

## Memo

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<b>To</b>	Jonathon Tasker, Director Project Services, ROM
<b>Copy</b>	Stephen Onions, Senior Manager Project Services South, ROM Michael Suidgeest, Environment & Sustainability Manager, SER
<b>From</b>	Jesse Baaner, Project Manager, ROM
<b>Priority</b>	ROUTINE
<b>Date</b>	23/03/2023
<b>Subject</b>	Addendum to Sturt Highway (HW14) Safety Improvement Work Between Wagga Wagga and Buronga

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### Proposed modification

Modification to the Sturt Highway (HW14) Safety Improvement Work Between Wagga Wagga and Buronga Project Review of Environmental Factors (Project REF), June 2022.

### Background

Transport for NSW (Transport) carried out a Route Safety Review (RSR) in 2022 to identify key roadside infrastructure and line marking safety improvements along the Sturt Highway between Wagga Wagga and Buronga. The Sturt Highway is an important heavy vehicle route linking Adelaide with Sydney and the northern NSW coast. The adjacent roadside environment is rural in nature and is used mainly for agriculture.

The Project REF was determined for safety improvement sites on the Sturt Highway, between Wagga Wagga and Buronga. This addendum is to address additional safety improvement works, of a similar scope located at a site not assessed in the project REF. The site is located in the study area but was not identified as project footprint.

The safety improvement works associated with this addendum are located five kilometres(km) west of Wagga Wagga at the intersection of Sturt Highway and Kapooka Road. This is the entry to the suburb of San Isadore. The Sturt Highway at Kapooka Road intersection has a speed limit of 100km/hr.

## Purpose

The purpose of this memo is to:

- Describe the proposed modification.
- Document and assess the likely impacts of the proposed modification on the environment.
- Detail protective measures to be implemented.
- Document the recommendation of the Transport Senior Manager Environment and Sustainability and the decision by the Transport delegated manager whether or not to determine the modification to the project.
- This memo is an addendum to and is to be read in conjunction with the Sturt Highway (HW14) Safety Improvement Work Between Wagga Wagga and Buronga Project Review of Environmental Factors (Project REF), June 2022 determined in August 2022.

## Description of proposed modification

The proposed modification is a 600m length of additional roadworks, 6.3 km to 6.9 km west of Wagga Wagga. The scope of works includes the following:

- Widen the embankment and roadway to accommodate a new left turning lane into Kapooka Road
- Widen the embankment and shoulder to accommodate increased length of merge lane west of the intersection
- Extend a drainage culvert
- Upgrade existing electrical infrastructure including:
- Relocate an existing power pole and stay wire
- Install two new light poles on either side of the intersection and under bore the Sturt Highway
- Reconfigure safety barrier to accommodate new intersection arrangements

## Need for the proposed modification

The existing intersection arrangement contains some unconventional features which makes it hazardous to road users. The left-hand turn is located after the crest of a hill and near the end of a merge lane. Combining these features, whilst being located in a 100km/h speed zone, increases the likelihood for rear-end incidents for left turning vehicles onto Kapooka Road.

During the 15-year period between 2007 and 2022 there was a total of four crashes, comprising the following:

- One serious injury accident and three non-serious, towaway accidents
- Accidents involving one off-road, one left turn movement, one right turn movement and one U-turn movement

The predominant movement for traffic entering onto Kapooka Road is west-bound traffic turning left to San Isadore. This will be the main focus area for increasing safety of the intersection.

## Options considered

The following three options were considered for the project:

- Option 1: Do nothing.
- Option 2: Install lights only.

- Option 3: Replace and improve road safety barriers, relocate utilities, widen the road provide a turning lane and remove identified trees.

The outcomes for each of the above three options is as follows:

- Option 1 has no environmental impact but does not meet the objectives of the proposal so is not preferred.
- Option 2 partially meets the objectives of the proposal but many of the identified improvements to road user safety have not been met.
- Option 3 is the preferred option. This option achieves a greater improvement in road user safety while having a minimal environmental impact. Safety improvements include better visibility at the intersection and reduced risk of rear-end accidents.

## Consultation

### Private Property Consultation

Residents located in San Isadore in particular, will experience some impacts due to traffic changes during construction. TfNSW will produce a communication plan and residents will be consulted during the project design development.

### Traffic Related Consultation

TfNSW will advertise the proposed work on Live Traffic NSW. Variable Message Signs (VMS) would be installed at the site prior to work commencing advising of the proposed work and subsequent impact on road users.

### Electrical Outage Related Consultation

Electrical outages are expected during the power pole relocation and lighting installation works. Communication for these works will be managed by the electrical sub-contractor as per Essential Energy requirements.

## Impact assessment

Appendix A addresses the environmental factors specified in section 171 of the Environmental Planning and Assessment Regulation 2021.

### Groundwater

The proposed modification involves under boring the Sturt Highway. This process has the potential to impact groundwater. This site is located toward the top of a hill and ground water is unlikely to be located near the ground surface. There is limited potential impacts likely from the modified scope. Impacts can be mitigated using standard measures provided in the project REF.

### Soil

The proposed modification would require additional disturbance to soils during electrical works, pavement/embankment widening and drainage works. The majority of the pavement widening would be constructed on heavily disturbed soils, although some modifications to the existing drainage network (table drain and culverts) will be required. The expected impact area for the proposed works, including temporary access tracks, is marked in Appendix F.

Any additional impacts of the proposed modification to soils can be appropriately mitigated by implementing the safeguards in the Project REF.

## Waterways and water quality

There are no known waterways located near the project area outlined in this addendum.

Any additional impacts of the proposed modification to waterways and water quality can be appropriately mitigated by implementing the safeguards in the Project REF.

## Noise and vibration

Using the TfNSW Construction and Maintenance Noise Estimator, the existing noise category was defined as R2 with the Scenario Estimator used selecting Local Road Works as the activity. Noise calculations detailed in Appendix D confirm that notification and verification safeguards are required for all sensitive receivers within 140 metres of the proposal. For any sensitive receivers further than 140 metres from the proposal, no notification or verification is required. Should the proposed work being carried out as Out of Hours Work (OOHW), additional mitigation measures would be required as detailed in the Project REF.

