



21 March 2025

Queanbeyan-Palerang Regional Council  
Construction Engineer (attn Ivan Riz)  
PO Box 90  
Queanbeyan, NSW 2620

Ref.: LTR.SOB.20250321

Dear Ivan,

**Review of Environmental Factors Nerriga Road Stage 5 Addendum - DRAFT**

This addendum is prepared to support the existing Review of Environmental Factors (REF) prepared by NGH for Queanbeyan-Palerang Regional Council (herein 'Council') for the construction of the Stage 5 Nerriga Road upgrade (herein 'proposal').

The REF was completed by NGH Consulting and was issued to Council as Final v1 dated 6 July 2020, with a technical report for cultural heritage included as Appendix H (Aboriginal Due Diligence, also prepared by NGH and dated 17 June 2020). The REF assessed a study area based on a 2017 design plan package.

Council intends to commence construction of the proposal in 2025 and has now prepared an updated design package, MR92 Nerriga Road Ningee Nimble Reconstruction Revision 3. The REF is almost five years old and requires review to bring it up to currency. As such, QRC Environment have reviewed the REF focusing on the following aspects:

- Review of the updated design with respect to the original study area and REF scope.
- Review and update of the statutory planning context.
- Review and update of the biodiversity assessment.
- Review of the cultural heritage aboriginal due diligence assessment

The location and alignment of the revised design has not changed substantially and as such a completely new REF was considered unnecessary. It is important to note that this addendum does not include a rework of the existing REF, but rather provides updates, amendments, justifications and recommendations. It does not independently constitute a REF or approval for the proposal and should only be read, and determined, in conjunction with, and attached to the existing REF (NGH, 2020).

Warm regards,

Skye O'Brien

Associate Director Environment

# 1 EXECUTIVE SUMMARY

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This addendum supports the existing Review of Environmental Factors (REF) prepared by NGH in 2020 for the Stage 5 Nerriga Road upgrade (herein 'proposal'), ensuring the assessment remains current ahead of construction in 2025. The review includes updates based on the revised design package and addition of ancillary areas, statutory planning changes, and additional assessments for biodiversity and cultural heritage.

The results confirm that while most of the proposed works remain within the original study area, the identification of a threatened flora species and potential habitat in part of the study area necessitate refined avoidance and mitigation measures. Key considerations include the avoidance and mitigation of potential ecological and cultural impacts and safeguards have been integrated to address:

- The protection of threatened flora and threatened flora habitat, through implementing a no-go zone from Chainage (CH) 3450 to CH 4373 at the limit of works and within a small section of ancillary area 2. Any works within the no-go zone will be subject to further assessment and potential redesign to avoid significant impacts. The no-go zone protects the following:
  - *Genoplesium superbum* (Superb Midge Orchid), listed as Endangered under the NSW *Biodiversity Conservation Act 2016* identified in the study area through targeted surveys undertaken in February 2025.
  - Potential suitable habitat for *Caladenia tessellata* (Thick-lipped Spider Orchid) listed as Endangered under both the BC Act and Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), mapped in advance of targeted surveys scheduled for September / October.
- Management of impacts to cultural heritage through confirmation of the Potential Archaeological Deposit (PAD) and its boundaries, and progression of the Aboriginal Cultural Heritage Assessment Report (ACHAR), now underway.

As a result of the no go zone, works may proceed only within a reduced proposal area from CH 0 to CH 3450, identified as 'Stage 1' for the purpose of this REF addendum. Further assessment is required prior to any works commencing within the no-go zone (future 'Stage 2'). Based on the current scope of works for Stage 1, no additional permits or approvals are required beyond those already identified in the original REF. These include:

- A Fisheries Permit under Section 200 of the *Fisheries Management Act 1994*, due to proposed works affecting Key Fish Habitat (KFH).
- Aboriginal Heritage Impact Permit (AHIP) must be obtained as Aboriginal objects have been recovered during the testing program recently undertaken for the ACHAR.

Similarly, further assessment under Section 5.7 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) is not necessary for Stage 1, as the proposal is not likely to significantly affect the environment, threatened species, ecological communities, or their habitats. With robust safeguards in place and detailed in the Construction Environmental Management Plan (CEMP), including those listed in the REF and this addendum letter, the proposal will proceed with minimal environmental impact, delivering critical infrastructure improvements while ensuring compliance with statutory requirements. This addendum does not replace the original REF but should be read in conjunction with it to inform Council's determination process.

## 2 REF REVIEW

QRC Environment have completed a review of the original REF, completed by NGH Consulting and dated 6 July 2020. This letter outlines only those chapters that require update, providing updated text or figures and relevant justification for the addendum update.

### CHAPTERS 1 AND 2

Table 1 below review Chapters 1 and 2 of the REF, highlighting specific sections of the original content and the corresponding required addendum update.

Table 1: REF review Chapters 1 and 2

Chapter reference	Addendum Update
<b>1.Introduction</b>	
Study area	<p>Since the REF preparation in 2020, detailed design has been undertaken, and the extent of proposed works has been amended (the location and revised study area is shown on Figure 1). The REF review notes the following findings:</p> <ul style="list-style-type: none"><li>• The works were initially identified to include 26.23 ha of land, and the revised works footprint now only includes 20.7 ha of land plus 1.9 ha for the two ancillary areas combined.</li><li>• Generally, the 2025 road alignment study area is contained within the 2017 study area.</li><li>• The most notable areas where the 2025 study area extends beyond the 2017 study area is at the intersections of Tall Timbers Road, the private accessways north and south of Nerriga Road (nearby to Glenrea Creek), the private road south of Nerriga Road (near Jimmy Wrights Gully), and the Haughton Road Intersection. Generally, these intersection upgrades extend approximately 50m outside the 2017 study area.</li><li>• As part of the proposed works, two ancillary sites are proposed for stockpiling activities during construction, identified as Area 1 and Area 2.</li></ul> <p>The change in proposal footprint and study area is consistent with the NGH REF recommendation to reduce impacts and only impact areas that require works.</p> <p>Figure 2 shows both the 2017 REF study and the current 2025 study area including the two ancillary sites, Area 1 and Area 2.</p>
Construction timeframe and staging	<p>The proposal will be constructed in two stages, as follows:</p> <ul style="list-style-type: none"><li>• Stage 1 – Chainage 0 to 3450</li><li>• Stage 2 – Chainage 3450 to 4373.</li></ul> <p>Stage 2 is on hold pending further ecological assessment and this REF will be reviewed and updated for Stage 2 in future. Stage 2 is identified as a complete no-go zone; further detail is included in the biodiversity assessment section of this addendum letter.</p>

	Construction of Stage 1 is expected to take 6 months to complete and is anticipated to commence in mid-2025 and be completed by the end 2025.																																
<b>2.Proposal</b>																																	
Site context - bushfires	At the time of the 2020 REF, the study area had been recently affected by bushfire. The biodiversity assessment included in this addendum considers regrowth in vegetation condition that has occurred since the 2019/20 bushfires.																																
Site context - waterways	<p>The 2020 REF did not accurately describe the watercourses within the study area and broader catchment. The proposal study area includes 11 watercourses. These include:</p> <ul style="list-style-type: none"> <li>• 3 x first order watercourses</li> <li>• 7 x second order watercourses (including named Glenrea Creek and Jimmy Wrights Gully))</li> <li>• 1 x third order watercourse, including named Ningee Nimble Creek.</li> </ul> <p>The watercourses are all part of the Shoalhaven River catchment, flowing in a northern direction, eventually converging with the Shoalhaven River downstream. Watercourses are identified on Figure 3.</p>																																
Site context – affected land	<p>The revised study area is not contained completely within the boundaries of the existing road reserve and will affect the following land, updated from the original REF:</p> <table> <tr> <th>Property</th><th>Ownership</th></tr> <tr><td>12/755964</td><td>FREEHOLD</td></tr> <tr><td>2/830605</td><td>FREEHOLD</td></tr> <tr><td>69/755964</td><td>FREEHOLD</td></tr> <tr><td>6/755964</td><td>FREEHOLD</td></tr> <tr><td>71/755964</td><td>FREEHOLD</td></tr> <tr><td>7/755964</td><td>FREEHOLD</td></tr> <tr><td>7006/1033208</td><td>CROWN</td></tr> <tr><td>7004/1033209</td><td>CROWN</td></tr> <tr><td>67/755964</td><td>FREEHOLD</td></tr> <tr><td>68/755964</td><td>FREEHOLD</td></tr> <tr><td>75/755964</td><td>FREEHOLD</td></tr> <tr><td>66/755964</td><td>FREEHOLD</td></tr> <tr><td>5/755964</td><td>FREEHOLD</td></tr> <tr><td>1/755970</td><td>FREEHOLD</td></tr> <tr><td>37/DP755970 (Area 2)</td><td>FREEHOLD</td></tr> </table>	Property	Ownership	12/755964	FREEHOLD	2/830605	FREEHOLD	69/755964	FREEHOLD	6/755964	FREEHOLD	71/755964	FREEHOLD	7/755964	FREEHOLD	7006/1033208	CROWN	7004/1033209	CROWN	67/755964	FREEHOLD	68/755964	FREEHOLD	75/755964	FREEHOLD	66/755964	FREEHOLD	5/755964	FREEHOLD	1/755970	FREEHOLD	37/DP755970 (Area 2)	FREEHOLD
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Description – design and ancillary areas.	<p>The detailed design drawings are provided in Appendix 1 – Design Plans, attached to this addendum letter. These replace the concept drawings included in Appendix A of the 2020 REF.</p> <p>The 2020 REF noted that compound and stockpile site locations would be negotiated. Two ancillary area study areas (Area 1 and Area 2) have been included and assessed as part of the REF review.</p>	

## CHAPTER 3 - LEGAL AND POLICY REQUIREMENTS

### *Legal Permissibility*

QRC has reviewed the 2020 REF and identified several planning and legislative aspects that are out of date and require updating. In 2022 the NSW Government consolidated the existing 45 State Environmental Planning Policies (SEPPs) into 11 to simplify the framework. Several SEPPs discussed in the original REF have now been consolidated and are discussed below.

Furthermore, the EP&A Regulations were updated in 2021, and additional clauses were added to the list of factors to be considered as well as requirements on when to publish the REF for public consultation. Table 2 below outlines planning and legislative aspects that are out of date and provides updated context with reference to the existing REF.

Table 2: Legislative updates

Legislative Context and Proposed Update		Summary of Key Changes
Name	Context	
<i>Environmental Planning and Assessment Regulation 2021</i> Section 171 (2)(q) – Applicable Local, State, Regional, District strategic plans	Section 171 of the EP&A Regulation sets out the environmental factors which must be taken into consideration when preparing a REF. This includes the consideration of applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1.  The REF did not consider the <i>South East and Tablelands Regional Plan 2036</i> (DPE, 2017) or the Local Strategic Planning Statement for Queanbeyan-Palerang Regional Council: <i>Towards 2040</i> (QPRC, 2020).	No change to the REF outcome.  Reference to, and commentary in relation to these plans is included in section titled <i>Strategic Planning Context</i> .
<i>Environmental Planning and Assessment Regulation 2021</i> Section 171 (4) – Consultation	Section 171(4) of the EP&A Regulation sets out the conditions in which an REF must be published on the determining authority's website or NSW Planning Portal. These conditions are if –  a. <i>the activity has an estimated development cost of more than \$5 million; or</i>  b. <i>the activity requires an approval or permit as referred to in any of the following provisions before it may be carried out</i> –  i. <i>Fisheries Management Act 1994, sections 144, 200, 205 or 219;</i>  ii. <i>Heritage Act 1977, section 57; or</i>  iii. <i>National Parks and Wildlife Act 1974, section 90; or</i>  iv. <i>Protection of the Environment Operations Act 1997, sections 47-49 or 122; or</i>  <i>The activity is development carried out under State Environmental Planning Policy (Transport and Infrastructure) 2021, section 2.61A or 3.37A, or</i>  c. <i>the determining authority considers that it is in the public interest to publish the review.</i>  The proposal will involve the crossing of drainage lines identified as Key Fish Habitat (KFH) and will require a permit under Section 200 of the <i>Fisheries Management Act 1994</i> . As a result, Section 171(4) of the EP&A Regulation 2021 is triggered in accordance with Section 171(4)(b)(i) of the Regulation and Council is required to publish the REF and accompanying documentation on either Council's website or the NSW Planning Portal.	Additional requirement to publish the REF, not previously required by the EP&A Regulation at the time of the original REF.
<i>State Environmental Planning Policy (Biodiversity and</i>	The 2020 REF listed outdated SEPP, <i>State Environmental Planning Policy (Koala Habitat Protection) 2019</i> .	No change to the REF outcome.

Legislative Context and Proposed Update		Summary of Key Changes
Name	Context	
<i>Conservation Sepp) 2021</i>	<p>The Biodiversity and Conservation SEPP 2021 (Chapter 4) replaces this SEPP, discussed below:</p> <p><b>Chapter 4 – Koala Habitat Protection 2021</b></p> <p>Chapter 4 of the Biodiversity and Conservation SEPP applies to Local Government Areas (LGAs) listed in Schedule 2. Queanbeyan-Palerang Regional Council is listed under Schedule 2.</p> <p>The Koala Habitat Protection SEPP aims to encourage the conservation and management of areas of natural vegetation that provide habitat for koalas to support a permanent free-living population over their present range and reverse the current trend of koala population decline.</p> <p>The Project is being assessed under Part 5 of the EP&amp;A Act; therefore, the Koala Habitat Protection SEPP does not apply.</p>	The only required update is to legislation naming and section references.
<i>State Environmental Planning Policy (Transport and Infrastructure) 2021</i>	<p>The 2020 REF listed outdated SEPP, <i>State Environmental Planning Policy (Infrastructure) 2007</i>.</p> <p>The Transport and Infrastructure SEPP 2021 replaces this SEPP.</p> <p>The aim of the Transport and Infrastructure SEPP (TISEPP) is to facilitate the effective delivery of infrastructure across NSW by identifying whether certain types of infrastructure require consent, can be carried out without consent or are exempt development. Pursuant to Section 2.109 of the TISEPP, development for the purpose of road or road infrastructure may be carried out by or on behalf of a public authority without consent on any land.</p> <p>The Project is considered development without consent as the proposed works are road works. This is in accordance with Section 2.109 of the TISEPP.</p>	<p>No change to the REF outcome.</p> <p>Although the SEPP applies, the intent and legislative context remains the same and the only update is to legislation naming and section references.</p>
<i>State Environmental Planning Policy (Transport and Infrastructure) 2021</i> Part 2.2. Division 1 – Consultation Section 2.13	<p>Part 2.2 of the TISEPP contains provisions for public authorities to consult with other agencies prior to the commencement of the proposed works. This includes consultation with State Emergency Service (SES) if works are proposed on flood liable land. As the works are not proposed on flood liable land, consultation with SES is not required.</p> <p>The previous ISEPP 2007 included consultation requirements, however section 2.13 is a new inclusion.</p>	No change to the REF outcome.
<i>State Environmental Planning Policy (Biodiversity and Conservation Sepp) 2021</i>	<p>The 2020 REF listed outdated SEPP, <i>State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011</i>.</p> <p>The Biodiversity and Conservation SEPP 2021 (Chapter 6) replaces this SEPP, discussed below:</p>	<p>No change to the REF outcome.</p> <p>The REF has included a NoRBE assessment, and</p>

