

HUME HIGHWAY DUPLICATION STURT HIGHWAY TO HOLBROOK

MODIFICATION REPORT LITTLE BILLABONG PROJECT APPROVAL 06_0247

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Abbreviations

DECC	NSW Department of Environment and Climate Change (formerly the Department of Environment and Conservation, incorporating the Department of Natural Resources)
DoP	NSW Department of Planning (formerly the Department of Infrastructure, Planning and Natural Resources)
EA	Environmental Assessment
KNC	Kelleher Nightingale Consulting
MCoA	Minister's Conditions of Approval
NHA	Northern Hume Alliance
NSW	New South Wales
RTA	NSW Roads and Traffic Authority
SoC	Statement of Commitments

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1 Introduction

1.1 Background

The Roads Traffic Authority of NSW (RTA) have Department of Planning Approval to duplicate five sections of the Hume Highway between its junction with the Sturt Highway to the north of Albury (the Hume Highway Duplication). The Northern Hume Alliance (NHA) have been appointed by the RTA to design and construct the four northern sections:

- Sturt Highway to Tarcutta (N1)
- Kyeamba Hill (N2)
- Little Billabong (N3)
- Yarra Yarra to Holbrook (N4)

The existing two-lane single carriageway will be upgraded to four lane dual carriageway. This report refers to Approved Project Little Billabong (06_0247). Little Billabong involves the duplication of the single carriageway 85 kilometres south of Gundagai to approximately 93 kilometres south of Gundagai (the Approved Project). A site location plan is provided as **Figure 1**.

The Approved Project was the subject of Environmental Assessment (EA) prepared in accordance with the process and requirements of Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act), which detailed the environmental issues associated with the proposal, including mitigation measures to address potential impacts. On 10 October 2006 the Director- General's requirements were issued in respect to the proposal pursuant to Section 75F of the EP&A Act. The project was approved by the Minister for Planning on 20 July 2007.

This Modification Report identifies a change to alignment and resultant environmental impacts that were not addressed in the Concept Approval (06_0314) or the Environmental Assessment (06_0247) for the Little Billabong duplication project. These changes are:

- Chainage 88100 – 88700: The Approved Project had no road, drainage or intersection design for the existing southbound carriageway at Westby Lane. The proposed changed alignment includes an upgrade of the road formation and a realignment of the creek bank - to address scouring of Little Billabong creek. *Culturally sensitive information excluded.*
- Chainage 88750 – 88950: The Approved Project was found to have a substandard road alignment and intersection arrangement as well as inadequate provision for drainage and spill containment check dams. The changed alignment design has been updated to include these elements. The changed road alignment now impacts on LB-PAD-2.

These changes in alignment are generally consistent with the overall Hume Highway Duplication Project(s) and if approved under Part 3a (75W) of the EP&A Act are permissible within the relevant land use zonings.