## Air quality

The proposed modification would generate minimal dust during earthworks. The impact on air quality is expected to be minor given it will be localised and short-term. No additional safeguards are needed.

A review of the National Pollution Inventory (NPI) revealed that there are no listed sources of pollution within a 2km radius of the project area.

Any additional impacts of the proposed modification to air quality can be appropriately mitigated by implementing the safeguards in the Project REF.

## Aboriginal heritage

The proposal has been assessed in accordance with the Procedure for Aboriginal Cultural Heritage Consultation and Investigation (PACHCI). A PACHCI stage 1 assessment was completed for the modification and the letter is provided in Appendix E.

An Aboriginal Heritage Information Management System (AHIMS) basic search completed for the work area, including compound/stockpile sites, has not identified any sites or places (Appendix E).

Plant and equipment would be restricted to the limits of the work area. Delineation (fencing or similar) is to be erected around the proposed work area, including all assessed access tracks and turn areas. Exclusion zones will be erected around all stockpile sites and compound sites. No disturbance to soil or tracking over undisturbed ground outside of these areas would be required.

Any potential impacts to Aboriginal heritage would be appropriately mitigated by implementing the safeguards in the Project REF.

## Non-Aboriginal heritage

There are no known non-aboriginal heritage items located close to the proposal outlined in this addendum (Reference: Wagga Wagga Local Environmental Plan 2010).

Any additional impacts to non-aboriginal heritage would be appropriately mitigated by implementing the safeguards in the Project REF.

## Biodiversity

Appendix F provides marked drawings of the proposed impacts to biodiversity. The proposal includes the removal of Blakely's Red Gum – Yellow Box Grassy Tall Woodland and White Box – White Cypress Pine –

Western /Grey Box Shrub/grass/forb woodland, both of which are classified as Threatened Ecological Communities under the NSW Biodiversity Conservation Act 2016 (BC Act) and the Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act).

The Project REF included a Biodiversity Assessment Report (BAR) that assesses the removal of 89.21 ha of native vegetation. This includes 343 hollow-bearing trees across the entire project area. The vegetation removal includes:

- 0.63 ha of Blakely's Red Gum – Yellow Box grassy tall woodland with 7 hollow bearing trees
- 1.4 ha of White Box – White Cypress Pine – Western Grey Box shrub,/grass/forb woodland with 44 hollow bearing trees.

The BAR concluded there was no significant impact.

The proposed modification involves clearing an additional area 0.2 ha of vegetation, listed below:

- About 0.2 ha of disturbed Blakely's Red Gum – Yellow Box grassy tall woodland including 9 small to medium trees and no hollow bearing trees.

The Superb Parrot (*polytelis swainsonii*) has been identified within 50m of the proposed modification area and is listed as a Matter of National Environmental Significance (MNES) and vulnerable under the BC Act and EPBC Act. All areas of the Project REF identified habitat for the superb parrot and determined that the development was 'unlikely to have an adverse effect on the life cycle of the Superb Parrot such that a viable local population is likely to be placed at risk of extinction.'

The proposed modification involves the clearing of an additional 0.2 ha of vegetation ( 9 trees). The vegetation in the proposed area is connected to large patches of vegetation. This vegetation is known habitat for threatened species including woodland birds and the Squirrel Glider (*Petaurus norfolcensis*). The vegetation in the roadside reserve that will be removed has been impacted by previous disturbance. The amount being removed is very small relative to the remaining vegetation in the surrounding landscape. The additional impact of the modification would not fragment habitat or impact areas. The vegetation clearing will be done in line with the Project REF and in line with the TfNSW's Biodiversity Guideline.

## Traffic and transport

The proposal may require the temporary closure of one lane to carry out the proposed work. Lane closures may delay traffic for up to 10 minutes, although there is no plans to close Kapooka Road during construction. A Traffic Management Plan (TMP) would be prepared and implemented. The TMP would be prepared in accordance with the Roads and Maritime Traffic Control at Work Sites Manual and QA Specification G10 Traffic Management.

Any additional impacts of the proposed modification to traffic can be appropriately mitigated by implementing the safeguards in the Project REF.

## Socio-economic issues

There are no known socio-economic issues identified near the project area outlined in this addendum.

Any additional impacts of the proposed modification to socio-economic can be appropriately mitigated by implementing the safeguards in the Project REF.

## Landscape character and visual impacts

There will be some minor visual impacts to the proposal area due to vegetation removal and construction disturbance. This impact will be short term and minor and will not contrast against the existing roadside environment in the longer term. Additional lighting will change views at this intersection during the night time.

These additional impacts to the landscape character and visual impacts will be appropriately mitigated by implementing the safeguards in the Project REF.

**Waste**

It is expected that all excavated material will be reused within the proposal to widening embankments. Any other materials, except vegetation and tree mulch, produced as a result of the works will be disposed of at a licensed facility.

These additional impacts of the proposed modification to waste can be appropriately mitigated by implementing the safeguards in the Project REF

**Cumulative impacts**

Biodiversity impacts would be mitigated or offset in accordance with the TfNSW guideline for biodiversity offsets.

Due to the limited scope of the proposed modification, no further cumulative impacts are anticipated.

**Summary of additional or revised safeguards**

A summary of additional or revised safeguards are included in the table below. A complete list of safeguards as amended is provided in Attachment B.

Safeguards	
Soil	Nil additional or amended safeguards
Waterways and water quality	Nil additional or amended safeguards
Noise and vibration	Nil additional or amended safeguards
Air quality	Nil additional or amended safeguards
Non-Aboriginal heritage	Nil additional or amended safeguards
Aboriginal heritage	Nil additional or amended safeguards
Biodiversity	Nil additional or amended safeguards
Trees	Nil additional or amended safeguards
Traffic and transport	Nil additional or amended safeguards
Socio-economic	Nil additional or amended safeguards
Landscape character and visual amenity	Nil additional or amended safeguards
Waste	Nil additional or amended safeguards
Cumulative impacts	Nil additional or amended safeguards

## Licences, permits or approvals

All relevant licenses, permits, notifications and approvals needed for the works and when they need to be obtained are listed in the Sturt Highway (HW14) Route Safety Review Safety Improvements – Wagga Wagga to Buronga Project Review of Environmental Factors (Project REF). There are no changes to these requirements.

