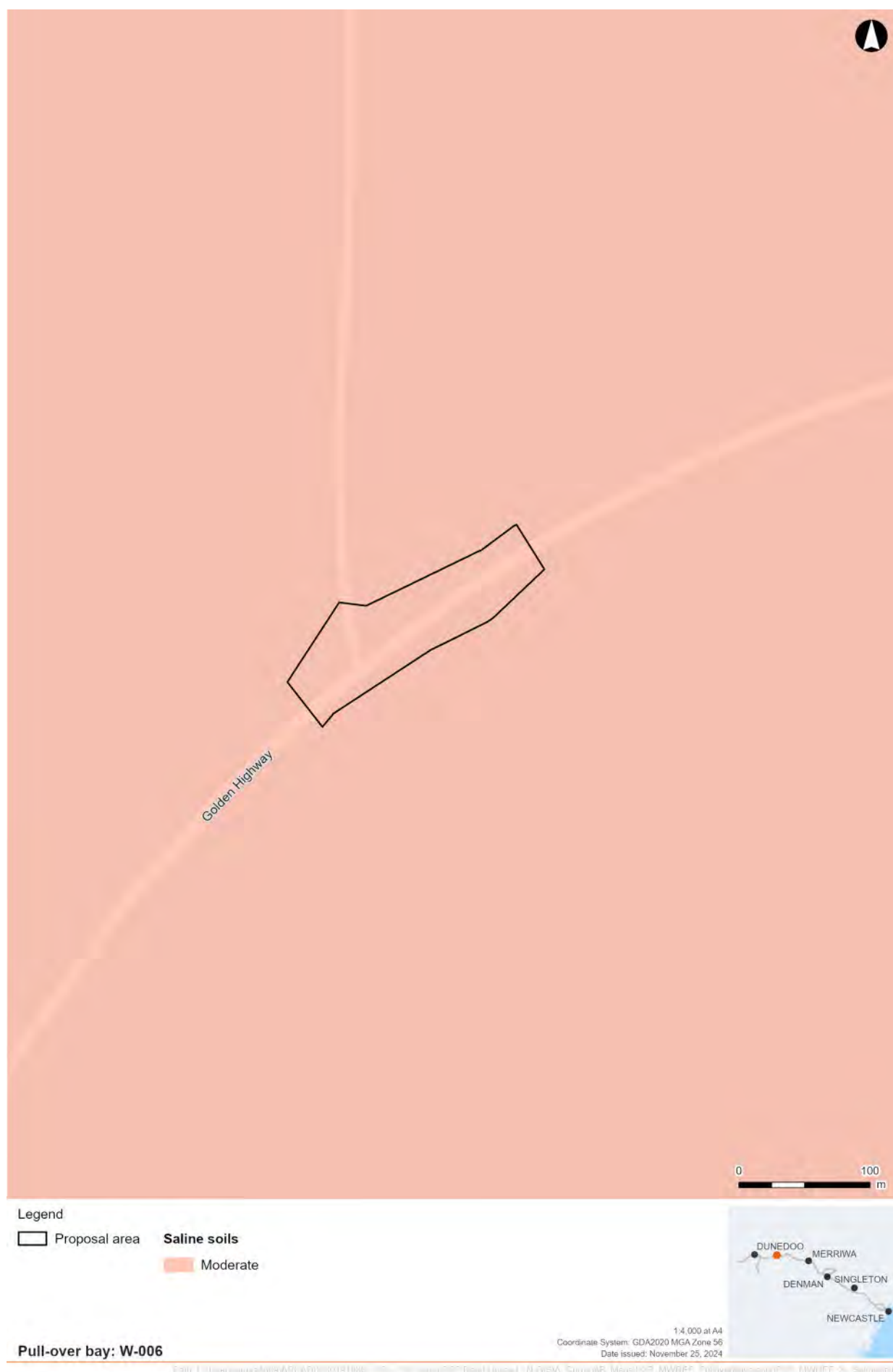
Appendix B Figure 2: Saline soils – Golden Highway, Sandy Hollow (W-002)



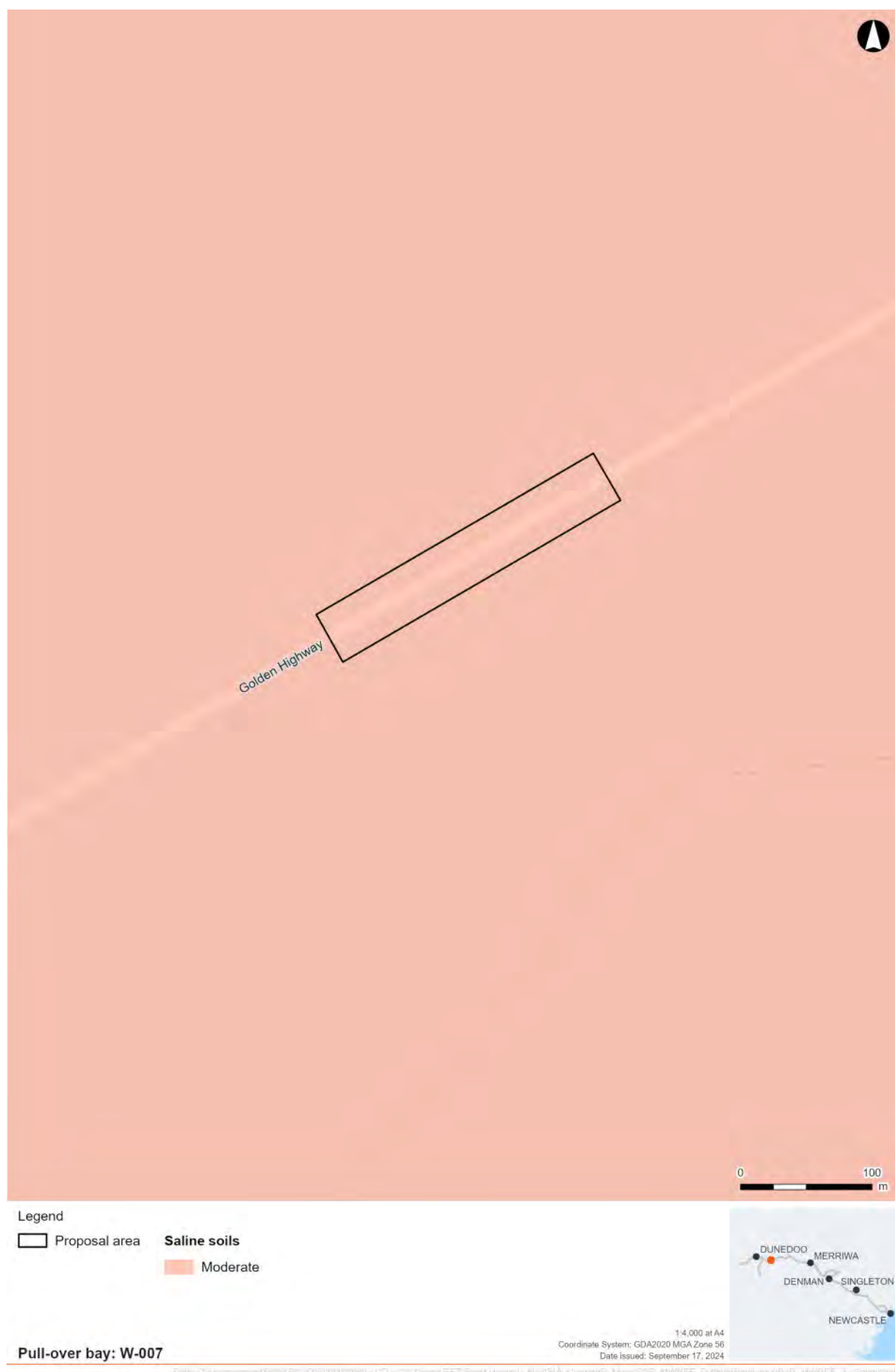
Appendix B Figure 3: Saline soils – Golden Highway, one kilometre west of Glenroy Road (W-004)



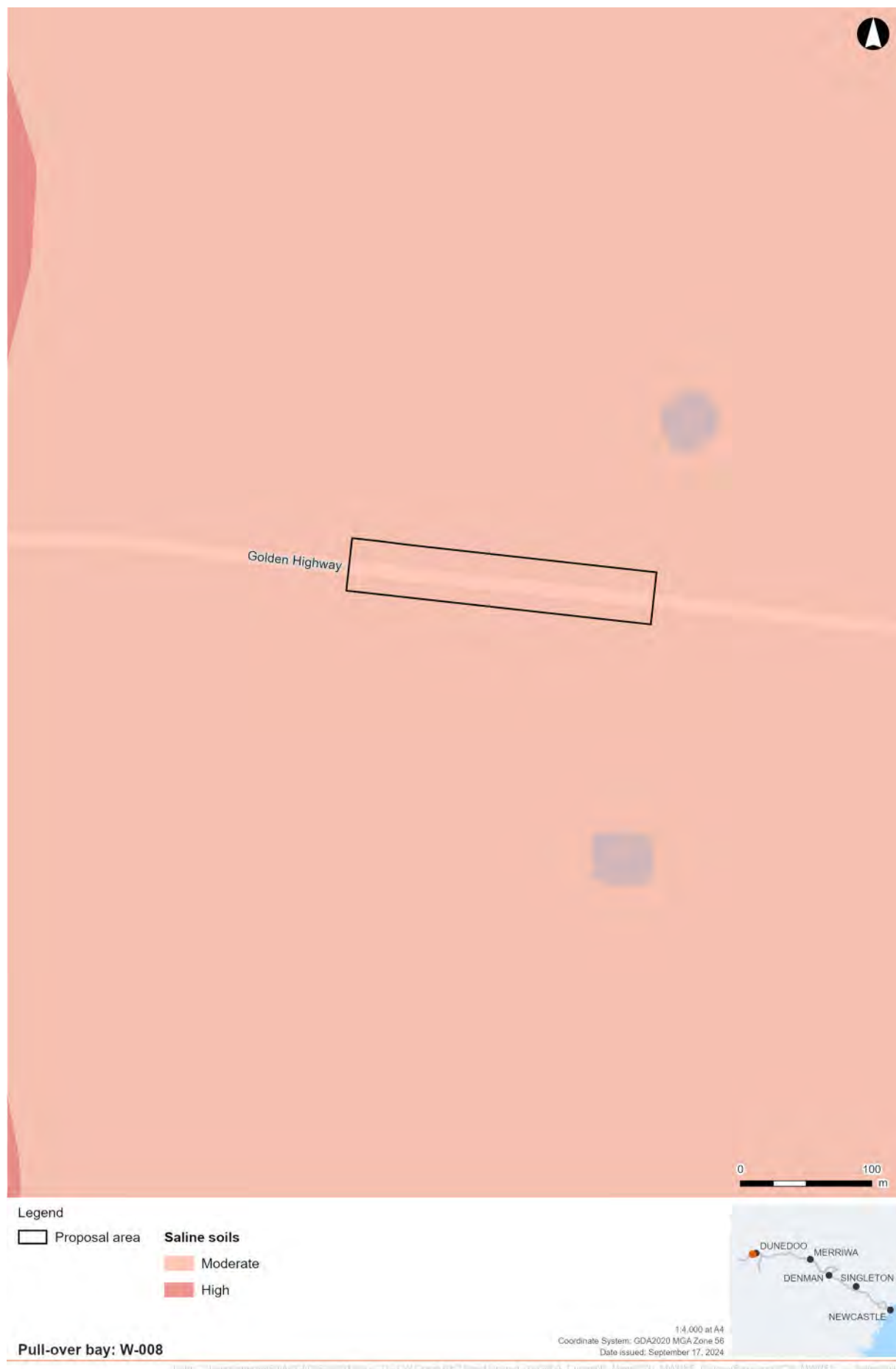
Appendix B Figure 4: Saline soils – Golden Highway, 2.2 kilometres east of Pembroke Road (W-005)



Appendix B Figure 5: Saline soils - Golden Highway and Tongy Road (W-006)



Appendix B Figure 6: Saline soils – Golden Highway, Leadville (W-007)



Appendix B Figure 7: Saline soils – Golden Highway, six kilometres west of Dunedoo (W-008)



Appendix B Figure 8: Saline soils – Wybong Road (W-009)



Appendix B Figure 9: Waterbodies in the vicinity of the proposal - W-001



Appendix B Figure 10: Waterbodies in the vicinity of the proposal – W-002



Appendix B Figure 11: Waterbodies in the vicinity of the proposal - W-004



Appendix B Figure 12: Waterbodies in the vicinity of the proposal – W-005



Appendix B Figure 13: Waterbodies in the vicinity of the proposal – W-006



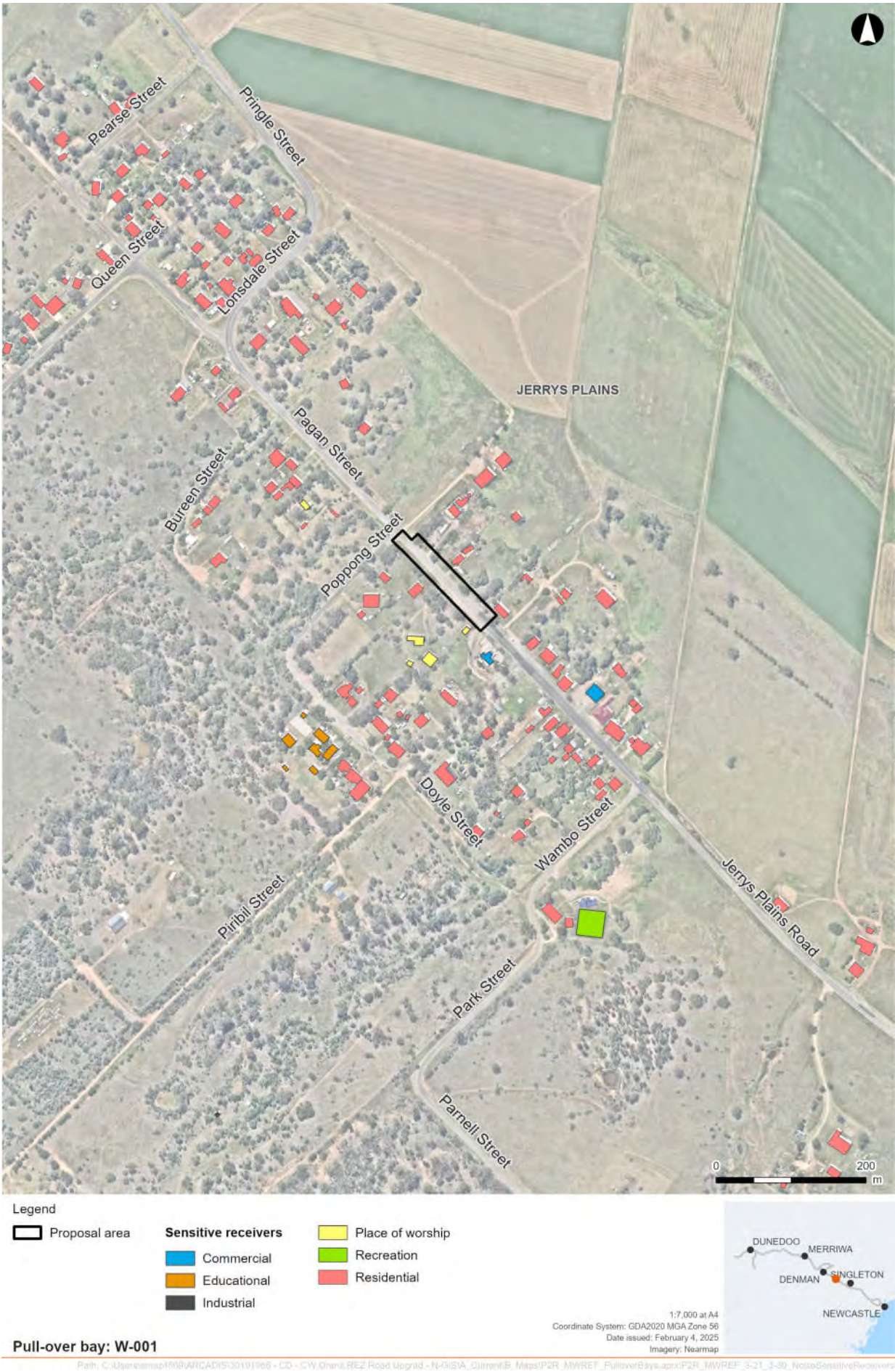
Appendix B Figure 14: Waterbodies in the vicinity of the proposal - W-007



Appendix B Figure 15: Waterbodies in the vicinity of the proposal – W-008



Appendix B Figure 16: Waterbodies in the vicinity of the proposal - W-009



Appendix B Figure 17: Noise sensitive receivers in proximity to Golden Highway, Jerrys Plains (W-001)



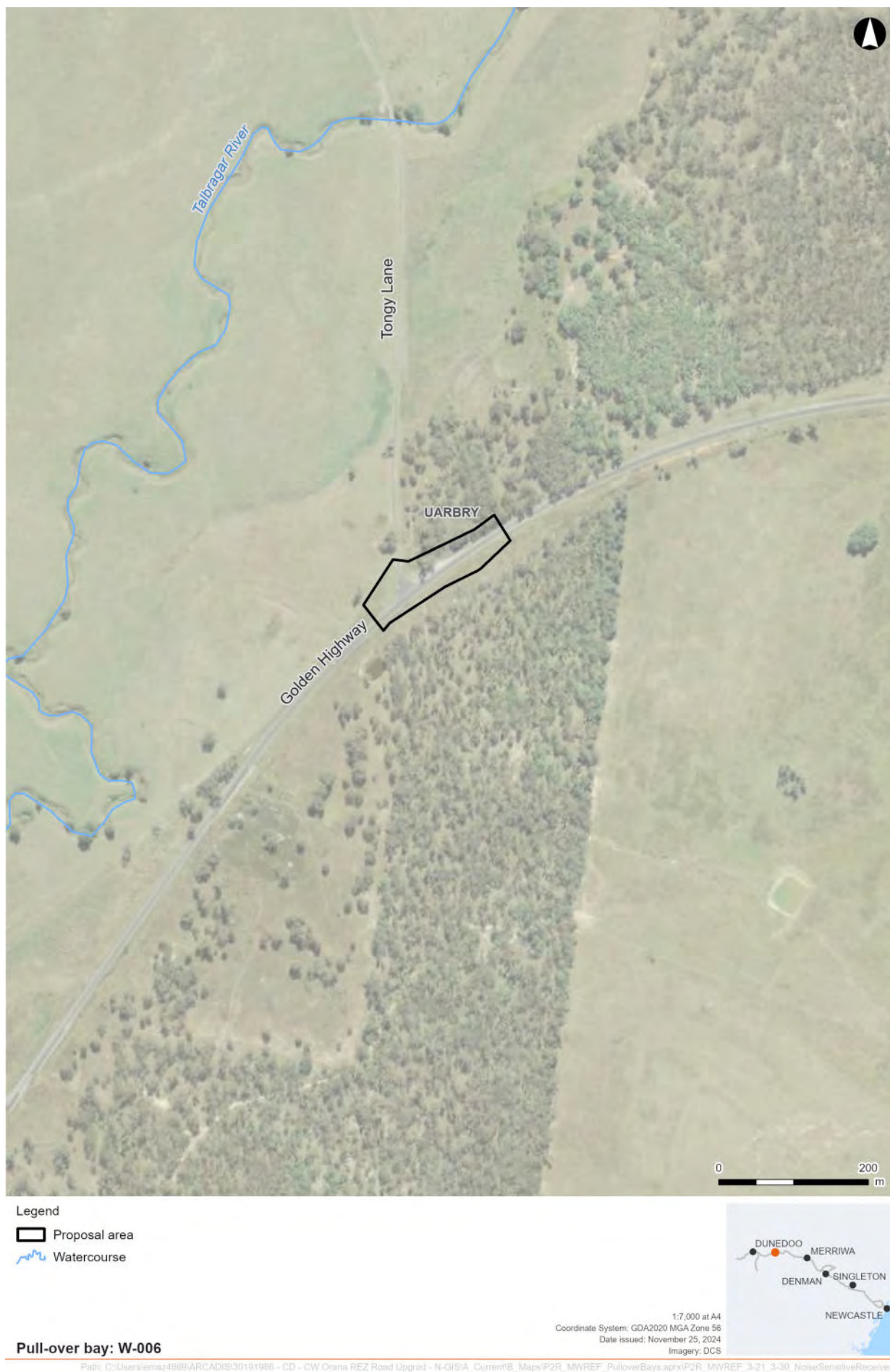
Appendix B Figure 18: Noise sensitive receivers in proximity to Golden Highway, Sandy Hollow (W-002)



Appendix B Figure 19: Noise sensitive receivers in proximity to Golden Highway, one kilometre west of Glenroy Road (W-004)



Appendix B Figure 20: Noise sensitive receivers in proximity to Golden Highway, 2.2 kilometres east of Pembroke Road (W-005)



Appendix B Figure 21: Noise sensitive receivers in proximity to Golden Highway and Tongy Road (W-006)



Appendix B Figure 22: Noise sensitive receivers in proximity to Golden Highway, Leadville (W-007)



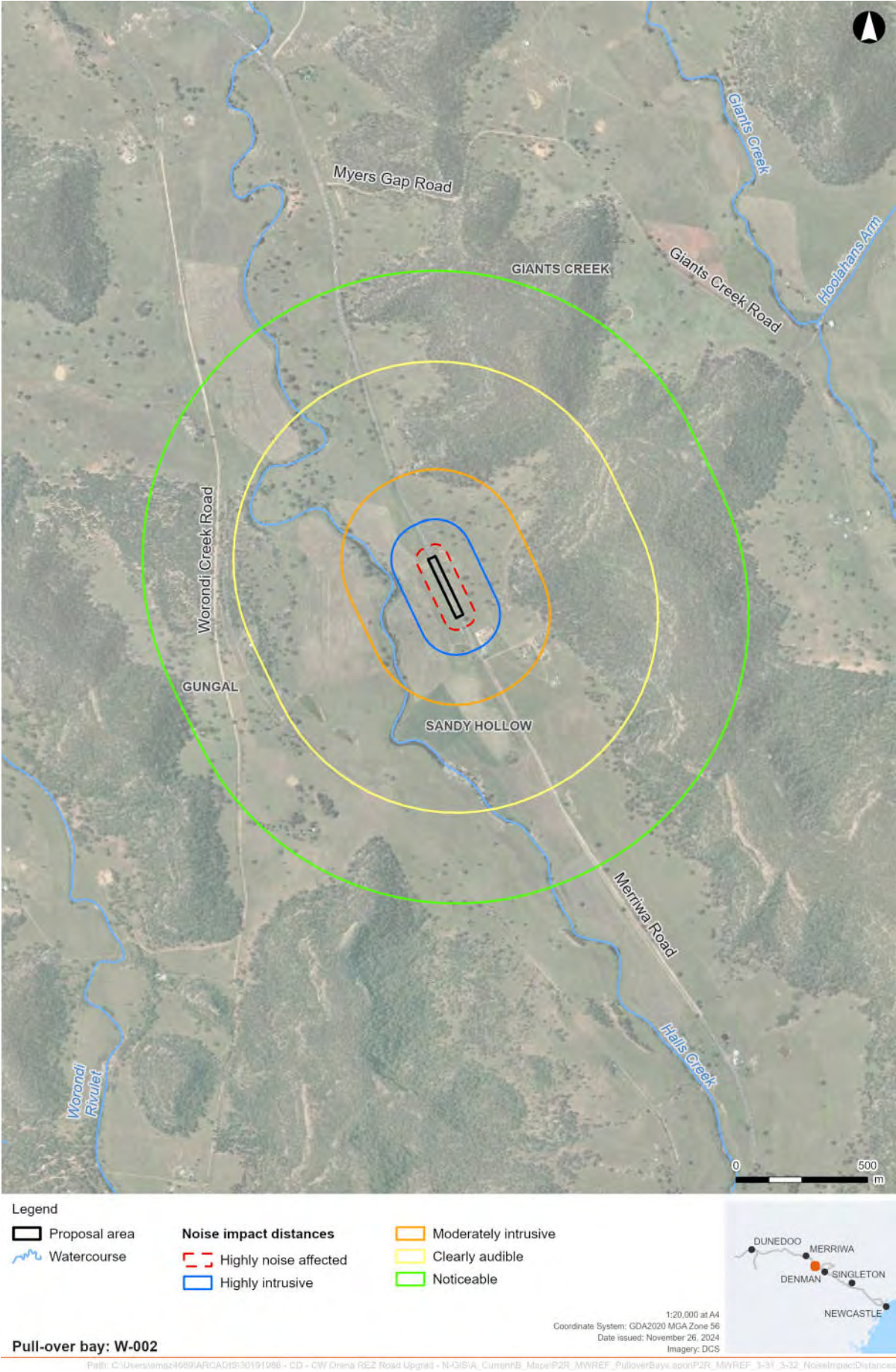
Appendix B Figure 23: Noise sensitive receivers in proximity to Golden Highway, six kilometres west of Dunedoo (W-008)