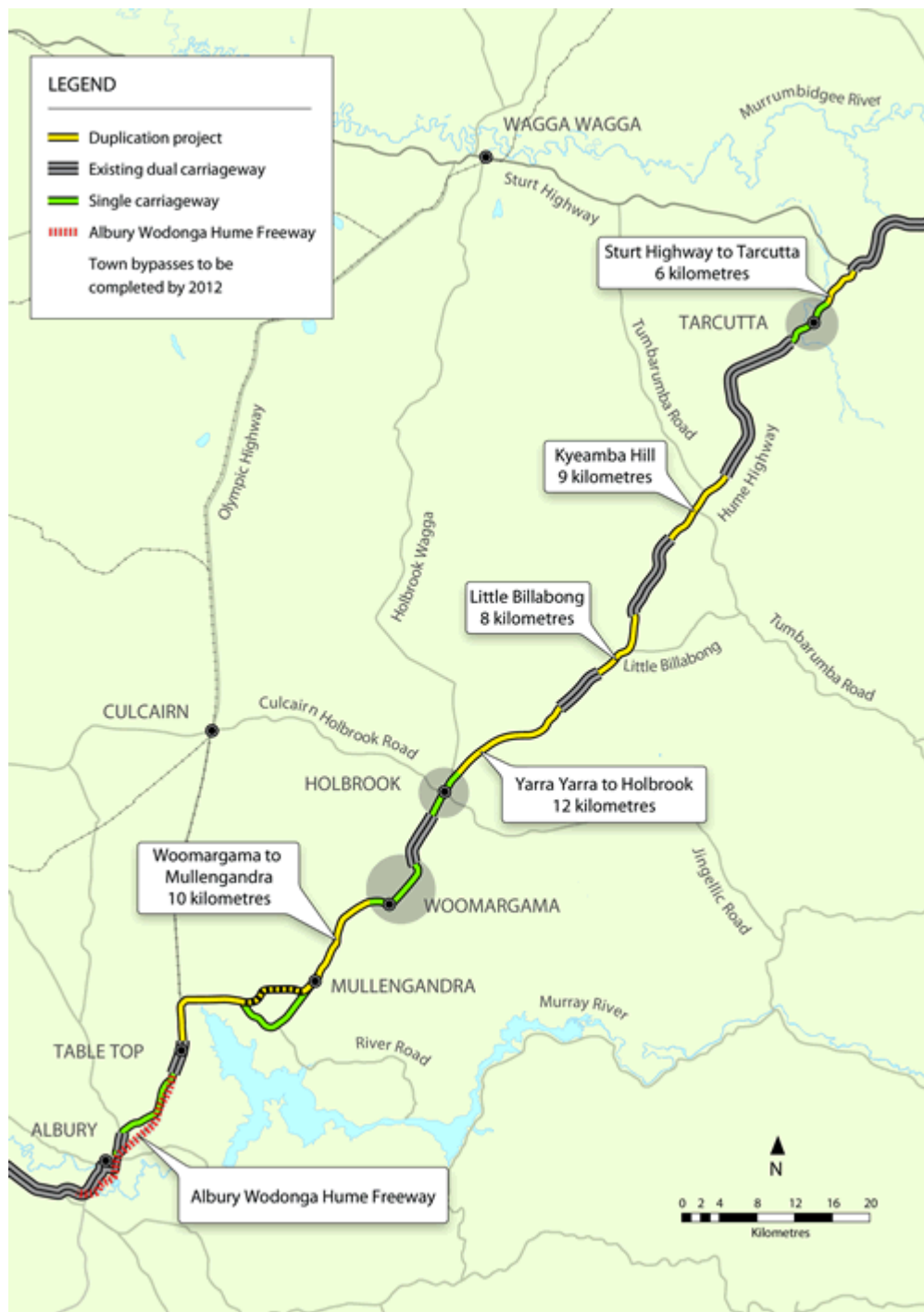


Figure 1 - Hume Highway Duplication Project

1.2 Purpose and Objective of the Modification Report

Following approval of the project, the Northern Hume Alliance (on behalf of the RTA) have gone through a process of detailed design development.

NHA have carried out a consistency assessment (see **Appendix A**) to assess the consistency of the NHA alignment with the Approved N3 Project.

This report identifies the environmental impacts due to changes in design. These impacts were assessed for consistency against the Minister's Conditions of Approval and Statement of Commitments. The impacts on Aboriginal heritage is considered to be inconsistent.

The proposed new alignment and drainage design (for protection of the creek) results in a new impact on one Aboriginal Potential Archaeological Deposit, LB-PAD-2, identified in the Environmental Assessment, and one Aboriginal cultural area.

This report relates specifically to the changes in road alignment that have resulted in new impacts on heritage.

Section 75W of the EP&A Act regulates the modification of an approval for a project under Part 3A. It provides that the proponent may request the Minister for Planning to modify a project approval where the proponent intends to modify the project so that it would be inconsistent with that approval. This report has been prepared as supporting documentation for that application.

The request for the Minister for Planning's approval is to be lodged with the Director-General of the Department of Planning. The Director-General may notify the proponent of EA requirements with respect to the Proposed Modification. The objectives of this report are to:

- Assess the environmental impacts of the proposed modification to the satisfaction of the Director General of the Department of Planning
- Comply with all statutory requirements.