## Conclusion

All relevant safeguards identified in the Sturt Highway (HW14) Route Safety Review Safety Improvements – Wagga Wagga to Buronga Project Review of Environmental Factors (Project REF) would be applied to this work. No additional or revised safeguards are required.

Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) applies to the proposed modification. The proposed modification has been reviewed in the context of the Sturt Highway (HW14) Route Safety Review Safety Improvements – Wagga Wagga to Buronga Project Review of Environmental Factors (Project REF), dated August 2022, and considered against the requirements of sections 5.5 and 5.7 of the EP&A Act.

In considering the proposed modification 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 this memo, and associated information. This assessment is considered to be in accordance with the factors specified in section 171 of the Environmental Planning and Assessment Regulation 2021.

The Sturt Highway (HW14) Route Safety Review Safety Improvements – Wagga Wagga to Buronga Project, including the proposed modification described in this memo, will have some environmental impacts which can be ameliorated satisfactorily. Having regard to the safeguards and management measures proposed, it is considered that the expected environmental impacts are unlikely to be significant and an environmental impact statement is not required under Division 5.2 of the EP&A Act.

The assessment has considered the potential impacts of the activity on the biodiversity values listed under the Biodiversity Conservation Act 2016 and the Fisheries Management Act 1994.

The Sturt Highway (HW14) Route Safety Review Safety Improvements – Wagga Wagga to Buronga, including the proposed modification described in this memo, will not significantly affect biodiversity values listed under the Biodiversity Conservation Act 2016. Therefore, the concurrence of the Coordinator General of the Environment and Heritage Group of Department of Planning and Environment and a species impact statement or a Biodiversity Development Assessment Report (BDAR) is not required.

In addition to the above, the assessment considered the effect of the activity on:

- Conservation agreements under the *National Parks and Wildlife Act 1974*.
- Plans of management under the *National Parks and Wildlife Act 1974*.
- Biodiversity stewardship sites under the *Biodiversity Conservation Act 2016*.
- Wilderness areas under the *Wilderness Act 1987*.

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 Agriculture, Water and the Environment for a decision by the Australian Minister for the Environment on whether assessment and approval is required under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) or for application of the EPBC Act strategic assessment for Transport activities assessed under Part 5 of the EPBC Act.

This memo is considered to be of adequate quality and meets all relevant requirements.

The proposed modification has been characterised in the context of the Sturt Highway (HW14) Route Safety Review Safety Improvements – Wagga Wagga to Buronga and is considered to be consistent with that project's objectives and key features. While the proposed modification would increase the overall environmental impacts of the determined project, it is substantially the same as the activity described and assessed in the determined REF and does not constitute an entirely new activity.



## Certification

This memo provides a true and fair description of the potential impacts of the proposal to modify the Sturt Highway (HW14) Route Safety Review Safety Improvements – Wagga Wagga to Buronga Project Review of Environmental Factors (Project REF), which includes a 600m length of additional roadworks, 6.3 km to 6.9 km W of Wagga.

Prepared by:



Jesse Baaner  
Project Manager

Reviewed by:



Nadine Rudd  
Environment & Sustainability Officer

## Recommendation

It is recommended that the proposal to modify the Sturt Highway (HW14) Route Safety Review Safety Improvements – Wagga Wagga to Buronga Project Review of Environmental Factors as described in this memo proceed subject to the implementation of all safeguards and management measures identified in this memo and in the Sturt Highway (HW14) Route Safety Review Safety Improvements – Wagga Wagga to Buronga Project Review of Environmental Factors, determined August 2022 and compliance with all other relevant statutory approvals, licences, permits and authorisations. Consideration of this proposed modification has examined and taken into account, to the fullest extent possible, all matters likely to affect the environment by reason of the activity and established that the activity is not likely to significantly affect the environment. The memo has concluded that there will be no significant impacts on matters of national environmental significance or the environment of Commonwealth land.

Recommended by:

 23.03.2023

Michael Suidgeest  
Environment and Sustainability Manager

Noted by:



06/04/2023

Stephen Onions  
Senior Manager Project Services South

## Determination

Determined by:



~~Jonathan Tasker~~ Troy Compton

A/ Director Project Services

Date: 11/04/2023

## Appendices

Appendix A – Environmental Planning and Assessment Regulation 2021 Checklist

Appendix B - Complete list of safeguards

Appendix C - Sturt Highway (HW14) Route Safety Review Safety Improvements – Wagga Wagga to Buronga Project REF

Appendix D – Noise Estimator Tool

Appendix E – PACHCI Stage 1 Letter

Appendix F – Project Impact Footprint

## Appendix A: Environmental Planning and Assessment Regulation 2021 checklist

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.

Environmental factor	Impact
<p>(a) <b>Any environmental impact on a community?</b></p> <p>The proposed work may cause minor short-term environmental impacts on the community, such as delays to traffic and noise impacts on residents, however the potential impacts would be minimised with the implementation of the safeguards as detailed in this addendum memo. The works would have no environmental impact on a community in the long-term and road users would benefit from safer travelling conditions.</p>	<p>Short term negative impact Long term positive impact</p>
<p>(b) <b>Any transformation of a locality?</b></p> <p>The proposed work would not transform the locality, as works would generally be contained within the existing road formation and be carried out on existing Transport assets.</p>	<p>N/A</p>
<p>(c) <b>Any environmental impact on the ecosystems of a locality?</b></p> <p>The proposal would have potential environmental impacts on the ecosystems of a locality, however the potential impacts would be minimised with the implementation of the safeguards in appendix B of this addendum memo.</p>	<p>Short and long term negative (minor) impact</p>
<p>(d) <b>Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality?</b></p>	<p>N/A</p>