Appendix B Figure 24: Noise sensitive receivers in proximity to Wybong Road (W-009)



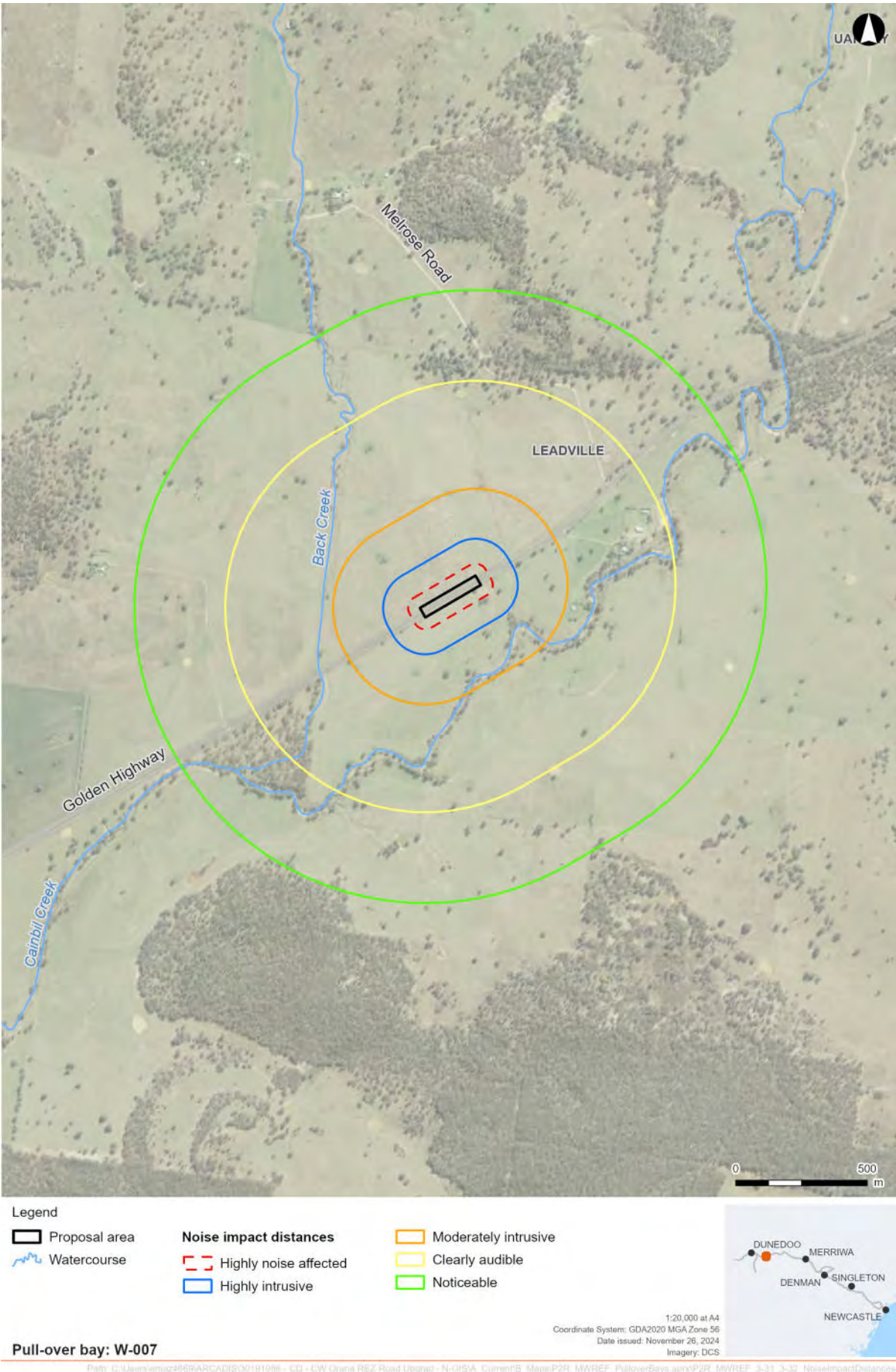
Appendix B Figure 25: Noise impact distances for Golden Highway, Jerrys Plains (W-001)



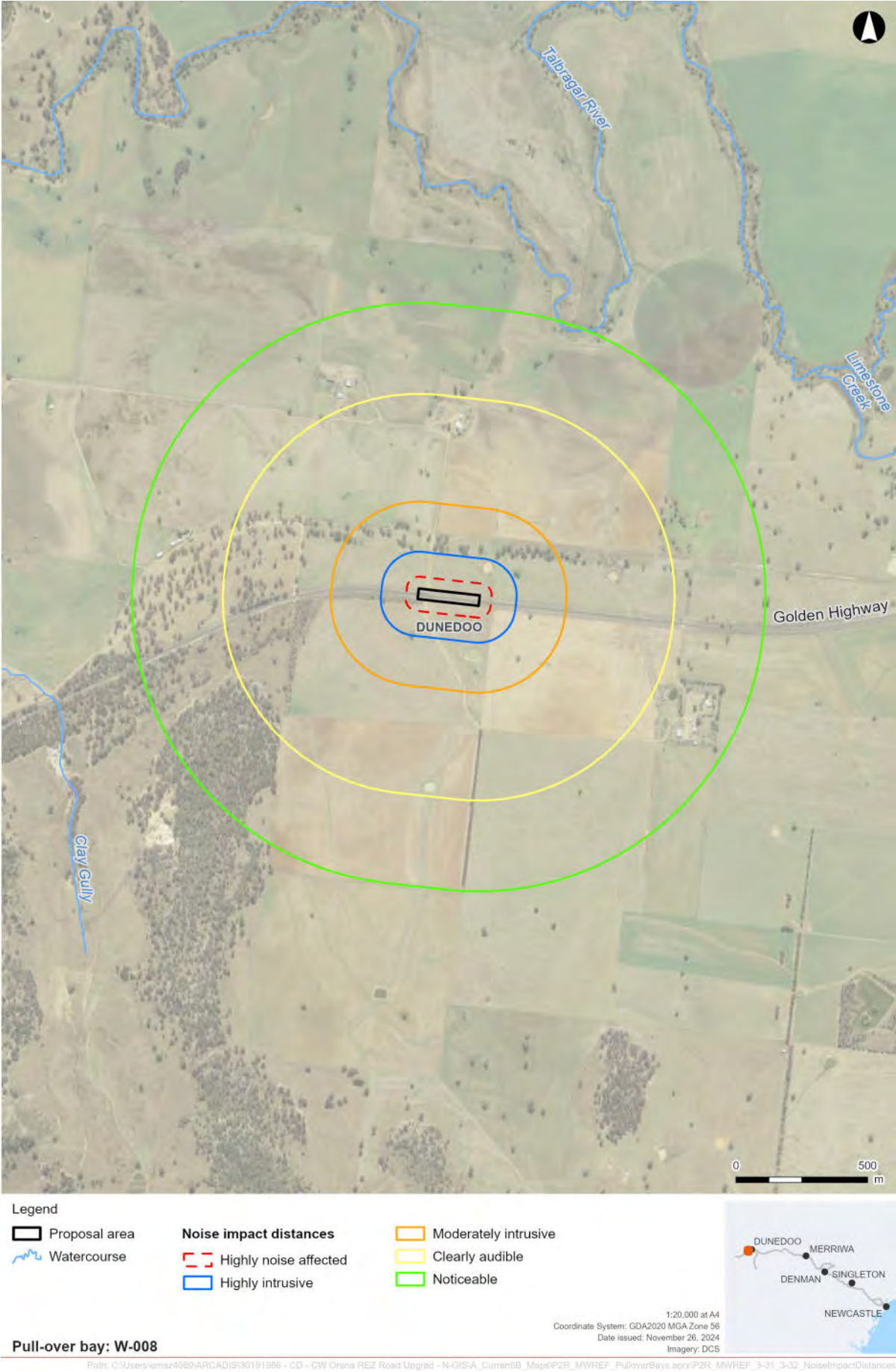
Appendix B Figure 26: Noise impact distances for Golden Highway, Sandy Hollow (W-002)



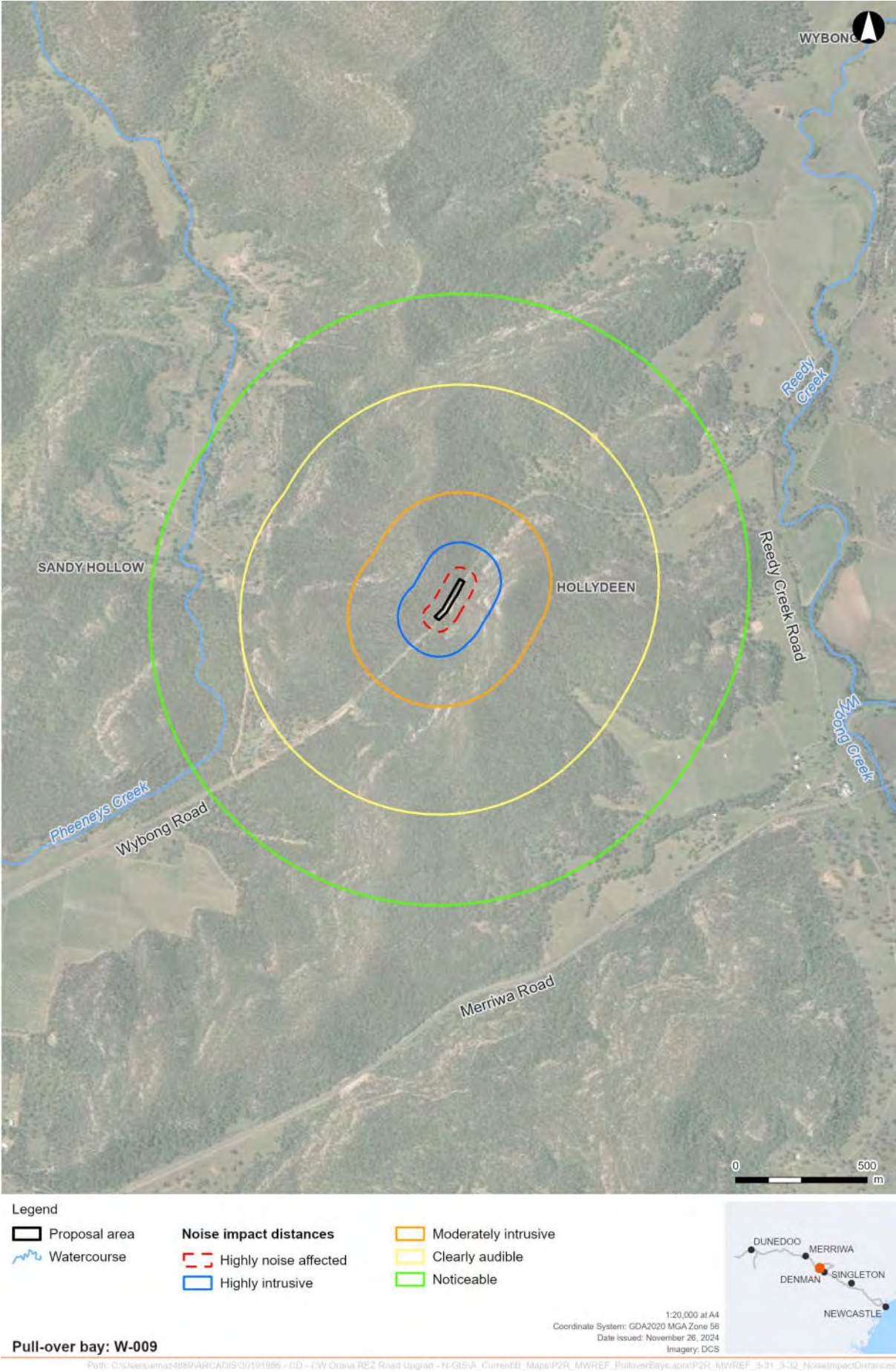
Appendix B Figure 27: Noise impact distances for Golden Highway, one kilometre west of Glenroy Road (W-004)



Appendix B Figure 28: Noise impact distances for Golden Highway, Leadville (W-007)



Appendix B Figure 29: Noise impact distances for Golden Highway, six kilometres west of Dunedoo (W-008)



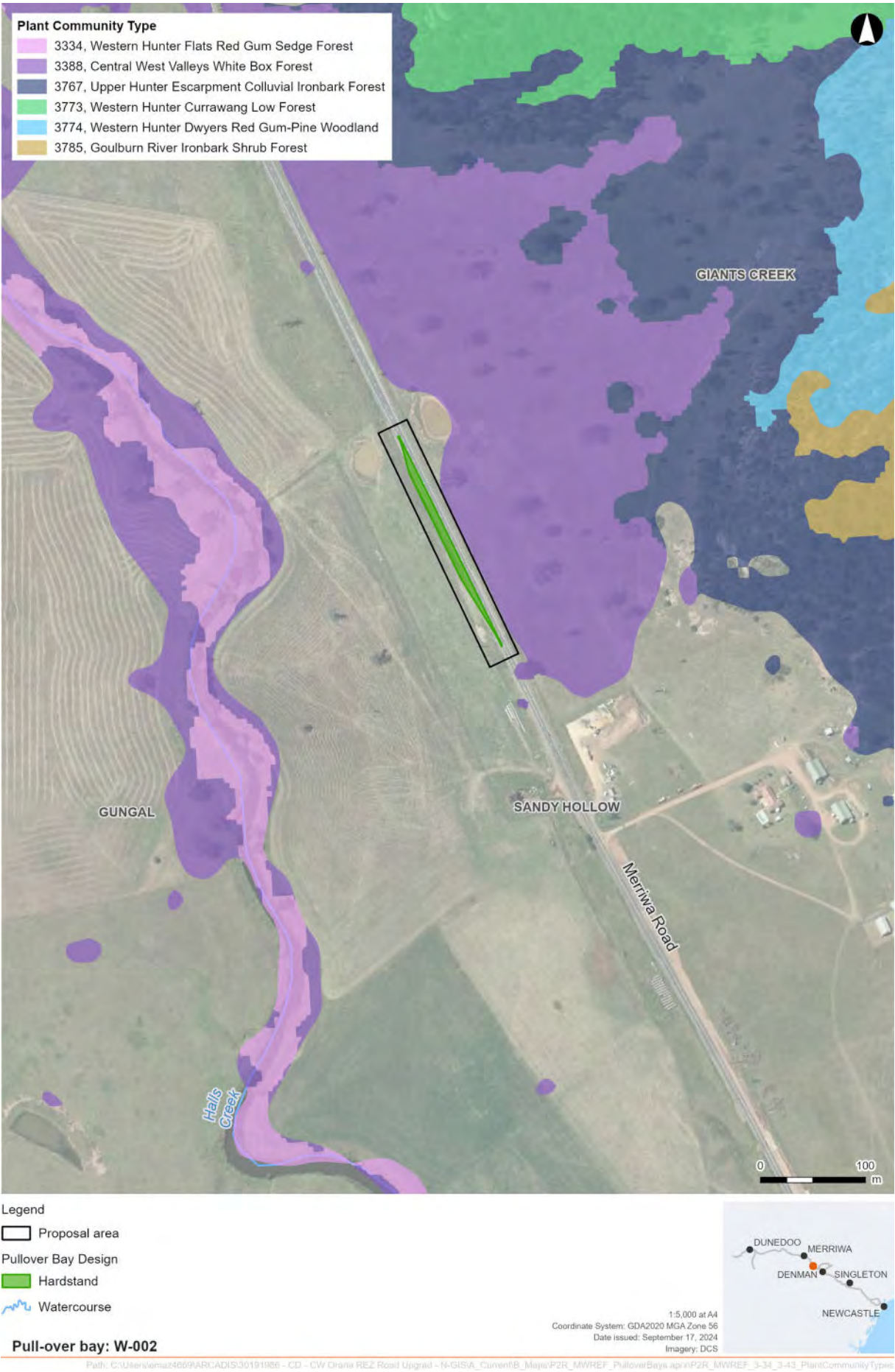
Appendix B Figure 30: Noise impact distances for Wybong Road (W-009)



Appendix B Figure 31: Non-Aboriginal heritage items in proximity to Golden Highway, Jerry's Plains (W-001)



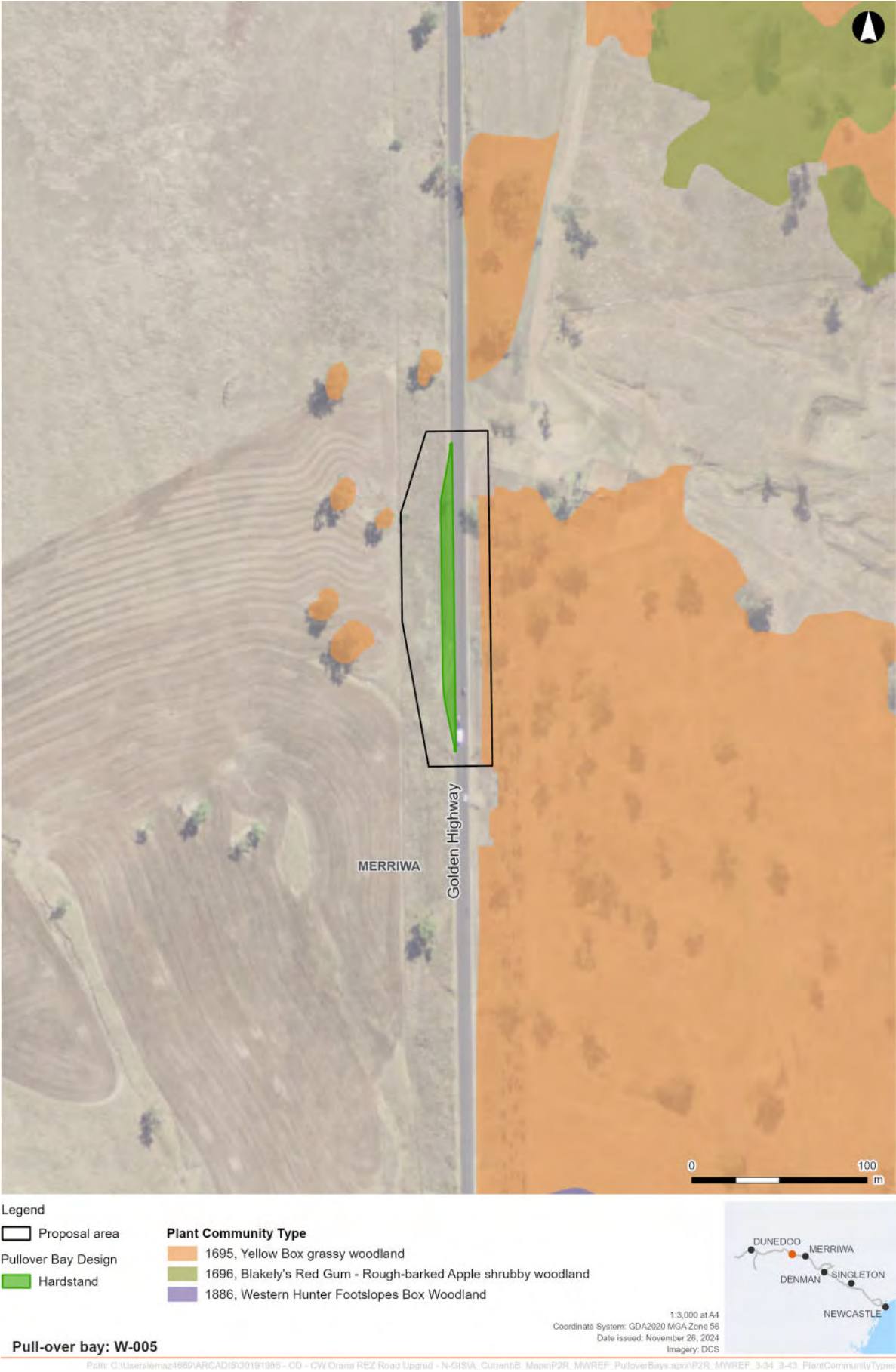
Appendix B Figure 32: Plant community types in the vicinity of Golden Highway, Jerrys Plains (W-001)



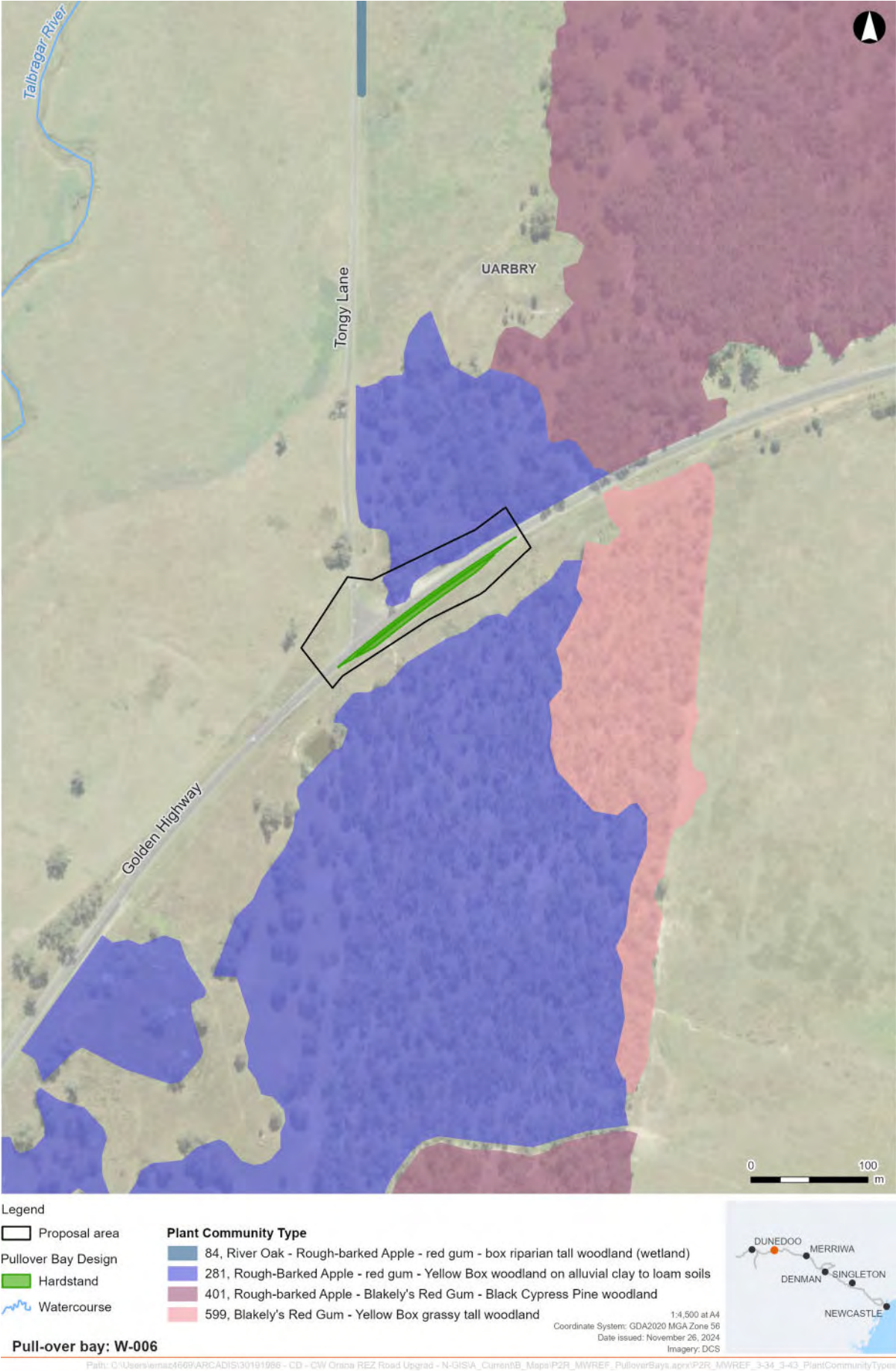
Appendix B Figure 33: Plant community types in the vicinity of Golden Highway, Sandy Hollow (W-002)



Appendix B Figure 34: Plant community types in the vicinity of Golden Highway, one kilometre west of Glenroy Road (W-004)



Appendix B Figure 35: Plant community types in the vicinity of Golden Highway, 2.2 kilometres east of Pembroke Road (W-005)



Appendix B Figure 36: Plant community types in the vicinity of Golden Highway and Tongy Road (W-006)



Appendix B Figure 37: Plant community types in the vicinity of Golden Highway, Leadville (W-007)



Appendix B Figure 38: Plant community types in the vicinity of Golden Highway, six kilometres west of Dunedoo (W-008)



Appendix B Figure 39: Plant community types in the vicinity of Wybong Road (W-009)



Appendix B Figure 40: Exotic grasses along the westbound verge of Golden Highway (southern end) for Golden Highway, Jerrys Plains (W-001)



Appendix B Figure 41: Exotic grasses along the westbound verge of Golden Highway (northern end) for Golden Highway, Jerrys Plains (W-001)



Appendix B Figure 42: White Box tree (*Eucalyptus albens*) impacted by Golden Highway, one kilometre west of Glenroy Road (W-004)



Appendix B Figure 43: Native and exotic grasses along the northbound verge of Golden Highway at Golden Highway, 2.2 kilometres east of Pembroke Road (W-005)



Appendix B Figure 44: Native and exotic grasses, one stag and three *Eucalyptus blakelyi* juveniles along the westbound verge of Golden Highway for Golden Highway, Leadville (W-007)



Appendix B Figure 45: Native and exotic grasses along the westbound verge of Golden Highway at Golden Highway, six kilometres west of Dunedoo (W-008)



Appendix B Figure 46: PCT 3773 along the southbound verge of Wybong Road (southern end) for Wybong Road (W-009)



Appendix B Figure 47: PCT 3774 (specifically Acacia trees) along the southbound verge of Wybong Road (northern end) for Wybong Road (W-009)



Appendix B Figure 48: PCT 3774 along the southbound verge of Wybong Road (northern end) for Wybong Road (W-009)

Appendix C: Construction noise assessment

Minor works review of environmental factors

Local Road Works – R1 category (with line of sight)

Transport
for NSW

Distanced Based Assessment (Construction Scenario)

Please pick from drop-down list in orange cells

Noise area category		R1
RBL or LA90 Background level (dB(A))	Day	40
	Evening	35
	Night	30
LAeq(15minute) Noise Mangement Level (dB(A))	Day	50
	Day (OOHW)	45
	Evening	40
	Night	35
Scenario		Local road works
Is there line of sight to receiver?		Yes

Steps for Screening Assessment:

1. Schedule noisy works to occur in standard hours where possible or before 11pm and implement Standard Measures.
2. Select the representative noise area category. The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
3. Select the scenario. If not found in drop-down list, refer to 'Source List' and select a representative scenario with similar plant combination.
4. Is there line of sight to receiver? Select the appropriate scenario from the drop down list.

Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier and any gaps would compromise the acoustic integrity of the solid barrier.

6. Determine if there are any receivers (both residential and non-residential receivers) within the affected distance for each relevant time period. Consider background noise measurements to check assumption in Step #2 if:

- (a) there are many affected receivers and the impact duration at any one receiver is more than 3 weeks; or
(b) there are a few affected receivers and the impact duration at any one receiver is more than 6 weeks.

Note that consideration need to be given to the construction staging plan when determining impact duration.

7. Identify if there are any receivers within the additional mitigation measures distances and identify feasible and reasonable measures at each receiver

9. Document the outcomes of these steps.

(Note that suitable noise management levels for other noise-sensitive businesses not identified in the Construction and Maintenance Noise Estimator should be investigated on a project-by-project basis.)

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Note that spot check verification of noise levels and individual briefings are not required for projects with less than 3 weeks impact duration.

		Affected distance (m)	5 to 10 dB(A)			10 to 20 dB(A)			20 to 30 dB(A)			> 30 dB(A)			LAeq(15minute) 75 dB(A) or greater (Highly affected)			disrurbance
			Noticeable			Clearly audible			Moderately intrusive			Highly intrusive						LAmax 65 dB(A)
			Measures	Within distance (m)	Mitigation level (dB(A))	Measures	Within distance (m)	Mitigation level (dB(A))	Measures	Within distance (m)	Mitigation level (dB(A))	Measures	Within distance (m)	Mitigation level (dB(A))	Measures	Within distance (m)	Mitigation level (dB(A))	Affected distance (m)
Undeveloped green fields, rural areas with isolated dwellings	Day	390							N	185	60	N	75	70	N, PC, RO	40	75	230
	Day (OOHW)	585				N, R1, DR	390	50	N, R1, DR	185	60	N, R1, DR, PC, SN	75	70	N, PC, RO	40	75	
	Evening	815				N, R1, DR	565	45	N, R1, DR	265	55	N, R1, DR, PC, SN	125	65	N, PC, RO	40	75	
	Night	1165	N	1165	35	N, R2, DR	815	40	N, PC, SN, R2, DR	390	50	AA, N, PC, SN, R2, DR	185	60	N, PC, RO	40	75	
	Highly Affected	40													N, PC, RO	40	75	
Developed settlements (urban and suburban)	Day	500							N	215	60	N	85	70	N, PC, RO	45	75	280
	Day (OOHW)	740				N, R1, DR	500	50	N, R1, DR	215	60	N, R1, DR, PC, SN	85	70	N, PC, RO	40	75	
	Evening	1085				N, R1, DR	740	45	N, R1, DR	330	55	N, R1, DR, PC, SN	140	65	N, PC, RO	45	75	
	Night	1560	N	1560	35	N, R2, DR	1085	40	N, PC, SN, R2, DR	500	50	AA, N, PC, SN, R2, DR	215	60	N, PC, RO	45	75	
	Highly Affected	45													N, PC, RO	45	75	
Propagation across a valley / over water	Day	685							N	280	60	N	100	70	N, PC, RO	45	75	370
	Day (OOHW)	1035				N, R1, DR	685	50	N, R1, DR	280	60	N, R1, DR, PC, SN	100	70	N, PC, RO	45	75	
	Evening	1525				N, R1, DR	1035	45	N, R1, DR	440	55	N, R1, DR, PC, SN	170	65	N, PC, RO	45	75	
	Night	2005	N	2005	35	N, R2, DR	1525	40	N, PC, SN, R2, DR	685	50	AA, N, PC, SN, R2, DR	280	60	N, PC, RO	45	75	
	Highly Affected	45													N, PC, RO	45	75	

Non-residential receiver Developed settlements (urban and suburban)	LAeq(15minute) noise level above NML														
	Standard hours			<10 dB(A)						10 to 20 dB(A)			LAeq(15minute) 75 dB(A) or greater (Highly affected)		
	Period	NML	Affected distance (m)	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))			
Classroom at schools and other educational institutions	Day	55	330				N	140	65	N, PC, RO	45	75			
Hospital wards and operating theatres	Day	65	140							N, PC, RO	45	75			
Place of worship	Day	55	330				N	140	65	N, PC, RO	45	75			
Active recreation	Day	65	140							N, PC, RO	45	75			
Passive recreation	Day	60	215				N	85	70	N, PC, RO	45	75			
Industrial premise	Day	75	45							N, PC, RO	45	75			
Offices, retail outlets	Day	70	85							N, PC, RO	45	75			

		LAeq(15minute) noise level above NML																	
		OOHW			< 5 dB(A)			5 to 15 dB(A)				15 to 25 dB(A)				> 25 dB(A)			
		Period	NML	Affected distance (m)	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))			
Hospital wards and operating theatres	Evening	65	140				N, R1, DR	85	70	N, R1, DR	25	80	N, R1, DR, PC, SN	8	90				
	Night	65	140	N	140	65	N, R2, NR	85	70	N, PC, SN, R2, DR	25	80	AA, N, PC, SN, R2, DR	8	90				
Place of worship	Evening	55	330				N, R1, DR	215	60	N, R1, DR	85	70	N, R1, DR, PC, SN	25	80				
	Night	55	330	N	330	55	N, R2, NR	215	60	N, PC, SN, R2, DR	85	70	AA, N, PC, SN, R2, DR	25	80				
Active recreation	Evening	65	140				N, R1, DR	85	70	N, R1, DR	25	80	N, R1, DR, PC, SN	8	90				
Passive recreation	Evening	60	215				N, R1, DR	140	65	N, R1, DR	45	75	N, R1, DR, PC, SN	14	85				
Industrial premise	Evening	75	45				N, R1, DR	25	80	N, R1, DR	8	90	N, R1, DR, PC, SN	3	100				
	Night	75	45	N	45	75	N, R2, NR	25	80	N, PC, SN, R2, DR	8	90	AA, N, PC, SN, R2, DR	3	100				
Offices, retail outlets	Evening	70	85				N, R1, DR	45	75	N, R1, DR	14	85	N, R1, DR, PC, SN	5	95				
	Night	70	85	N	85	70	N, R2, NR	45	75	N, PC, SN, R2, DR	14	85	AA, N, PC, SN, R2, DR	5	95				

Local Road Works – R2 category (with line of sight)



Transport for NSW

Distanced Based Assessment (Construction Scenario)

Steps for Screening Assessment:

1. Schedule noisy works to occur in standard hours where possible or before 11pm and implement Standard Measures.
2. Select the representative noise area category. The worksheet titled "Representative Noise Environ." provides a number of examples to help select the noise area category.
3. Select the scenario. If not found in drop-down list, refer to 'Source List' and select a representative scenario with similar plant combination.
4. Is there line of sight to receiver? Select the appropriate scenario from the drop down list.

Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier and any gaps would compromise the acoustic integrity of the solid barrier.

5. Determine if there are any receivers (both residential and non-residential receivers) within the affected distance for each relevant time period. Consider background noise measurements to check assumption in Step #2 if:

- (a) there are many affected receivers and the impact duration at any one receiver is more than 3 weeks; or
- (b) there are a few affected receivers and the impact duration at any one receiver is more than 6 weeks.

Note that consideration need to be given to the construction staging plan when determining impact duration.

7. Identify if there are any receivers within the additional mitigation measures distances and identify feasible and reasonable measures at each receiver

8. Where night works are involved, identify sleep disturbance affected distance.

9. Document the outcomes of these steps.

(Note that suitable noise management levels for other noise-sensitive businesses not identified in the Construction and Maintenance Noise Estimator should be investigated on a project-by-project basis.

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Note that spot check verification of noise levels and individual briefings are not required for projects with less than 3 weeks impact duration

	Affected distance (m)	5 to 10 dB(A) Noticeable			10 to 20 dB(A) Clearly audible			20 to 30 dB(A) Moderately intrusive			> 30 dB(A) Highly intrusive			LAeq(15minute) 75 dB(A) or greater (Highly affected)			disurbance LAmax 65 dB(A)
		Measures	Within distance (m)	Mitigation level (dB(A))	Measures	Within distance (m)	Mitigation level (dB(A))	Measures	Within distance (m)	Mitigation level (dB(A))	Measures	Within distance (m)	Mitigation level (dB(A))	Measures	Within distance (m)	Mitigation level (dB(A))	Affected distance (m)
Undeveloped green fields, rural areas with isolated dwellings	Day		265					N	125	65	N, PC, RO	40	75	N, PC, RO	40	75	230
	Day (OOHW)		390					N, R1, DR	125	65	N, R1, DR, PC, SN	40	75	N, PC, RO	40	75	
	Evening		565		N, R1, DR	390	50	N, R1, DR	185	60	N, R1, DR, PC, SN	75	70	N, PC, RO	40	75	
	Night	N	815	40	N, R2, DR	565	45	N, PC, SN, R2, DR	265	55	AA, N, PC, SN, R2, DR	125	65	N, PC, RO	40	75	
	Highly Affected		40											N, PC, RO	40	75	
Developed settlements (urban and suburban)	Day		330					N	140	65	N, PC, RO	45	75	N, PC, RO	45	75	280
	Day (OOHW)		500		N, R1, DR	330	55	N, R1, DR	140	65	N, R1, DR, PC, SN	45	75	N, PC, RO	40	75	
	Evening		740		N, R1, DR	500	50	N, R1, DR	215	60	N, R1, DR, PC, SN	85	70	N, PC, RO	45	75	
	Night	N	1085	40	N, R2, DR	740	45	N, PC, SN, R2, DR	330	55	AA, N, PC, SN, R2, DR	140	65	N, PC, RO	45	75	
	Highly Affected		45											N, PC, RO	45	75	
Propagation across a valley / over water	Day		440					N	170	65	N, PC, RO	45	75	N, PC, RO	45	75	370
	Day (OOHW)		685		N, R1, DR	440	55	N, R1, DR	170	65	N, R1, DR, PC, SN	45	75	N, PC, RO	45	75	
	Evening		1035		N, R1, DR	685	50	N, R1, DR	280	60	N, R1, DR, PC, SN	100	70	N, PC, RO	45	75	
	Night	N	1525	40	N, R2, DR	1035	45	N, PC, SN, R2, DR	440	55	AA, N, PC, SN, R2, DR	170	65	N, PC, RO	45	75	
	Highly Affected		45											N, PC, RO	45	75	

Local Road Works – R2 category (without line of sight)

Transport for NSW

Distanced Based Assessment (Construction Scenario)



Please pick from drop-down list in orange cells

Noise area category			R2
RBL or LA90 Background level (dB(A))	Day		45
	Evening		40
	Night		35
LAeq(15minute) Noise Management Level (dB(A))	Day		55
	Day (OOHW)		50
	Evening		45
	Night		40
Scenario			Local road works
Is there line of sight to receiver?			No (behind solid barrier)

Steps for Screening Assessment:

- Schedule noisy works to occur in standard hours where possible or before 11pm and implement Standard Measures.
- Select the representative noise area category. The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
- Select the scenario. If not found in drop-down list, refer to 'Source List' and select a representative scenario with similar plant combination.
- Is there line of sight to receiver? Select the appropriate scenario from the drop down list.

Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier and any gaps would compromise the acoustic integrity of the solid barrier.

- Determine if there are any receivers (both residential and non-residential receivers) within the affected distance for each relevant time period. Consider background noise measurements to check assumption in Step #2 if:
 - (a) there are many affected receivers and the impact duration at any one receiver is more than 3 weeks; or
 - (b) there are a few affected receivers and the impact duration at any one receiver is more than 6 weeks.

Note that consideration need to be given to the construction staging plan when determining impact duration.

- Identify if there are any receivers within the additional mitigation measures distances and identify feasible and reasonable measures at each receiver
- Where night works are involved, identify sleep disturbance affected distance.
- Document the outcomes of these steps.

(Note that suitable noise management levels for other noise-sensitive businesses not identified in the Construction and Maintenance Noise Estimator should be investigated on a project-by-project basis.)

		5 to 10 dB(A)			10 to 20 dB(A)			20 to 30 dB(A)			> 30 dB(A)			LAeq(15minute) 75 dB(A) or greater (Highly affected)			disutrbance	
		Noticeable			Clearly audible			Moderately intrusive			Highly intrusive							
		Measures	Within distance (m)	Mitigation level (dB(A))	Measures	Within distance (m)	Mitigation level (dB(A))	Measures	Within distance (m)	Mitigation level (dB(A))	Measures	Within distance (m)	Mitigation level (dB(A))	Measures	Within distance (m)	Mitigation level (dB(A))	Affected distance (m)	
Undeveloped green fields, rural areas with isolated dwellings	Day	165						N	75	65	N, PC, RO	25	75	N, PC, RO	25	75		
	Day (OOHW)	285			N, R1, DR	185	55	N, R1, DR	75	65	N, R1, DR, PC, SN	25	75	N, PC, RO	25	75		
	Evening	390			N, R1, DR	265	50	N, R1, DR	125	60	N, R1, DR, PC, SN	40	70	N, PC, RO	25	75		
	Night	565	N	565	40	N, R2, DR	390	45	N, PC, SN, R2, DR	185	55	AA, N, PC, SN, R2, DR	75	65	N, PC, RO	25	75	155
	Highly Affected	25												N, PC, RO	25	75		
Developed settlements (urban and suburban)	Day	215						N	85	65	N, PC, RO	25	75	N, PC, RO	25	75		
	Day (OOHW)	330			N, R1, DR	215	55	N, R1, DR	85	65	N, R1, DR, PC, SN	25	75	N, PC, RO	25	75		
	Evening	500			N, R1, DR	330	50	N, R1, DR	140	60	N, R1, DR, PC, SN	45	70	N, PC, RO	25	75		
	Night	740	N	740	40	N, R2, DR	500	45	N, PC, SN, R2, DR	215	55	AA, N, PC, SN, R2, DR	85	65	N, PC, RO	25	75	180
	Highly Affected	25												N, PC, RO	25	75		
Propagation across a valley / over water	Day	280						N	100	65	N, PC, RO	25	75	N, PC, RO	25	75		
	Day (OOHW)	440			N, R1, DR	280	55	N, R1, DR	100	65	N, R1, DR, PC, SN	25	75	N, PC, RO	25	75		
	Evening	685			N, R1, DR	440	50	N, R1, DR	170	60	N, R1, DR, PC, SN	55	70	N, PC, RO	25	75		
	Night	1035	N	1035	40	N, R2, DR	685	45	N, PC, SN, R2, DR	280	55	AA, N, PC, SN, R2, DR	100	65	N, PC, RO	25	75	230
	Highly Affected	25												N, PC, RO	25	75		

Overview of additional mitigation measures

After standard noise mitigation measures have been applied noise levels may still exceed noise management levels. The Construction and Maintenance Noise Estimator will indicate which additional measures apply. Note that assistance from Roads and Maritime Communication and Stakeholder Engagement is available to coordinate and deliver community consultation and notification. The team also has the latest noise fact sheets and letter templates.

The range of additional measures are described below. Note in instances where there are many receivers above the NML it may not be practical to discuss the project with every receiver recommended below. Instead the community should be proactively engaged so they have an incentive to participate in discussion. Support from the community may be demonstrated from surveys, online feedback, contact phone numbers and community events.

Longer term impacts

During long term works or at fixed sites the additional mitigation measures above may become less effective. In these situations at-receiver noise mitigation may be considered where feasible and reasonable if options for at source noise mitigation and management measures have been exhausted.

At receiver mitigation may include temporary window and door screens, temporary localised shielding or permanent forms of mitigation. Feasible and reasonable considerations for providing at-receiver treatments should include:

Abbreviation	Measure	Description
N	Notification (letterbox drop or equivalent)	Advance warning of works and potential disruptions can assist in reducing the impact on the community. The notification may consist of using variable message sign, letterbox drop (or equivalent), web site / social media or a combination to distribute information detailing work activities, time periods over which these will occur, impacts and mitigation measures. Notification should be a minimum of 5 working days prior to the start of works. The approval conditions for projects may also specify requirements for notification to the community about works that may impact on them.
SN	Specific notifications	Specific notifications are letterbox dropped (or equivalent) to identified stakeholders no later than 5 working days ahead of construction activities that are likely to exceed the noise objectives. The specific notification provides additional information when relevant and informative to more highly affected receivers than covered in general letterbox drops. This form of communication is used to support periodic notifications, or to advertise unscheduled works.
PC	Phone calls	Phone calls detailing relevant information made to identified/affected stakeholders, who have provided their contact details, within seven calendar days of proposed work. Phone calls provide affected stakeholders with personalised contact and tailored advice, with the opportunity to provide comments on the proposed work and specific needs. Where the resident cannot be telephoned then an alternative form of engagement should be used.
IB	Individual briefings	Individual briefings are used to inform stakeholders about the impacts of high noise activities and mitigation measures that will be implemented. Project representatives would visit identified stakeholders at least 48 hours ahead of potentially disturbing construction activities. Individual briefings provide affected stakeholders with personalised contact and tailored advice, with the opportunity to comment on the project. Where the resident cannot be met with individually then an alternative form of engagement should be used.
RO	Respite offer	Respite Offers should be considered where there are high noise and vibration generating activities near receivers. As a guide work should be carried out in continuous blocks that do not exceed 3 hours each, with a minimum respite period of one hour between each block. The actual duration of each block of work and respite should be flexible to accommodate the usage of and amenity at nearby receivers. The purpose of such an offer is to provide residents with respite from an ongoing impact. This measure is evaluated on a project-by-project basis, and may not be applicable to all projects, or or when duration respite has been agreed (see below)
R1	Respite Period 1	Out of hours construction noise in out of hours period 1 shall be limited to no more than three consecutive evenings per week except where there is a Duration Respite. For night work these periods of work should be separated by not less than one week and no more than 6 evenings per month
R2	Respite Period 2	Night time construction noise in out of hours period 2 shall be limited to two consecutive nights except for where there is a Duration Respite. For night work these periods of work should be separated by not less than one week and 6 nights per month. Where possible, high noise generating works shall be completed before 11pm.
DR	Duration respite	Respite offers and respite periods 1 and 2 may be counterproductive in reducing the impact on the community for longer duration projects. In this instance and where it can be strongly justified it may be beneficial to increase the work duration, number of evenings or nights worked through Duration Respite so that the project can be completed more quickly. Transport staff should engage with the community where noise levels are expected to exceed the NML to demonstrate support for Duration Respite.
AA	Alternative accommodation	Alternative accommodation options may be offered (as a last resort) to residents living in close proximity to construction works that are likely to experience highly intrusive noise levels. The specifics of the offer will be identified on a project-by-project basis, however an AA offer is unlikely to be made for maintenance works. Additional aspects for consideration shall include whether the highly intrusive activities occur throughout the night or before midnight.
V	Verification	Verification may be required for building or asset condition where works are likely to cause vibration impact or for noise levels following reasonable complaints. See Appendix F of the Construction Noise and Vibration Guideline for more details.

Predicted airborne $L_{Aeq}(15min)$ noise level at receiver			Additional mitigation measures	
Perception	dB(A) above RBL	dB(A) above NML	Type ¹	Mitigations levels ²
All hours				
75dBA or greater			N, V, PC, RO	HA
Standard hours: Mon- Fri (7am–6pm), Sat (8am–1pm), Sun/Public Holiday (Nil)				
Noticeable	5 to 10	0	–	NML
Clearly audible	10 to 20	< 10	–	NML
Moderately intrusive	20 to 30	10 to 20	N, V	NML+10
Highly intrusive	> 30	> 20	N, V	NML+20
OOHW Period 1 Mon–Fri (6pm–10pm), Sat (7am–8am & 1pm–10pm), Sun/Pub Holidays (8am–6pm)				
Noticeable	5 to 10	< 5	–	NML
Clearly audible	10 to 20	5 to 15	N, R1, DR	NML+5
Moderately intrusive	20 to 30	15 to 25	V, N, R1, DR	NML+15
Highly intrusive	> 30	> 25	V, IB, N, R1, DR, PC, SN	NML+25
OOHW Period 2: Mon–Fri (10pm–7am), Sat (10pm–8am), Sun/Public Holiday (6pm–7am)				
Noticeable	5 to 10	< 5	N	NML
Clearly Audible	10 to 20	5 to 15	V, N, R2, DR	NML+5
Moderately intrusive	20 to 30	15 to 25	V, IB, N, PC, SN, R2, DR	NML+15
Highly intrusive	> 30	> 25	AA, V, IB, N, PC, SN, R2, DR	NML+25
Notes ¹ (refer to detailed descriptions in Table C1 above): 1. AA = Alternative accommodation V = Validation of predicted noise levels IB = Individual briefings N = Notification box drops PC = Phone calls SN = Specific notifications R1 = Respite period 1 R2 = Respite period 2 DR = Duration respite 2. All affected receivers				

Ground vibration - minimum working distances from sensitive receivers

As a guide, minimum working distances from sensitive receivers for typical items of vibration intensive plant are listed in the table below. The minimum distances are quoted for both cosmetic damage (refer to BS 7385-2:1993 for light-framed residential type structures and DIN 4150-3:2016 for fragile or heritage type structures) and human comfort (refer to EPA's Assessing Vibration - a technical guideline). The minimum working distances for cosmetic damage must be complied with at all times, unless otherwise approved by Roads and Maritime or under the environmental license as relevant.