Name	Legislative Context and Proposed Update	Summary of Key Changes
	<p><b>Chapter 6 – Water catchments (Part 6.5 – Sydney Drinking Water Catchment)</b></p> <p>The objectives of this Part are—</p> <p>(a) to provide for healthy water catchments that will deliver high quality water to the Sydney area while also permitting compatible development, and</p> <p>(b) to provide for development in the Sydney Drinking Water Catchment to have a neutral or beneficial effect on water quality.</p>	<p>this has been reviewed and remains acceptable.</p> <p>The only update is to legislation naming and section references.</p>
<p><i>Biosecurity Act 2015</i></p>	<p>The Biosecurity Act provides a framework for the prevention, elimination and minimisation of biosecurity risks posed by a biosecurity matter, dealing with a biosecurity matter, carriers and potential carriers, and other activities that involve biosecurity matter. Whilst the Act provides for all biosecurity risks, implementation of the Act for weeds is supported by Regional Strategic Weed Management Plans (RSWMP) developed for each region in NSW. Appendix 1 of the South East Regional Strategic Weed Management Plan 2023 – 2027 identifies the priority weeds for control at a regional scale. Some of these weeds are also State Priority Weeds.</p> <p>Two species of priority weeds were identified within the site. These species were:</p> <ul style="list-style-type: none"> <li>• <i>Rubus fruticosus sp. agg.</i> (Blackberry) – Containment and/or Asset Protection – Weed of National Significance (WONS). State priority .</li> <li>• <i>Cirsium vulgare</i> (Spear Thistle) – Containment and/or Asset Protection – WONS. State priority.</li> </ul>	<p>The 2020 REF did not include this in the legislative context table.</p> <p>No further implications as the REF includes mitigation measures and protocols recommended for the weeds listed as priority, Blackberry and Spear Thistle.</p>
	<p>The Heritage Act provides protection of the environmental and cultural heritage of the State which includes places, buildings, works, relics, movable objects, or precincts that are of State or local heritage significance. The NSW State Heritage Register (SHR) is the statutory register under Part 3A of the Heritage Act. Listing on the SHR means that any proposed works or alterations (unless exempted) to listed items must be approved by the Heritage Council or its delegates under section 60 of the Act.</p> <p>Twelve previously recorded heritage sites are listed under the <i>NSW Heritage Act</i> within the Palerang LGA however none of the sites are located within or adjacent to the proposal site.</p>	<p>The 2020 REF did not include this in the legislative context table.</p> <p>No changes required, no heritage sites within or directly adjacent to the study area.</p>



Legislative Context and Proposed Update		Summary of Key Changes
Name	Context	
<i>Queanbeyan Palerang Regional Local Environmental Plan (LEP) 2022</i>	<p>The 2020 REF considered the now outdated <i>Palerang Local Environmental Plan 2014</i>. The Queanbeyan-Palerang Regional Council LEP replaced the Palerang LEP.</p> <p>The current LEP guides and provides a framework for managing land use and development within the local government areas. The LEP was designed to promote sustainable development within the area.</p> <p>The study area is mapped on the Drinking Water Catchment Map and in accordance with Clause 7.3 of the LEP.</p> <p>Ningee Nimble Creek is mapped as a 'Watercourse' on the Riparian Lands and Watercourses Map and in accordance with clause 7.4 of the LEP.</p> <p>Most of the study area is mapped as 'Biodiversity' on the Terrestrial Biodiversity Map and in accordance with clause 7.2 of the LEP.</p> <p>Clause 5.12 of the LEP states that the LEP does not restrict or prohibit, or enable the restriction or prohibition of, the carrying out of any development, by or on behalf of a public authority, that is permitted to be carried out with or without development consent, or that is exempt development, under State Environmental Planning Policy (Transport and Infrastructure) 2021, Chapter 2.</p> <p>Therefore, the LEP provisions do not restrict the works however, this REF will consider the consistency of the project with the LEP, assessing potential impacts on watercourses, biodiversity and water quality accordingly.</p>	<p>No changes required. Although a new LEP is in force, the TISEPP continues to override the new LEP as was the case for the Palerang LEP 2014.</p>

### Strategic Planning Context

The initial REF did not consider the relevant Regional Plan or the Local Strategic Planning Statement (LSPS). These plans are designed to assist councils with delivering appropriate planning and development pathways for achieving maximum benefits to communities. This section outlines the purpose of those plans and describes how the project aligns with specific objectives set out within the plans.

#### 2.1.1.1 South East and Tablelands Regional Plan 2036

The South East and Tablelands Regional Plan 2036 guides the NSW Government's land use planning priorities and decisions over the next 20 years. It is an overarching framework to guide more detailed land use plans, development proposals and infrastructure funding decisions.

The Implementation Plan that accompanies this Plan includes a series of priority actions and identifies medium- and longer-term actions to coincide with population and economic change. The Plan sets out four goals, detailed in Table 3 with a brief description of how the project addresses relevant goals.

Table 3: Regional Plan relevance to the project

SETRP 2036 Goals	Relevance to Proposed Works
<b>Goal 1:</b> A connected and prosperous economy.	The proposal will contribute to Direction 11 of this goal, which is to enhance strategic transport links to support economic growth. Specifically, the project addresses Actions 11.1 and 11.2:  <b>Action 11.1</b>  Improve the capacity of the regional freight network by investigating and prioritising upgrades to narrow bridges, culverts, alignment, and lane and shoulder width that constrain restricted access vehicles  <b>Action 11.2</b>  Deliver local and regional road projects that support the regional freight network.
<b>Goal 2:</b> A diverse environment interconnected by biodiversity corridors	The proposal and the REF supports Direction 14 Protect important environmental assets and Action 14.3 through the minimisation of potential impacts arising from development on areas of high environmental value, including groundwater-dependent ecosystems and aquatic habitats, and implement the 'avoid, minimise and offset' hierarchy.
<b>Goal 3:</b> Healthy and connected communities	Not applicable to the project
<b>Goal 4:</b> Environmentally sustainable housing choices	Not applicable to the project.

#### 2.1.1.2 Towards 2040 Queanbeyan-Palerang Regional Council

Towards 2040 is Council's LSPS setting out a 20-year vision for the future of the Queanbeyan-Palerang Regional LGA and the actions that will be taken to achieve the vision. It provides a blueprint for how and where the region will grow in the future (QPRC, 2020). It provides the land-use planning framework for the LGA, providing a local link to the broader South East and Tablelands Regional Plan. The LSPS sets out several planning priorities, with those most relevant to the Project summarised in below.

Table 4: Towards 2040

LSPS Principle	Relevance to Proposed Works
Strategic Pillar 1 – A vibrant and active Queanbeyan-Palerang	The Nerriga Road Stage 5 upgrade enhances access and safety for the local community, contributing to an active and connected lifestyle. By improving traffic efficiency and safety, the proposal supports regional vitality by enabling better connectivity for residents and visitors, which aligns with the LSPS's goals for a vibrant community.
Strategic Pillar 2 – A prosperous Queanbeyan-Palerang	The upgraded road will support economic activity by improving freight efficiency, reducing maintenance costs, and enhancing road safety, which benefits the broader economic network of Queanbeyan-Palerang. By facilitating smoother transport routes, the proposal supports local businesses and logistics, promoting economic prosperity in line with the LSPS objectives.
Strategic Pillar 3: A sustainably managed Queanbeyan-Palerang	The sealing of Nerriga Road reduces sediment runoff into nearby waterways, contributing to improved water quality. The proposal integrates erosion and sediment control measures and biodiversity safeguards, aligning with the LSPS's sustainability goals. Additionally, the biodiversity management plan and heritage impact assessment align with sustainable land management practices.
Strategic Pillar 4: A connected Queanbeyan-Palerang	The upgraded road will improve connectivity between communities along the Nerriga Road corridor, linking residents and enhancing accessibility. The proposal aligns with the LSPS's vision of a connected region by providing a reliable, efficient route for both residents and freight, fostering a more integrated transport network.
Strategic Pillar 5 – A well governed Queanbeyan-Palerang	The proposal is governed by thorough environmental, heritage, and community impact assessments, adhering to Part 5 of the EP&A Act. This reflects responsible governance, aligning with the LSPS's emphasis on effective planning and regulation to ensure that regional developments are carefully evaluated and managed.

## CHAPTER 4 - CONSULTATION

### *State Emergency Service*

Part 2.2, Section 2.13 of the current TISEPP contains provisions for public authorities to consult with other agencies prior to the commencement of the proposed works. This includes consultation with State Emergency Service (SES) if works are proposed on flood liable land. As the works are not proposed on flood liable land, consultation with SES is not required.

### *Consultation with public authorities other than Councils*

The 2020 REF included a checklist for consultation with public authorities other than Councils, with reference to the ISEPP, clause 16. The TISEPP contains the same checklist with some minor wording changes. Table 4-1 in the REF remains valid, however the below table includes additional checklist items that were added in the TISEPP in 2021 update.

Table 5: TISEPP Section 2.15 Consultation with authorities other than Council – additional provisions for addendum

Is consultation with a public authority (other than Council) required under sections 2.15 of the SEPP (Transport and Infrastructure)?		
(c) development comprising a fixed or floating structure in or over navigable waters—Transport for NSW,	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(g) development on, or reasonably likely to have an impact on, a part of the Willandra Lakes Region World Heritage Property—the World Heritage Advisory Committee and Heritage NSW,	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(h) development within a Western City operational area specified in the Western Parkland City Authority Act 2018, Schedule 2 with an estimated development cost of \$30 million or more—the Western Parkland City Authority constituted under that Act.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

### Public Exhibition

Section 171(4) of the EP&A Regulation sets out the conditions in which an REF must be published on the determining authority's website or NSW Planning Portal. The project requires a Fisheries permit, and therefore Council is required to publish this REF.

## CHAPTER 5 - ENVIRONMENTAL ASSESSMENT

Chapter 5 of the 2020 REF has been reviewed in line with the current design package. It is confirmed that all environmental factors assessed, and safeguards and mitigation measures included remain relevant except for the following specialist areas that required additional assessment:

- Biodiversity
- Indigenous Heritage

### Biodiversity

QRC engaged Australian Ecology Solutions Pty Ltd (AES), to assist in reviewing biodiversity assessments conducted for the proposal and to assess parts of the updated study area not previously assessed (Figure 2). The following scope was undertaken:

- Assess the adequacy of the existing REF under the NSW EP&A Act, BC Act, and the EPBC Act, given the time that has passed since the assessment.
- Consider regrowth in vegetation condition, as the works area was severely burned in the 2019-2020 summer bushfires.
- Review the revised impact area, against the previous assessment recommendations.
- Make recommendations to assist Council in finalising the revised impact area
- Complete targeted surveys for threatened flora identifiable in February (*Eucalyptus recurva* and *Genoplesium superbum*)
- Map areas of suitable habitat for *Caledonia tessellata* within the proposal area and two ancillary areas.

The results of the above assessments are attached as Appendix 2 - Ecological Assessments (2024, 2025). Table 6 highlights the results of the biodiversity review, and outlines the updates, including where additional assessment is required, or has been undertaken.

Table 6: Biodiversity Addendum Assessment

Chapter heading in REF	Update
Field Survey Methodology	<p>A site inspection was conducted on 25 October 2024, to understand the condition of the site since the preparation of the REF and fires in 2019/2020. The site inspection involved traversing the works area on foot and in vehicle taking photographs and noting current vegetation condition.</p> <p>A site inspection was conducted on 19 February 2025 to complete targeted surveys as follows, and to assess the two added ancillary areas (Area 1 and Area 2):</p> <ul style="list-style-type: none"> <li>• <i>Genoplesium superbum</i> (Superb Midge Orchid)</li> <li>• <i>Eucalyptus recurva</i> (Mongarlowe Mallee)</li> <li>• Habitat mapping for <i>Caladenia tessellata</i> (Thick-lipped Spider Orchid) to inform future targeted surveys for this species.</li> </ul>
BioNet & PMST search	<p>BioNet and PMST search were ran again, with a 10 km radius. A search of threatened species records within 10km of the works identified 21 threatened fauna, and nine threatened flora species. Updated figures are included in Appendix 2 - Ecological Assessments (2024, 2025). These figures replace Figures 5-5 and 5-6 in the 2020 REF.</p> <p>For threatened fauna, the review identified that all 21 species known from the 10km radius were previously considered in the REF.</p> <p>For threatened flora, the review identified that one species was not considered in the REF, being <i>Genoplesium superbum</i> (Superb Midge Orchid) which at the time of search, had a record from February 2024. This species is listed as Endangered under the BC Act and not listed under the EPBC Act. Targeted surveys were recommended and undertaken in February 2025.</p>
Conservation listing updates	<p>The following species were identified in the Likelihood of Occurrence table in the REF, however, have had their conservation listings upgraded under the EPBC Act as follows:</p> <ul style="list-style-type: none"> <li>• South-eastern Glossy Black-cockatoo (<i>Calyptorhynchus lathami lathami</i>) was listed as Vulnerable under the EPBC Act in 2022, and as such the impacts under the EPBC Act were not considered in the REF.</li> <li>• Gang-gang Cockatoo (<i>Callocephalon fimbriatum</i>) was listed as Endangered under the EPBC Act in 2022, and as such the impacts under the EPBC Act were not considered in the REF.</li> <li>• Koala (<i>Phascolarctos cinereus</i>) was listed as Endangered under the EPBC Act in 2022 (an uplisting from Vulnerable), and as such the Significant Impact Criteria (SIC) for this species has changed.</li> </ul> <p>Significant Impact Assessments under the EPBC Act have been completed and are attached as Appendix 3 – EPBC Act Significant Impact Criteria Assessments to capture the above listing changes. Importantly, the extent of vegetation to be disturbed has been reduced from the 2017 footprint.</p>
Field Results (general due diligence reinspection of updated study area)	<p>The site inspection undertaken on the 25 October 2024 identified that habitat condition is broadly consistent with the descriptions within the REF. To note, regrowth of <i>Acacia mearnsii</i> (Black Wattle) since the fires is significant, and large portions of the roadside represent a dense monoculture of this species. Photos of the current vegetation condition are shown in Photograph 1 to Photograph 4 in Appendix 2 - Ecological Assessments (2024, 2025). The REF did not identify any Threatened Ecological Communities (TECs) listed under the BC Act or EPBC Act. 2024 Field survey confirmed this conclusion.</p>