	The proposal would not reduce the aesthetic, recreational, scientific or other environmental quality or value of the locality, as works would generally be contained with the existing road formation.	
(e)	<p><b>Any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations?</b></p> <p>The proposal would potentially have an effect on a locality, place or building of significance or other special value for present or future generations, however the effect would be minimal due to the limited scope of works for the maintenance activities covered in this addendum memo, and the potential impacts would be minimised with the implementation of the safeguards given in appendix B of this addendum memo.</p>	N/A
(f)	<p><b>Any impact on habitat of any protected animals (within the meaning of the Biodiversity Conservation Act 2016)?</b></p> <p>The proposal would not have any significant impact on the habitat of any protected animals due to the limited scope of works for the proposed activities and the implementation of the safeguards given in appendix B of this addendum memo.</p>	Minor negative impact
(g)	<p><b>Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air?</b></p> <p>The proposal would not endanger any species of animal, plant or other form of life, whether living on land, in water or in the air due to the limited scope of works for the proposed activities and the implementation of the safeguards given in attachment B of this addendum memo.</p>	N/A
(h)	<p><b>Any long-term effects on the environment?</b></p> <p>The proposal would have positive long-term effects on the environment due to improved safety for road users. There are no anticipated negative long-term effects on the environment from the works due to the limited scope of these works and the implementation of the safeguards given in attachment B of this addendum memo.</p>	Long term positive impact

(i)	<p><b>Any degradation of the quality of the environment?</b></p> <p>The proposal would potentially degrade the quality of the environment in the short-term, however the potential impacts would be minimised with the implementation of the safeguards given in attachment B of this addendum memo.</p>	<p>Short term negative impacts Long term (minor) negative impacts</p>
(j)	<p><b>Any risk to the safety of the environment?</b></p> <p>The proposal would have minimal risk to the safety of the environment due to the limited scope of works for the activities covered in this addendum memo, and the potential impacts would be minimised with the implementation of the safeguards given in appendix B of this addendum memo.</p>	<p>N/A</p>
(k)	<p><b>Any reduction in the range of beneficial uses of the environment?</b></p> <p>The proposal would cause a minor reduction in the use of the road from lane closures, which would potentially increase travelling time for road users in the short-term. There would be long-term improvements in the range of beneficial uses of the environment as a result of the maintenance works.</p>	<p>Short term (minor) negative impact Long term positive impact</p>
(l)	<p><b>Any pollution of the environment?</b></p> <p>The proposal would potentially cause pollution of the environment, however the potential impacts would be minimised with the implementation of the safeguards given in attachment B of this addendum memo.</p>	<p>Short term (minor) negative impacts</p>
(m)	<p><b>Any environmental problems associated with the disposal of waste?</b></p> <p>The waste generated during the proposal would be contained and removed for disposal to approved recycling facilities or to licensed landfill in accordance with the safeguards in attachment B of this addendum memo. No environmental problems are anticipated for the disposal of waste.</p>	<p>Short term negative impact</p>

(n)	<p><b>Any increased demands on resources, natural or otherwise which are, or are likely to become, in short supply?</b></p> <p>The proposal would not significantly increase demands on resources, which are, or are likely to become, in short supply. Relatively small amounts of materials would be required for the proposed work. The safeguards listed in attachment B of this addendum memo would be implemented to minimise any impacts.</p>	N/A
(o)	<p><b>Any cumulative environmental effect with other existing or likely future activities?</b></p> <p>The proposal has the potential to have cumulative environmental effects with other existing or likely future activities, however the effects would be minimal for the activities covered in this addendum memo, and the potential impacts on the environment would be minimised with the implementation of the safeguards given in attachment B of this addendum memo.</p>	Short and long term (minor) negative impact
(p)	<p><b>Any impact on coastal processes and coastal hazards, including those under projected climate change conditions?</b></p> <p>Nil</p>	N/A
(q)	<p><b>Any impact on applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1?</b></p> <p>Nil</p>	N/A
(r)	<p><b>Any impact on other relevant environmental factors?</b></p> <p>In considering the potential impacts of this proposal all relevant environmental factors have been considered, refer to impact assessment section of this addendum memo.</p>	N/A

## Appendix B: Complete List of Safeguards

Environmental safeguards for the Addendum to Sturt Highway (HW14) Route Safety Review Safety Improvements – Wagga Wagga to Buronga Project REF. The safeguards will be incorporated into the CEMP and implemented during construction and operation of the proposed modification, should it proceed. These safeguards will minimise potential adverse impacts arising from the proposed works on the surrounding environment.

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
GEN1	General - minimise environmental impacts during construction	<p>A CEMP will be prepared and submitted for review and endorsement of the Transport Senior Environment and Sustainability Officer prior to commencement of the activity.</p> <p>As a minimum, the CEMP will address the following:</p> <ul style="list-style-type: none"> <li>any requirements associated with statutory approvals</li> <li>details of how the project will implement the identified safeguards outlined in the REF</li> <li>issue-specific environmental management plans</li> <li>roles and responsibilities</li> <li>communication requirements</li> <li>induction and training requirements</li> <li>procedures for monitoring and evaluating environmental performance, and for corrective action</li> <li>reporting requirements and record-keeping</li> <li>procedures for emergency and incident management</li> <li>procedures for audit and review.</li> </ul> <p>The endorsed CEMP will be implemented during the undertaking of the activity.</p>	Project Engineer	Pre-construction / detailed design	QA G36 Environment Protection

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
GEN2	General - notification	All businesses, residential properties and other key stakeholders (e.g., schools, local councils) affected by the activity will be notified at least seven days prior to commencement of the activity.	Contractor / Transport project manager	Pre-construction	
GEN3	General – environmental awareness	All personnel working on site will receive training to ensure awareness of environment protection requirements to be implemented during the project. This will include up-front site induction and regular "toolbox" style briefings.  Site-specific training will be provided to personnel engaged in activities or areas of higher risk.	Project Engineer	Pre-construction / detailed design	
BIO1	Biodiversity	<ul style="list-style-type: none"> <li>The limit of works (including compounds and parking areas) must be clearly and physically demarcated with flagging/fencing or similar</li> <li>Limit of clearing fencing must be placed around any threatened flora locations with an appropriate buffer distance as determined by the Environment and Sustainability Officer or Ecologist</li> <li>No work of any kind would take place in the identified population of Pine Donkey Orchid.</li> <li>All personnel would be made aware of Pine Donkey Orchid and Santalum murrayanum given their known presence within the road corridor. This should be part of tool-box talks to all onsite personnel</li> <li>An Environmental Work Method Statement for Clearing and Grubbing must be prepared and approved by the Environment and Sustainability Officer prior to starting work. The EWMS must include at least the following                             <ul style="list-style-type: none"> <li>A description of the work activity, including any plant and equipment to be used</li> <li>Identification of any environmentally sensitive areas</li> </ul> </li> </ul>	Project Engineer	Prior to construction	QA G36 Environment Protection