Recommended minimum working distances for vibration intensive plant from sensitive receiver

Plant item	Rating / Description	Minimum working distance		
		Cosmetic damage		Human Response
		Light-framed structure (BS 7385)	Heritage and other sensitive structures (DIN 4150)	EPA's Vibration Guideline
Vibratory Roller	< 50 kN (Typically 1-2 tonnes)	5 m	14 m	15 m to 20 m
	< 100 kN (Typically 2-4 tonnes)	6 m	16 m	20 m
	< 200 kN (Typically 4-6 tonnes)	12 m	33 m	40 m
	< 300 kN (Typically 7-13 tonnes)	15 m	41 m	100 m
	> 300 kN (Typically 13-18 tonnes)	20 m	54 m	100 m
	> 300 kN (> 18 tonnes)	25 m	66 m	100 m
Small Hydraulic Hammer	(300 kg - 5 to 12t excavator)	2 m	5 m	7 m
Medium Hydraulic Hammer	(900 kg - 12 to 18t excavator)	7 m	19 m	23 m
Large Hydraulic Hammer	(1600 kg - 18 to 34t excavator)	22 m	60 m	73 m
Vibratory Pile Driver	Sheet piles	20 m	50 m	100 m
Pile Boring	≤ 800 mm	2 m (nominal)	5 m	7 m
Jackhammer	Hand held	1 m (nominal)	2 m	3 m
Profiler	Wirtgen W210	4 m	-	-
Asphalt Paver	Vogele Super 1800-3	1 m	-	-
Steel Drum Roller	Hamm HD70 (Oscillating Mode)	2 m	-	-
Steel Drum Roller	Hamm HD70 (Static Mode)	1 m	-	-

The minimum working distances are indicative and will vary depending on the particular item of plant, local geotechnical conditions and the dominant frequency of the construction vibration levels. They apply to cosmetic damage of typical light-framed residential buildings and heritage/fragile buildings and assume that construction vibration could include low frequency content associated with the increased risk of cosmetic damage. Vibration monitoring is recommended to confirm the minimum working distances at specific sites. Additionally, detailed analysis based on the frequency dependent guideline vibration levels in BS 7385-2:1993 and DIN 4150-3:2016 may be utilised in conjunction with site specific measurements to derive alternative cosmetic damage objectives and minimum working distances. For heritage listed / fragile structures, specialist advice from an appropriately qualified structural engineer who is familiar with heritage structures is required to support any proposed relaxation of the initial cosmetic damage screening criterion. Any such relaxation shall be approved by Roads and Maritime or under the environmental license as relevant.

Operational aspects of some receivers may be highly sensitive to noise and vibration over and above typical noise and vibration allowances based on annoyance and human comfort. For highly sensitive receivers (eg, high technology facilities with sensitive equipment, recording studios and cinemas), specific assessment is required to ensure satisfactory operation of the facility and determine if any mitigation or management measures are required to minimise the potential impacts. Some guidance where building contents contain sensitive equipment may be found in these additional references:

* Australian Standard 2834-1995 Computer Accommodation, Chapter 2.9 Vibration, p16

* Gordon CG Generic Vibration Criteria for Vibration Sensitive Equipment Proceedings of International Society for Optical Engineering (SPIE), Vol. 1619, San Jose, CA, November 4-6, 1991, pp. 71-85

* ASHRAE Applications Handbook (SI) 2003, Chapter 47 Sound and Vibration Control, pp47.39-47.40

* ISO 8569 1996 Measurement & Evaluation of Shock & Vibration Effects on Sensitive Equipment in buildings

In relation to human comfort (response), the minimum working distances in the above table relate to continuous vibration. For most construction activities, vibration emissions are intermittent in nature and for this reason, higher vibration levels, occurring over shorter periods are allowed (see EPA's Assessing Vibration: a technical guideline). Where the predicted vibration levels for construction activities exceed the human comfort objectives, the procedures in Appendix C of the Construction Noise and Vibration Guideline are to be followed in order to mitigate the potential impacts at sensitive receivers.

Appendix D: Aboriginal cultural heritage

Dimitri Perdikaris
Project Manager

Date 05/12/2024

Dear Dimitri

Preliminary assessment results for the Golden Hwy Renewable Energy Zone pull- over Bays. Based on Stage 1 of the Procedure for Aboriginal cultural heritage consultation and investigation (PACHCI), carried out at Jerrys Plains W-001. Desktop Evaluation on this day 2/12/2024.

This Minor Works Review of Environmental Factors (MWREF) assesses the proposed pull-over bays to allow OSOM vehicles and traffic to pass. The proposed pull-over bays are in Singleton, Muswellbrook, Upper Hunter and Warrumbungle LGAs.

The assessment is based on the following due diligence considerations:

- The project is unlikely to harm known Aboriginal objects or places. Ref; Basic AHIMS Search 29th February 2024, 0 Sites registered in this area.
- Email received from Mark Woods mapped the start and finish of the location on 6th November 2024. Site visit with Environmental section west region, was carried out on 4th December November 2024.
- The study area shown there is no Aboriginal objects, based on the Office of Environment and Heritage's *Due diligence Code of Practice for the Protection of Aboriginal objects in NSW* and the Transport for NSW procedure.

Safe Guards: The described activities must be restricted to the project information provided in the REF, if there are any changes to the installation, maintenance of the asset's methodology, or the scope of your project changes, you must contact me and your regional environmental staff to reassess any potential impacts on Aboriginal cultural heritage.

Please be vigilant for potential Aboriginal objects when construction/ works commences, if any potential Aboriginal objects (including skeletal remains) are discovered during the project, all works in the vicinity of the find must cease. Follow the steps outlined in the Transport for NSW' **Unexpected Heritage Item Procedure.**

Your project may proceed in accordance with the environmental impact assessment process, as relevant, and all other relevant approvals.

If the scope of your project changes, you must contact Aboriginal Engagement lead and your regional environmental staff to reassess any potential impacts on Aboriginal cultural heritage.

For further assistance in this matter do not hesitate to contact me.
Yours sincerely



Aboriginal Community & Heritage Partner – Western Region
M: [REDACTED] E: [REDACTED]



- Legend**
- Proposal area
 - Cadastral boundaries
 - Drainage**
 - Existing culvert
 - Pullover Bay Design**
 - Hardstand

Pull-over bay: W-001

1:2,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: September 17, 2024
Imagery: Nearmap



Dimitri Perdikaris
Project Manager

Date 05/12/2024

Dear Dimitri

Preliminary assessment results for the Golden Hwy Renewable Energy Zone pull- over Bays. Based on Stage 1 of the Procedure for Aboriginal cultural heritage consultation and investigation (PACHCI), carried out at Sandy Hollows W-002. Desktop and site visit Evaluation on this day 04/12/2024.

This Minor Works Review of Environmental Factors (MWREF) assesses the proposed pull-over bays to allow OSOM vehicles and traffic to pass. The proposed pull-over bays are in Singleton, Muswellbrook, Upper Hunter and Warrumbungle LGAs.

The assessment is based on the following due diligence considerations:

- The project is unlikely to harm known Aboriginal objects or places. Ref; Basic AHIMS Search 29th February 2024. 0 Sites registered in this area.
- Email received from Mark Woods mapped the start and finish of the location on 6th November 2024 and site visit with Environmental section west region, was carried out on 4th December November 2024.
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Safe Guards: The described activities must be restricted to the project information provided in the REF, if there are any changes to the installation, maintenance of the asset's methodology, or the scope of your project changes, you must contact me and your regional environmental staff to reassess any potential impacts on Aboriginal cultural heritage.

Please be vigilant for potential Aboriginal objects when construction/ works commences, if any potential Aboriginal objects (including skeletal remains) are discovered during the project, all works in the vicinity of the find must cease. Follow the steps outlined in the Transport for NSW' **Unexpected Heritage Item Procedure.**

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If the scope of your project changes, you must contact Aboriginal Engagement lead and your regional environmental staff to reassess any potential impacts on Aboriginal cultural heritage.

For further assistance in this matter do not hesitate to contact me.

Yours sincerely



Aboriginal Community & Heritage Partner – Western Region

M: [REDACTED] E: [REDACTED]



- Legend**
- Proposal area
 - Cadastral boundaries
 - Watercourse
- Drainage**
- Existing culvert
 - Extended culvert
- Pullover Bay Design**
- Hardstand

Pull-over bay: W-002

1:2,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: September 17, 2024
Imagery: DCS



Dimitri Perdikaris
Project Manager

Date 05/12/2024

Dear Dimitri

Preliminary assessment results for the Golden Hwy Renewable Energy Zone pull- over Bays. Based on Stage 1 of the Procedure for Aboriginal cultural heritage consultation and investigation (PACHCI), carried out at Glenroy Road W-004. Desktop and site visit Evaluation on this day 04/12/2024.

This Minor Works Review of Environmental Factors (MWREF) assesses the proposed pull-over bays to allow OSOM vehicles and traffic to pass. The proposed pull-over bays are in Singleton, Muswellbrook, Upper Hunter and Warrumbungle LGAs.

The assessment is based on the following due diligence considerations:

- The project is unlikely to harm known Aboriginal objects or places. Ref; Basic AHIMS Search 29th February 2024. 0 Sites registered in this area.
- Email received from Mark Woods mapped the start and finish of the location on 6th November 2024 and site visit with Environmental section west region, was carried out on 4th December November 2024.
- The study area shown there is no Aboriginal objects, based on the Office of Environment and Heritage's *Due diligence Code of Practice for the Protection of Aboriginal objects in NSW* and the Transport for NSW procedure.

Safe Guards: The described activities must be restricted to the project information provided in the REF, if there are any changes to the installation, maintenance of the asset's methodology, or the scope of your project changes, you must contact me and your regional environmental staff to reassess any potential impacts on Aboriginal cultural heritage.

Please be vigilant for potential Aboriginal objects when construction/ works commences, if any potential Aboriginal objects (including skeletal remains) are discovered during the project, all works in the vicinity of the find must cease. Follow the steps outlined in the Transport for NSW' **Unexpected Heritage Item Procedure.**

Your project may proceed in accordance with the environmental impact assessment process, as relevant, and all other relevant approvals.

If the scope of your project changes, you must contact Aboriginal Engagement lead and your regional environmental staff to reassess any potential impacts on Aboriginal cultural heritage.

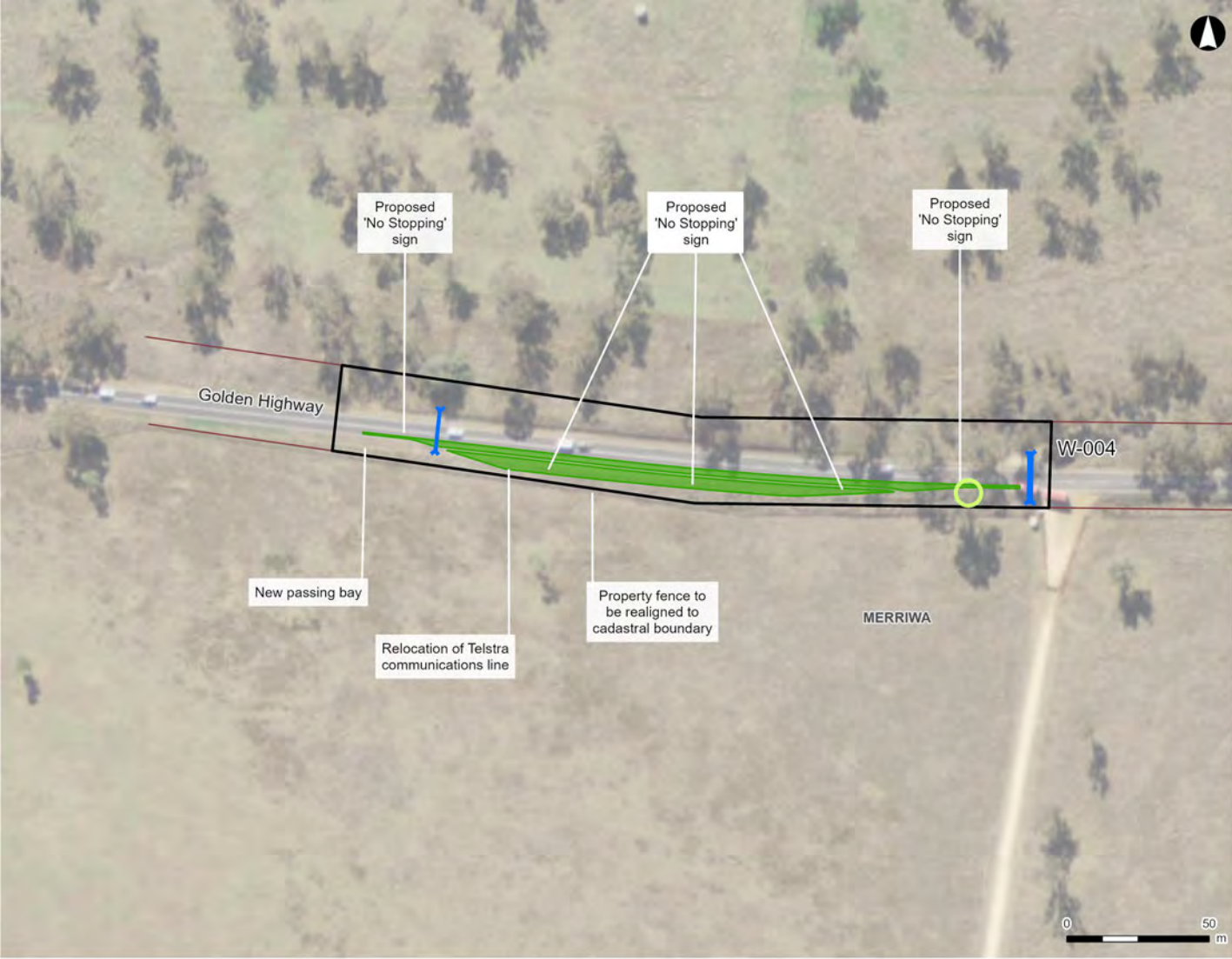
For further assistance in this matter do not hesitate to contact me.

Yours sincerely



Aboriginal Community & Heritage Partner – Western Region

M: [REDACTED] E: [REDACTED]



- Legend
- Proposal area
 - Cadastral boundaries
 - Existing tree to be retained
- Drainage
- Existing culvert
- Pullover Bay Design
- Hardstand

Pull-over bay: W-004

1:2,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: September 17, 2024
Imagery: DCS



Dimitri Perdikaris
Project Manager

Date 05/12/2024

Dear Dimitri

Preliminary assessment results for the Golden Hwy Renewable Energy Zone pull- over Bays. Based on Stage 1 of the Procedure for Aboriginal cultural heritage consultation and investigation (PACHCI), carried out at Pembroke Road W-005. Desktop and site visit Evaluation on this day 04/12/2024.

This Minor Works Review of Environmental Factors (MWREF) assesses the proposed pull-over bays to allow OSOM vehicles and traffic to pass. The proposed pull-over bays are in Singleton, Muswellbrook, Upper Hunter and Warrumbungle LGAs.

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For further assistance in this matter do not hesitate to contact me.

Yours sincerely



Aboriginal Community & Heritage Partner – Western Region

M: [REDACTED] E: [REDACTED]



- Legend**
- Proposal area
 - Cadastral boundaries
 - Open drain
 - Pullover Bay Design**
 - Hardstand

Proposed
'No Stopping'
sign

Proposed
'No Stopping'
sign

Proposed
'No Stopping'
sign

W-005

MERRIWA

New open drain

New passing bay

Pull-over bay: W-005

1:2,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: September 17, 2024
Imagery: DCS



Dimitri Perdikaris
Project Manager

Date 05/12/2024

Dear Dimitri

Preliminary assessment results for the Golden Hwy Renewable Energy Zone pull- over Bays. Based on Stage 1 of the Procedure for Aboriginal cultural heritage consultation and investigation (PACHCI), carried out at Tongy Road W-006. Desktop and site visit Evaluation on this day 04/12/2024.

This Minor Works Review of Environmental Factors (MWREF) assesses the proposed pull-over bays to allow OSOM vehicles and traffic to pass. The proposed pull-over bays are in Singleton, Muswellbrook, Upper Hunter and Warrumbungle LGAs.

The assessment is based on the following due diligence considerations:

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For further assistance in this matter do not hesitate to contact me.

Yours sincerely



Aboriginal Community & Heritage Partner – Western Region

M: [REDACTED] E: [REDACTED]



Legend



 Proposal area

 Cadastral boundaries

➔ Open drain

Road signage

● Removed sign

Pullover Bay Design

 Hardstand

Pull-over bay: W-006

1:2,000 at A4

Coordinate System: GDA2020 MGA Zone 56

Date issued: September 17, 2024

Imagery: Nearmap



Dimitri Perdikaris
Project Manager

Date 05/12/2024

Dear Dimitri

Preliminary assessment results for the Golden Hwy Renewable Energy Zone pull- over Bays. Based on Stage 1 of the Procedure for Aboriginal cultural heritage consultation and investigation (PACHCI), carried out at Leadville W-007. Desktop and site visit Evaluation on this day 04/12/2024.

This Minor Works Review of Environmental Factors (MWREF) assesses the proposed pull-over bays to allow OSOM vehicles and traffic to pass. The proposed pull-over bays are in Singleton, Muswellbrook, Upper Hunter and Warrumbungle LGAs.

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For further assistance in this matter do not hesitate to contact me.
Yours sincerely



Aboriginal Community & Heritage Partner – Western Region

M: [REDACTED] E: [REDACTED]



- Legend
- Proposal area
 - Cadastral boundaries
 - Pullover Bay Design
 - Hardstand

Pull-over bay: W-007

1:2,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: September 17, 2024
Imagery: DCS



Dimitri Perdikaris
Project Manager

Date 05/12/2024

Dear Dimitri

Preliminary assessment results for the Golden Hwy Renewable Energy Zone pull- over Bays. Based on Stage 1 of the Procedure for Aboriginal cultural heritage consultation and investigation (PACHCI), carried out at West of Dunedoo W-008. Desktop and site visit Evaluation on this day 04/12/2024.

This Minor Works Review of Environmental Factors (MWREF) assesses the proposed pull-over bays to allow OSOM vehicles and traffic to pass. The proposed pull-over bays are in Singleton, Muswellbrook, Upper Hunter and Warrumbungle LGAs.

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For further assistance in this matter do not hesitate to contact me.

Yours sincerely



Aboriginal Community & Heritage Partner – Western Region

M: [REDACTED] E: [REDACTED]

Legend

- Proposal area
- Cadastral boundaries
- Open drain
- Pullover Bay Design**
- Hardstand



Pull-over bay: W-008

1:2,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: September 17, 2024
Imagery: DCS



Dimitri Perdikaris
Project Manager

Date 05/12/2024

Dear Dimitri

Preliminary assessment results for the Golden Hwy Renewable Energy Zone pull-over Bays. Based on Stage 1 of the Procedure for Aboriginal cultural heritage consultation and investigation (PACHCI), carried out at Wybong Road W-009. Desktop and site visit Evaluation on this day 04/12/2024.

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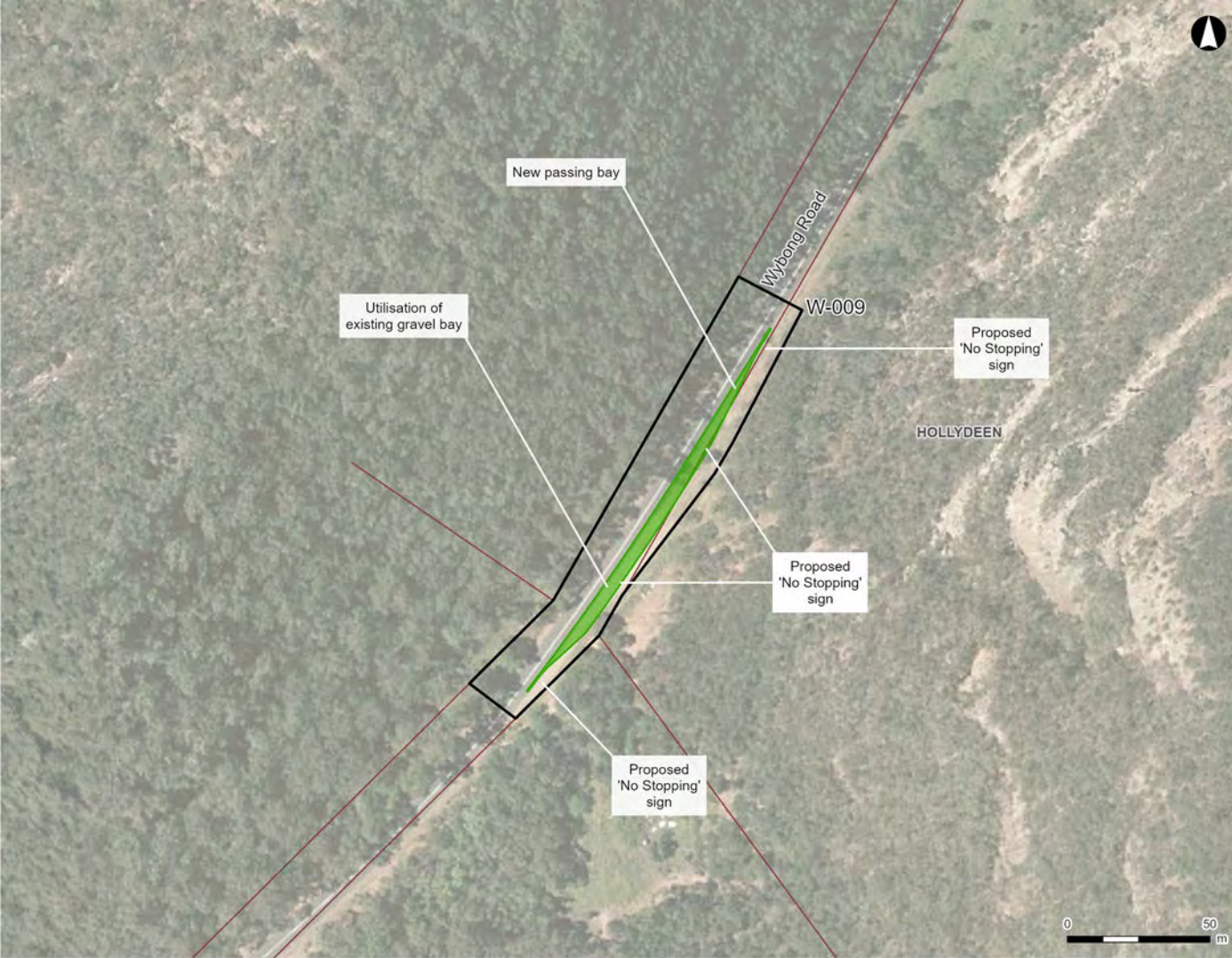
For further assistance in this matter do not hesitate to contact me.

Yours sincerely



Aboriginal Community & Heritage Partner – Western Region

M: [REDACTED] E: [REDACTED]



- Legend
- Proposal area
 - Cadastral boundaries
 - Pullover Bay Design**
 - Hardstand

Pull-over bay: W-009

1:2,000 at A4
Coordinate System: GDA2020 MGA Zone 56
Date issued: September 17, 2024
Imagery: DCS



Appendix E: Non-Aboriginal cultural heritage searches

Search Results

47 results found.