The Minister may modify the approval (with or without conditions) or disapprove of the modification, in accordance with Section 75W(4) of the EP&A Act.

2 Description of the Approved N4 Project

The primary objective of the Approved Project is to duplicate the existing single carriageway sections of the Highway at Little Billabong. It is located within the Greater Hume Shire local government area on the Hume Highway approximately 85 kilometres south of Gundagai to approximately 93 kilometres south of Gundagai.

The Hume Highway is a route of strategic national significance serving intrastate and interstate users, and is the main road transport corridor linking Sydney and Melbourne. The limitations of the existing highway in providing an efficient, integrated and safe transport link has led the Australian government to include the Hume Highway Duplication as part of the AusLink Program.

The Approved project would primarily involve the construction of:

- a new northbound carriageway to duplicate the existing highway between chainages 84720 and 88645;
- a new section of dual carriageway between chainage 88645 and 90460; and
- a new northbound carriageway to duplicate existing highway between 90460 and 93180.

3 Description and Justification of Changed Alignment

The detailed design of the Highway duplication has taken into account a range of design parameters not fully considered in the RTA concept design. Design development has incorporated elements such as alignment, batter slopes, geometry, drainage, property access and other requirements. Together these elements of detailed design development have resulted in a slightly changed alignment design.

The impact of the alignment change is an increase in the construction footprint resulting in additional environmental impacts around Aboriginal heritage Potential Archaeological Deposit LB-PAD-2.

Total avoidance of impacts on these items was not possible due to the geometric design requirements necessary to achieve a safe operating highway (to current RTA road safety design standards) whilst also minimising environmental impacts throughout the adjoining areas of the road corridor. The dispersed nature of Aboriginal sites located along the Hume Highway, as well as safety and other environmental considerations, makes avoidance of these items difficult.

At chainage 88100 – 88700, the road alignment changes are due to standard design development. The Approved Project alignment design had no road, drainage or intersection design for the southbound carriageway at Westby Lane. Works required on the southbound at Westby Lane include the extension of a seven cell culvert, installation of roadside barrier and a bus lay-by and u-turn facility at the junction. All of this has moved formation works towards the creek. Little Billabong Creek also has two outwash channels at this location that are eroding the creek bank towards the highway. This situation will be addressed by rebuilding the creek bank with large rocks to provide long term scour protection. The Approved Project alignment design did not consider this rectification work. The works required for protection of the creek bank encroach an Aboriginal PAD, LB-PAD-2. *Culturally sensitive information excluded.*

The Approved Project alignment design south of Little Billabong Road (Main Road 284) was found to have a substandard road alignment and intersection arrangement as well as inadequate provision for drainage and spill containment. Design development of the substandard or missing elements has increased the impact on LB-PAD-2 at this location. Spill containment will be addressed with a series of rock check dams, aimed at slowing any potential spill entering the creek, thus protection the health of the creek. A drainage channel is to be built from the outlet of a large culvert, to facilitate the travel of stormwater into the creek. The channel will also assist in preventing localised flooding in this area (which would otherwise occur due to topography).

See drawings attached in **Appendix B** which show the changed alignment (in black) compared to the Approved alignment (in red) in proximity to the creek.

4 Assessment of Consistency with Approved Project

4.1 Review of the Conditions of Approval

Appendix A provides a review of the changed alignment against the Minister's Condition's of Approval and Final Statement of Commitments for the Approved Project (Concept Approval (06_0314) and Little Billabong (06_0247)). The following table addresses the Minister's Conditions of Approval (MCoA) and Statement of Commitments (SoCs) where the changed alignment was determined to be inconsistent with the Approved Project.