No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
		<ul style="list-style-type: none"> <li>- The sequence of tasks for the activity</li> <li>- Identification of potential environmental risks/impacts due to the activity</li> <li>- Mitigation measures to reduce the identified environmental risk, including assigned responsibilities to site personnel</li> <li>- A process for assessing the performance of the implemented mitigation measures (performance outcomes)</li> <li>- A detailed site diagram showing all work areas, controls, sensitive areas, and no-go-zones</li> <li>- A process for monitoring and managing wet weather events during works</li> </ul> <p>All site personnel must sign-on to the EWMS and be aware of their responsibilities within the EWMS.</p>			
BIO2	Biodiversity	<ul style="list-style-type: none"> <li>• Only vegetation assessed within this REF and addendum is to be removed. Should any additional clearing be necessary, further onsite assessment is required</li> <li>• Parking options should be limited to existing hard stand areas</li> <li>• Native vegetation removal will be minimised through detailed design.</li> <li>• Pre-clearing surveys will be undertaken in accordance with <i>Guide 1: Pre-clearing process of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011)</i>.</li> <li>• Vegetation removal will be undertaken in accordance with <i>Guide 4: Clearing of vegetation and removal of bushrock of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011)</i>.</li> <li>• All pathogens (eg Chytrid, Myrtle Rust and Phytophthora) are to be managed in accordance with the Transport Biodiversity Guidelines – Guide 7 (Pathogen Management) and DECC Statement of Intent 1: Infection of native plants by <i>Phytophthora cinnamomi</i> (for <i>Phytophthora</i>).</li> </ul>	Project Engineer	During construction	QA G36 Environment Protection

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
		<ul style="list-style-type: none"> <li>• Pruning of mature trees is to be in accordance with Part 5 of the Australian Standard 4373-2007 Pruning of amenity trees.</li> <li>• Biodiversity impacts would be mitigated or offset in accordance with the TfNSW guideline for biodiversity offsets.</li> <li>• Removal of any HBT would only be carried out in accordance with a HBT Removal Procedure. The Procedure must specifically include actions to minimise potential impacts to Superb Parrot, Squirrel Glider and microchiropteran bats and must include procedures for supervision, salvage and relocation by a suitable qualified and experienced person.</li> <li>• Any Grey-crowned Babbler nests would be the subject of a pre-clearance survey to determine if breeding is occurring. Should breeding be present, works should be temporarily postponed to avoid direct impacts during any breeding event. Should this be unavoidable, any offspring within the nest can be salvaged and directed to a suitably qualified and experienced person for raising.</li> <li>• Habitat removal will be undertaken in accordance with <i>Guide 4: Clearing of vegetation and removal of bushrock of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011)</i>.</li> <li>• The unexpected species find procedure is to be followed under <i>Guide 1: Pre-clearing process of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011) if threatened fauna, not assessed in the biodiversity assessment, are identified in the proposal site</i>.</li> <li>• Fauna will be managed in accordance with <i>Guide 9: Fauna handling of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011)</i></li> <li>• Prior to clearing any vegetation within PCT 2 or PCT 11 within section 1 and section 2, an ecologist must be onsite to confirm that Koala are not present within the</li> </ul>			

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
		<p>proposed impact area. Should any Koala be observed, any proposed work within 50 metres of any individual sighted must cease</p> <ul style="list-style-type: none"> <li>No work is to be carried out within any of the waterways within the road reserve Aquatic habitat will be protected in accordance with <i>Guide 10: Aquatic habitats and riparian zones of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011)</i> and Section 3.3.2 Standard precautions and mitigation measures of the Policy and guidelines for fish habitat conservation and management Update 2013 (DPI (Fisheries NSW) 2013).</li> <li>The unexpected species find procedure is to be followed under <i>Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011)</i> if threatened flora or fauna, not assessed in the biodiversity assessment, are identified in the proposal site</li> <li>Declared priority weeds are to be managed according to requirements under the Biosecurity Act, 2015 and <i>Guide 6 (Weed Management) of the Roads and Maritime Services Biodiversity Guidelines 2011</i></li> </ul>			
ABR1	Aboriginal Cultural Heritage	<ul style="list-style-type: none"> <li><i>The Standard Management Procedure - Unexpected Heritage Items (Roads and Maritime, 2015)</i> will be followed in the event that an unknown or potential Aboriginal object/s, including skeletal remains, is found during construction. This applies where Transport does not have approval to disturb the object/s or where a specific safeguard for managing the disturbance (apart from the Procedure) is not in place</li> <li>Work will only re-commence once the requirements of that Procedure have been satisfied.</li> </ul>	Project Engineer	Prior to commencing work	Section 4.9 of QA G36 <i>Environment Protection</i>