Baerami Homestead 300 Baerami Creek Rd	Baerami via Sandy Hollow, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Balmoral 310 Denman Rd	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Barber Shop (former) 7 Sydney St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Birrallee 33 Brentwood St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Brighton Villa 12 Hunters Tce	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Denman Courthouse (former) Palace St	Denman, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Eatons Hotel 180-188 Bridge St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Eatons Hotel Group 164-188 Bridge St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Edinglassie 710 Denman Rd	Muswellbrook, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Goulburn River National Park Kerrabee Rd	Sandy Hollow, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Greater Blue Mountains Area Great Western Hwy	Katoomba, NSW, Australia	(Declared property) World Heritage List

Hennor and Garden 3 Lorne St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
House 178 Bridge St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
House - St Vincent De Paul Shop 174-176 Bridge St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
House and Former Shop 164-166 Bridge St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Hunter River Road Bridge Kayuga Rd	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Indigenous Place	Sandy Hollow, NSW, Australia	(Removed from Register or IL) Register of the National Estate (Non-statutory archive)
Loxton House 142-144 Bridge St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Manobalai Nature Reserve (1978 boundary) Dry Creek Rd	Wybong, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Masonic Hall 75 Bridge St	Muswellbrook, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Merton Cottage 4883 Jerrys Plains Rd	Denman, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Muswellbrook Post Office 7 Bridge St	Muswellbrook, NSW, Australia	(Listed place) Commonwealth Heritage List
Overdene 79 Bengalla Rd	Bengalla via Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)

Pickering and Outbuildings 221 Mangoola Rd	Denman, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Police Station William St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Presbyterian Church (original building) Hill St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Presbyterian Manse (former) 106 Hill St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Railway Cottage and Adjacent Fig Tree 27 Brook St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Railway Hotel 10-14 Market St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Railway Station Market St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Royal Hotel (former) 1 Sydney St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Shop (former) 172 Bridge St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Skellatar Tindale St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
St Albans Anglican Church & Grounds Brook St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
St Albans Precinct Brook St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)

St Albans Rectory Brook St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
St Albans Sunday School 15 HuntersTce	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
St James Catholic Church 4 Brook St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
St Johns Presbyterian Church Hill St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
St Johns Presbyterian Church Precinct Hill St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
St Matthias Anglican Church 23-25 Palace St	Denman, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
The Blue Mountains	Katoomba, NSW, Australia	(Indicative place) Register of the National Estate (Non-statutory archive)
The Greater Blue Mountains Area Greater Western Hwy	Katoomba, NSW, Australia	(Listed place) National Heritage List
The Greater Blue Mountains Area - Additional Values and Areas Great Western Hwy	Katoomba, NSW, Australia	(Nominated place) National Heritage List
Trinity Uniting Church 110 Bridge St	Muswellbrook, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Weidmann Cottage (former) 132-134 Bridge St	Muswellbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Wollemi National Park (1980 boundary) The Putty Rd	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)

Report Produced: Tue Nov 19 10:19:28 2024

Search Results

66 results found.

Abbey Green Homestead Group Putty Rd	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
All Saints Anglican Church Group High St	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Arderseir and Garden Maitland Rd	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Baroona Homestead, Outbuildings & Garden Range Rd	Whittingham via Singleton, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Beckers Bridge Glendon Brook Gresford Rd	Glendon Brook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Boer War Memorial Obelisk Elizabeth St	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Bon Accord 7-9 George St	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Caledonian Hotel 38-40 George St	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Chain of Ponds Hotel and Outbuildings Old Singleton Rd	Liddell, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Club House Hotel 142 John St	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Club House Hotel Group John St	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)

Convent of Mercy (Current Buildings) Queen St	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Convent of Mercy (Original Building) Queen St	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Convent of Mercy Group Queen St	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Council Chambers (former) 74 George St	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Crail House Howe St	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Criterion Hotel 148 John St	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Dalwood and Surrounds Dalwood Rd	Branxton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Elderslie Road Bridge Branxton Rd	Elderslie, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Fwbank and Outbuildings 88 George St	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Foybrook Cross Beds New England Hwy	Ravensworth, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Glenayr Including Fence 1A Kent St	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Glendon Area Glendon Rd	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)

Glendon Homestead and Sites of Outbuilding	Glendon Rd	Glendon via Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Gondwana Rainforests of Australia		Lismore, NSW, Australia	(Listed place) National Heritage List
Gondwana Rainforests of Australia		NSW, Australia, QLD, Australia	(Declared property) World Heritage List
Greater Blue Mountains Area	Great Western Hwy	Katoomba, NSW, Australia	(Declared property) World Heritage List
Greenwood and Outbuildings	Greenwood St	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Hambledon Hill Homestead	Hambledon Hill Rd	Singleton, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Indigenous Place		Bulga, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Indigenous Place		Jerrys Plains, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Indigenous Place		Putty, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Jerrys Plains Church, School and Police Station Group		Jerrys Plains, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Lambs Valley	Lambs Valley Rd	Stanhope, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
MacDonald Valley / Wollombi Valley Area		St Albans, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Middle Falbrook Road Bridge	Rixs Creek Falbrook Rd	Middle Falbrook via Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)

Milbrodale Estate Original Homestead	Putty Rd	Milbrodale via Bulga, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Minimbah House	Whittingham Broke Rd	Whittingham Via Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Moreton Bay Fig Tree	Queen St	Singleton, NSW, Australia	(Removed from Register or IL) Register of the National Estate (Non-statutory archive)
Mount Leonard Estate Homestead	Broke Whittingham Rd	Broke, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Murinbin House Group	Broke Rd	Broke, NSW, Australia	(Interim List) Register of the National Estate (Non-statutory archive)
Murinbin House Group	Broke Rd	Broke, NSW, Australia	(Listed place) Commonwealth Heritage List
Neotsfield Homestead Gardens	Racecourse La (off)	Whittingham via Singleton, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Pelerin	11 Edinburgh Ave	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Percy Hotel	65-67 George St	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Police Station	Doyle St	Jerrys Plains, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Public School	Doyle St	Jerrys Plains, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Railway Station	Munro St	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)

Ravensworth / Liddell Geological Site	Ravensworth Liddell Rd	Liddell, NSW, Australia	(Removed from Register or II) Register of the National Estate (Non-statutory archive)
Ravensworth Homestead	Hebden Rd	Ravensworth, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Redbourneberry Bridge	Singleton Gresford Rd	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
School Residence	Doyle St	Jerrys Plains, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Shire Council Technical Offices	George St	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Singleton Conservation Area		Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Singleton Courthouse	39 Elizabeth St	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Singleton Post Office and Stables (former)	25A-27 George St	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Singleton Showground Group	Bathurst St	Singleton, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
St Andrews Anglican Church	Wollombi St	Broke, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
St James Anglican Church	Pagan St	Jerrys Plains, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
St Patricks Catholic Church	Queen St	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)

Strowan Denman Rd	Jerrys Plains, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
The Blue Mountains	Katoomba, NSW, Australia	(Indicative place) Register of the National Estate (Non-statutory archive)
The Greater Blue Mountains Area Greater Western Hwy	Katoomba, NSW, Australia	(Listed place) National Heritage List
The Greater Blue Mountains Area – Additional Values and Areas Great Western Hwy	Katoomba, NSW, Australia	(Nominated place) National Heritage List
Wade Cottage 25-27 Bishopsgate St	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Wollemi National Park (1980 boundary) The Putty Rd	Singleton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)

Report Produced: Tue Nov 19 10:20:17 2024

Search Results

42 results found.

Barrington Tops Wilderness Area Salisbury Rd	Dungog, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Belltrees House Gundy Moonan Flat Rd	Belltrees via Scone, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Ben Halls Gap State Forest Morrisons Gap Rd	Ben Halls Gap via Nundle, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Bow Palaeontological Site Merriwa Cassilis Rd	Merriwa, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Burning Mountain Nature Reserve New England Hwy	Wingen, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Cassilis Public School Coolah Rd	Cassilis, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Cedar Brush Nature Reserve Sparkes Creek Rd	Scone, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Fitzgerald Bridge New England Hwy	Aberdeen, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Gaol & Police Residence Murulla St	Murrurundi, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Glenalvon Group New England Hwy	Murrurundi, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Glenalvon Homestead New England Hwy	Murrurundi, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)

Glenalvon Old Cottage New England Hwy	Murrurundi, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Glenalvon Stables New England Highway	Murrurundi, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Gondwana Rainforests of Australia	Lismore, NSW, Australia	(Listed place) National Heritage List
Gondwana Rainforests of Australia	NSW, Australia, QLD, Australia	(Declared property) World Heritage List
Goulburn River National Park Kerrabee Rd	Sandy Hollow, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Indigenous Place	Merriwa, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Indigenous Place	Sandy Hollow, NSW, Australia	(Removed from Register or IL) Register of the National Estate (Non-statutory archive)
Invermein Moonbi Rd	Scone, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Kelvinside, Outbuildings and Surrounds Rouchel Rd	Aberdeen, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
M Campbell and Company Stores (former) & Outbuilding New England Hwy	Aberdeen, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Merriwa Showground Dutton St	Merriwa, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Merriwa Urban Conservation Area	Merriwa, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Mount Wingen (Burning Mountain) Area New England Hwy	Wingen, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)

Murrurundi Civic Group Mount St	Murrurundi, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Murrurundi Courthouse & Police Station 3 Murulla St	Murrurundi, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Murrurundi Urban Conservation Area	Murrurundi, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Old Cassilis Woolshed Golden Hwy	Cassilis, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Police Station Group Branksome St	Cassilis, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Pump House, Boiler House and Well Rouchel Rd	Aberdeen, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Railway Station Susan St	Scone, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Royal Hotel Buccleugh St	Cassilis, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Scone Courthouse (former) & Theatre 41 Kingdon St	Scone, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Scone Grammar School Kingdon St	Scone, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Scone Post Office 117 Liverpool St	Scone, NSW, Australia	(Listed place) Commonwealth Heritage List
Segenhoe Homestead and Outbuildings Segenhoe Rd	Scone, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)

St Aubins Arms 245 Kelly St	Scone, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
St Aubins House St Aubins Rd	Scone, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
St Pauls Anglican Church 3 Mount St	Murrurundi, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
St Pauls Rectory 3 Mount St	Murrurundi, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Village of Cassilis	Cassilis, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Wingen Maid Nature Reserve	Wingen, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)

Report Produced: Tue Nov 19 10:20:52 2024

Search Results

15 results found.

Binnaway Nature Reserve	Binnaway, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Chalk Mountain Area	Bugaldie, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Coolah Courthouse and Police Station 74 Binnia St	Coolah, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Coonabarabran Courthouse Dalgarno St	Coonabarabran, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Dapper Nature Reserve (1984 boundary)	Goolma, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Dunedoo Railway Station and Yard Group Bolaro St	Dunedoo, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Goolhi Graves Goolhi Rd	Old Goolhi Station, Mullaley, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Goonoo State Forest	Dubbo, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Indigenous Place	Coonabarabran, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Narangarie Quarry Geological Site Narangarie Rd	Coolah, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Pilliga Nature Reserve (1980 boundary) Newell Hwy	Coonabarabran, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)

[Warrumbungle National Park](#) John Renshaws Pkwy

[Warrumbungle National Park \(1980 boundary\)](#) John Renshaws Pkwy

[Warrumbungles](#) Oxley Hwy

[Weetalibah Nature Reserve](#)

Coonabarabran, NSW, Australia ([Listed place](#))

National Heritage List

Coonabarabran, NSW, Australia ([Registered](#))

Register of the National Estate
(Non-statutory archive)

Coonabarabran, NSW, Australia ([Rejected Place](#))

Register of the National Estate
(Non-statutory archive)

Weetaliba, NSW, Australia ([Registered](#))

Register of the National Estate
(Non-statutory archive)

Report Produced: Tue Nov 19 10:21:23 2024





Search National Native Title Register

The National Native Title Register (NNTR) is a register established under s. 192 of the *Native Title Act 1993* (Cth).

The NNTR contains determinations of native title made by:

- the High Court of Australia
- the Federal Court of Australia
- or a recognised body such as South Australia's Supreme Court and Environment Resources and Development Court.

Further [information](#) about the NNTR is available.

Tribunal file no.	
Federal Court file no.	
Short name	
Case name	
State or Territory	ALL v
Registered Native Title Body	
Corporate*	
Representative A/TSI body	Muswellbrook Shire Council
area	ALL v
Local government area	ALL v
Determination type	ALL v
Legal process	calendar and calendar
Determination outcome	Determination date v Search
Determination date between	
Sort by	

*Please note: current contact details for the Registered Native Title Body Corporate are available from the Office of the Registrar of Indigenous Corporations

www.oric.gov.au

No results for current search criteria

[Accessibility](#) | [Copyright and disclaimer](#) | [Privacy](#) | [Online Security](#)





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Tribunal file no.	
Federal Court file no.	
Short name	
Case name	
State or Territory	ALL v
Registered Native Title Body Corporate*	
Representative A/TSI body area	Singleton Council v
Local government area	ALL v
Determination type	ALL v
Legal process	and
Determination outcome	Determination date v
Determination date between	and
Sort by	

www.oric.gov.au

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- or a recognised body such as South Australia's Supreme Court and Environment Resources and Development Court.

Further [information about the NNTR](#) is available.

Tribunal file no.	
Federal Court file no.	
Short name	
Case name	
State or Territory	ALL v
Registered Native Title Body	
Corporate*	
Representative A/TSI body	Upper Hunter Shire Council
area	ALL v
Local government area	ALL v
Determination type	ALL v
Legal process	calendar and calendar
Determination outcome	Determination date v Search
Determination date between	
Sort by	

*Please note: current contact details for the Registered Native Title Body Corporate are available from the Office of the Registrar of Indigenous Corporations

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- the High Court of Australia
- the Federal Court of Australia
- or a recognised body such as South Australia's Supreme Court and Environment Resources and Development Court.

Further [information about the NNTR](#) is available.

Tribunal file no.	
Federal Court file no.	
Short name	
Case name	
State or Territory	ALL v
Registered Native Title Body	
Corporate*	
Representative A/TSI body	Warrumbungle Shire Council
area	ALL v
Local government area	ALL v
Determination type	ALL v
Legal process	and
Determination outcome	Determination date v
Determination date between	and
Sort by	

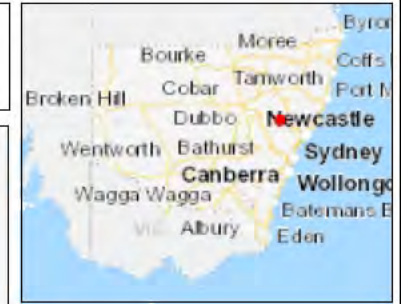
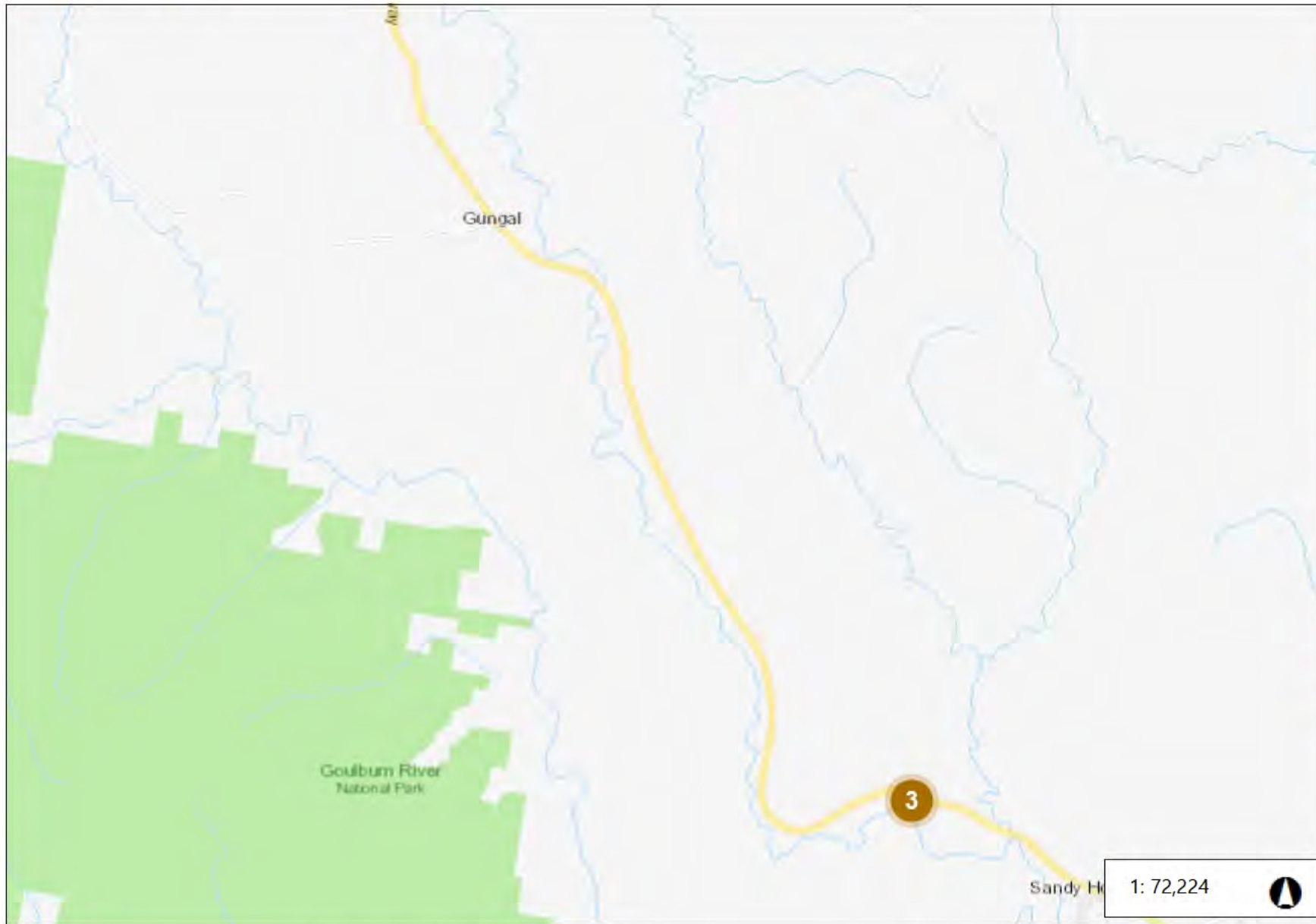
www.oric.gov.au

*Please note: current contact details for the Registered Native Title Body Corporate are available from the Office of the Registrar of Indigenous Corporations

No results for current search criteria

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Legend

-  Local Environmental Plan
 -  Cluster (label denotes number)
-  State Heritage Register
 -  Cluster (label denotes number)
- SEPP Centroid**
 -  1
 -  2 - 0
 -  1
 -  2
 -  3+
- World Heritage Areas NSW Centroids**
 -  1
 -  2 - 0
 -  1
 -  2
 -  3+
-  Aboriginal Place
 -  Cluster (label denotes number)
-  Interim Heritage Order
 -  Cluster (label denotes number)

3,669.0 0 1,834.49 3,669.0 Meters

Notes

Notes



1: 72,224



3,669.0 0 1,834.49 3,669.0 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere
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This map is a user generated static output from the Heritage Management System and is for reference only. Information that appears on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION



Legend

-  Local Environmental Plan
 -  Cluster (label denotes number)
-  State Heritage Register
 -  Cluster (label denotes number)
- SEPP Centroid
 -  1
 -  2 - 0
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- World Heritage Areas NSW Centroids
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 -  2 - 0
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 -  3+
-  Aboriginal Place
 -  Cluster (label denotes number)
-  Interim Heritage Order
 -  Cluster (label denotes number)

Notes

Notes



1: 72,224

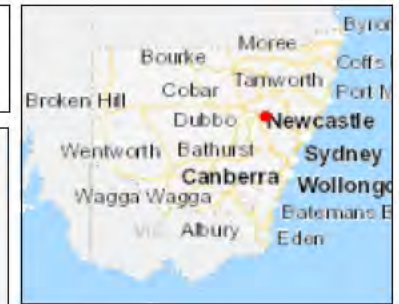


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WGS_1984_Web_Mercator_Auxiliary_Sphere
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Legend

-  Local Environmental Plan
-  Cluster (label denotes number)

SEPP Centroid

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World Heritage Areas NSW Centroids

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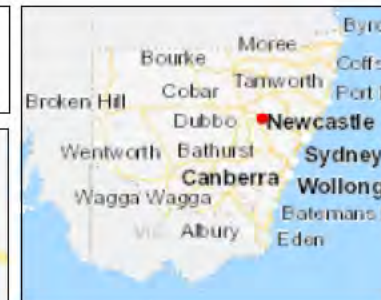
-  Aboriginal Place
-  Cluster (label denotes number)

-  State Heritage Register
-  Cluster (label denotes number)

-  Interim Heritage Order
-  Cluster (label denotes number)

Notes

Notes



Legend

-  Local Environmental Plan
 -  Cluster (label denotes number)
-  State Heritage Register
 -  Cluster (label denotes number)
- SEPP Centroid**
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- World Heritage Areas NSW Centroids**
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-  Aboriginal Place
 -  Cluster (label denotes number)
-  Interim Heritage Order
 -  Cluster (label denotes number)

1: 72,224



3,669.0 0 1,834.49 3,669.0 Meters

Notes

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1: 72,224

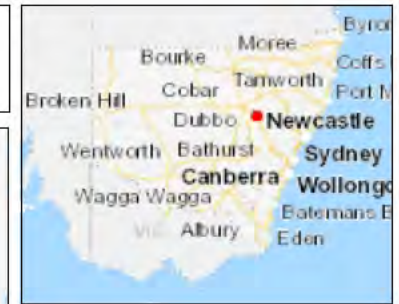


3,669.0 0 1,834.49 3,669.0 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere
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Legend

- Local Environmental Plan
 - Cluster (label denotes number)
- State Heritage Register
 - Cluster (label denotes number)
- SEPP Centroid**
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 - 2 - 0
 - 1
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 - 3+
- World Heritage Areas NSW Centroids**
 - 1
 - 2 - 0
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 - 2
 - 3+
- Aboriginal Place
 - Cluster (label denotes number)
- Interim Heritage Order
 - Cluster (label denotes number)

Notes

Notes



Legend

- Local Environmental Plan
- Cluster (label denotes number)

SEPP Centroid

- 1
- 2 - 0
- 1
- 2
- 3+

World Heritage Areas NSW Centroids

- 1
- 2 - 0
- 1
- 2
- 3+

- Aboriginal Place
- Cluster (label denotes number)

- State Heritage Register
- Cluster (label denotes number)

- Interim Heritage Order
- Cluster (label denotes number)

1: 36,112



1,834.5 0 917.24 1,834.5 Meters

Notes

Notes

Appendix F: Biodiversity searches



Australian Government

Department of Climate Change, Energy,
the Environment and Water

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: 18-Apr-2024

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

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:	1
National Heritage Places:	1
Wetlands of International Importance (Ramsar	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	4
Listed Threatened Species:	41
Listed Migratory Species:	11

Other Matters Protected by the EPBC Act

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

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

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

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

Extra Information

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

State and Territory Reserves:	1
Regional Forest Agreements:	1
Nationally Important Wetlands:	None
EPBC Act Referrals:	2
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	1
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

World Heritage Properties		[Resource Information]	
Name	State	Legal Status	Buffer Status
Greater Blue Mountains Area	NSW	Declared property	In buffer area only

National Heritage Places		[Resource Information]	
Name	State	Legal Status	Buffer Status
Natural			
The Greater Blue Mountains Area	NSW	Listed place	In buffer area only

Wetlands of International Importance (Ramsar Wetlands)		[Resource Information]	
Ramsar Site Name		Proximity	Buffer Status
Hunter estuary wetlands		50 - 100km upstream from Ramsar site	In feature area

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

Community Name	Threatened Category	Presence Text	Buffer Status
Central Hunter Valley eucalypt forest and woodland	Critically Endangered	Community likely to occur within area	In feature area
Hunter Valley Weeping Myall (Acacia pendula) Woodland	Critically Endangered	Community likely to occur within area	In feature area
River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria	Critically Endangered	Community may occur within area	In feature area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community may occur within area	In feature area

Listed Threatened Species		[<u>Resource Information</u>]	
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			
Anthochaera phrygia			
Regent Honeyeater [82338]	Critically Endangered	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat may 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
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat may occur within area	In buffer area only
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Erythroriorchis 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 likely to occur within area	In feature area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area	In feature area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat likely to occur within area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat known to occur within area	In feature area
FROG			
Litoria aurea Green and Golden Bell Frog [1870]	Vulnerable	Species or species habitat may occur within area	In feature area
Litoria booroolongensis Booroolong Frog [1844]	Endangered	Species or species habitat may occur within area	In feature area
MAMMAL			
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat known to occur within area	In feature area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area	In feature area
Nyctophilus corbeni Corben's Long-eared Bat, South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Petaurus australis australis Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Petrogale penicillata Brush-tailed Rock-wallaby [225]	Vulnerable	Species or species habitat may occur within area	In feature area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat likely to occur within area	In feature area
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area	In feature area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
PLANT			
Cynanchum elegans White-flowered Wax Plant [12533]	Endangered	Species or species habitat likely to occur within area	In feature area
Eucalyptus glaucina Slaty Red Gum [5670]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Euphrasia arguta [4325]	Critically Endangered	Species or species habitat may occur within area	In feature area
Homoranthus darwinioides [12974]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Ozothamnus tesselatus [56203]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Picris evae Hawkweed [10839]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Prasophyllum sp. Wybong (C.Phelps ORG 5269) a leek-orchid [81964]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pterostylis gibbosa Illawarra Greenhood, Rufa Greenhood, Pouched Greenhood [4562]	Endangered	Species or species habitat may occur within area	In feature area
Rhizanthella slateri Eastern Underground Orchid [11768]	Endangered	Species or species habitat may occur within area	In buffer area only
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Wollemia nobilis Wollemi Pine [64545]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only

REPTILE			
Aprasia parapulchella Pink-tailed Worm-lizard, Pink-tailed Legless Lizard [1665]	Vulnerable	Species or species habitat may occur within area	In feature area
Delma impar Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat likely to occur within area	In feature area

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			
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat may occur within 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	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat likely to occur within area	In feature area

Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may 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 likely to occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species		[Resource Information]	
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may 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 known to occur within area overfly marine area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area	In feature area
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Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Merops ornatus Rainbow Bee-eater [670]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
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Extra Information

State and Territory Reserves		[Resource Information]	
Protected Area Name	Reserve Type	State	Buffer Status
Wollemi	National Park	NSW	In buffer area only

Regional Forest Agreements [\[Resource Information \]](#)

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State	Buffer Status
North East NSW RFA	New South Wales	In feature area

EPBC Act Referrals [\[Resource Information \]](#)

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area

Not controlled action (particular manner)				
Aerial baiting for wild dog control	2006/2713	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

Bioregional Assessments [\[Resource Information \]](#)

SubRegion	BioRegion	Website	Buffer Status
Hunter	Northern Sydney 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
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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.