Chapter heading in REF	Update												
Field Results (Threatened Flora)	<p>The REF did not conduct targeted surveys for <i>Caladenia tessellata</i> nor <i>Eucalyptus recurva</i>, instead assessing habitat suitability and proceeding directly to Assessments of Significance under the BC Act and EPBC Act. It concluded that a pre-clearing survey is required for Mongarlowe Mallee, as presence would likely trigger a significant impact and necessitate exclusion zones.</p> <p>However, delaying this survey until pre-clearing poses a risk to Council—if the species is found at that stage and cannot be avoided, it would trigger the Biodiversity Offset Scheme (BOS), requiring a BDAR under the BC Act and likely a referral under the EPBC Act, significantly escalating the approval process. To mitigate this risk, targeted surveys were conducted in February 2025, confirming that Mongarlowe Mallee was not present. Full survey details are provided in Appendix 2 - Ecological Assessments (2024, 2025) and summarised below:</p> <table><tr><th>Species</th><th>Results</th><th>Actions</th></tr><tr><td><i>Eucalyptus recurva</i> (Mongarlowe Mallee)</td><td>Completed, none identified</td><td>No further action.</td></tr><tr><td><i>Caladenia tessellata</i> (Thick lipped spider orchid)</td><td>Not yet completed. Suitable habitat assessed and mapped as good condition and easement condition PCT3737, identified on Figure 4.</td><td>No go zone to be implemented for protection of the suitable habitat plus a buffer (50 metres) to the habitat. No go zones are identified on Figure 5.  Redesign or targeted surveys required (if complete avoidance of suitable habitat cannot be achieved) will be required in future prior to any future works in the no go zone.</td></tr><tr><td><i>Genoplesium superbum</i> (Superb Midge Orchid)</td><td>Completed 69 stems identified within and near the project area. The project, as currently designed, would remove 80% of the known local population, posing a high risk of extinction for this species in the area. The assessment concluded that the project is likely to have a significant impact, triggering the requirement for a Species Impact Statement (SIS) or a Biodiversity Development Assessment Report (BDAR) as part of the environmental assessment</td><td>No go zone, as identified above to be implemented to protect the specimens and its species habitat in advance of redesign and any future work within the no-go zone.</td></tr></table>	Species	Results	Actions	<i>Eucalyptus recurva</i> (Mongarlowe Mallee)	Completed, none identified	No further action.	<i>Caladenia tessellata</i> (Thick lipped spider orchid)	Not yet completed. Suitable habitat assessed and mapped as good condition and easement condition PCT3737, identified on Figure 4.	No go zone to be implemented for protection of the suitable habitat plus a buffer (50 metres) to the habitat. No go zones are identified on Figure 5.  Redesign or targeted surveys required (if complete avoidance of suitable habitat cannot be achieved) will be required in future prior to any future works in the no go zone.	<i>Genoplesium superbum</i> (Superb Midge Orchid)	Completed 69 stems identified within and near the project area. The project, as currently designed, would remove 80% of the known local population, posing a high risk of extinction for this species in the area. The assessment concluded that the project is likely to have a significant impact, triggering the requirement for a Species Impact Statement (SIS) or a Biodiversity Development Assessment Report (BDAR) as part of the environmental assessment	No go zone, as identified above to be implemented to protect the specimens and its species habitat in advance of redesign and any future work within the no-go zone.
Species	Results	Actions											
<i>Eucalyptus recurva</i> (Mongarlowe Mallee)	Completed, none identified	No further action.											
<i>Caladenia tessellata</i> (Thick lipped spider orchid)	Not yet completed. Suitable habitat assessed and mapped as good condition and easement condition PCT3737, identified on Figure 4.	No go zone to be implemented for protection of the suitable habitat plus a buffer (50 metres) to the habitat. No go zones are identified on Figure 5.  Redesign or targeted surveys required (if complete avoidance of suitable habitat cannot be achieved) will be required in future prior to any future works in the no go zone.											
<i>Genoplesium superbum</i> (Superb Midge Orchid)	Completed 69 stems identified within and near the project area. The project, as currently designed, would remove 80% of the known local population, posing a high risk of extinction for this species in the area. The assessment concluded that the project is likely to have a significant impact, triggering the requirement for a Species Impact Statement (SIS) or a Biodiversity Development Assessment Report (BDAR) as part of the environmental assessment	No go zone, as identified above to be implemented to protect the specimens and its species habitat in advance of redesign and any future work within the no-go zone.											
Safeguards and Mitigation Measures	<p>The 2020 REF recommended several safeguards and mitigations measures for biodiversity. Generally, the mitigations are supported by this review and therefore remain valid. Following is a revised list of biodiversity mitigations in full, for easy insertion into the subsequent Construction Environmental Management Plan (CEMP) and contract documentation.</p>												

Table 7: Biodiversity safeguards (in full)

Reference	Safeguards	Timing
<b>No Go Zone</b>	<p>A complete no-go zone is established between CH3450 and the limit of works (CH4373, and within part of Area 2, as identified on Figure 5 to avoid all impacts to threatened flora <i>Genoplesium superbum</i> specimens and potential <i>Caladenia tessellata</i> habitat. No construction works are permitted in this area, inclusive of road upgrades, parking and stockpiling.</p> <p>The no go zone must be implemented and clearly and physically demarcated during all construction works using safety flag bunting or similar and appropriate signage.</p> <p>Ensure workers are informed of the no go zones at establishment and prestart/toolbox talks, including the consequences of impacts in the exclusion zone (stop works, further reporting and potential Controlled Action under EPBC Act).</p> <p>Works must be stopped if any previously undiscovered threatened species or communities are discovered during works. An assessment of the impact and any required approvals must be obtained. Works must not recommence until Council has provided written approval to do so.</p>	Prior to construction Construction
<b>Threatened Species general</b>	<p>Minimise the extent of disturbance and work to within the existing road corridor as far as practicable.</p> <p>Material stockpile and equipment storage areas should be restricted to existing disturbed areas and not within the watercourse or riparian zones (minimum 20 m from the watercourse).</p> <p>Works must be stopped if any previously undiscovered threatened species or communities are discovered during works. An assessment of the impact and any required approvals must be obtained. Works must not recommence until Council has provided written approval to do so.</p>	Construction
<b>Fauna management general</b>	<p>Prior to works, a suitably qualified ecologist must carry out pre-clearing process and surveys and biodiversity management measures identified in the Biodiversity Management Plan and during the pre-clearing process are to be incorporated into the CEMP.</p> <p>Any occupied nests located or any fauna which are inadvertently injured must be reported to Wildcare Queanbeyan or a similar organisation and relocated from the works area by a suitably qualified fauna handler.</p> <p>The CEMP shall include instructions for dealing with orphaned or injured native animals and include the contact details for Wildcare Queanbeyan or the NSW Wildlife Information, Rescue and Education Service Inc (WIRES).</p>	Construction
<b>Biodiversity Management Plan</b>	<p>Prior to construction, a biodiversity management plan should be developed to guide construction, including tool box talks to ensure that staff are familiar with the following species and their mitigation strategies:</p> <ul style="list-style-type: none"> <li>Diamond Firetail, Flame Robin, Dusky Woodswallow, Pink Robin: Limit the works area to the minimum required and actively restore areas disturbed by the works.</li> <li>Giant Burrowing Frog: A pathogen management protocol should also be prepared and implemented to minimise risks to this and other amphibians when moving soils from drainage lines or handling frogs, should they occur.</li> <li>Hollow dependent fauna: Southern Myotis, Eastern Coastal Free-tailed Bat, Yellow Bellied Glider, Masked Owl, Powerful Owl: offsetting the loss of hollows is recommended (ie mounting felled hollow limbs or nest boxes in adjacent non hollow bearing trees that will be protected from the works). Further, staged felling</li> </ul>	Prior to construction construction

Reference	Safeguards	Timing
	<p>is recommended to reduce impacts to resident species, if present, during the construction works.</p> <ul style="list-style-type: none"> <li>• Southern Brown Bandicoot: Limit the works area to the minimum required and actively restore areas disturbed by the works.</li> <li>• Koala: unexpected finds protocol is required, in the event the species is identified onsite during works, to relocate the animal to a safe place in adjoining habitat.</li> <li>• Wombat burrows and termite mounds are avoided as much as possible as part of any excavation works and where this is not feasible, Wombat burrows are to be investigated further to determine if wombats are utilising these burrows.</li> </ul>	
<b>Weeds and Pathogens</b>	<p>Prior to commencement of any construction work, weed control should be undertaken for any declared weeds found in areas that will be excavated.</p> <p>Follow up weed control may be required to prevent establishment of Blackberry, Briar Rose and Spear Thistle.</p> <p>To mitigate weed spread and re-infestation post construction, weed hygiene prevention measures to ensure machinery and vehicles are clean prior entering the site and prior to exiting the site to minimise the potential of introducing weed seeds.</p> <p>Any topsoil removed from site with noxious weed material or native vegetation should be disposed of at an appropriately licenced waste facility.</p> <p>If if capture and relocation of amphibians is required due to sediment escaping during excavation works, an appropriate qualified aquatic specialist should be engaged for these works and appropriate Chytrid fungus PPE procedures are implemented.</p>	<p>Prior to construction</p> <p>Construction</p>
<b>Stabilisation and Rehabilitation</b>	<p>A rehabilitation plan would be prepared for the proposal and would include the following measures:</p> <ul style="list-style-type: none"> <li>• Include monitoring to meet clear targets, regarding establishment.</li> <li>• Minimise disturbance of topsoil on the edges of the three creeks and in burnt areas. These areas will regenerate quickly and minimise sediment entering the creek.</li> <li>• Any areas with bare ground from excavation works will require reseeding with fast colonising species, appropriate to the area. Native Weeping Grass (<i>Microlaena stipoides</i>) may be a suitable groundstorey species.</li> <li>• If topsoil will be stored on site or reinstated, it must be stored in a location where no soil or material washes into Creeks.</li> </ul>	<p>Prior to construction</p>

### Cultural Heritage

QRC engaged Past Traces Consultants, to assist in reviewing the Aboriginal Due Diligence conducted by NGH, to assess parts of the updated study area not previously assessed (Figure 2) and to commence the ACHAR for the area of Potential Archaeological Deposit (PAD).

A summary of the results of the above assessments including early results from the ACHAR test pit investigations are attached as , noting that the ACHAR is ongoing with the report scheduled to commence consultation for the mandatory 28-day period in late March 2025

Table 8 provides the results of the cultural heritage review, and outlines the updates, including where additional assessment is required, or has been undertaken.