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
ABR2	Aboriginal Cultural Heritage	<ul style="list-style-type: none"> <li>The current AHIMS site card for site WW113 will be reviewed by the Transport Project Engineer/Works Supervisor prior to works commencing and location identified in design drawings.</li> </ul>	Project Engineer/Work Supervisor	Prior to commencing work	Section 4.9 of QA G36 <i>Environment Protection</i>
ABR3	Aboriginal Cultural Heritage	<ul style="list-style-type: none"> <li>Exclusion measures (flagging) will be in place around AHIMS site WW113 prior to works commencing in the area and crews toolboxed</li> </ul>	Project Engineer	Prior to commencing work	Section 4.9 of QA G36 <i>Environment Protection</i>
ABR4	Aboriginal Cultural Heritage	<ul style="list-style-type: none"> <li>No work will commence near AHIMS WW113 until the Transport Aboriginal Cultural Heritage Officer has verified adequate exclusion measures are in place.</li> </ul>	Project Engineer	Prior to commencing work	Section 4.9 of QA G36 <i>Environment Protection</i>
SOI1	Soil and Water	<ul style="list-style-type: none"> <li>An Emergency spill kit must be kept onsite at all times. All staff must be made aware of the location of the spill kit and trained in its use</li> <li>If an incident (e.g. spill) occurs, the Transport <i>Environmental Incident Classification and Management Procedure</i> would be followed and the Transport Contract Manager notified as soon as practicable.</li> </ul>	Project Engineer	Construction	Section 4.3 of QA G36 <i>Environment Protection</i>
SOI2	Soil and Water	<p>Erosion and sediment control measures must be implemented and maintained to:</p> <ul style="list-style-type: none"> <li>Prevent sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets</li> <li>Reduce water velocity and capture sediment on site</li> <li>Minimise the amount of material transported from site to surrounding pavement surfaces</li> </ul>	Project Engineer	Detailed design / Pre-construction	Section 2.2 of QA G38 <i>Soil and Water Management</i>

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
		<ul style="list-style-type: none"> <li>Divert clean water around the site. (In accordance with the Landcom/Department of Housing Managing Urban Stormwater, Soils and Construction Guidelines (the Blue Book)).</li> </ul> <p>Erosion and sedimentation controls must be checked and maintained on a regular basis (including clearing of sediment from behind barriers) and records kept and provided on request</p> <p>Erosion and sediment control measures must not be removed until the work is complete and areas are stabilised</p> <p>A progressive erosion and sediment control plan is to be prepared for the works.</p> <p>The maintenance of established stockpile sites during construction must be in accordance with the Transport Stockpile Site Management Guideline, (EMS-TG-10).</p>			
SOI3	Soil and Water	<ul style="list-style-type: none"> <li>Fuels, chemical and liquids must be stored in an impervious bunded area a minimum of 50 metres away from:                             <ul style="list-style-type: none"> <li>Rivers, creeks, or any areas of concentrated water flow.</li> <li>Flooded or poorly drained areas.</li> <li>Slopes above 10%.</li> </ul> </li> <li>Cleaning of spray bars (or equivalent equipment) is to occur in suitable areas (e.g. not table drains) and not cause water pollution</li> <li>Refuelling of plant and equipment must occur in impervious bunded areas located a minimum of 50 metres away from drainage lines of waterways unless within a bunded stockpile site</li> <li>Vehicle wash down and/or cement truck washout must occur in a designated bunded area</li> <li>Moveable plant such as pumps and generators must be bunded</li> </ul>	Project Engineer	Construction	
SOI4	Soil and Water	<ul style="list-style-type: none"> <li>There must be no release of dirty water into drainage lines and/or waterways</li> </ul>	Project Engineer	Construction	

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
		<ul style="list-style-type: none"> <li>• Visual monitoring of local water quality (i.e. turbidity, hydrocarbon spills/slicks) must be carried out on a regular basis to identify any potential spills or deficient erosion and sediment controls</li> <li>• Water quality control measures must be used to prevent any materials (e.g. concrete, grout, sediment etc.) entering drain inlets or waterways</li> <li>• Construction Water will be managed within sustainable limits of the area and catchment. It may be necessary to reduce or limit water extraction and some construction activities if water supply is heavily constrained. Contact the Environment and Sustainability Manager when water supply becomes an issue and direction will be provided</li> <li>• If soil contamination is discovered during construction, works will cease immediately, the site will be temporarily fenced and access would be restricted. Soil sampling and analysis would be conducted to assess the extent and nature of the contamination.</li> </ul>			
TRA1	Traffic and transport	<p>A Traffic Management Plan (TMP) will be prepared and implemented as part of the CEMP. The TMP will be prepared in accordance with the <i>Traffic Control at Work Sites Manual</i> (RTA, 2010) and <i>QA Specification G10 Control of Traffic</i> (Roads and Maritime, 2008). The TMP will include:</p> <ul style="list-style-type: none"> <li>• A road occupancy license (ROL)</li> <li>• confirmation of side routes</li> <li>• measures to maintain access to local roads and properties</li> <li>• site specific traffic control measures (including signage) to manage and regulate traffic movement</li> <li>• requirements and methods to consult and inform the local community of impacts on the local road network</li> <li>• access to construction sites including entry and exit locations and measures to prevent construction vehicles queuing on public roads.</li> <li>• a response plan for any construction traffic incident</li> </ul>	Project Engineer	Detailed design / Pre-construction	Section 4.8 of <i>QA G36 Environment Protection</i>

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
		<ul style="list-style-type: none"> <li>consideration of other developments that may be under construction to minimise traffic conflict and congestion that may occur due to the cumulative increase in construction vehicle traffic</li> <li>monitoring, review and amendment mechanisms.</li> </ul>			
NOI1	Noise and vibration	<ul style="list-style-type: none"> <li>Works would be carried out during normal working hours (i.e., 7am to 6pm Monday to Friday; 8am to 1pm Saturdays). OOHW may also be required and would be managed in accordance with Transport guidelines.</li> <li>Noise impact will be minimised in accordance with Transport Noise Mitigation Guidelines</li> <li>Measures including allowing adequate distance that rollers can come to adjacent buildings and/or using non-vibrating rollers will be used to minimise or prevent vibration impact</li> <li>All plant must be shut down when not in use and parked / started as far as possible from sensitive receivers</li> <li>Where practical, site noise must be minimised including radio use, yelling, impact noise, simultaneous noise and plant operation.</li> <li>All noise complaints will be investigated and mitigation measures implemented where feasible. Consideration of noise</li> </ul>	Project Engineer	Construction	Section 4.6 of QA G36 <i>Environment Protection</i>
NOI2	Noise and vibration	<p>All sensitive receivers likely to be affected will be notified at least 7 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:</p> <ul style="list-style-type: none"> <li>the project</li> <li>the construction period and construction hours</li> <li>contact information for project management staff</li> <li>complaint and incident reporting</li> <li>how to obtain further information.</li> </ul>	Project Engineer	Detailed design / pre-construction	