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

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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.

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- [-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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Australian Government

Department of Climate Change, Energy,
the Environment and Water

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: 18-Apr-2024

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

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	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	4
Listed Threatened Species:	38
Listed Migratory Species:	10

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:	18
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:	1
Regional Forest Agreements:	1
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

Wetlands of International Importance (Ramsar Wetlands)		[Resource Information]
Ramsar Site Name	Proximity	Buffer Status
Hunter estuary wetlands	100 - 150km upstream from Ramsar site	In feature area

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

Community Name	Threatened Category	Presence Text	Buffer Status
Central Hunter Valley eucalypt forest and woodland	Critically Endangered	Community may occur within area	In feature area
Hunter Valley Weeping Myall (Acacia pendula) Woodland	Critically Endangered	Community may occur within area	In feature area
River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria	Critically Endangered	Community may occur within area	In feature area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community may occur within area	In feature area

Listed Threatened Species		[<u>Resource Information</u>]	
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			
Anthochaera phrygia			
Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Aphelocephala leucopsis			
Southern Whiteface [529]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat may 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
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat may occur within area	In feature area
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat likely to 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
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat likely to occur within area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area	In feature area
Polytelis swainsonii Superb Parrot [738]	Vulnerable	Species or species habitat may occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat known to occur within area	In feature area
FROG			
Heleioporus australiacus Giant Burrowing Frog [1973]	Vulnerable	Species or species habitat may occur within area	In feature area
Litoria booroolongensis Booroolong Frog [1844]	Endangered	Species or species habitat may occur within area	In feature area
MAMMAL			
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat likely to occur within area	In feature area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area	In feature area
Nyctophilus corbeni Corben's Long-eared Bat, South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Petaurus australis australis Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)			
Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat likely to occur within area	In feature area
Pseudomys novaehollandiae			
New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area	In feature area
Pteropus poliocephalus			
Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour may occur within area	In feature area
PLANT			
Androcalva procumbens			
[87153]	Vulnerable	Species or species habitat may occur within area	In feature area
Androcalva rosea			
Sandy Hollow Commersonia [86861]	Endangered	Species or species habitat known to occur within area	In feature area
Euphrasia arguta			
[4325]	Critically Endangered	Species or species habitat may occur within area	In feature area
Homoranthus darwinioides			
[12974]	Vulnerable	Species or species habitat known to occur within area	In feature area
Kennedia retrorsa			
[19716]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Ozothamnus tesselatus			
[56203]	Vulnerable	Species or species habitat may occur within area	In feature area
Prasophyllum sp. Wybong (C.Phelps ORG 5269)			
a leek-orchid [81964]	Critically Endangered	Species or species habitat may occur within area	In feature area
Prostanthera cryptandroides subsp. cryptandroides			
Wollemi Mint-bush [68496]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area	In feature area
REPTILE			
Aprasia parapulchella Pink-tailed Worm-lizard, Pink-tailed Legless Lizard [1665]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Delma impar Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat may occur within area	In feature area
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			
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat likely to occur within area	In feature area
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Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
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RFA Name	State	Buffer Status
North East NSW RFA	New South Wales	In feature area

EPBC Act Referrals					[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status	
Controlled action					
Gas Transmission Pipeline	2011/5917	Controlled Action	Completed	In feature area	

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	

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- [-Department of Parks and Wildlife, Western Australia](#)
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- [-State Herbarium of South Australia](#)
- [-Northern Territory Herbarium](#)
- [-Western Australian Herbarium](#)
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- [-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](#)
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- [-Other groups and individuals](#)

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Please feel free to provide feedback via the [Contact us](#) page.

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Department of Climate Change, Energy, the Environment and Water

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Australian Government

Department of Climate Change, Energy,
the Environment and Water

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: 18-Apr-2024

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

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	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	6
Listed Threatened Species:	32
Listed Migratory Species:	10

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:	18
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

Wetlands of International Importance (Ramsar Wetlands)		[Resource Information]
Ramsar Site Name	Proximity	Buffer Status
Hunter estuary wetlands	150 - 200km upstream from Ramsar site	In feature area

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

Community Name	Threatened Category	Presence Text	Buffer Status
Central Hunter Valley eucalypt forest and woodland	Critically Endangered	Community may occur within area	In feature area
Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions	Endangered	Community may occur within area	In feature area
Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia	Endangered	Community may occur within area	In feature area
Natural grasslands on basalt and fine-textured alluvial plains of northern New South Wales and southern Queensland	Critically Endangered	Community may occur within area	In feature area
Weeping Myall Woodlands	Endangered	Community may occur within area	In feature area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area	In feature area

Listed Threatened Species			[<u>Resource Information</u>]
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			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	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
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat may occur within area	In feature area
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat likely to 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
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area	In feature area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat likely to occur within area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area	In feature area
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat may occur within area	In feature area
Polytelis swainsonii Superb Parrot [738]	Vulnerable	Species or species habitat may occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat likely to occur within area	In feature area
MAMMAL			
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat may occur within area	In feature area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area	In feature area
Nyctophilus corbeni Corben's Long-eared Bat, South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area	In feature area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour may occur within area	In feature area

PLANT			
Dichanthium setosum bluegrass [14159]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Euphrasia arguta [4325]	Critically Endangered	Species or species habitat may occur within area	In feature area
Lepidium aschersonii Spiny Peppercross [10976]	Vulnerable	Species or species habitat may occur within area	In feature area
Swainsona murrayana Slender Darling-pea, Slender Swainson, Murray Swainson-pea [6765]	Vulnerable	Species or species habitat may occur within area	In feature area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Vincetoxicum forsteri listed as Tylophora linearis [92384]	Endangered	Species or species habitat may occur within area	In feature area

REPTILE			
Aprasia parapulchella Pink-tailed Worm-lizard, Pink-tailed Legless Lizard [1665]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Delma impar Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Listed Migratory Species		[Resource Information]	
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Migratory Terrestrial Species			
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may 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 may occur within area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area overfly marine area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area
Pterodroma cervicalis White-necked Petrel [59642]		Species or species habitat may occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]		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 likely to occur within area overfly marine area	In feature area

Extra Information

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Gas Transmission Pipeline	2011/5917	Controlled Action	Completed	In feature area
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
Not controlled action (particular manner)				
Aerial baiting for wild dog control	2006/2713	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

Bioregional Assessments			[Resource Information]
SubRegion	BioRegion	Website	Buffer Status
Hunter	Northern Sydney 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](#)
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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: 19-Apr-2024

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

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	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	6
Listed Threatened Species:	32
Listed Migratory Species:	10

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:	18
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

Wetlands of International Importance (Ramsar Wetlands)		[Resource Information]
Ramsar Site Name	Proximity	Buffer Status
Hunter estuary wetlands	150 - 200km upstream from Ramsar site	In feature area

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

Community Name	Threatened Category	Presence Text	Buffer Status
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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
BIRD		Buffer Status

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MAMMAL			
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat may occur within area	In feature area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area	In feature area
Nyctophilus corbeni Corben's Long-eared Bat, South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area	In feature area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour may occur within area	In feature area
PLANT			
Dichanthium setosum bluegrass [14159]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Euphrasia arguta [4325]	Critically Endangered	Species or species habitat may occur within area	In feature area
Lepidium aschersonii Spiny Peppercross [10976]	Vulnerable	Species or species habitat may occur within area	In feature area
Swainsona murrayana Slender Darling-pea, Slender Swainson, Murray Swainson-pea [6765]	Vulnerable	Species or species habitat may occur within area	In feature area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Vincetoxicum forsteri listed as Tylophora linearis [92384]	Endangered	Species or species habitat may occur within area	In feature area
REPTILE			
Aprasia parapulchella Pink-tailed Worm-lizard, Pink-tailed Legless Lizard [1665]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Delma impar Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Listed Migratory Species		[Resource Information]	
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Migratory Terrestrial Species			
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may 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 may occur within area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area overfly marine area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area
Pterodroma cervicalis White-necked Petrel [59642]		Species or species habitat may occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]		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 likely to occur within area overfly marine area	In feature area

Extra Information

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Gas Transmission Pipeline	2011/5917	Controlled Action	Completed	In feature area
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
Not controlled action (particular manner)				
Aerial baiting for wild dog control	2006/2713	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

Bioregional Assessments			[Resource Information]
SubRegion	BioRegion	Website	Buffer Status
Hunter	Northern Sydney 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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Department of Climate Change, Energy,
the Environment and Water

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: 19-Apr-2024

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

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	5
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	5
Listed Threatened Species:	40
Listed Migratory Species:	10

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:	18
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:	2
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar Wetlands)		[Resource Information]
Ramsar Site Name	Proximity	Buffer Status
Banrock station wetland complex	900 - 1000km upstream from Ramsar site	In feature area
Hunter estuary wetlands	150 - 200km upstream from Ramsar site	In buffer area only
Riverland	800 - 900km upstream from Ramsar site	In feature area
The coorong, and lakes alexandrina and albert wetland	1000 - 1100km upstream from Ramsar site	In feature area
The macquarie marshes	200 - 300km upstream from Ramsar site	In feature area

Listed Threatened Ecological Communities

[Resource Information]

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

Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions	Endangered	Community may occur within area	In feature area
Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia	Endangered	Community likely to occur within area	In feature area
Natural grasslands on basalt and fine-textured alluvial plains of northern New South Wales and southern Queensland	Critically Endangered	Community may occur within area	In feature area
Weeping Myall Woodlands	Endangered	Community may occur within area	In feature area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived	Critically Endangered	Community likely to occur within area	In feature area

Community Name	Threatened Category	Presence Text	Buffer Status
Native Grassland			

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			
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat may 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
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat likely to occur within area	In feature area
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area	In feature area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area	In feature area
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat likely to occur within area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area	In feature area
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat may occur within area	In feature area
Polytelis swainsonii Superb Parrot [738]	Vulnerable	Species or species habitat may occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat likely to occur within area	In feature area

FISH

Scientific Name	Threatened Category	Presence Text	Buffer Status
Galaxias rostratus Flathead Galaxias, Beaked Minnow, Flat-headed Galaxias, Flat-headed Jollytail, Flat-headed Minnow [84745]	Critically Endangered	Species or species habitat may occur within area	In feature area
Maccullochella macquariensis Trout Cod [26171]	Endangered	Species or species habitat may occur within area	In feature area
Maccullochella peelii Murray Cod [66633]	Vulnerable	Species or species habitat may occur within area	In feature area
Macquaria australasica Macquarie Perch [66632]	Endangered	Species or species habitat may occur within area	In feature area
MAMMAL			
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat likely to occur within area	In feature area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area	In feature area
Nyctophilus corbeni Corben's Long-eared Bat, South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat likely to occur within area	In feature area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour may occur within area	In feature area
PLANT			
Androcalva procumbens [87153]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dichanthium setosum bluegrass [14159]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Euphrasia arguta [4325]	Critically Endangered	Species or species habitat may occur within area	In feature area
Homoranthus darwinioides [12974]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Lepidium aschersonii Spiny Peppercress [10976]	Vulnerable	Species or species habitat may occur within area	In feature area
Prasophyllum sp. Wybong (C.Phelps ORG 5269) a leek-orchid [81964]	Critically Endangered	Species or species habitat may occur within area	In feature area
Swainsona murrayana Slender Darling-pea, Slender Swainson, Murray Swainson-pea [6765]	Vulnerable	Species or species habitat may occur within area	In feature area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Vincetoxicum forsteri listed as Tylophora linearis [92384]	Endangered	Species or species habitat may occur within area	In feature area
REPTILE			
Aprasia parapulchella Pink-tailed Worm-lizard, Pink-tailed Legless Lizard [1665]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Delma impar Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Listed Migratory Species		[Resource Information]	
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Migratory Terrestrial Species			
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
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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 may occur within area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area	In feature area
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Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat may occur within area	In feature area

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Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area overfly marine area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area
Pterodroma cervicalis White-necked Petrel [59642]		Species or species habitat may occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]		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 likely to occur within area overfly marine area	In feature area

Extra Information

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Valley of the Winds wind farm	2020/8668	Controlled Action	Assessment Approach	In feature area
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
Not controlled action (particular manner)				
Aerial baiting for wild dog control	2006/2713	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

Bioregional Assessments				[Resource Information]
SubRegion	BioRegion	Website		Buffer Status
Hunter	Northern Sydney Basin	BA website		In buffer area only
Central West	Northern Inland Catchments	BA website		In feature area

Caveat

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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.

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4 LIMITATIONS

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

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- 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.

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- [-Reef Life Survey Australia](#)
- [-American Museum of Natural History](#)
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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: 19-Apr-2024

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[Matters of NES](#)

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[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

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	4
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	2
Listed Threatened Species:	35
Listed Migratory Species:	10

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:	18
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

Wetlands of International Importance (Ramsar Wetlands)		[Resource Information]
Ramsar Site Name	Proximity	Buffer Status
Banrock station wetland complex	800 - 900km upstream from Ramsar site	In feature area
Riverland	800 - 900km upstream from Ramsar site	In feature area
The coorong, and lakes alexandrina and albert wetland	1000 - 1100km upstream from Ramsar site	In feature area
The macquarie marshes	200 - 300km upstream from Ramsar site	In feature area

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

Community Name	Threatened Category	Presence Text	Buffer Status
Weeping Myall Woodlands	Endangered	Community may occur within area	In feature area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area	In feature area

Listed Threatened Species			[<u>Resource Information</u>]
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			
Anthochaera phrygia			
Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	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
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat likely to occur within area	In feature area
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat likely to 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
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat likely to occur within area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area	In feature area
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat may occur within area	In feature area
Polytelis swainsonii Superb Parrot [738]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pycnoptilus floccosus Pilotbird [525]	Vulnerable	Species or species habitat may occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat likely to occur within area	In feature area
FISH			
Galaxias rostratus Flathead Galaxias, Beaked Minnow, Flat-headed Galaxias, Flat-headed Jollytail, Flat-headed Minnow [84745]	Critically Endangered	Species or species habitat may occur within area	In feature area
Macquaria australasica Macquarie Perch [66632]	Endangered	Species or species habitat may occur within area	In feature area
MAMMAL			
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dasyurus maculatus maculatus (SE mainland population)			
Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area	In feature area
Nyctophilus corbeni			
Corben's Long-eared Bat, South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)			
Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat likely to occur within area	In feature area
Pseudomys novaehollandiae			
New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area	In feature area
Pteropus poliocephalus			
Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour may occur within area	In feature area
PLANT			
Androcalva procumbens			
[87153]	Vulnerable	Species or species habitat may occur within area	In feature area
Euphrasia arguta			
[4325]	Critically Endangered	Species or species habitat may occur within area	In feature area
Homoranthus darwinioides			
[12974]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Prasophyllum sp. Wybong (C.Phelps ORG 5269)			
a leek-orchid [81964]	Critically Endangered	Species or species habitat may occur within area	In feature area
Thesium australe			
Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area	In feature area

REPTILE

Scientific Name	Threatened Category	Presence Text	Buffer Status
Aprasia parapulchella Pink-tailed Worm-lizard, Pink-tailed Legless Lizard [1665]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Delma impar Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat may occur within area	In feature area

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

Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat may occur within area	In feature area

Migratory Wetlands Species

Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may 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

Scientific Name	Threatened Category	Presence Text	Buffer Status
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 may occur within area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat may occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area overfly marine area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area
Pterodroma cervicalis White-necked Petrel [59642]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat 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 likely to occur within area overfly marine area	In feature area

Extra Information

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Central-West Orana Renewable Energy Zone Transmission Project	2022/09353		Assessment	In buffer area only
Controlled action				
Valley of the Winds wind farm	2020/8668	Controlled Action	Assessment Approach	In feature area
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
Central West	Northern Inland Catchments	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
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EPBC Act Protected Matters Report

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Report created: 19-Apr-2024

[Summary](#)

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Summary

Matters of National Environment Significance

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World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	4
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	6
Listed Threatened Species:	44
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:	16
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:	2
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	1
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar Wetlands)		[Resource Information]
Ramsar Site Name	Proximity	Buffer Status
Banrock station wetland complex	800 - 900km upstream from Ramsar site	In feature area
Riverland	800 - 900km upstream from Ramsar site	In feature area
The coorong, and lakes alexandrina and albert wetland	900 - 1000km upstream from Ramsar site	In feature area
The macquarie marshes	150 - 200km upstream from Ramsar site	In feature area

Listed Threatened Ecological Communities

[Resource Information]

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

Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions	Endangered	Community may occur within area	
Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia	Endangered	Community likely to occur within area	In feature area
Natural grasslands on basalt and fine-textured alluvial plains of northern New South Wales and southern Queensland	Critically Endangered	Community may occur within area	
Poplar Box Grassy Woodland on Alluvial Plains	Endangered	Community may occur within area	In buffer area only
Weeping Myall Woodlands	Endangered	Community may occur within area	
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area	In feature area

Community Name	Threatened Category	Presence Text	Buffer Status
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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
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BIRD

[Anthochaera phrygia](#)

Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
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[Aphelocephala leucopsis](#)

Southern Whiteface [529]	Vulnerable	Species or species habitat likely to occur within area	In feature area
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[Botaurus poiciloptilus](#)

Australasian Bittern [1001]	Endangered	Species or species habitat may occur within area	In feature area
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[Calidris acuminata](#)

Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
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[Calidris ferruginea](#)

Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
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[Callocephalon fimbriatum](#)

Gang-gang Cockatoo [768]	Endangered	Species or species habitat may occur within area	In feature area
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[Calyptorhynchus lathami lathami](#)

South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat likely to occur within area	In feature area
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[Climacteris picumnus victoriae](#)

Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat likely to occur within area	In feature area
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[Falco hypoleucos](#)

Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area
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[Gallinago hardwickii](#)

Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area	In feature area
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Scientific Name	Threatened Category	Presence Text	Buffer Status
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area	In feature area
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Lophochroa leadbeateri leadbeateri Major Mitchell's Cockatoo (eastern), Eastern Major Mitchell's Cockatoo, Pink Cockatoo (eastern) [82926]	Endangered	Species or species habitat may occur within area	In feature area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat likely to occur within area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area	In feature area
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat may occur within area	In feature area
Polytelis swainsonii Superb Parrot [738]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat likely to occur within area	In feature area

FISH

Scientific Name	Threatened Category	Presence Text	Buffer Status
Galaxias rostratus Flathead Galaxias, Beaked Minnow, Flat-headed Galaxias, Flat-headed Jollytail, Flat-headed Minnow [84745]	Critically Endangered	Species or species habitat may occur within area	In feature area
Maccullochella macquariensis Trout Cod [26171]	Endangered	Species or species habitat may occur within area	In buffer area only
Maccullochella peelii Murray Cod [66633]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Macquaria australasica Macquarie Perch [66632]	Endangered	Species or species habitat may occur within area	In feature area
FROG			
Crinia sloanei Sloane's Froglet [59151]	Endangered	Species or species habitat may occur within area	In feature area
MAMMAL			
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat likely to occur within area	In feature area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area	In feature area
Nyctophilus corbeni Corben's Long-eared Bat, South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat likely to occur within area	In feature area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour may occur within area	In feature area
PLANT			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Androcalva procumbens [87153]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Dichanthium setosum bluegrass [14159]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Euphrasia arguta [4325]	Critically Endangered	Species or species habitat may occur within area	In feature area
Lepidium aschersonii Spiny Peppercress [10976]	Vulnerable	Species or species habitat may occur within area	In feature area
Lepidium monolocoides Winged Pepper-cress [9190]	Endangered	Species or species habitat may occur within area	In feature area
Prasophyllum petilum Tarengo Leek Orchid [55144]	Endangered	Species or species habitat may occur within area	In buffer area only
Prasophyllum sp. Wybong (C.Phelps ORG 5269) a leek-orchid [81964]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Swainsona murrayana Slender Darling-pea, Slender Swainson, Murray Swainson-pea [6765]	Vulnerable	Species or species habitat may occur within area	In feature area
Swainsona recta Small Purple-pea, Mountain Swainson-pea, Small Purple Pea [7580]	Endangered	Species or species habitat may occur within area	In feature area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area	In feature area
Vincetoxicum forsteri listed as Tylophora linearis [92384]	Endangered	Species or species habitat may occur within area	In feature area

REPTILE

Scientific Name	Threatened Category	Presence Text	Buffer Status
Aprasia parapulchella Pink-tailed Worm-lizard, Pink-tailed Legless Lizard [1665]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Delma impar Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat may occur within area	In feature area

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

Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area	In feature area

Migratory Wetlands Species

Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may 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

Scientific Name	Threatened Category	Presence Text	Buffer Status
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 may occur within area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area overfly marine area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Rostratula australis as Rostratula benghalensis (sensu lato)			
Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area

Extra Information

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Dubbo - Tamworth Natural Gas Pipeline	2000/32	Not Controlled Action	Completed	In feature area
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
Central West	Northern Inland Catchments	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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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: 19-Apr-2024

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

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	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	4
Listed Threatened Species:	40
Listed Migratory Species:	10

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:	18
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:	1
Nationally Important Wetlands:	None
EPBC Act Referrals:	2
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	1
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar Wetlands)		[Resource Information]
Ramsar Site Name	Proximity	Buffer Status
Hunter estuary wetlands	100 - 150km upstream from Ramsar site	In feature area

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

Community Name	Threatened Category	Presence Text	Buffer Status
Central Hunter Valley eucalypt forest and woodland	Critically Endangered	Community may occur within area	In feature area
Hunter Valley Weeping Myall (Acacia pendula) Woodland	Critically Endangered	Community may occur within area	In feature area
River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria	Critically Endangered	Community may occur within area	In feature area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community may occur within area	In feature area

Listed Threatened Species		[<u>Resource Information</u>]	
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			
Anthochaera phrygia			
Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Aphelocephala leucopsis			
Southern Whiteface [529]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat may 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
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat may occur within area	In feature area
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat known to occur within area	In feature area
Erythroriorchis radiatus Red Goshawk [942]	Endangered	Species or species habitat may occur within area	In buffer area only
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
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat known to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area	In feature area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat likely to occur within area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area	In feature area
Polytelis swainsonii Superb Parrot [738]	Vulnerable	Species or species habitat may occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat likely to occur within area	In feature area
FROG			
Heleioporus australiacus Giant Burrowing Frog [1973]	Vulnerable	Species or species habitat may occur within area	In feature area
Litoria booroolongensis Booroolong Frog [1844]	Endangered	Species or species habitat may occur within area	In feature area
MAMMAL			
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat known to occur within area	In feature area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area	In feature area
Nyctophilus corbeni Corben's Long-eared Bat, South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Petaurus australis australis Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Petrogale penicillata Brush-tailed Rock-wallaby [225]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat likely to occur within area	In feature area
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area	In feature area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour may occur within area	In feature area
PLANT			
Androcalva procumbens [87153]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Androcalva rosea Sandy Hollow Commersonia [86861]	Endangered	Species or species habitat known to occur within area	In feature area
Eucalyptus pumila Pokolbin Mallee [16510]	Vulnerable	Species or species habitat may occur within area	In feature area
Euphrasia arguta [4325]	Critically Endangered	Species or species habitat may occur within area	In feature area
Lasiopetalum longistamineum [19181]	Vulnerable	Species or species habitat may occur within area	In feature area
Ozothamnus tesselatus [56203]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Prasophyllum sp. Wybong (C.Phelps ORG 5269) a leek-orchid [81964]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Prostanthera cryptandroides subsp. cryptandroides Wollemi Mint-bush [68496]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area	In feature area

REPTILE			
Aprasia parapulchella Pink-tailed Worm-lizard, Pink-tailed Legless Lizard [1665]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Delma impar Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat likely to occur within area	In feature area

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
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Migratory Terrestrial Species			
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat likely to occur within area	In feature area

Migratory Wetlands Species			
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Scientific Name	Threatened Category	Presence Text	Buffer Status
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may 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 may occur within area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
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 likely to occur within area overfly marine area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Myiagra cyanoleuca Satin Flycatcher [612]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]		Species or species habitat may occur within area overfly marine area	In feature area
Pterodroma cervicalis White-necked Petrel [59642]		Species or species habitat may occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat likely to occur within area overfly marine area	In feature area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area

Extra Information

Regional Forest Agreements
[[Resource Information](#)]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State	Buffer Status
North East NSW RFA	New South Wales	In feature area

EPBC Act Referrals [Resource Information]				
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
Not controlled action (particular manner)				
Aerial baiting for wild dog control	2006/2713	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

Bioregional Assessments

[Resource Information]

SubRegion	BioRegion	Website	Buffer Status
Hunter	Northern Sydney 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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Priority weeds for the Hunter

Note: this region includes the local council areas of Cessnock, Dungog, Lake Macquarie, Maitland, Mid-Coast, Muswellbrook, Newcastle, Port Stephens, Singleton and Upper Hunter.