Table 1: Consistency of Changed Alignment with MCoA's and SoC's

Condition of Approval	Comment
MCoA – Little Billabong (06_0247)	
<p>Aboriginal Heritage</p> <p>2.8 Prior to the commencement of construction, the Proponent shall undertake subsurface testing for sites LB3, LB4, LB-PAD-1 and LB-PAD-3, and shall investigate the options to design and construct the project as to avoid these sites in consultation with the DECC.</p> <p>Where these sites cannot be avoided, the Proponent shall implement the mitigation and management measures detailed within the Construction Heritage Management Plan required under this approval.</p> <p>Any salvage (by either surface collection or archaeological excavation) of artefacts detected at these sites shall be conducted in the same manner as required under condition 2.7 of this approval.</p>	<p>The revised design does present a new impact on Aboriginal heritage, at LB-PAD-2, which was not identified in the MCoA.</p> <p>The proposed mitigation measure for LB-PAD-2 is for test excavation. This mitigation measure has been developed in consultation with DECC and Aboriginal stakeholders in accordance with the RTA Aboriginal Cultural Heritage Report (ACHR).</p>

Statement of Commitment	Comment
Aboriginal Heritage	
AH2 - Test excavation will be undertaken for the following Aboriginal heritage items: T-PAD-I, K3, K10, K-PAD-6, K-PAD-8, K-PAD-9, LB3, LB4, LB-PAD-3, YY7, YY14, YY17, M-PAD-I, M-PAD-3 and LB-PAD-1 and LB-3 (if impacted) and any additional management and mitigation measures will be developed in consultation with Aboriginal stakeholders and DECC.	<p>This commitment does not have provisions for new impacts on LB-PAD-2. Please refer to comment above for MCoA 2.8 for further details on impacts and proposed mitigation.</p> <p>Mitigation measures have been developed in consultation with DECC and Aboriginal Stakeholders, consistent with the approach outlined in SoC AH1.</p>

4.2 Consistency

The consistency assessment (**Appendix A**) determined that the changes to the design of the Little Billabong Project are generally considered to be consistent with the objectives and function of the Hume Highway Duplication Project, as approved by the Minister for Planning (Little Billabong (06_0247)). The proposed design changes are also considered to be generally consistent with the objectives, functions and Conditions of Approval of the Concept Approval (06_0314).

The resulting environmental impacts of the proposed alignment (resulting from design development) are however considered to be inconsistent with those identified in the Environmental Assessment – Little Billabong (SKM & Manidis Roberts, 2007), the revised Statement of Commitments and the Minister's Conditions of Approval (Little Billabong) for particular impacts on heritage.

As such, the changes in Little Billabong alignment design are considered to be inconsistent with the Approved Project (Little Billabong), and a request to modify the Approved Project is sought from the Minister of Planning in accordance with Section 75W of the EP&A Act.

5 ENVIRONMENTAL ASSESSMENT

5.1 Little Billabong Creek

5.1.1 Impacts of the Changed Project

The development of drainage design around Little Billabong Creek has included the installation of scour protection at the outlet of a seven cell culvert opposite Westby Lane (chainage 88200). At present the outwash from the existing culvert has resulted in scouring of the creek bank, forcing it to progress westwards. The changed alignment extends the existing culvert in this location, and in addition proposes to install over sized rock fill to provide scour protection and long term stability of the road embankment.

Around chainage 88800 – 88900 spill containment measures (including rock check dams) are to be installed to protect the creek from any potential contaminant entering the creek. The rock check dams will slow run off assisting to protect creek health. A drainage channel will also be installed from the outlet of the box culvert to take stormwater into the creek. This will reduce scouring and flooding impacts in the outwash zone. This drainage channel will assist in the protection of the long term health of the creek.

5.2 Aboriginal Archaeological Heritage

5.2.1 Impacts of the Approved Project

The Aboriginal archaeological survey carried out for the EA identified six sites (including scar trees, artefact scatters and isolated finds) and 3 Potential Archaeological Deposits (PADs) within the study area of Little Billabong. Site types found within the study area are associated with the flats and terraces of Billabong Creek, former high density Aboriginal occupation and remnant old growth trees that persist with the road reserve. A number of artefact scatters are found near to Billabong Creek and a large area of Potential Archaeological Deposit (PAD) is located in the southern section of the study area, adjacent to Billabong Creek. Of the nine sites and PADs identified, three sites (artefact scatters and isolated finds) and two PADs were to be impacted by the Approved Project, as per the MCoA (Little Billabong) 2.8.