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
NAH1	Non-Aboriginal heritage	<ul style="list-style-type: none"> <li>No machinery or materials for the proposal would be placed near any heritage items as listed in <b>Error! Reference source not found.</b></li> <li>The Standard Management Procedure - Unexpected Heritage Items (Roads and Maritime, 2015) will be followed in the event that any unexpected heritage items, archaeological remains or potential relics of Non-Aboriginal origin are encountered.</li> <li>Work will only re-commence once the requirements of that Procedure have been satisfied.</li> </ul>	Project Engineer	Detailed design / pre-construction	Section 4.10 of QA G36 Environment Protection
LCV1	Landscape character and visual impact	<ul style="list-style-type: none"> <li>Landscaping is to be managed in accordance with Roads and Maritime Landscape guideline, 2013</li> </ul>	Project Engineer	Post-construction	
ARQ1	Air quality	<ul style="list-style-type: none"> <li>Construction activities will be managed to minimise the emission of dust, smoke, and other substances.</li> <li>Exposed surfaces will be watered regularly to minimise dust emissions.</li> <li>Clearing of natural vegetation will be minimised where possible.</li> <li>During periods of high winds, dust generating activities will cease.</li> <li>Stabilisation of disturbed surfaces will take place as soon as practicable.</li> <li>Stockpiles or areas that may generate dust will be managed to suppress dust emissions in accordance with Roads and Maritime Stockpile Site Management Guideline (RTA 2011a).</li> <li>Plant and machinery will be turned off when not in use as much as possible and will be fitted with emission control devices complying with Australian Design Standards where practicable.</li> <li>Construction plant and equipment will be maintained in a good working condition in order to limit impacts on air quality.</li> </ul> <p>No burning of any materials will occur.</p>	Project Engineer	Construction	Section 4.4 of QA G36 Environment Protection
BLA1	Blasting	<p>Should blasting be required, a Blasting Management Plan (BMP) would be prepared. At a minimum, the BMP would include:</p> <ul style="list-style-type: none"> <li>Applicable blast criteria</li> </ul>	Project Engineer	Construction	Additional Measure



No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
		<ul style="list-style-type: none"> <li>Review of associated risks</li> <li>Blast design and execution</li> <li>Mitigation measures</li> <li>Compliance management</li> </ul>			
BLA2	Blasting	<ul style="list-style-type: none"> <li>Restrict blasting operations to the detail of Technical Procedure TP-RO44C Earthworks – Blasting</li> </ul>	Project Engineer	Construction	Additional measure
SOC1	Socio-economic	<ul style="list-style-type: none"> <li>Potential impact to any roadside tribute must only be in accordance with the Transport Roadside Tribute Policy (PN148).</li> </ul>	Project Engineer	Pre-construction	
SOC2	Socio-economic	<ul style="list-style-type: none"> <li>All complaints are to be recorded on a complaint register and attended to promptly</li> <li>Local council will be consulted prior to removal of any native tree plantings</li> </ul>	Project Engineer	Construction	
SOC3	Socio-economic	<ul style="list-style-type: none"> <li>Existing access for nearby and adjoining properties is to be maintained at all times during the works unless otherwise agreed to by the affected property owner.</li> </ul>	Project Engineer	Construction	
WAS1	Waste	<p>A Waste Management Plan (WMP) will be prepared and implemented as part of the CEMP. The WMP will include but not be limited to:</p> <ul style="list-style-type: none"> <li>measures to avoid and minimise waste associated with the project</li> <li>classification of wastes and management options (re-use, recycle, stockpile, disposal)</li> <li>statutory approvals required for managing both on and off-site waste, or application of any relevant resource recovery exemptions</li> <li>procedures for storage, transport and disposal</li> <li>monitoring, record keeping and reporting.</li> </ul>	Project Engineer	Detailed design / pre-construction/ construction	Section 4.2 of QA G36 Environment Protection

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
		<p>The WMP will be prepared taking into account the <i>Environmental Procedure - Management of Wastes on Roads and Maritime Services Land</i> (Roads and Maritime, 2014) and relevant Transport Waste Fact Sheets.</p> <ul style="list-style-type: none"> <li>• Resource management hierarchy principles are to be followed:                             <ul style="list-style-type: none"> <li>• Avoid unnecessary resource consumption as a priority</li> <li>• Avoidance is followed by resource recovery (including reuse of materials, reprocessing, and recycling and energy recovery).</li> <li>• Disposal is undertaken as a last resort (in accordance with the Waste Avoidance &amp; Resource Recovery Act 2001)</li> </ul> </li> <li>• Bulk project waste (e.g., fill) sent to a site not owned by Transport (excluding EPA licensed landfills) for land disposal is to have prior formal written approval from the landowner in accordance with Transport Environment Technical Direction ETD 2015I020</li> <li>• If coal tar asphalt is identified and is to be removed, it is to be disposed of to landfill in accordance with Transport Environmental Direction No.21 – Coal Tar Asphalt Handling and Disposal.</li> <li>• All waste will be disposed of at appropriately approved and licensed facilities.</li> <li>• Cleared weed free vegetation will be mulched and reused on-site to stabilise disturbed soils where possible. Weedy mulch will either be composted to sterilise propagules and seeds, or not reused.</li> <li>• Waste will not be burned at the site</li> <li>• All wastes will be managed and disposed of in accordance with the Waste Classification Guidelines (DECC 2008b) and managed in accordance with the POEO Act</li> <li>• Garbage receptacles will be provided and recycling of materials encouraged. Rubbish will be transported to an appropriate waste disposal facility</li> <li>• Where appropriate, excess roadside materials will be disposed of according to the following (in order):                             <ul style="list-style-type: none"> <li>- Transfer to nearby Transport projects for immediate use.</li> </ul> </li> </ul>			