[Select another region](#)

Weed	Duty
All plants	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<u>Aaron's beard prickly pear</u> <i>Opuntia leucotricha</i>	Prohibition on certain dealings <i>Must not be imported into the state, sold, bartered, exchanged or offered for sale.</i>
<u>Aaron's beard prickly pear</u> <i>Opuntia leucotricha</i>	Regional Recommended Measure <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.</i>
<u>African boxthorn</u> <i>Lycium ferocissimum</i>	Prohibition on certain dealings <i>Must not be imported into the state, sold, bartered, exchanged or offered for sale.</i>

African boxthorn

Lycium ferocissimum

Regional Recommended Measure

An exclusion zone is established for all land in the region, except the core infestation which includes parts of: Muswellbrook Local Government Area, Upper Hunter Local Government Area.

Entire Hunter Local Land Services region: Land managers should mitigate the risk of the plant being introduced to their land. Exclusion zone: Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

African lovegrass

Eragrostis curvula

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

African olive

Olea europaea subsp. *cuspidata*

Regional Recommended Measure

An exclusion zone is established for all land in the region, except the core infestation which includes parts of: Dungog Local Government Area, Lake Macquarie Local Government Area Maitland Local Government Area, MidCoast Local Government Area, Port Stephens Local Government Area, Singleton Local Government Area.

Entire Hunter Local Land Services region: Land managers should mitigate the risk of the plant being introduced to their land. Exclusion zone: Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Alligator weed

Alternanthera philoxeroides

Alligator weed

Alternanthera philoxeroides

Alligator weed

Alternanthera philoxeroides

Anchored water hyacinth

Eichhornia azurea

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Biosecurity Zone

The Alligator Weed Biosecurity Zone is established for all land within the state except land in the following regions: Greater Sydney; Hunter (but only in the local government areas of City of Lake Macquarie, City of Maitland, City of Newcastle or Port Stephens).

Within the Biosecurity Zone this weed must be eradicated where practicable, or as much of the weed destroyed as practicable, and any remaining weed suppressed. The local control authority must be notified of any new infestations of this weed within the Biosecurity Zone

Regional Recommended Measure

An Alligator Weed Biosecurity Zone is established for all land within the Hunter Local Land Services region except land in the following local government areas: Lake Macquarie Local Government Area, Maitland Local Government Area, Newcastle Local Government Area, Port Stephens Local Government Area.

Entire Hunter Local Land Services region: A person must not, import into the State or sell. Within the biosecurity zone: If the weed is part of a new infestation of the weed on the land, notify the local control authority for the land as soon as practicable. Eradicate the weed or, if that is not practicable, destroy as much of the weed as is practicable and suppress the spread of any remaining weed. Outside the biosecurity zone: Land managers should mitigate spread of the plant from their land. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Arrowhead

Sagittaria calycina var. *calycina*

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Asparagus fern

Asparagus virgatus

Regional Recommended Measure

An exclusion zone is established for all land in the region, except the core infestation which includes parts of: MidCoast Local Government Area.

Entire Hunter Local Land Services region: Land managers should mitigate the risk of the plant being introduced to their land. Exclusion zone: Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Athel pine

Tamarix aphylla

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Bitou bush

Chrysanthemoides monilifera subsp. *rotundata*

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Bitou bush

Chrysanthemoides monilifera subsp. *rotundata*

Biosecurity Zone

The Bitou Bush Biosecurity Zone is established for all land within the State except land within 10 kilometres of the mean high water mark of the Pacific Ocean between Cape Byron in the north and Point Perpendicular in the south.

Within the Biosecurity Zone this weed must be eradicated where practicable, or as much of the weed destroyed as practicable, and any remaining weed suppressed. The local control authority must be notified of any new infestations of this weed within the Biosecurity Zone

Bitou bush

Chrysanthemoides monilifera subsp.
rotundata

Regional Recommended Measure

A Bitou Bush Biosecurity Zone is established for all land within the Hunter Local Land Services Region except land within 10 kilometres of the mean high water mark of the Pacific Ocean, which includes parts of: Lake Macquarie Local Government Area, MidCoast Local Government Area, Newcastle Local Government Area, Port Stephens Local Government Area.

Entire Hunter Local Land Services region: A person must not, import into the State or sell. Within the biosecurity zone: If the weed is part of a new infestation of the weed on the land, notify the local control authority for the land as soon as practicable. Eradicate the weed or, if that is not practicable, destroy as much of the weed as is practicable and suppress the spread of any remaining weed. Outside the biosecurity zone: Land managers should mitigate spread of the plant from their land. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Black knapweed

Centaurea x moncktonii

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Black locust

Robinia pseudoacacia

Regional Recommended Measure

An exclusion zone is established for all land in the region, except the core infestation which includes all urban centres of the Hunter region.

Entire Hunter Local Land Services region: Land managers should mitigate the risk of the plant being introduced to their land. Exclusion zone: Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Black willow

Salix nigra

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Blackberry

Rubus fruticosus species aggregate

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the *Rubus fruticosus* species aggregate have this requirement, except for the varieties Black Satin, Chehalem, Chester Thornless, Dirksen Thornless, Loch Ness, Murrindindi, Silvan, Smooth Stem, and Thornfree

Blackberry

Rubus fruticosus species aggregate

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Blind cactus

Opuntia rufida

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Blind cactus

Opuntia rufida

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Blue heliotrope

Heliotropium amplexicaule

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Blue periwinkle

Vinca major

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Boneseed

Chrysanthemoides monilifera subsp. *monilifera*

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Boneseed

Chrysanthemoides monilifera subsp. *monilifera*

Control Order

Boneseed Control Zone: Whole of NSW
Boneseed Control Zone (Whole of NSW): Owners and occupiers of land on which there is boneseed must notify the local control authority of new infestations; immediately destroy the plants; ensure subsequent generations are destroyed; and ensure the land is kept free of the plant. A person who deals with a carrier of boneseed must ensure the plant (and any seed and propagules) is not moved from the land; and immediately notify the local control authority of the presence of the plant.

Boxing glove cactus

Cylindropuntia fulgida var. *mamillata*

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Boxing glove cactus

Cylindropuntia fulgida var. *mamillata*

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Bridal creeper

Asparagus asparagoides

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

***this requirement also applies to the Western Cape form of bridal creeper**

Bridal creeper

Asparagus asparagoides

Regional Recommended Measure

An exclusion zone is established for all land in the region, except the core infestation which includes: Dungog Local Government Area, Lake Macquarie Local Government Area, Cessnock Local Government Area, MidCoast Local Government Area.

Entire Hunter Local Land Services region: Land managers should mitigate the risk of the plant being introduced to their land. Exclusion zone: Notify local control authority if found.

Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Bridal veil creeper

Asparagus declinatus

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Broad-leaf pepper tree

Schinus terebinthifolius

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Broomrapes

Orobanche species

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species of Orobanche are Prohibited Matter in NSW, except Clover broomrape, Orobanche minor and Australian broomrape, Orobanche cernua var. australiana.

Brown-spined Hudson pear

Cylindropuntia tunicata

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Bunny ears cactus

Opuntia microdasys

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Bunny ears cactus

Opuntia microdasys

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Cabomba

Cabomba caroliniana

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Cabomba

Cabomba caroliniana

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Camphor laurel

Cinnamomum camphora

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Cane cactus

Austrocylindropuntia cylindrica

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the Austrocylindropuntia genus have this requirement

Cane cactus

Austrocylindropuntia cylindrica

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Cape broom

Genista monspessulana

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Cape broom

Genista monspessulana

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Cat's claw creeper

Dolichandra unguis-cati

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Cat's claw creeper

Dolichandra unguis-cati

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Chicken dance cactus

Opuntia schickendantzii

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Chicken dance cactus

Opuntia schickendantzii

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Chilean needle grass

Nassella neesiana

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Chilean needle grass

Nassella neesiana

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Chinese celtis

Celtis sinensis

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Chinese knotweed

Persicaria chinensis

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Chinese tallow tree

Triadica sebifera

Regional Recommended Measure

An exclusion zone is established for all land in the region, except the core infestation which includes all urban centres of the Hunter region.

Entire Hunter Local Land Services region: Land managers should mitigate the risk of the plant being introduced to their land. Exclusion zone: Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Chinese violet

Asystasia gangetica subsp. *micrantha*

Control Order

Owners and occupiers of land on which there is Chinese violet must notify the local control authority for the area if the Chinese violet is part of a new infestation on the land, destroy all Chinese violet on the land ensuring that subsequent generations of Chinese violet are destroyed; and keep the land free of Chinese violet. A person who deals with a carrier of Chinese violet must ensure the plant (and any seed and propagules) is not moved from the land; and immediately notify the local control authority of the presence of the plant on the land, or on or in a carrier.

Climbing asparagus

Asparagus africanus

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Climbing asparagus

Asparagus africanus

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Climbing asparagus fern

Asparagus plumosus

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Cockspur coral tree

Erythrina crista-galli

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Common pear

Opuntia stricta

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Common pear

Opuntia stricta

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Coolatai grass

Hyparrhenia hirta

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Coral creeper

Barleria repens

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Cotoneaster

Cotoneaster glaucophyllus

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Crofton weed

Ageratina adenophora

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

East Indian hygrophila
Hygrophila polysperma

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Espartillo - broad kernel
Amelichloa caudata

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Espartillo - narrow kernel
Amelichloa brachychaeta

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Eurasian water milfoil
Myriophyllum spicatum

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Eve's needle cactus
Austrocylindropuntia subulata

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the *Austrocylindropuntia* genus have this requirement

Eve's needle cactus
Austrocylindropuntia subulata

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Fireweed

Senecio madagascariensis

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Flax-leaf broom

Genista linifolia

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Foxtail fern

Asparagus densiflorus

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Frogbit

Limnobium laevigatum

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species of Limnobium are Prohibited Matter

Galenia

Galenia pubescens

Regional Recommended Measure

An exclusion zone is established for all land in the region, except the core infestation which includes parts of: Lake Macquarie Local Government Area, Maitland Local Government Area, Muswellbrook Local Government Area, Newcastle Local Government Area, Singleton Local Government Area, Upper Hunter Local Government Area. Entire Hunter Local Land Services region: Land managers should mitigate the risk of the plant being introduced to their land. Exclusion zone: Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Gamba grass

Andropogon gayanus

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Giant devil's fig

Solanum chrysotrichum

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Giant Parramatta grass

Sporobolus fertilis

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Giant rat's tail grass

Sporobolus pyramidalis

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Giant reed

Arundo donax

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Glory lily

Gloriosa superba

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Gorse

Ulex europaeus

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Gorse

Ulex europaeus

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Green cestrum

Cestrum parqui

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Grey willow

Salix cinerea

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Ground asparagus

Asparagus aethiopicus

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Ground asparagus

Asparagus aethiopicus

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Groundsel bush

Baccharis halimifolia

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Harrisia cactus

Harrisia species

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Hawkweeds - Hieraciums

Hieracium species

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species in the genus *Hieracium* are Prohibited Matter except for *Hieracium murorum* (wall hawkweed).

Hawkweeds - Pilosellas

Pilosella species

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species in the genus *Pilosella* are Prohibited Matter

Honey locust

Gleditsia triacanthos

Regional Recommended Measure

An exclusion zone is established for all land in the region, except the core infestation which includes: Lake Macquarie Local Government Area, Newcastle Local Government Area. Entire Hunter Local Land Services region: Land managers should mitigate the risk of the plant being introduced to their land. Exclusion zone: Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Horsetails

Equisetum species

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

This Regional Recommended Measure applies to *Equisetum arvense*

Hudson pear

Cylindropuntia pallida

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Hudson pear

Cylindropuntia pallida

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Hydrocotyl

Hydrocotyle ranunculoides

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Hygrophila

Hygrophila costata

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Hymenachne

Hymenachne amplexicaulis and hybrids

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Hymenachne

Hymenachne amplexicaulis and hybrids

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Karoo acacia

Vachellia karroo

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Kidney-leaf mud plantain

Heteranthera reniformis

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

King devil hawkweed

Pilosella piloselloides

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species in the genus *Pilosella* are Prohibited Matter

Kochia

Bassia scoparia

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Excluding the subspecies *trichophylla*

Koster's curse

Clidemia hirta

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Kudzu

Pueraria lobata

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Lagarosiphon

Lagarosiphon major

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Lantana

Lantana camara

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Lantana

Lantana camara

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Leaf cactus

Pereskia aculeata

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Long-leaf willow primrose

Ludwigia longifolia

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Ludwigia

Ludwigia peruviana

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Madeira vine

Anredera cordifolia

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Mahonia

Berberis lomariifolia

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Mesquite

Prosopis species

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the genus *Prosopis* have this requirement

Mexican feather grass

Nassella tenuissima

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Miconia

Miconia species

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species of *Miconia* are Prohibited Matter in NSW

Mikania vine

Mikania micrantha

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

***all species in the genus *Mikania* are Prohibited Matter in NSW**

Mimosa

Mimosa pigra

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Ming asparagus fern

Asparagus macowanii

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Mistflower

Ageratina riparia

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Mother-of-millions

Bryophyllum species

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Mouse-ear hawkweed

Pilosella officinarum

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species in the genus *Pilosella* are Prohibited Matter

Mysore thorn

Caesalpinia decapetala

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Nodding thistle

Carduus nutans subsp. *nutans*

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Orange hawkweed

Pilosella aurantiaca

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species in the genus *Pilosella* are Prohibited Matter

Ox-eye daisy

Leucanthemum vulgare

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Pampas grass

Cortaderia species

Regional Recommended Measure

An exclusion zone is established for all land in the region, except the core infestation which includes parts of: Lake Macquarie Local Government Area.

Entire Hunter Local Land Services region: Land managers should mitigate the risk of the plant being introduced to their land. Exclusion zone: Notify local control authority if found.

Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Parkinsonia

Parkinsonia aculeata

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Parkinsonia

Parkinsonia aculeata

Control Order

Parkinsonia Control Zone: Whole of NSW

Parkinsonia Control Zone (Whole of NSW): Owners and occupiers of land on which there is parkinsonia must notify the local control authority of new infestations; immediately destroy the plants; ensure subsequent generations are destroyed; and ensure the land is kept free of the plant. A person who deals with a carrier of parkinsonia must ensure the plant (and any seed and propagules) is not moved from the land; and immediately notify the local control authority of the presence of the plant.

Parthenium weed

Parthenium hysterophorus

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Parthenium weed

Parthenium hysterophorus

Prohibition on certain dealings

The following equipment must not be imported into NSW from Queensland: grain harvesters (including the comb or front), comb trailers (including the comb or front), bins used for holding grain during harvest operations, augers or similar for moving grain, vehicles used to transport grain harvesters, support vehicles driven in paddocks during harvest operations, mineral exploration drilling rigs and vehicles used to transport those rigs, unless set out as an exception in Division 5, Part 2 of the Biosecurity Order (Permitted Activities) 2017

Paterson's curse

Echium plantagineum

Regional Recommended Measure

An exclusion zone is established for all land in the region, except the core infestation which includes parts of: Dungog Local Government Area, Maitland Local Government Area, Muswellbrook Local Government Area, Singleton Local Government Area, Upper Hunter Local Government Area. *Entire Hunter Local Land Services region: Land managers should mitigate the risk of the plant being introduced to their land. Exclusion zone: Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.*

Plume poppy

Bocconia frutescens

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Pond apple

Annona glabra

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Prickly acacia

Vachellia nilotica

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Prickly pears - Austrocyllindropuntias

Austrocyllindropuntia species

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the *Austrocyllindropuntia* genus have this requirement

Prickly pears - Austrocyllindropuntias

Austrocyllindropuntia species

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Prickly pears - Cyllindropuntias

Cyllindropuntia species

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the *Cyllindropuntia* genus have this requirement

Prickly pears - Cyllindropuntias

Cyllindropuntia species

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Prickly pears - Opuntias

Opuntia species

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

For all *Opuntia* species except for *Opuntia ficus-indica* (Indian fig).

Prickly pears - Opuntias

Opuntia species

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

This Regional Recommended Measure applies to all species of *Opuntia* except for *Opuntia ficus-indica*. (Indian fig).

Rattlepod

Crotalaria beddomeana

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Rhus tree

Toxicodendron succedaneum

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Riverina pear

Opuntia elata

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Riverina pear

Opuntia elata

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Rope pear

Cylindropuntia imbricata

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the *Cylindropuntia* genus have this requirement

Rope pear

Cylindropuntia imbricata

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Rubber vine

Cryptostegia grandiflora

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Sagittaria

Sagittaria platyphylla

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Sagittaria

Sagittaria platyphylla

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Salvinia

Salvinia molesta

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Salvinia

Salvinia molesta

Regional Recommended Measure

An exclusion zone is established for all land in the region, except the core infestation which includes parts of: Lake Macquarie Local Government Area, MidCoast Local Government Area, Port Stephens Local Government Area. *Entire Hunter Local Land Services region: Land managers should mitigate the risk of the plant being introduced to their land. Exclusion zone: Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.*

This Regional Recommended Measure applies to *Salvinia molesta* and *Salvinia minima*

Scotch broom

Cytisus scoparius subsp. *scoparius*

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Scotch broom

Cytisus scoparius subsp. *scoparius*

Regional Recommended Measure

An exclusion zone is established for all land in the region, except the core infestation which includes parts of: MidCoast Local Government Area, Upper Hunter Local Government Area. *Entire Hunter Local Land Services region: Land managers should mitigate the risk of the plant being introduced to their land. Exclusion zone: Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.*

Sea spurge

Euphorbia paralias

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Senegal tea plant

Gymnocoronis spilanthoides

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Serrated tussock

Nassella trichotoma

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Serrated tussock

Nassella trichotoma

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Siam weed

Chromolaena odorata

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Sicilian sea lavender

Limonium hyblaenum

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Sicklethorn

Asparagus falcatus

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Silverleaf nightshade

Solanum elaeagnifolium

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Silverleaf nightshade

Solanum elaeagnifolium

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Smooth tree pear

Opuntia monacantha

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Smooth tree pear

Opuntia monacantha

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Snakefeather

Asparagus scandens

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Snakefeather

Asparagus scandens

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Spiny rush

Juncus acutus

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Spongeplant

Limnobia spongia

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species of *Limnobia* are Prohibited Matter

Spotted knapweed

Centaurea stoebe subsp. *micranthos*

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

St. John's wort

Hypericum perforatum

Regional Recommended Measure

An exclusion zone is established for all land in the region, except parts of: MidCoast Local Government Area, Muswellbrook Local Government Area, Upper Hunter Local Government Area.

Entire Hunter Local Land Services region: Land managers should mitigate the risk of the plant being introduced to their land. Exclusion zone: Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Sticky nightshade

Solanum sisymbriifolium

Regional recommended measure for
Central Tablelands from February
2020

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Telegraph weed

Heterotheca grandiflora

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Thatch grass

Hyparrhenia rufa

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Tiger pear

Opuntia aurantiaca

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Tiger pear

Opuntia aurantiaca

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Tree-of-heaven

Ailanthus altissima

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Tropical soda apple

Solanum viarum

Control Order

Tropical Soda Apple Control Zone: Whole of NSW

Tropical Soda Apple Control Zone (Whole of NSW): Owners and occupiers of land on which there is tropical soda apple must notify the local control authority of new infestations; destroy the plants including the fruit; ensure subsequent generations are destroyed; and ensure the land is kept free of the plant. A person who deals with a carrier of tropical soda apple must ensure the plant (and any seed and propagules) is not moved from the land; and immediately notify the local control authority of the presence of the plant on the land, or on or in a carrier.

Velvety tree pear

Opuntia tomentosa

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Velvety tree pear

Opuntia tomentosa

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Water caltrop

Trapa species

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species in the *Trapa* genus are Prohibited Matter in NSW

Water hyacinth

Eichhornia crassipes

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Water hyacinth

Eichhornia crassipes

Biosecurity Zone

The Water Hyacinth Biosecurity Zone applies to all land within the State, except for the following regions: Greater Sydney or North Coast, North West (but only the local government area of Moree Plains), Hunter (but only in the local government areas of City of Cessnock, City of Lake Macquarie, MidCoast, City of Maitland, City of Newcastle or Port Stephens), South East (but only in the local government areas of Eurobodalla, Kiama, City of Shellharbour, City of Shoalhaven or City of Wollongong).

Within the Biosecurity Zone this weed must be eradicated where practicable, or as much of the weed destroyed as practicable, and any remaining weed suppressed. The local control authority must be notified of any new infestations of this weed within the Biosecurity Zone

Water hyacinth

Eichhornia crassipes

Regional Recommended Measure

A Water Hyacinth Biosecurity Zone, is established for all land within the Hunter Local Land Services region except land in the following local government areas: Cessnock Local Government Area, Lake Macquarie Local Government Area, MidCoast Local Government Area, Maitland Local Government Area, Newcastle Local Government Area, Port Stephens Local Government Area.