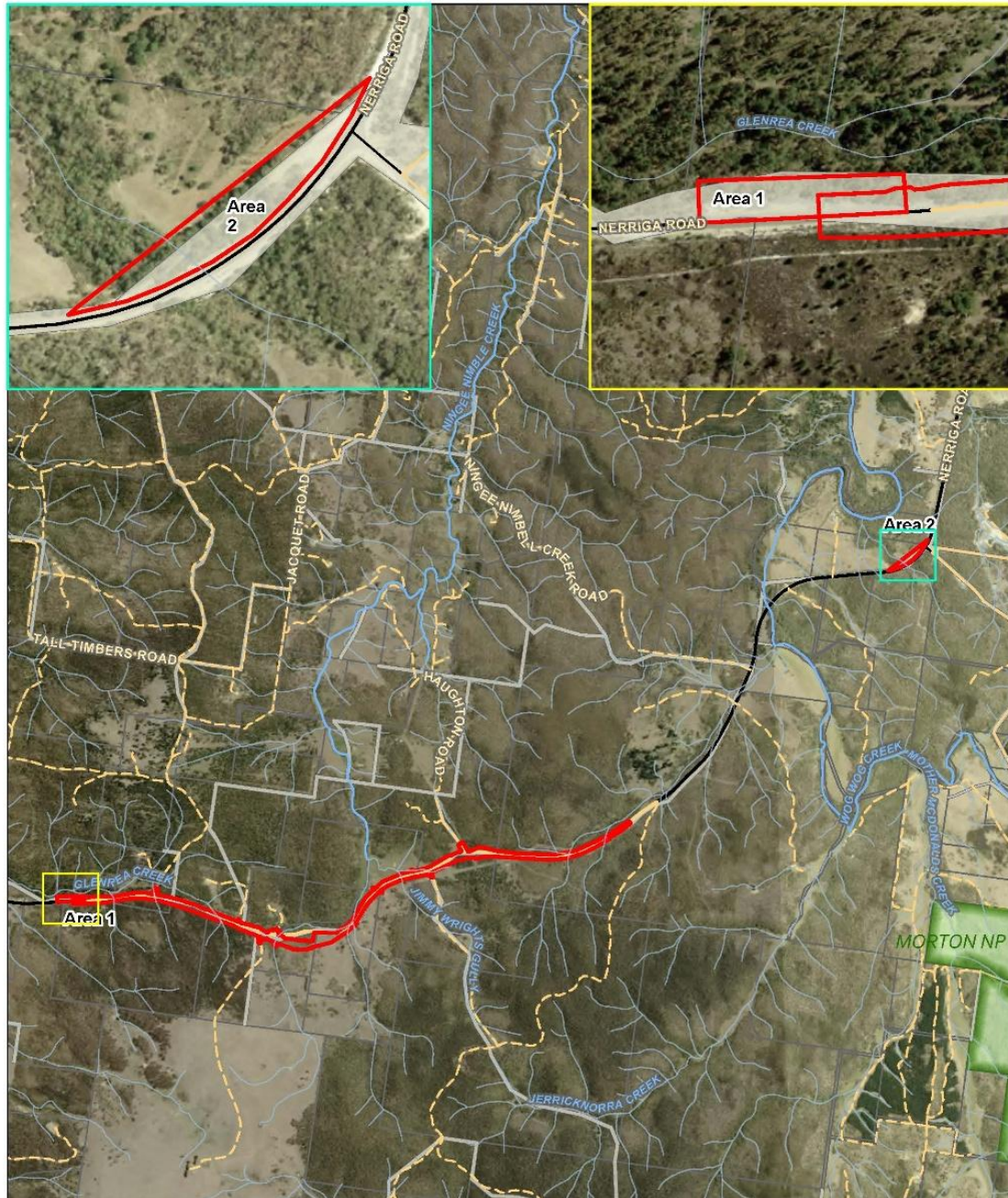


Table 8: Indigenous Heritage Addendum Assessment

Chapter heading in REF	Update
Database searches	A review of heritage register listings and reports for the area was undertaken and showed that no registered sites are located within the 5 km of road corridor proposed for upgrade.
Field Survey	<p>THE FIELD SURVEY WAS COMPLETED IN THE WEEK OF THE 20 TO 24 JANUARY 2025 AND UNDERTAKEN OVER THE 5 KM OF ROAD ALIGNMENT WITH THE PARTICIPATION OF ABORIGINAL REPRESENTATIVES. NO HERITAGE SITES WERE OBSERVED AND THE EARLIER FINDINGS OF NGH (2020) WERE CONFIRMED, IDENTIFYING THE AREA OF PAD ON THE SOUTHERN SIDE OF NERRIGA ROAD IN THE AREA OF THE REALIGNED CURVE. THE AREA OF PAD MEASURED APPROXIMATELY 160 M X 50 M AND IS SHOWN WITHIN Appendix 4 - Aboriginal Heritage Advice (2025)</p> <p>APPENDIX 3 – EPBC ACT SIGNIFICANT IMPACT CRITERIA ASSESSMENTS</p> <p>.</p> <p>Two additional ancillary areas (Area 1 and 2) on the verge of Nerriga Road and within the existing road corridor were also subject to field inspection. No surface artefacts or indications of potential were identified at either location and both locations had been highly impacted by previous construction impacts. Both areas had been subject to cutting and levelling, deposition of material and removals of soils. Neither location is considered to hold any archaeological sensitivity, or potential and no known heritage impacts will result from the proposed works.</p>
Safeguards and Mitigation Measures	The 2020 REF recommended several safeguards and mitigations measures. To avoid further archaeological assessment, it was recommended that the road realignment be redesigned to exclude the PAD. And if the PAD area cannot be avoided, subsurface testing must be conducted in accordance with the NSW Code of Practice, and an Aboriginal Heritage Impact Permit (AHIP) will be required if Aboriginal objects are found. Redesign to avoid the PAD is not possible and therefore an ACHAR is required. In summary, safeguards in the REF remain valid. The ACHAR has been commenced, with further detail provided below for information.
ACHAR	<p>SUBSURFACE TESTING WAS CONDUCTED OVER FIVE DAYS IN JANUARY AND FEBRUARY 2025 WITHIN THE PAD, EXCAVATING 72 TEST PITS AND RECOVERING 332 ARTEFACTS. MOST PITS CONTAINED LOW-DENSITY ARTEFACTS, WITH THREE HIGH-DENSITY CLUSTERS (80 ARTEFACTS AT R4, 55 AT F9, AND 25 AT Q4, IDENTIFIED IN</p> <p>APPENDIX 3 – EPBC ACT SIGNIFICANT IMPACT CRITERIA ASSESSMENTS</p> <p>Appendix 4 - Aboriginal Heritage Advice (2025). The artefacts, primarily quartz and silcrete flakes, show evidence of heat effects, likely from the 2020 bushfires. The site cannot be avoided, requiring an AHIP, with additional salvage excavation required in high-density areas. The site's significance is considered moderate to high, offering potential insights into lithic technology. However, previous disturbances, including rabbit warrens and pasture improvement, have removed stratigraphic context, preventing the recovery of datable materials.</p> <p>A detailed ACHAR with lithic analysis is in progress. Once the ACHAR is completed and has progressed through the mandatory 28-day consultation period (estimated to be end April 2025), an application for AHIP will be made the Heritage NSW. The AHIP application requires the determined REF to be attached. If the AHIP is approved, a salvage excavation will be required.</p>

### 3 UPDATED FIGURES

#### Location



#### Legend

- |                           |                          |                       |
|---------------------------|--------------------------|-----------------------|
| Non Perennial Watercourse | Arterial Road - unsealed | Study Area - 2025     |
| Perennial Watercourse     | Local Road - sealed      | Road Corridor         |
| Arterial Road - sealed    | Local Road - unsealed    | Cadastre              |
|                           | Track - unsealed         | National Parks Estate |

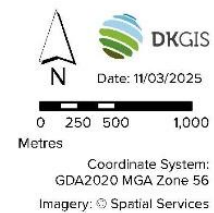
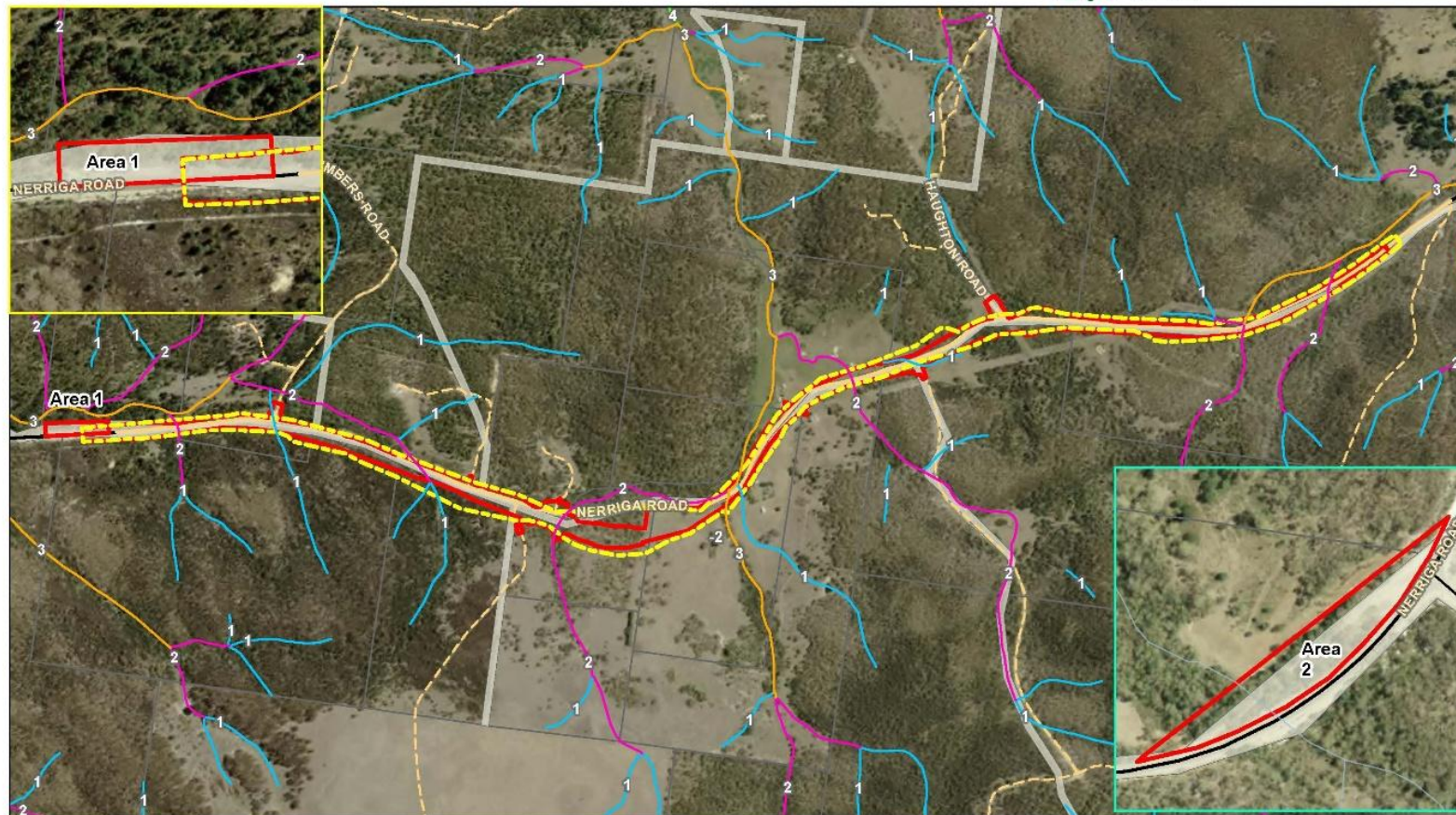


Figure 1: Proposal Location (to replace Figure 2-2 in the 2020 REF)



## Proposed Footprint





### Legend

#### Strahler Stream Order


-  1st Order Stream
-  2nd Order Stream
-  3rd Order Stream
-  4th Order Stream

 Study Area - 2017

 Study Area - 2025

 Arterial Road - sealed

 Arterial Road - unsealed

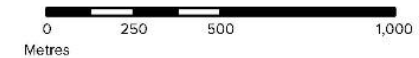
 Track - unsealed

 Road Corridor

 Cadastre



Date: 11/03/2025

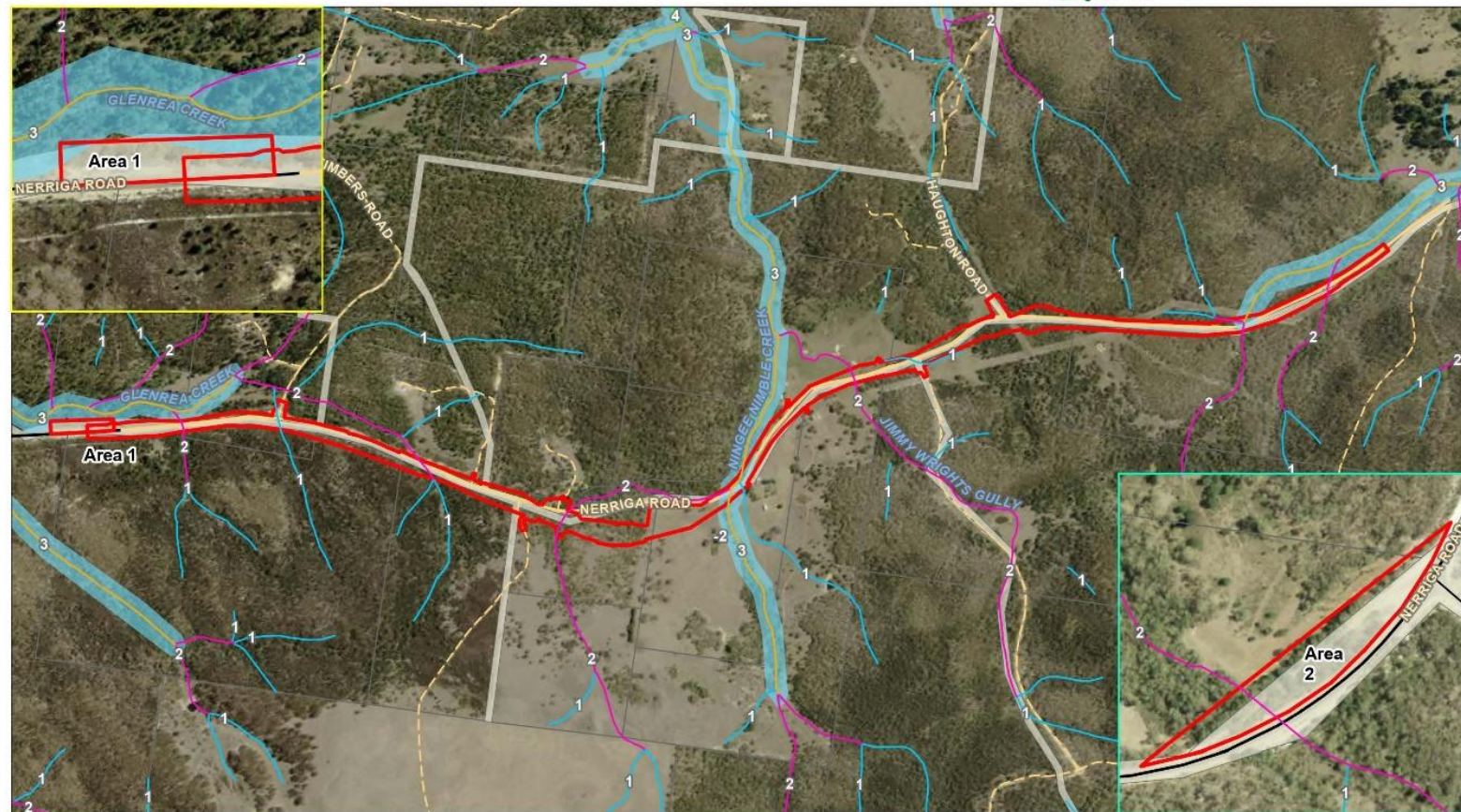


Coordinate System:  
GDA2020 MGA Zone 56  
Imagery: © Spatial Services

Figure 2: Proposed Study Area Comparison (2017 vs 2025)