5.2.2 Impacts of the Changed Project

The changed alignment in the vicinity of chainage 88150 - 88700 and 88750 - 89000 results in an additional impact upon one PAD - LB-PAD-2. The changed alignment would not decrease any impacts to any affected Aboriginal heritage items.

Table 2: Aboriginal Heritage Sites – N3 - Consistency with Approved Project

Site no.	Description	Significance	Approved Project Impact	Impact Consistent with Approved Project
LB1	Scarred Tree	Moderate to High	No Impact	Yes
LB2	Isolated Find	Low to Moderate	Will be impacted	Yes
LB3	Artefact Scatter	Moderate to High	Will be impacted	Yes
LB4	Artefact Scatter	High	Will be impacted	Yes

LB5	Artefact Scatter	High	No Impact	Yes
LB6	Artefact Scatter	Moderate to High	No Impact	Yes
LB8 LB-PAD-1	Artefact Scatter (previously PAD)	Moderate	Will be impacted	Yes
LB-PAD-2	PAD		Impact	No
LB-PAD-3 (LB7)	Artefact Scatter (previously PAD)	Low	Will be impacted	Yes

5.2.3 Mitigation strategy

Prior to construction commencing in proximity to the impacted portion of LB-PAD-2, test excavation is required. This mitigation measure was developed in consultation with the Project Archaeologist, DECC and Aboriginal stakeholders.

Test excavation will be undertaken in accordance with the Construction Heritage Management Plan as required by the Minister's Conditions of Approval. Test excavation would be undertaken in accordance with the methodology described in Appendix C of the *Hume Highway Upgrade Duplication Project; Aboriginal Cultural Heritage Report - Test Excavations Results, Assessment and Management Measures* (RTA July 2007).

No additional archaeological work is recommended for any other archaeological sites or features within the N3 section.

5.3 Aboriginal Cultural Heritage

5.3.1 Impacts of the Approved Project

Culturally sensitive information excluded.

5.3.2 Impacts of the Changed Project

Culturally sensitive information excluded.

5.3.3 Mitigation strategy

Culturally sensitive information excluded.

6 ENVIRONMENTAL SAFEGUARDS

The NHA propose that the Conditions of Approval that apply to the Approved Project will also apply to the changed alignment. It is submitted that the Conditions of Approval are for the most part comprehensive, and would be adequate to manage the change of location, magnitude and extent of potential adverse environmental impacts that could be caused by the proposed changes to the Approved Project. Minor amendments to the Conditions of Approval should be considered in relation to new impacts on Aboriginal heritage caused by the proposed changes, as outlined below.

Table 3: Proposed Amendment to Minister’s Conditions of Approval

MCoA Approved Project	Proposed amendment to MCoA
<p>Aboriginal Heritage</p> <p>2.8 Prior to the commencement of construction, the Proponent shall undertake subsurface testing for sites LB-3, LB4, LB-PAD-1 and LB-PAD-3, and shall investigate the options to design and construct the project as to avoid these sites in consultation with the DECC.</p>	<p>LB-PAD-2 should be added as a site to MCoA 2.8. Test excavation (subsurface testing) to be included as a proposed mitigation.</p>

The changed alignment would be carried out in accordance with the Conditions of Approval granted for the Concept Approval (06_0314); the *Hume Highway Duplication Concept Plan, Sturt Highway to Tarcutta, Kyeamba Hill and Little Billabong Environmental Assessments - Submissions Report and Revised Statement of Commitments* and the *Little Billabong – Hume Highway Duplication - Environmental Assessment* (SKM & Manidis Roberts, 2007). The proposed additional environmental safeguards specific to the proposed changes are shown in **Table 4**.