Entire Hunter Local Land Services region: A person must not, import into the State or sell. Within the biosecurity zone: If the weed is part of a new infestation of the weed on the land, notify the local control authority for the land as soon as practicable. Eradicate the weed or, if that is not practicable, destroy as much of the weed as is practicable and suppress the spread of any remaining weed. Outside the biosecurity zone: Land managers should mitigate spread of the plant from their land. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Water lettuce

Pistia stratiotes

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Water soldier

Stratiotes aloides

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Water star grass

Heteranthera zosterifolia

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Wheel cactus

Opuntia robusta

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Wheel cactus

Opuntia robusta

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

White blackberry

Rubus niveus

Regional Recommended Measure

Notify local control authority if found. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant.

Willows

Salix species

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the *Salix* genus have this requirement, except *Salix babylonica* (weeping willows), *Salix x calodendron* (pussy willow) and *Salix x reichardtii* (sterile pussy willow)

Witchweeds
Striga species

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species in the *Striga* genus are Prohibited Matter in NSW, except the native *Striga parviflora*

Yellow bells
Tecoma stans

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Yellow burrhead
Limnocharis flava

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

The content provided here is for information purposes only and is taken from the *Biosecurity Act 2015* and its subordinate legislation, and the Regional Strategic Weed Management Plans (published by each Local Land Services region in NSW). It describes the state and regional priorities for weeds in New South Wales, Australia.

Priority weeds for the Central West

Note: this region includes the local council areas of Bogan (lower), Coonamble, Dubbo Regional, Forbes, Gilgandra, Lachlan, Narromine, Parkes, Warren, Warrumbungle and Weddin.

[Select another region](#)

Weed	Duty
All plants	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<u>Aaron's beard prickly pear</u> <i>Opuntia leucotricha</i>	Prohibition on certain dealings <i>Must not be imported into the state, sold, bartered, exchanged or offered for sale.</i>
<u>Aaron's beard prickly pear</u> <i>Opuntia leucotricha</i>	Regional Recommended Measure <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.</i>
<u>African boxthorn</u> <i>Lycium ferocissimum</i>	Prohibition on certain dealings <i>Must not be imported into the state, sold, bartered, exchanged or offered for sale.</i>
<u>Alligator weed</u> <i>Alternanthera philoxeroides</i>	Prohibition on certain dealings <i>Must not be imported into the state, sold, bartered, exchanged or offered for sale.</i>

Alligator weed

Alternanthera philoxeroides

Biosecurity Zone

The Alligator Weed Biosecurity Zone is established for all land within the state except land in the following regions: Greater Sydney; Hunter (but only in the local government areas of City of Lake Macquarie, City of Maitland, City of Newcastle or Port Stephens).

Within the Biosecurity Zone this weed must be eradicated where practicable, or as much of the weed destroyed as practicable, and any remaining weed suppressed. The local control authority must be notified of any new infestations of this weed within the Biosecurity Zone

Anchored water hyacinth

Eichhornia azurea

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Athel pine

Tamarix aphylla

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Athel pine

Tamarix aphylla

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Bitou bush

Chrysanthemoides monilifera subsp.
rotundata

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Bitou bush

Chrysanthemoides monilifera subsp.
rotundata

Biosecurity Zone

The Bitou Bush Biosecurity Zone is established for all land within the State except land within 10 kilometres of the mean high water mark of the Pacific Ocean between Cape Byron in the north and Point Perpendicular in the south.

Within the Biosecurity Zone this weed must be eradicated where practicable, or as much of the weed destroyed as practicable, and any remaining weed suppressed. The local control authority must be notified of any new infestations of this weed within the Biosecurity Zone

Black knapweed

Centaurea x moncktonii

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Black willow

Salix nigra

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Blackberry.

Rubus fruticosus species aggregate

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the *Rubus fruticosus* species aggregate have this requirement, except for the varieties Black Satin, Chehalem, Chester Thornless, Dirksen Thornless, Loch Ness, Murrindindi, Silvan, Smooth Stem, and Thornfree

Blackberry.

Rubus fruticosus species aggregate

Regional Recommended Measure

The exclusion zone is defined as the whole of region except the core infestation which is defined as southeast of Wellington and Warrumbungle Shire Council.

Whole of region: Land managers mitigate the risk of new weeds being introduced to their land. Within exclusion zone: Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found. Within core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Blind cactus

Opuntia rufida

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Blind cactus

Opuntia rufida

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Boneseed

Chrysanthemoides monilifera subsp.
monilifera

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Boneseed

Chrysanthemoides monilifera subsp.
monilifera

Control Order

Boneseed Control Zone: Whole of NSW
Boneseed Control Zone (Whole of NSW): Owners and occupiers of land on which there is boneseed must notify the local control authority of new infestations; immediately destroy the plants; ensure subsequent generations are destroyed; and ensure the land is kept free of the plant. A person who deals with a carrier of boneseed must ensure the plant (and any seed and propagules) is not moved from the land; and immediately notify the local control authority of the presence of the plant.

Boxing glove cactus

Cylindropuntia fulgida var. *mamillata*

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Boxing glove cactus

Cylindropuntia fulgida var. *mamillata*

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Bridal creeper

Asparagus asparagoides

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

***this requirement also applies to the Western Cape form of bridal creeper**

Bridal creeper

Asparagus asparagoides

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Bridal veil creeper

Asparagus declinatus

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Broomrapes

Orobanche species

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species of Orobanche are Prohibited Matter in NSW, except Clover broomrape, Orobanche minor and Australian broomrape, Orobanche cernua var. australiana.

Bunny ears cactus

Opuntia microdasys

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Bunny ears cactus

Opuntia microdasys

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Burr ragweed

Ambrosia confertiflora

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Cabomba

Cabomba caroliniana

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Cane cactus

Austrocylindropuntia cylindrica

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the Austrocylindropuntia genus have this requirement

Cape broom

Genista monspessulana

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Carrion flower

Orbea variegata

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Cat's claw creeper

Dolichandra unguis-cati

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Cat's claw creeper

Dolichandra unguis-cati

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Chicken dance cactus

Opuntia schickendantzii

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Chicken dance cactus

Opuntia schickendantzii

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Chilean needle grass

Nassella neesiana

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Chilean needle grass

Nassella neesiana

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Chinese violet

Asystasia gangetica subsp. *micrantha*

Control Order

Owners and occupiers of land on which there is Chinese violet must notify the local control authority for the area if the Chinese violet is part of a new infestation on the land, destroy all Chinese violet on the land ensuring that subsequent generations of Chinese violet are destroyed; and keep the land free of Chinese violet. A person who deals with a carrier of Chinese violet must ensure the plant (and any seed and propagules) is not moved from the land; and immediately notify the local control authority of the presence of the plant on the land, or on or in a carrier.

Climbing asparagus

Asparagus africanus

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Climbing asparagus fern

Asparagus plumosus

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Common pear

Opuntia stricta

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Common pear

Opuntia stricta

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Coolatai grass

Hyparrhenia hirta

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

East Indian hygrophila

Hygrophila polysperma

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Eurasian water milfoil

Myriophyllum spicatum

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Eve's needle cactus

Austrocylindropuntia subulata

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the Austrocylindropuntia genus have this requirement

Fireweed

Senecio madagascariensis

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Fireweed

Senecio madagascariensis

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Flax-leaf broom

Genista linifolia

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Foxtail fern

Asparagus densiflorus

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Frogbit

Limnobium laevigatum

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species of Limnobium are Prohibited Matter

Gamba grass

Andropogon gayanus

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Giant reed

Arundo donax

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Gorse

Ulex europaeus

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Green cestrum

Cestrum parqui

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Grey willow

Salix cinerea

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Ground asparagus

Asparagus aethiopicus

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Harrisia cactus

Harrisia species

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Hawkweeds - Hieraciums

Hieracium species

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species in the genus *Hieracium* are Prohibited Matter except for *Hieracium murorum* (wall hawkweed).

Hawkweeds - Pilosellas

Pilosella species

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species in the genus *Pilosella* are Prohibited Matter

Honey locust

Gleditsia triacanthos

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Hudson pear

Cylindropuntia pallida

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Hudson pear

Cylindropuntia pallida

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Hydrocotyl

Hydrocotyle ranunculoides

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Hygrophila

Hygrophila costata

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Hymenachne

Hymenachne amplexicaulis and hybrids

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Johnson grass

Sorghum halepense

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Karoo acacia

Vachellia karroo

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Kidney-leaf mud plantain

Heteranthera reniformis

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

King devil hawkweed

Pilosella piloselloides

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species in the genus *Pilosella* are Prohibited Matter

Kochia

Bassia scoparia

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Excluding the subspecies *trichophylla*

Koster's curse

Clidemia hirta

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Lagarosiphon

Lagarosiphon major

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Lantana

Lantana camara

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Ludwigia

Ludwigia peruviana

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Madeira vine

Anredera cordifolia

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Mesquite

Prosopis species

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the genus *Prosopis* have this requirement

Mesquite

Prosopis species

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Mexican feather grass

Nassella tenuissima

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Miconia

Miconia species

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species of *Miconia* are Prohibited Matter in NSW

Mikania vine

Mikania micrantha

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

***all species in the genus *Mikania* are Prohibited Matter in NSW**

Mimosa

Mimosa pigra

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Mouse-ear hawkweed

Pilosella officinarum

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species in the genus *Pilosella* are Prohibited Matter

Orange hawkweed

Pilosella aurantiaca

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species in the genus *Pilosella* are Prohibited Matter

Parkinsonia

Parkinsonia aculeata

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Parkinsonia

Parkinsonia aculeata

Control Order

Parkinsonia Control Zone: Whole of NSW

Parkinsonia Control Zone (Whole of NSW): Owners and occupiers of land on which there is parkinsonia must notify the local control authority of new infestations; immediately destroy the plants; ensure subsequent generations are destroyed; and ensure the land is kept free of the plant. A person who deals with a carrier of parkinsonia must ensure the plant (and any seed and propagules) is not moved from the land; and immediately notify the local control authority of the presence of the plant.

Parthenium weed

Parthenium hysterophorus

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Parthenium weed

Parthenium hysterophorus

Prohibition on certain dealings

The following equipment must not be imported into NSW from Queensland: grain harvesters (including the comb or front), comb trailers (including the comb or front), bins used for holding grain during harvest operations, augers or similar for moving grain, vehicles used to transport grain harvesters, support vehicles driven in paddocks during harvest operations, mineral exploration drilling rigs and vehicles used to transport those rigs, unless set out as an exception in Division 5, Part 2 of the Biosecurity Order (Permitted Activities) 2017

Pond apple

Annona glabra

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Prickly acacia

Vachellia nilotica

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Prickly pears - Austrocyllindropuntias

Austrocyllindropuntia species

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the *Austrocyllindropuntia* genus have this requirement

Prickly pears - Cyllindropuntias

Cyllindropuntia species

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the *Cyllindropuntia* genus have this requirement

Prickly pears - Cyllindropuntias

Cyllindropuntia species

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Prickly pears - Opuntias

Opuntia species

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

For all *Opuntia* species except for *Opuntia ficus-indica* (Indian fig).

Prickly pears - Opuntias

Opuntia species

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

This Regional Recommended Measure applies to all species of *Opuntia* except for *Opuntia ficus-indica* (Indian fig).

Riverina pear

Opuntia elata

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Riverina pear

Opuntia elata

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Rope pear

Cylindropuntia imbricata

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the *Cylindropuntia* genus have this requirement

Rope pear

Cylindropuntia imbricata

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Rubber vine

Cryptostegia grandiflora

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Sagittaria

Sagittaria platyphylla

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Sagittaria

Sagittaria platyphylla

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Salvinia

Salvinia molesta

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Salvinia

Salvinia molesta

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

Scotch broom

Cytisus scoparius subsp. *scoparius*

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Serrated tussock

Nassella trichotoma

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Serrated tussock

Nassella trichotoma

Regional Recommended Measure

An exclusion zone is established for the whole of region, except the core infestation area which defined as from the Central West Local Land Services Boundary North along Burrendong Way to Stuart Town. East along Mookerawa Road to Burrendong Dam. East along Oaky Creek bounded by the Central West Local Land Service boundary.

Whole of region: Land managers mitigate the risk of new weeds being introduced to their land. Within exclusion zone: Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found. Within core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Siam weed

Chromolaena odorata

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Silverleaf nightshade

Solanum elaeagnifolium

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Smooth tree pear

Opuntia monacantha

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Smooth tree pear

Opuntia monacantha

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Snakefeather

Asparagus scandens

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Spiny burrgrass - longispinus

Cenchrus longispinus

Regional Recommended Measure

An exclusion zone is established for all lands in the Central West except the core infestation which is defined as all lands within the Lachlan Shire Local Government Area.

Whole of region: Land managers mitigate the risk of new weeds being introduced to their land. Within exclusion zone: Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found. Within core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Spongeplant

Limnobia spongia

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species of *Limnobia* are Prohibited Matter

Spotted knapweed

Centaurea stoebe subsp. *micranthos*

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

St. John's wort

Hypericum perforatum

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Tiger pear

Opuntia aurantiaca

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Tiger pear

Opuntia aurantiaca

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Tropical soda apple

Solanum viarum

Control Order

*Tropical Soda Apple Control Zone: Whole of NSW
Tropical Soda Apple Control Zone (Whole of NSW): Owners and occupiers of land on which there is tropical soda apple must notify the local control authority of new infestations; destroy the plants including the fruit; ensure subsequent generations are destroyed; and ensure the land is kept free of the plant. A person who deals with a carrier of tropical soda apple must ensure the plant (and any seed and propagules) is not moved from the land; and immediately notify the local control authority of the presence of the plant on the land, or on or in a carrier.*

Velvety tree pear

Opuntia tomentosa

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Velvety tree pear

Opuntia tomentosa

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Water caltrop

Trapa species

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species in the *Trapa* genus are Prohibited Matter in NSW

Water hyacinth

Eichhornia crassipes

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Water hyacinth

Eichhornia crassipes

Biosecurity Zone

The Water Hyacinth Biosecurity Zone applies to all land within the State, except for the following regions: Greater Sydney or North Coast, North West (but only the local government area of Moree Plains), Hunter (but only in the local government areas of City of Cessnock, City of Lake Macquarie, MidCoast, City of Maitland, City of Newcastle or Port Stephens), South East (but only in the local government areas of Eurobodalla, Kiama, City of Shellharbour, City of Shoalhaven or City of Wollongong).

Within the Biosecurity Zone this weed must be eradicated where practicable, or as much of the weed destroyed as practicable, and any remaining weed suppressed. The local control authority must be notified of any new infestations of this weed within the Biosecurity Zone

Water soldier

Stratiotes aloides

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Wheel cactus

Opuntia robusta

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Wheel cactus

Opuntia robusta

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Willows

Salix species

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the *Salix* genus have this requirement, except *Salix babylonica* (weeping willows), *Salix x calodendron* (pussy willow) and *Salix x reichardtii* (sterile pussy willow)

Witchweeds

Striga species

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species in the *Striga* genus are Prohibited Matter in NSW, except the native *Striga parviflora*

Yellow burrhead

Limnocharis flava

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Yellow waterlily

Nymphaea mexicana

Regional Recommended Measure

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.

The content provided here is for information purposes only and is taken from the *Biosecurity Act 2015* and its subordinate legislation, and the Regional Strategic Weed Management Plans (published by each Local Land Services region in NSW). It describes the state and regional priorities for weeds in New South Wales, Australia.



www.dpi.nsw.gov.au

Appendix G: Consultation letters

From: [REDACTED]
To: [Mark Woods](#)
Cc: [REDACTED]
Subject: Re: Attention Director: Port to REZ Road upgrade program - TISEPP Consultation
Date: Monday, 11 November 2024 6:01:54 PM

You don't often get email from christopher.lidman@anu.edu.au. [Learn why this is important](#)

CAUTION: This email is sent from an external source. Do not click any links or open attachments unless you recognise the sender and know the content is safe.

Dear Mark,

Thank you for allowing the Observatory to comment on the works.

Given the temporary nature of the lighting and the distance to the Observatory, the proposed lighting is unlikely to have a significant impact on the night sky brightness above the Observatory.

My only recommendation is to ensure that lighting is directed where it is needed and to shield the lights so that light does not escape above the horizontal.

Again, thank you for allowing the Observatory to comment and good luck with the works.

Kind Regards,

[REDACTED]

A/Professor [REDACTED]
Director, Siding Spring Observatory,
Research School of Astronomy and Astrophysics,
The Australian National University, Canberra, ACT, Australia

[REDACTED]



OFFICIAL

From: FS - Sliding Spring Observatory Admin <sso.admin@anu.edu.au>

Date: Monday, 11 November 2024 at 2:31 PM

To: [REDACTED]

Subject: FW: Attention Director: Port to REZ Road upgrade program - TISEPP Consultation

Hi [REDACTED]
fyi

From: Mark Woods [REDACTED]
Sent: Thursday, 7 November 2024 7:55 AM
To: FS - Sliding Spring Observatory Admin <sso.admin@anu.edu.au>
Cc: Dimitri Perdikaris [REDACTED]
Subject: Attention Director: Port to REZ Road upgrade program - TISEPP Consultation

You don't often get email from [REDACTED] [Learn why this is important](#)

Good morning,

Please see attached letter to the Director seeking feedback on minor road upgrades proposed to support the Central West Orana Renewable Energy Zone – Port to REZ Road Upgrade Program.

Regards,

Mark Woods
Environment and Sustainability Manager
Environment | Safety, Policy, Environment & Regulation
T [REDACTED]

Transport for NSW

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OFFICIAL

Associate Professor [REDACTED]
Director Siding Spring Observatory
Observatory Road
Coonabarabran NSW 2357

Re: Consultation regarding proposed Central West Orana Renewable Energy Zone – Installation of Pullover Bays as part of the Port to REZ Road Upgrade Program

8 November 2024

Dear Associate Professor [REDACTED],

Transport for NSW is proposing to carry out minor roadside modifications to provide and or formalise existing pull-over bays within the Singleton, Muswellbrook, Upper Hunter and Warrumbungle LGAs to transport over-sized and/or over-mass (OSOM) components from the Port of Newcastle to the Central West Orana Renewable Energy Zone (CWO REZ) (the proposal).

The proposed minor roadside modifications are located within the dark sky region as follows with the closest location (W-008) being 87 kilometres to the south east of the Siding Spring Observatory:

- Golden Highway, Sandy Hollow (W-002)
- Golden Highway, one kilometre west of Glenroy Road (W-004)
- Golden Highway, 2.2 kilometres east of Pembroke Road (W-005)
- Golden Highway and Tony Road (W-006)
- Golden Highway, Leadville (W-007)
- Golden Highway, west of Dunedoo (W-008)
- Wybong Road (W-009).

The proposed minor roadside modifications at the above locations require excavation, readjustment of utilities, realign roadside and extend cross drainage infrastructure, placement of pavement so that OSOM components can safely pull over and let general pass, as well as installation of guideposts, markings and signage at these stopping areas to allow for stoppage of OSOM components.

To reduce potential traffic impacts during the construction phase of the proposal, night works may be required at the referenced locations above. Such night works may temporarily increase artificial light in the night sky during construction of these intersection. Any temporary lighting

deployed during construction would be chosen and orientated to reduce light pollution where possible.

The proposal would not result in any new lighting impacts on the dark sky region during the operational phase.

Review of Environmental Factors

A review of environmental factors (REF) has been prepared to assess the likely impacts of the proposal under Division 5.1 of the *Environmental Planning and Assessment Act 1979*.

Consultation under State Environmental Planning Policy (Transport and Infrastructure) 2021

Under clause 2.15(2)(d) of the State Environmental Planning Policy (Transport and Infrastructure) 2021, Transport is required to undertake consultation with the Director of the Siding Spring Observatory as the proposal is located within 200 kilometres of the Siding Spring Observatory and may temporarily increase the amount of artificial light in the night sky during potential night construction works.

An outline of the proposal is attached to this letter.

It would be appreciated if you could provide any comments on this proposal by 6 December 2024.

Yours sincerely,

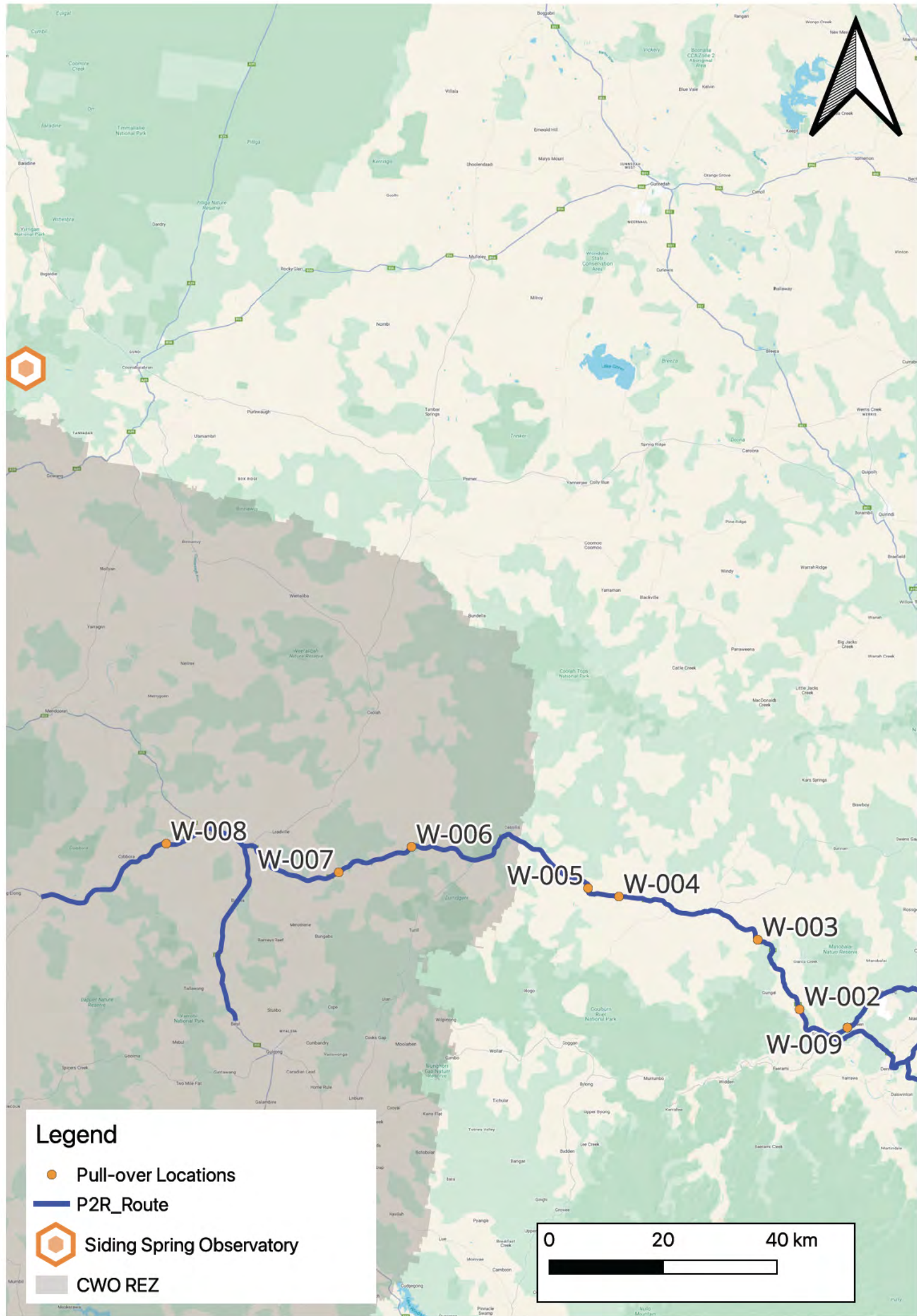
D Perdikaris

Dimitri Perdikaris
Senior Manager Renewables Transportation

Contact details: Phone: [REDACTED] Email: [REDACTED]

Attachments:

- Outline of proposal showing minor roadside modifications along State highway (in blue) that are proposed to be constructed and or formalised and their proximity to the Siding Spring Observatory



Legend

● Pull-over Locations

— P2R_Route



Siding Spring Observatory



CWO REZ

0 20 40 km