## Watercourse



### Legend

#### Strahler Stream Order

-  1st Order Stream
-  2nd Order Stream
-  3rd Order Stream
-  4th Order Stream

-  Key Fish Habitat
-  Study Area
-  Arterial Road - sealed

-  Arterial Road - unsealed
-  Track - unsealed
-  Road Corridor
-  Cadastre



Coordinate System:  
GDA2020 MGA Zone 56  
Imagery: © Spatial Services

Figure 3: Watercourses and Key Fish Habitat



## Ecological Constraints

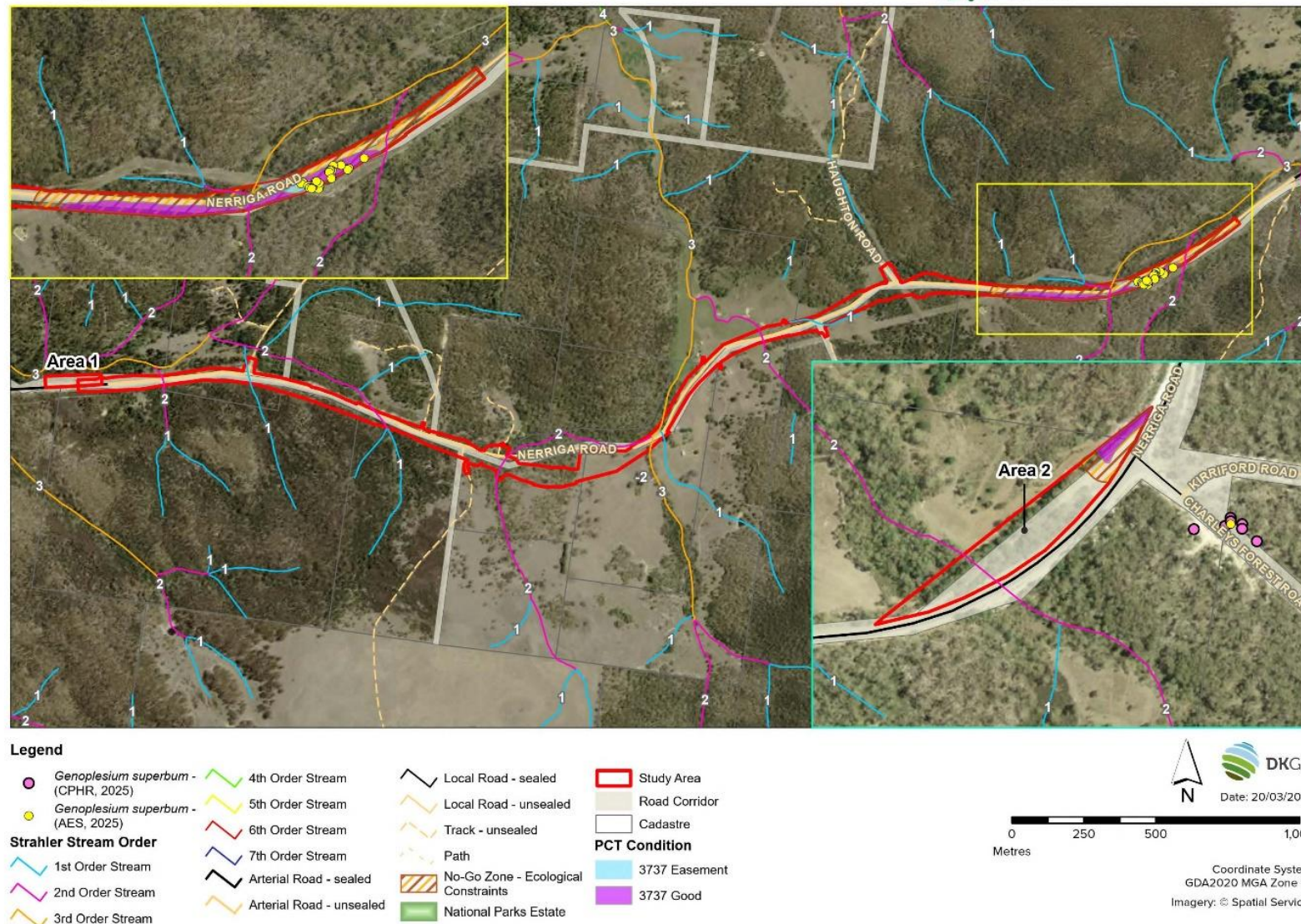
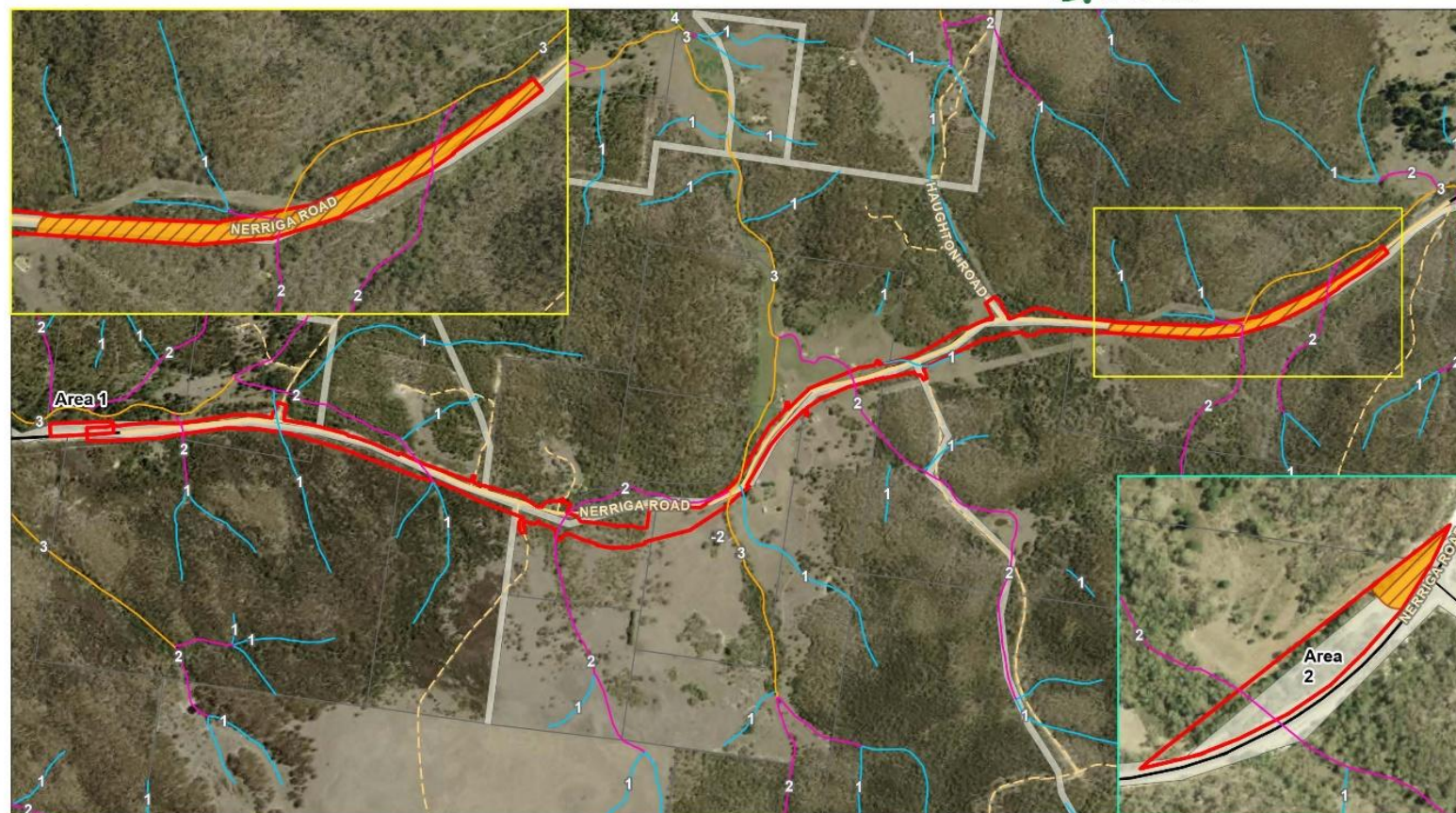


Figure 4: Ecological Constraints



## No-Go Zone







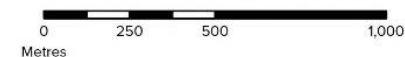
### Legend

#### Strahler Stream Order

-  1st Order Stream
-  2nd Order Stream
-  3rd Order Stream

-  4th Order Stream
-  Arterial Road - sealed
-  Arterial Road - unsealed
-  Track - unsealed

-  Road Corridor
-  Study Area - 2025
-  No-Go Zone - Ecological Constraints
-  Cadastre



Coordinate System:  
GDA2020 MGA Zone 56  
Imagery: © Spatial Services

Figure 5: No-Go Zone

## 4 CONCLUSION

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This REF addendum has reviewed and updated the 2020 NGH REF to ensure its currency for the proposed Stage 5 Nerriga Road upgrade in light of updated design plans, new ecological and cultural heritage information, and recent changes to statutory planning instruments. The revised assessment confirms that construction impacts from CH 0 to CH 3450 (Stage 1) are unlikely to result in a significant impact on the environment, provided that the safeguards outlined in this addendum and the original REF are implemented.

However, between CH 3450 and CH 4373 and within a portion of ancillary Area 2, there is a confirmed presence of *Genoplesium superbum* and potential habitat for *Caladenia tessellata*, both listed as Endangered species under NSW or Commonwealth legislation. Due to the ecological sensitivities of this area, a no-go zone must be implemented from CH 3450 to CH 4373, and within part of Area 2 and no construction activity should occur within this zone until further assessments (including redesign and targeted survey for *Caladenia tessellata*) are completed and finalised.

The proposed impact area in Stage 1 contains a Potential Archaeological Deposit (PAD) where Aboriginal artefacts have been recovered through subsurface testing. Works cannot commence in this area until the ACHAR is completed and an Aboriginal Heritage Impact Permit (AHIP) is sought, noting that the AHIP will include salvage conditions are that salvage will also be required prior to works commencing within the area of PAD.

Accordingly, this REF addendum supports the determination of Stage 1 only, from CH 0 to CH 3450. Based on the current scope of works for Stage 1, no additional permits or approvals are required beyond those already identified in the original REF, including a Section 200 Fisheries Permit and an AHIP for impacts to Aboriginal objects within the PAD. This addendum should be read in conjunction with the original REF (NGH, 2020) to inform Council's decision-making and compliance with relevant environmental legislation.

## 5 CERTIFICATION

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### ASSESSOR DECLARATION

This letter provides an update to the Nerriga Road Stage 5 REF (NGH, 2020) and provides a true and fair review of the activity in relation to its likely effects on the environment and its requirements to comply with relevant legislation. It reviews the planning context of the Project and provides updated information regarding ecological and cultural heritage items within proximity to the Project. The results found that between CH 3450 and the limit of works at CH4373, impacts to threatened species or their habitats are likely. As such the construction works will be staged, and a no-go zone implemented for this section, clearly identified on Figure 5. As a result, this letter, read in conjunction with the original REF (NGH, 2020) provides sufficient information to support the determination for construction of stage 1 only between CH00 and CH3450, within which there is unlikely to be a significant impact on the environment because of the proposal.

#### Determination – Nerriga Road Stage 5 Upgrade (REF Addendum)

Skye O'Brien

Senior Environmental Consultant

QRC Environment

Ph: 0413 499 433

Date: 21 March 2025

REF Approved.



Kylie Coe  
Manager Development  
QPRC



## 6 REFERENCES

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Department of the Environment and Energy (DoEE). (2013). Matters of National Environmental Significance: Significant impact guidelines 1.1 – Environment Protection and Biodiversity Conservation Act 1999. Australian Government. [https://www.dcceew.gov.au/sites/default/files/documents/epbc-act-significant-impact-guidelines-1\\_1.pdf](https://www.dcceew.gov.au/sites/default/files/documents/epbc-act-significant-impact-guidelines-1_1.pdf)

Department of Planning and Environment (DPE), 2017. South East and Tablelands Regional Plan 2036. NSW Government.

NGH Consulting, 2020. Review of Environmental Factors – Nerriga Road Stage 5 Upgrade. Prepared for Queanbeyan-Palerang Regional Council. Final v1 dated 6 July 2020.

NGH Consulting, 2020. Aboriginal Due Diligence Report – Nerriga Road Stage 5 Upgrade. Appendix H of the REF. Dated 17 June 2020.

Queanbeyan-Palerang Regional Council (QPRC), 2020. Towards 2040 – Local Strategic Planning Statement.

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## 7 APPENDICES

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### APPENDIX 1 – DESIGN PLANS

## APPENDIX 2 - ECOLOGICAL ASSESSMENTS (2024, 2025)



20<sup>th</sup> November 2024

Quadrant Rail Consulting Pty Ltd  
Via email: [sobrien@quadrantrc.com.au](mailto:sobrien@quadrantrc.com.au)  
Attn: Skye O'Brien

Dear Skye,

**Literature review for the Stage 5 Nerriga Road Upgrade**

Australian Ecology Solutions Pty Ltd (AES) were engaged by Quadrant Rail Consulting Pty Ltd (Quadrant RC), to assist in reviewing biodiversity assessments conducted for the Stage 5 Nerriga Road Upgrade, near Ningee Nimble Creek NSW (the works). The works are proposed by Queanbeyan-Palerang Regional Council (Council) and include upgrade of a 4.4 km section of Nerriga Road which requires upgrades to the existing unsealed road as well as new bend alignments. The works were subject to a Review of Environmental Factors (REF) in 2021. Since the preparation of the REF, the works now include a Potential Archaeological Deposit (PAD) area, and it is unclear to Council whether the biodiversity assessment presented in the REF adequately assesses the impacts associated with the PAD area. Similarly, since the REF preparation in 2021 (the Approved works area), detailed design has been undertaken and the extent of proposed works has been amended (the Revised works area).

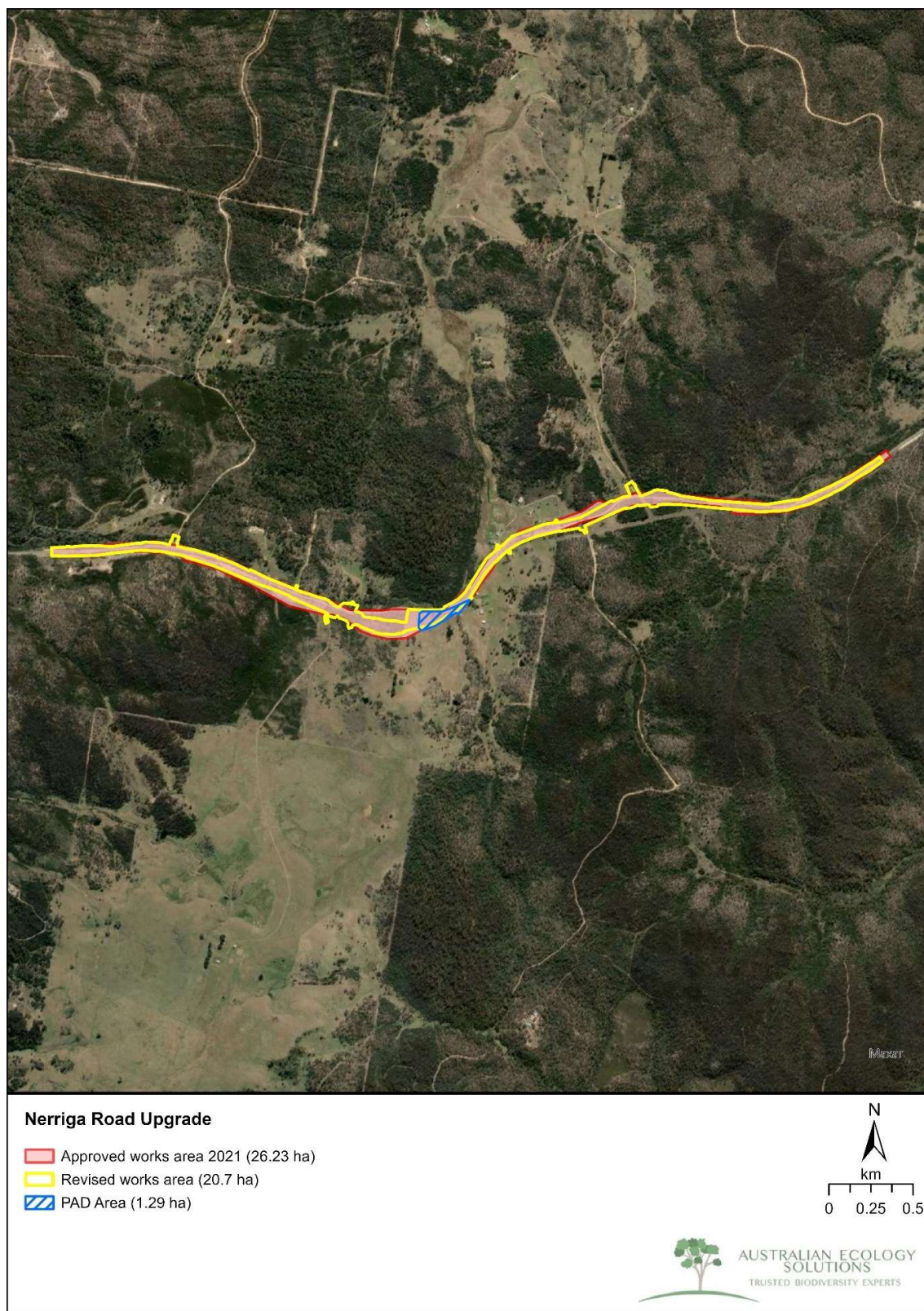
The purpose of the literature review and site inspection is to:

1. Assess the adequacy of the existing REF under the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act), NSW *Biodiversity Conservation Act 2016* (BC Act), and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), given it has been three years since the assessment; and
2. Consider regrowth in vegetation condition, as the works area was severely burned in the 2019-2020 summer bushfires; and
3. Review the revised works area, in light of the assessment made in the REF in 2021, to ensure adequacy against the revised works area; and
4. Make recommendations to assist Council in finalising the revised works area

A map showing the Approved works area, revised works area, and PAD area are shown below on **Figure 1**. This review was undertaken in accordance with the terms of engagement between AES and Quadrant RC. If you have any queries regarding the content of this proposal, please contact me directly on 0401 407 101.