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
		<ul style="list-style-type: none"> <li>- Transfer to an approved Transport stockpile site for future use during projects or routine maintenance.</li> <li>- Transfer to a Transport approved site for reuse on concurrent private/local government project.</li> <li>- Disposal at an approved materials recycling or waste disposal facility.</li> <li>- As otherwise provided for by the relevant waste legislation.</li> <li>• Waste material, other than vegetation and tree mulch, will not be left on site once the works have been completed.</li> </ul>			
CBI1	Cumulative impact – biodiversity	Biodiversity impacts would be mitigated or offset in accordance the TfNSW Guideline for biodiversity offsets	Project Engineer	Prior to construction	

## **Appendix C: Sturt Highway (HW14) Route Safety Review Safety Improvements – Wagga Wagga to Buronga Project Review of Environmental Factors (Project REF)**

### **Objective Link**

File Number - SF2020/110990

Identification – A44499293 & A44499793

# Appendix D: Noise Estimator Tool



Please input information into yellow cells  
Please pick from drop-down list in orange cells

Project name	HIV4 Infrastructure Upgrade
Scenario name	Kapooka Road Works
Receiver address	2 Cummins Dr San Ladare
Select area ground type	Undeveloped green field (rural areas with isolated dwellings)
Select type of background noise level input	Representative Noise Environment

Noise area category	Representative Noise		User Input
	R2		
RBL or L 95 Background level (dB(A))	Day	45	
	Evening	40	
	Night	35	
L 50 (5 minute) Noise management level (dB(A))	Day	55	
	Day (OOHW)	50	
	Evening	45	
Night	40		

Representative distance (m)	120
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Scenario	SWL L 95 (dB(A))	Is there line of sight to receiver?	Shielding correction (dB(A))	Distance used in calculation (m)	Construction SPL (dB(A))
Local road works	120	Yes	0	120	65

Total SPL L 95 (5 minute) (dBA)	65
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	Residential receiver	Non-residential receivers							
		Classroom at schools and other educational institutions	Hospital wards and operating theatres	Place of worship	Active recreation	Passive recreation	Industrial premise	Offices, retail outlets	
Noise Management Level (dB(A))	Standard hours	55		65	55	65	60	75	70
	Day (OOHW)	50	55	65	55	65	60	75	70
	OOHW Period 1	45		65	55	65	60	75	70
	OOHW Period 2	40		65	55		75	70	
Level above background (dB(A))	Standard hours	20							
	Day (OOHW)	20							
	OOHW Period 1	25							
	OOHW Period 2	30							
Level above NML (dB(A))	Standard hours	10	10	10	0	5			
	Day (OOHW)	15	10	10	0	5			
	OOHW Period 1	20	0	10	0	5			
	OOHW Period 2	25	0	10					
Additional mitigation measures	Standard hours	N, V	N, V	N, V	-	-	-	-	-
	Day (OOHW)	S, M, R1, DR	M, R1, DR	M, R1, DR	-	M, R1, DR	-	-	-
	OOHW Period 1	S, M, R1, DR		M, R1, DR	-	M, R1, DR	-	-	-
	OOHW Period 2	AA, S, IS, M, FC, SM, R2, DR		V, M, R2, DR					

**Steps:**

1. Enter project name (cell C9).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e.g. urban and suburban areas).
5. Select type of background noise level input - Representative noise environment (to make assumptions) or user input (where noise monitoring data is available):
  - (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled "Representative Noise Environ." provides a number of examples to help select the noise area category.
  - (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Enter the representative distance in cell C24.
7. Select scenario from the drop-down list in cells A27.
  - (a) is there line of sight to receiver? Select from drop down list in cells F27. 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.
8. Identify the level above background and/or noise management level (see rows 36 to 41).
9. 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.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 42 to 44).
11. Document a summary report detailing:
  - (a) project description (including location, duration, hours of work, construction methodology, plant, potentially impacted receivers, etc.);
  - (b) background noise levels;
  - (c) noise management levels;
  - (d) predicted noise levels for each time period;
  - (e) sleep disturbance affected distance for night works;
  - (f) mitigation measures;
  - (g) team member responsible for implementing mitigation measures and managing noise and vibration.

(Note that suitable noise management levels for other noise-sensitive businesses not identified in the Construction 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

# Appendix E: PACHCI Stage 1 Letter



7 February 2023

Jesse Baaner  
Project/Contract Manager  
Project Services South  
Regional and Outer Metropolitan  
Transport for NSW

Dear Jesse,

Preliminary assessment results for the Kapooka Road Intersection Upgrade project.

The key features of this project are listed below.

- Widening of embankment and roadway to accommodate a new left turning lane into Kapooka Rd
- Widening of embankment and shoulder to accommodate increased length of merge lane West of the Intersection, including an extension to the drainage culvert
- Electrical upgrade works follows:
  - a. Relocation of existing power pole and stay wire
  - b. Installation of two new light poles on either side of the Intersection, including an underbore of the Sturt Highway
- Safety barrier reconfiguration, to accommodate new Intersection arrangements

Based on Stage 1 of the *Procedure for Aboriginal Cultural Heritage Consultation and Investigation* (PACHCI) and incorporating the Aboriginal Heritage Information Management System (AHIMS) data, it has been assessed as being unlikely to have an Impact on Aboriginal Cultural Heritage.

The assessment is based on the following due diligence considerations:

- The project is unlikely to harm known Aboriginal objects or places.
- The AHIMS searches 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 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.
- The cultural heritage potential of the study area appears to be reduced due to past disturbance (previous road construction).

**Safeguards:**

Please be vigilant for further potential Aboriginal objects when construction does commence.

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 Desmond Smith, Aboriginal Cultural Heritage Officer and your regional environmental staff to reassess any potential impacts on Aboriginal cultural heritage.

TNSW staff and/or contractors should be aware of the potential of Aboriginal objects (including skeletal remains) being discovered during the course of the project, if this occurs all works in the vicinity of the find must cease.

Follow the steps outlined in the Roads and Maritime Services' *Unexpected Archaeological Finds Procedure*.

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Transport for NSW  
193 – 195 Morgan Street, Wagga Wagga, NSW, 2650  
E: Desmond.Smith@transport.nsw.gov.au

Yours sincerely



Desmond Smith  
Aboriginal Cultural Heritage Officer  
Aboriginal Engagement - Southern

# Appendix F: Project Impact Footprint