Table 4: Proposed Amendment to Statement of Commitments

Objective	Ref	Commitment	Proposed Amendment	Timing
Aboriginal Heritage				
Minimise impact on Aboriginal heritage items	AH2	Test excavation will be undertaken for the following Aboriginal heritage items: T-PAD-1, K3, K10, K-PAD-6, K-PAD-8, K-PAD-9, LB3, LB4, LBPAD-3, YY7, YY14, YY17, M-PAD-1, M-PAD-3 and LB-PAD-1 and LB-3 (if impacted) and any additional management and mitigation measures will be developed in	LB-PAD-2 should be added as a site to AH2.	Pre-Construction

Objective	Ref	Commitment	Proposed Amendment	Timing
		consultation with Aboriginal stakeholders and DECC.		

7 CONSULTATION

7.1 Consultation with Stakeholders

The Northern Hume Alliance (on behalf of the RTA) has consulted the relevant regulatory agencies / stakeholders prior to completing this document in order to identify any specific issues they may have with the proposed changes.

DECC were given the opportunity to comment on the proposed mitigation and raised no concerns. DECC requested further consultation with the identified knowledge holders. This consultation with Aboriginal knowledge holders and Stakeholders was carried out as per the NHA Aboriginal Heritage Management Plan (developed to meet MCoA 4.2 (b) (ii)).

The Department of Primary Industries were consulted regarding the realignment of the creek bank opposite Westby Lane. DPI identified the need to maintain the low flow hydrology. The NHA have committed to this.

Aboriginal stakeholders registered to the Project were advised of the impact via telephone. All stakeholders, including those contacted by telephone, were provided with a report detailing the proposed impacts and mitigation measures, and were given the opportunity to provide comment. No issues or objections were raised.

Culturally sensitive information excluded.

A summary of the consultation undertaken as part of this report preparation is provided in **Table 5**.

Table 5: Summary of Consultation

Summary of Issues	Report Reference
NSW Department of Environment and Climate Change	
DECC confirmed the need to contact knowledge holders regarding the impact on an identified cultural area. DECC endorse the proposed mitigation of a test excavation at LB-PAD-2.	Section 5.1.3, Appendix D
NSW Department of Primary Industries	
No issues were raised. DPI were happy with the scour protection as it will not impact on low flow hydrology and will maintain in-bank geometry and course as much as possible.	Appendix E
Aboriginal Stakeholders	
No issues were raised.	Appendix F
Aboriginal Knowledge Holders	
<i>Culturally sensitive information excluded.</i>	Appendix G

8 Conclusion

Following the review of the detailed design for the N3 Section of road duplication at Little Billabong, the NHA process of detailed design has resulted in new impacts on Aboriginal heritage, not previously identified in the EA or the MCoA, deemed inconsistent with the Project Approval (Little Billabong).

Section 75W (2) of the EP&A Act provides that the Minister for Planning's approval for the modification is required if the project as modified would not be consistent with the existing approval.

NHA has assessed the environmental impacts associated with the proposed changes in alignment at Little Billabong in order to assess whether approval from the Minister for Planning is required to modify the Minister's Conditions of Approval for the Hume Highway Upgrade project under Section 75W of the EP&A Act.

NHA considers that the proposed change to the Project is generally consistent with the description and assessment of the Project in the Environmental Assessment; however the changed alignment in the vicinity of chainages 88100 and 88700 plus 88750 and 88950 do result in impacts that are inconsistent with the Minister's Conditions of Approval. As such the NHA seek approval from the Minister for Planning for the changed alignment in these specific areas as outlined in this report.

APPENDIX A – CONSISTENCY ASSESSMENT

**APPENDIX B – RELEVANT SHEETS FROM ENVIRONMENTAL CONSTRAINTS
DRAWINGS**

APPENDIX C – ADVICE FROM PROJECT ARCHAEOLOGIST

APPENDIX D – CONSULTATION WITH DECC

APPENDIX E – CONSULTATION WITH DPI

APPENDIX F – CONSULTATION WITH ABORIGINAL STAKEHOLDERS

Culturally sensitive information excluded.

APPENDIX G – CONSULTATION WITH ABORIGINAL KNOWLEDGE HOLDERS

Culturally sensitive information excluded.