Kind regards,

Alex Pursche - Director / Principal Ecologist



**Figure 1 Approved and revised works area**

## Literature review

AES undertook a literature review of the existing REF, to ensure compliance with relevant contemporary legislation, guidelines and standards, and to validate the recommendations of the REF. The review may also include details of any additional requirements that would be necessary to ensure the REF is compliant. The review considered the following documents and datasets:

- Review of Environmental Factors - Nerriga Road Stage 5 (NGH, 2021)
- A search of the Threatened Species Profile Database (TSPD) on 30<sup>th</sup> October 2024
- Spatial files supplied by Council including:
  - REF POLY-Polygon\_ExportFeatures (the Revised works)
  - ref\_ngh (the Approved works)
  - CadastreLine

The literature review considered these information sources against the Revised works and notes the following findings:

- The Approved works were identified to include 26.23 ha of land, and the Revised works now only include 20.7 ha of land. Generally, the Revised works are contained within Approved works boundary.
- The Revised works area is generally narrower than the Approved works area, and will require less vegetation clearing.
- The most notable areas where the Revised works extend outside Approved works are at the intersections of Tall Timbers Road, the private accessways north and south of Nerriga Road (nearby to Glenrea Creek), the private road south of Nerriga Road (near Jimmy Wrights Gully), and the Houghton Road Intersection. Generally these intersection upgrades extend approximately 50m outside the Approved works area.
- The PAD area is fully contained within the Approved works area.

A search of threatened species records within 10km of the works identified 21 threatened fauna, and nine threatened flora species. The locations of these threatened species is shown on **Figure 2** and **Figure 3** respectively.

For threatened fauna, the review identified that all 21 species known from the 10km radius were previously considered in the REF.

For threatened flora, the review identified that one species was not considered in the REF:

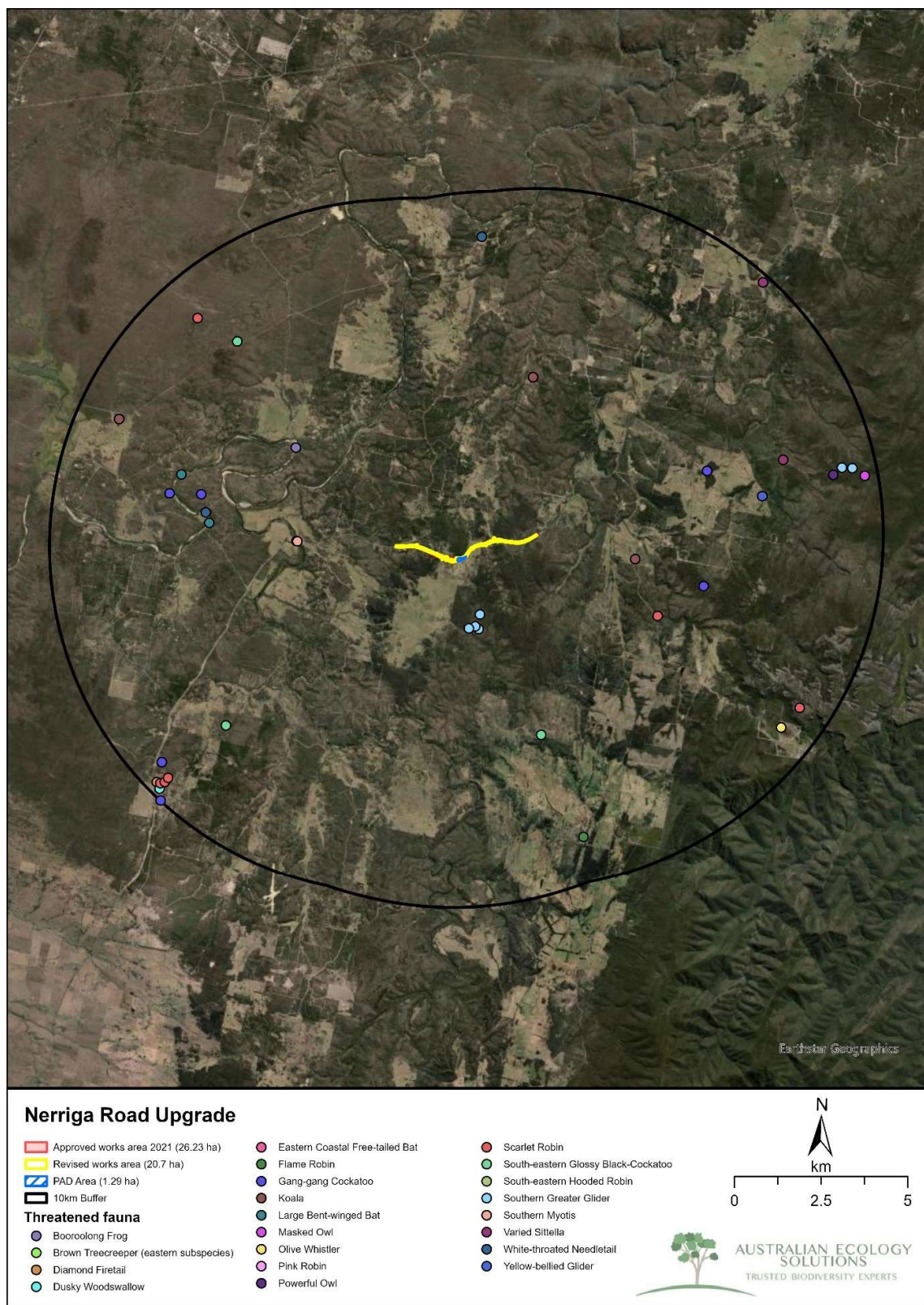
- *Genoplesium superbum* (Superb Midge Orchid) has a record from February 2024, and was not considered in the REF. This species is listed as Endangered under the BC Act, and not listed under the EPBC Act.

The REF considered the impacts of removing '15-20 ha' of native vegetation and its impact on threatened species habitats. AES notes the following key pieces of information

- For *Eucalyptus recurva* (Mongarlowe Mallee), the Assessment of Significance under the BC Act concluded that preclearing surveys were required for this species, and that if identified within the works area would result in a significant impact. This species is listed as Critically Endangered under the BC Act and is also listed as Critically Endangered under the EPBC Act.
- The REF proposes 'staged felling' of hollow-bearing trees to mitigate impacts on threatened species that use these habitat features, but does not provide any further information on how this would be enacted in practice.

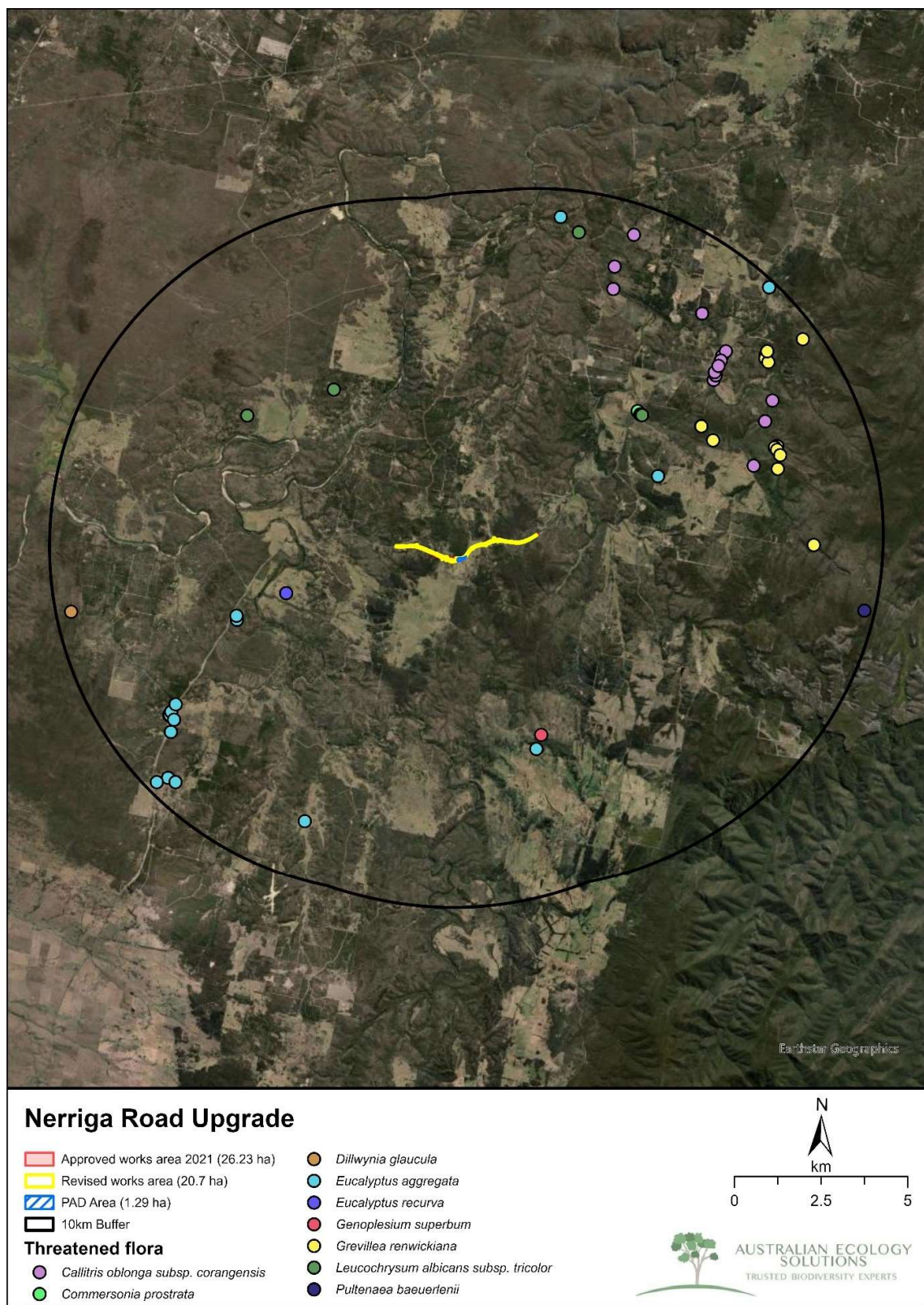
- Similarly, to compensate for the loss of 20 hollow-bearing trees and to mitigate impacts to Yellow-bellied Glider, the REF proposes nest box installation in adjacent non-hollow-bearing trees.
- South-eastern Glossy Black-cockatoo (*Calyptrorhynchus lathami lathami*) was listed as Vulnerable under the EPBC Act in 2022, and as such the impacts under the EPBC Act were not considered in the REF.
- Gang-gang Cockatoo (*Callocephalon fimbriatum*) was listed as Endangered under the EPBC Act in 2022, and as such the impacts under the EPBC Act were not considered in the REF.
- Koala (*Phascolarctos cinereus*) was listed as Endangered under the EPBC Act in 2022 (an uplisting from Vulnerable), and as such the SIC for this species has changed.
- The REF did not identify any Threatened Ecological Communities (TECs) listed under the BC Act or EPBC Act.





**Figure 2 Threatened fauna records within 10km of the works**





**Figure 3 Threatened flora records within 10km of the works**

## Site inspection

A site inspection was conducted on 25<sup>th</sup> October 2024, to understand the condition of the site since the preparation of the REF and fires in 2019/2020. The site inspection involved traversing the works area on foot and in vehicle taking photographs and noting current vegetation condition.

The site inspection identified that habitat condition is broadly consistent with the descriptions within the REF. To note, regrowth of *Acacia mearnsii* (Black Wattle) since the fires is significant, and large portions of the roadside represent a dense monoculture of this species.

Photos of the current vegetation condition are shown in **Photograph 1** to **Photograph 4** below.



**Photograph 1** Vegetation along the creek west of Ningee Nimble Creek





**Photograph 2 Dense *Acacia mearnsii* regrowth along Nerriga Road**



**Photograph 3 General condition of Nerriga Road with fire regrowth**



**Photograph 4** Open vegetation near PAD area

### **Findings and recommendations**

The Revised works area and Approved works area are consistent with each other, and the change in project footprint is consistent with the REF recommendation to reduce impacts and only impact areas that require works.

Broadly, the REF did not undertake targeted surveys for all threatened species rather make an assumption of habitat suitability and proceeded to Assessments of Significance (AoS) under the BC Act, and Significant Impact Criteria (SIC) under the EPBC Act, for species deemed likely to be impacted. As a result the actual impact on each species carries a degree of assumption around each species likelihood of impact that is based on the authors experience.

Generally AES agrees with the outcomes of the AoS's and SIC's, but highlights some project risks that should be revised prior to finalising the Revised works area and associated documentation:

- Undertake surveys for *Caledonia tessellata*, *Eucalyptus recurva*, and *Genoplesium superbum*, prior to finalising documentation for the Revised works area. The presence of these species may lead to a significant impact under both the BC Act and EPBC Act, which would lead to a major escalation in the documentation required and assessment pathway for the works.
- Revise the AoS under the BC Act, and SIC under the EPBC Act to reflect accurately the extent of habitat to be cleared for each relevant species, based on the Revised works area.
- Revise the AoS under the BC Act, and SIC under the EPBC Act, with the appropriate tests for species not considered in the REF
- Clearly define mitigation measures including timing, methodology, and responsibility for each measure.



## APPENDIX 3 – EPBC ACT SIGNIFICANT IMPACT CRITERIA ASSESSMENTS

### *South-eastern Glossy Black-cockatoo (Calyptorhynchus lathami lathami)*

Conservation Status: Vulnerable under the EPBC Act (since 2022)

EPBC Significant Impact Criteria	Assessment Response
<b>Will the action lead to a long-term decrease in the size of an important population?</b>	Unlikely. The proposal does not contain known nesting or critical feeding sites (e.g., casuarina stands) for this species. Habitat within the works area is marginal and previously disturbed. The removal of vegetation is minor in extent and not likely to affect population viability.
<b>Will the action reduce the area of occupancy of an important population?</b>	No. The works area represents edge and modified habitat. This proposal does not affect any known core or critical habitat.
<b>Will the action fragment an existing important population into two or more populations?</b>	No. The species is highly mobile and not reliant on contiguous habitat in this area. The proposal does not introduce barriers to movement.
<b>Will the action adversely affect habitat critical to the survival of the species?</b>	No critical habitat is mapped or known in the project area. The proposal will not adversely affect critical habitat.
<b>Will the action disrupt the breeding cycle of an important population?</b>	No. No nesting trees or breeding activity was recorded in the survey area. Habitat is limited to marginal foraging at best.
<b>Will the action modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline?</b>	No. The affected habitat is limited and highly modified. The species is not known to rely on this area. No known foraging trees (Allocasuarina) will be affected.
<b>Will the action result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat?</b>	Unlikely. Weed and hygiene controls are in place to prevent introduction or spread of invasive species.
<b>Will the action introduce disease that may cause the species to decline?</b>	No. No known diseases affecting this species are associated with the works.
<b>Will the action interfere with the recovery of the species?</b>	No. The project is consistent with recovery objectives, and the site does not overlap with key recovery actions.

*Gang-gang Cockatoo (Callocephalon fimbriatum)*

Conservation Status: Endangered under the EPBC Act (since 2022)

EPBC Significant Impact Criteria	Assessment Response
Will the action lead to a long-term decrease in the size of an important population?	Unlikely. While the species may occur intermittently in the area, no nesting hollows or critical breeding habitat were observed. Habitat affected is minor and degraded.
Will the action reduce the area of occupancy of an important population?	No. The works area is unlikely to support a significant portion of the species' total occupancy or a known important population.
Will the action fragment an existing important population into two or more populations?	No. The species is mobile and uses fragmented landscapes. The small works footprint will not fragment populations.
Will the action adversely affect habitat critical to the survival of the species?	No critical habitat for the species is identified or likely to occur within the site.
Will the action disrupt the breeding cycle of an important population?	No nesting trees or hollows used by Gang-gang Cockatoos were recorded in the survey area.
Will the action modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline?	No. Habitat to be removed is not known to be of high value and does not include breeding habitat.
Will the action result in invasive species that are harmful to an endangered species becoming established in the endangered species' habitat?	Unlikely. Management plans are in place to mitigate weed spread and fauna displacement.
Will the action introduce disease that may cause the species to decline?	No. No relevant disease vectors will be introduced.
Will the action interfere with the recovery of the species?	No. The action is not inconsistent with recovery efforts and avoids key breeding habitats.

*Koala (Phascolarctos cinereus)*

Conservation status: Endangered under the EPBC Act (uplisted from Vulnerable in 2022)

EPBC Act Endangered Criteria	Assessment Response
1. Will the action lead to a long-term decrease in the size of an important population of the species?	The Koala is now listed as Endangered under the EPBC Act, and the concept of "important population" is no longer a threshold for assessment. However, database searches confirm no recent records within 10 km of the proposal area, and no Koalas or clear evidence of occupancy (e.g. scats, scratches) were observed during site inspections. Habitat on site is marginal and heavily degraded by fire. No hollow-bearing trees or key feed species (e.g. <i>Eucalyptus viminalis</i> , <i>E. tereticornis</i> ) were observed. Therefore, a long-term decrease in any population is unlikely.

<b>2. Will the action reduce the area of occupancy of the species?</b>	No. The proposal is located predominantly in a disturbed roadside corridor with no records of Koalas. The area does not contribute significantly to the species' occupancy at a local or regional scale.
<b>3. Will the action fragment an existing population into two or more populations?</b>	No. There is no evidence of an existing Koala population within or adjoining the project footprint. Habitat is already isolated and fragmented by road infrastructure, fire, and previous clearing.
<b>4. Will the action adversely affect habitat critical to the survival of the species?</b>	No critical habitat has been declared for the Koala under the EPBC Act. The vegetation within the proposal area is not mapped as core Koala habitat and does not contain primary feed trees. Habitat condition is poor due to 2019/2020 bushfires and subsequent regrowth of Acacia-dominated understorey.
<b>5. Will the action disrupt the breeding cycle of a population of the species?</b>	No. No individuals or signs of Koala activity have been recorded in the area. The site does not provide known breeding or nursery habitat.
<b>6. Will the action modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline?</b>	No. Vegetation proposed for removal is mostly regrowth Acacia spp. and disturbed roadside vegetation. There is no indication that the small-scale clearing proposed would result in a population-level decline for Koalas.
<b>7. Will the action result in invasive species that are harmful to the species becoming established in the area of the action?</b>	Unlikely. Weed control and hygiene measures are included in the CEMP and will mitigate risk of further invasive species spread. No evidence of species that directly impact Koalas (e.g. Phytophthora, fox predation, dog attack) increasing as a result of the works.
<b>8. Will the action introduce disease that may cause the species to decline?</b>	No. The works are not expected to introduce disease. Chlamydia and Koala Retrovirus (KoRV) are primary health threats to Koalas but are not likely to be spread via road works or machinery.
<b>9. Will the action interfere with the recovery of the species?</b>	No. The proposal avoids known or high-quality Koala habitat and does not compromise actions within the National Koala Recovery Plan (DCCEEW 2022), such as habitat protection or connectivity. The proposal is consistent with the plan's recommendation to limit impacts in core habitat areas, which are not present here.



26<sup>th</sup> February 2025

Quadrant Rail Consulting Pty Ltd

Via email: [sobrien@quadrantrc.com.au](mailto:sobrien@quadrantrc.com.au)

Attn: Skye O'Brien

Dear Skye,

### **Field assessment for the Stage 5 Nerriga Road Upgrade**

Australian Ecology Solutions Pty Ltd (AES) were engaged by Quadrant Rail Consulting Pty Ltd (Quadrant RC), to assist in reviewing biodiversity assessments conducted for the Stage 5 Nerriga Road Upgrade, near Ningee Nimble Creek NSW (the Project). The works are proposed by Queanbeyan-Palerang Regional Council (Council) and include upgrade of a 4.4 km section of Nerriga Road which requires upgrades to the existing unsealed road as well as new bend alignments.

The works were subject to a Review of Environmental Factors (REF) in 2021.

AES were engaged to conduct the following tasks across the Project area, as well as two Ancillary areas along Nerriga Road (Figure 1):

1. Targeted survey for threatened flora identifiable in February (*Eucalyptus recurva* and *Genoplesium superbum*)
2. Map areas of suitable habitat for *Caledonia tessellata* within the Project area and two ancillary areas.

AES Principal Ecologist Alex Pursche conducted the site inspection on 19<sup>th</sup> February 2025, by traversing the Project area and both ancillary areas on foot. No *Eucalyptus recurva* (Mongarlowe Mallee) were identified, and this species requires no further assessment.

During the site inspection, 69 stems of *Genoplesium superbum* (Superb Midge Orchid) were identified within and nearby to the Project area. This species is listed as Endangered under the NSW *Biodiversity Conservation Act 2016* (BC Act). This species is not listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The locations of all stems identified, as well as recent records provided by NSW Conservation Planning, Heritage, and Regulation (CHPR) is shown on Figure 2 to Figure 4. This species was strongly associated with easement and good condition states of PCT 3737 Bungonia Tableland Scribbly Gum Shrub Forest. A sample was collected and will be sent to the Royal Botanical Gardens of NSW for formal vouchering and identification (collected legally under Scientific Licence 102889). All locations of *G. superbum* were recorded with a GPS accuracy of <5m.



As a result of this finding, AES have conducted an Assessment of Significance in accordance with s7.3 of the BC Act, and concluded that the Project, as currently designed, is likely to result in a significant impact to a threatened species. As such, under the biodiversity assessment provisions for Part 5 activities, the Project environmental assessment is to include or be accompanied by a Species Impact Statement, or if the proponent so elects a Biodiversity Development Assessment Report (BDAR).

As a result of the finds of *G. superbum*, AES recommends Council consider any detailed design opportunities to avoid impacts to this species.

Habitat assessment for *C. tessellata* was conducted across the Project and ancillary areas, and involved mapping Plant Community Types (PCTs) as well as considering recent landuse history (such as fires, clearing for easements, and agricultural activities). The habitat assessment identified the following zones across the Project and ancillary areas:

- PCT 3347 Southern Tableland Creekflat Ribbon Gum Forest, which occurs as Burned and Easement condition states
- PCT 3737 Bungonia Tableland Scribbly Gum Shrub Forest, which occurs in Good, Burned, and Easement condition states
- PCT 0, which occurs as cleared roads and exotic pasture

Based on a review of habitats within the Project and ancillary areas, *C. tessellata* is only likely to occur in PCT 3737 in condition states of good and easement. Maps of PCTs across the Project and ancillary areas is provided in Figure 5 to Figure 7.

This letter is to be interpreted in conjunction with the accompanying maps and spatial data.

If you have any queries regarding the content of this proposal, please contact me directly on 0401 407 101.

Kind regards,



Alex Pursche - Director / Principal Ecologist

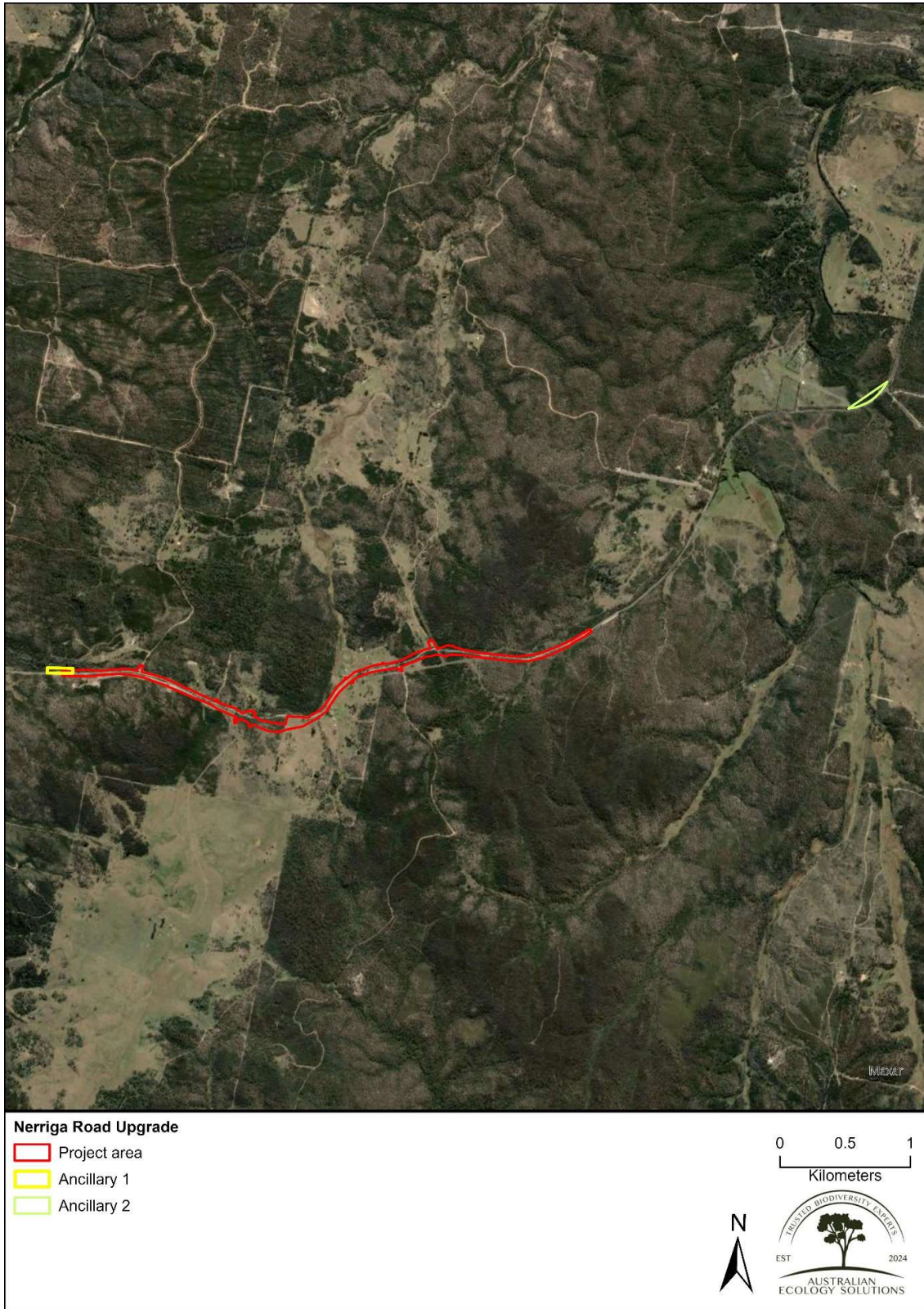


**Photograph 1 *Genoplesium superbum* within Scribbly Gum forest**



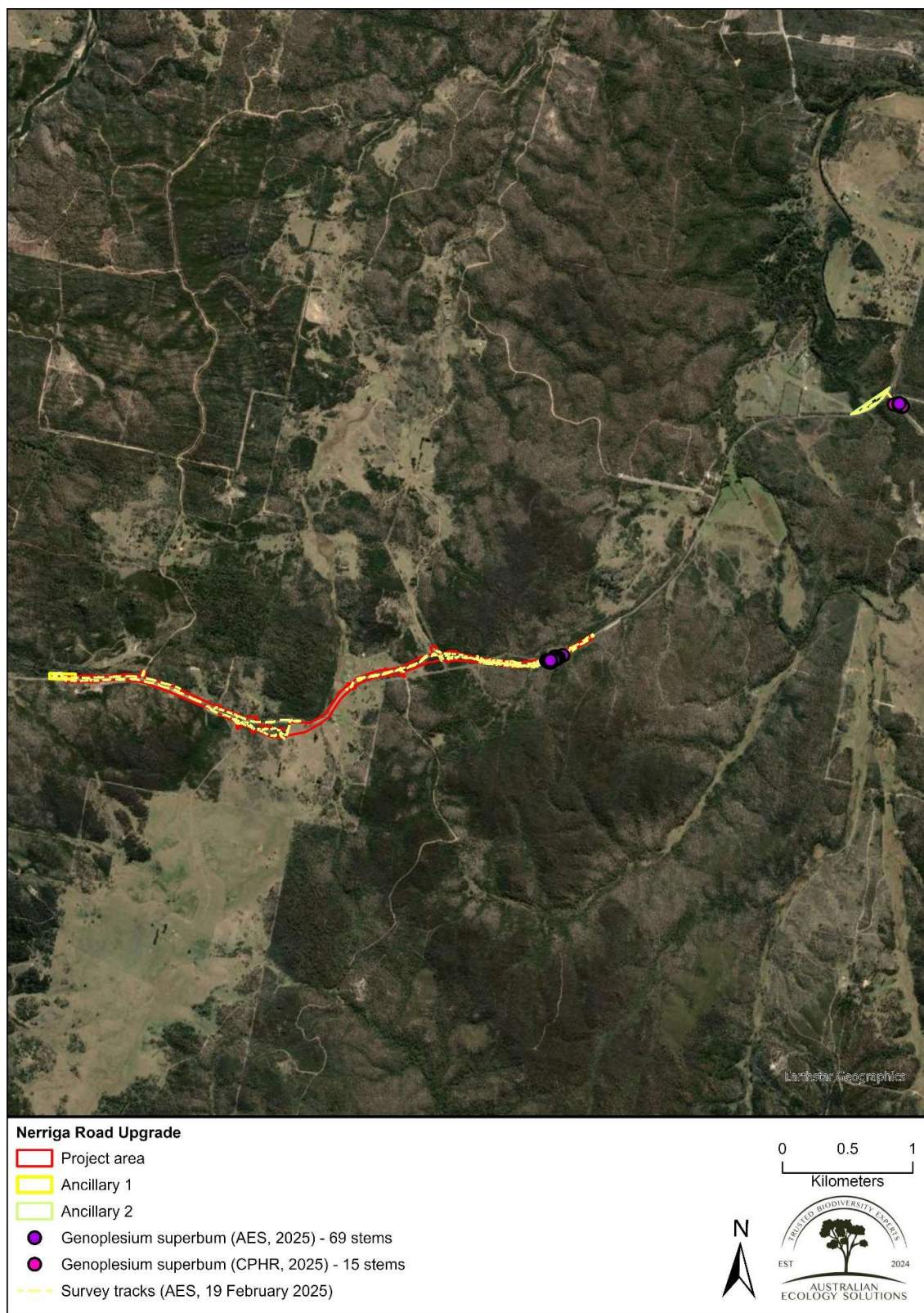
**Photograph 2 *Genoplesium superbum***





**Figure 1 Project and ancillary areas**





**Figure 2** *Genoplesium superbum* records across the Project and ancillary areas



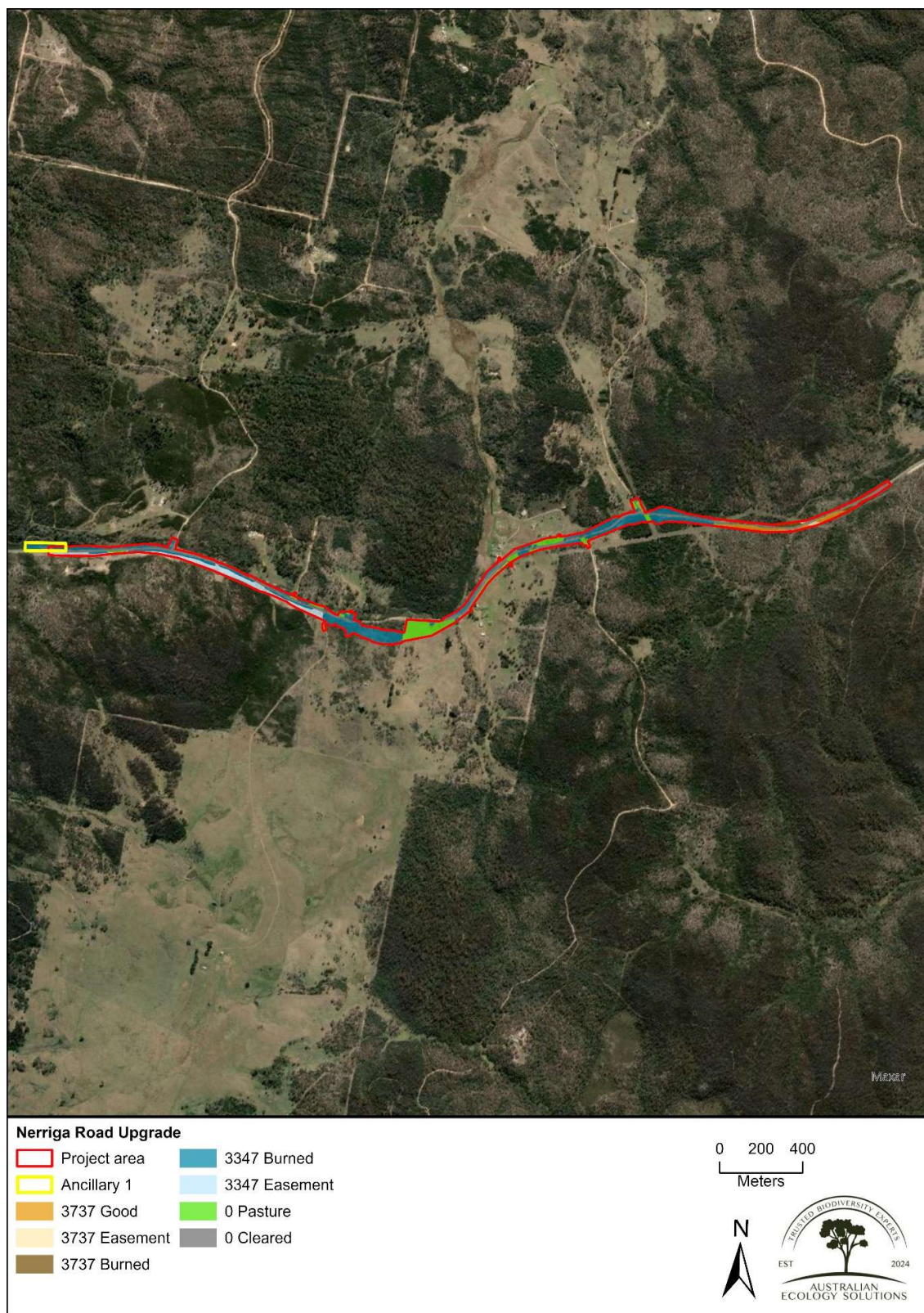


**Figure 3** *Genoplesium superbum* records nearby to Ancillary area 2



**Figure 4** *Genoplesium superbum* records along Nerriga Road (stem counts shown for each record)





**Figure 5 Plant Community Types within Project area**





**Figure 6 Plant Community Types within Ancillary area 1**



**Figure 7 Plant Community Types within Ancillary area 2**

## Assessment of Significance under BC Act

An Assessment of Significance (5 part test) has been applied to *G. superbum*. This species is listed as Endangered under the BC Act, and 69 stems were identified within or nearby to the Project.

The following is to be taken into account for the purposes of determining whether a proposed development or activity is likely to significantly affect threatened species or ecological communities, or their habitats—

***in the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,***

The Project is likely to remove 80% (68 of the known 84 stems) of the local population. The remaining 16 stems are located on the roadside, and have no long term conservation protection. To remove 80% of known stems would result in a very high risk of placing a viable local population of this species at risk of extinction.

***in the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity—***

***(i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or***

***(ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction,***

This part of the test is not applicable.

***in relation to the habitat of a threatened species or ecological community—***

***(i) the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and***

The project would remove approximately 1.23 ha of habitat for this species, containing 68 stems.

***(ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and***

The project will isolate the remaining habitat for the remaining 15 stems.

There is significant area outside of the Project area that consists of good condition PCT3737, however the species occupancy in this land is unknown.

***(iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality,***

The habitat proposed to be removed is important for the species, and the largest local known population in the Nerriga region.

***whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly),***

No Declared Areas of Outstanding Biodiversity Value (AOBV) will be directly or indirectly impacted by the Project.

***whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.***

The Project will contribute to the following Key Threatened Processes:

- Bushrock removal
- Clearing of native vegetation
- Loss of hollow-bearing trees
- Removal of dead wood and dead trees

### ***Conclusion***

The Project will remove 80% of the local population of *Genoplesium superbum*, an Endangered species that is locally uncommon. The remaining 16 stems will be isolated and are not protected under any conservation mechanism.

As a result of the proposed impacts to this species, a significant impact is likely. As such the environmental assessment for the Nerriga Road Upgrade Stage 5 must be accompanied by a SIS or BDAR.

## APPENDIX 4 - ABORIGINAL HERITAGE ADVICE (2025)



26 February 2025

Skye O'Brien

Quadrant Rail Consulting

Dear Skye,

Re: Interim Aboriginal Heritage Advice re: Nerriga Road Upgrade Program

Please find below a brief summary of the heritage work completed to date on the Nerriga Road Upgrade Program. This letter provides interim advice to inform planning whilst the detailed Aboriginal Cultural Heritage Assessment Report (ACHAR) is under completion.

The review of heritage register listings and reports for the area showed that no registered sites are located within the 5km of road corridor proposed for upgrade.

Field survey was undertaken over the 5km of road alignment with the participation of Aboriginal representatives, which identified no heritage sites and confirmed the earlier finding of NGH (2020) identifying an area of PAD on the southern side of Nerriga Road in the area of the realigned curve. The boundaries of this area of PAD were based on the landforms and degree of disturbance with the current survey resulting in a slight reduction in size, being confined only to the western bank edge. The area on the eastern bank identified by NGH was considered to be highly disturbed, and at the time of survey is covered by fallen timber. The new road alignment intrudes only slightly into this area before crossing the creekline and entering the confirmed area of PAD. This PAD area is on the western bank of Ningee Nimble Creek extending across a gentle upward slope to the west. This area of PAD measured approximately 160m x 50m and is shown on figure 1.

Two additional areas on the verge of Nerriga Road and within the existing road corridor were also subject to field inspection. No surface artefacts or indications of potential were identified at either location and both locations had been highly impacted by previous construction impacts. Both areas had been subject to cutting and levelling, deposition of material and removals of soils. Neither location is considered to hold any archaeological sensitivity or potential and no known heritage impacts will result from the proposed works.

Subsurface testing across the area of PAD was undertaken over 5 days and has revealed dispersed artefacts across the landform. The majority of the pits returned low density with clusters of high density in three locations. A total of 72 testpits were excavated across the area of PAD. Interim number of recovered artefacts are 332.

The three highest densities are:

- R4 with 80
- F9 with 55
- Q4 with 25

From preliminary examination the artefacts are mainly constructed on quartz and silcrete. The silcrete shows evidence of heat effect, though the area was burnt during the 2020 bushfires which may account for the heat effects.

The artefact types appear to consist mainly of flakes and broken flake portions, with minor amounts of retouch and formal tool types being present.

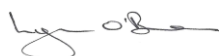
The distribution of the testpits with field locations of artefacts are provided in Figure 2. As this site is within the area of impact and cannot be avoided an Aboriginal Heritage Impact Permit (AHIP) from NSW Heritage will be required to allow works to commence. As a condition of the AHIP additional salvage of areas of high density will be required.

The significance of the site on preliminary data is considered to be moderate to high with the potential to provide additional information on lithic technology and site location. The densities are high for the Nerriga region, however little data is available, as previous heritage work in the area is limited.

Due to the presence of rabbit warrens the area of PAD had been ripped and pasture improvement has also occurred, removing the stratigraphic context and mixing soils. As a result, no datable materials were recovered – no charcoal or evidence of hearths were present.

A detailed ACHAR with lithic analysis is underway and will be provided as supporting documentation when completed. In the interim if you wish to discuss any aspect of the findings, please contact me to discuss on the mobile number below.

Regards



Lyn O'Brien 0403021296  
Director

#### References




NGH 2020. Nerriga Road Stage 5 – Ningee Nimble Creek Aboriginal Due Diligence Report. Prepared for Queanbeyan Palerang Regional Council.





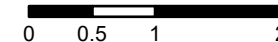
**Figure 1: Project Location  
in Regional Context**

**Legend**

-  Watercourse
-  Study Area
-  Major Road
-  Minor Road
-  Track-Vehicular



1:60,000

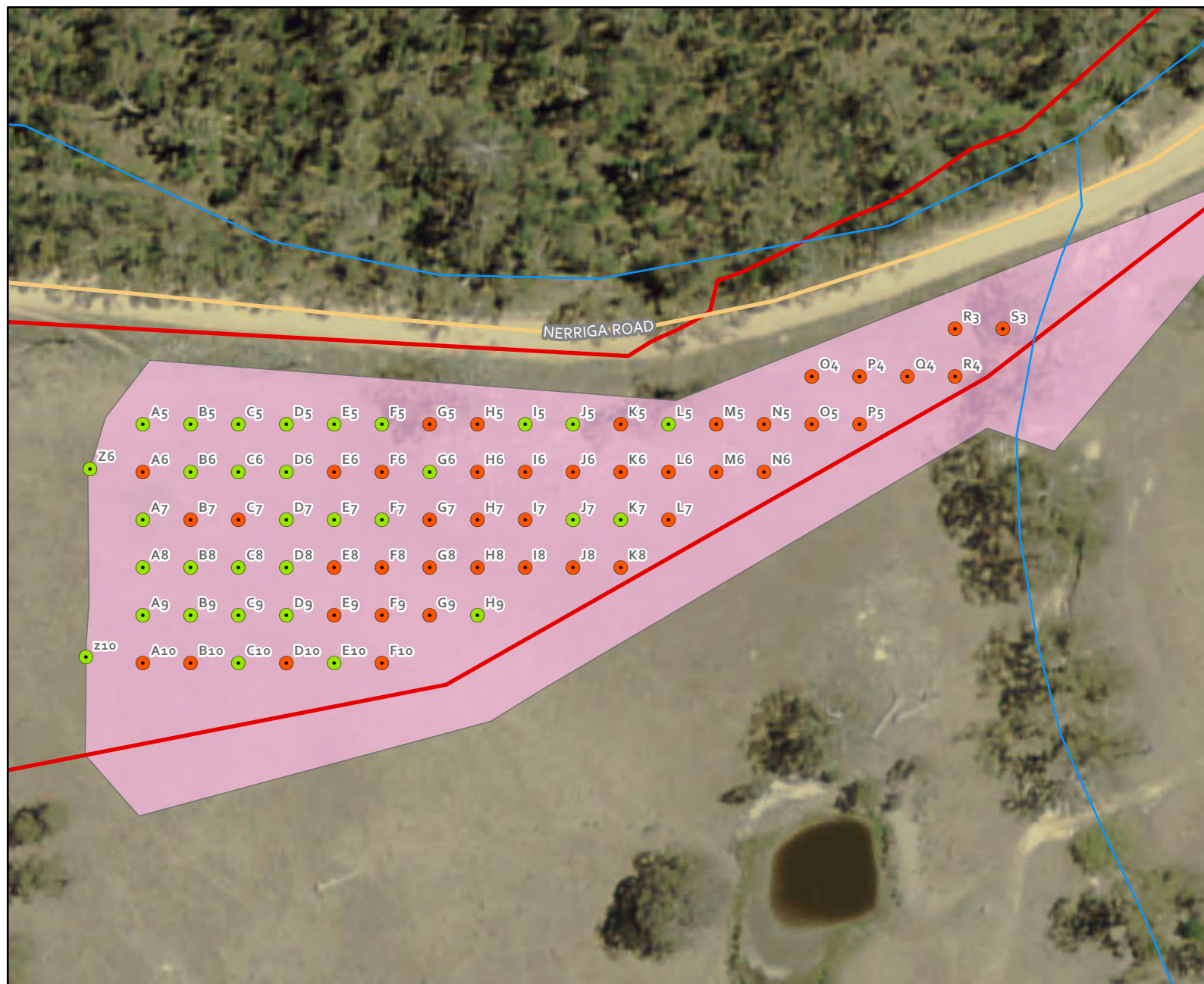


Kilometers  
Coordinate System:  
GDA 1994 MGA Zone 55

Imagery: © Nearmap

**PastTraces**  
Heritage Consultants





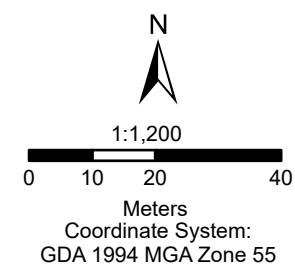
**Figure 2: Test pit Locations**

**Legend**

- Contour -2m
- Watercourse
- Major Road
- Study Area

**Artefact**

- Artefact
- None
- PAD



Imagery: ©Nearmap