# Submissions report

The Northern Road Upgrade - Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park

Proposed changes between Eaton Road, Luddenham and Littlefields Road, Luddenham

Roads and Maritime Services | February 2019







# **Roads and Maritime Services**

# The Northern Road upgrade – Mersey Road Bringelly to Glenmore Parkway, Glenmore Park

Proposed changes between Eaton Road, Luddenham and Littlefields Road, Luddenham

Submissions report

February 2019

Prepared by Jacobs Australia RMS.19.1178

Revision	Date	Prepared by	Reviewed by
Final for issue to DPE	07/02/2019	Minoshi Weerasinghe & Mark Terei	Nicole Philps & Adam Moore

# **Executive summary**

Roads and Maritime Services (Roads and Maritime) is upgrading 16 kilometres of The Northern Road between Mersey Road, Bringelly and Glenmore Parkway, Glenmore Park.

Environmental assessment of The Northern Road upgrade – Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park (herein referred to as "the project") was carried out under the former Part 5.1 (now Division 5.2) of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) and Part 8 of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The NSW Minister for Planning approved the project under Section 5.19 of the EP&A Act on 30 May 2018 (herein referred to as the "Division 5.2 Approval"). The Commonwealth Minister for the Environment approved the project under Part 8 of the EPBC Act on 15 June 2018 (herein referred to as the "EPBC Approval").

Roads and Maritime proposes to modify the Minister's approval for Stage 6 (between Eaton Road, Luddenham and Littlefield Road, Luddenham) of the project to replace the approved twin bridges over Adams Road with an at-grade signalised intersection. The proposed modification was assessed in the Division 5.2 and EPBC Act Approval Modification Assessment – Proposed changes between Eaton Road, Luddenham and Littlefields Road, Luddenham (herein referred to as "the Modification Assessment") prepared by Roads and Maritime in December 2018.

The Modification Assessment was exhibited by the Department of Planning and Environment (DPE) for 14 days from 6 December 2018 to 19 December 2018. The DPE received a total of 12 submissions during exhibition of the Modification Assessment of which five were from the community and seven were from government agencies.

The most common issues raised by the community and government agencies included:

- Traffic, transport and access relating to traffic volumes, traffic flow, potential delays and travel time
- Road safety
- Inadequate consultation
- Options analysis relating to methodology and preferred design option
- No objection to the modification
- Construction sequencing of the project
- Socio-economic, land use, property and utility impacts relating to property acquisition and road maintenance
- Natural environment and amenity relating to air and noise emissions, visual impact, biodiversity and hydrology.

This report provides responses to those issues (Chapter 2).

Roads and Maritime understands community concerns around the modification and has reviewed the Modification Assessment including environmental management measures and Conditions of Approval considering the submissions received. These existing environmental safeguards are considered to sufficiently address the potential environmental impacts and community concerns expressed by submissions received. No additional assessments have been undertaken since the exhibition of the Modification Assessment and no further changes to the environmental management measures or Conditions of Approval are proposed in response to issues raised in the public submissions.

# **Contents**

Ex	ecuti	ive summary	i		
Со	nten	ıts	ii		
1	Introduction and background				
	1.1	The project	1		
	1.2	Statutory context	1		
	1.3	Modification assessment exhibition	2		
	1.4	Purpose of the document	2		
2	Res	ponse to issues	6		
	2.1	Respondents	6		
	2.2	Overview of the issues raised	7		
	2.3	Traffic, transport and access	7		
	2.4	Safety	9		
	2.5	Consultation	9		
	2.6	Options analysis	10		
	2.7	No objection to the modification	11		
	2.8	Construction	11		
	2.9	Socio-economic, land use, property and utilities	11		
	2.10	) Natural environment and amenity	12		
3	Revised environmental management measures				
4	Proposed amendments to conditions of approval1				
5	References				

# 1 Introduction and background

# 1.1 The project

Roads and Maritime Services (Roads and Maritime) is upgrading 16 kilometres of The Northern Road between Mersey Road, Bringelly and Glenmore Parkway, Glenmore Park.

Environmental assessment of The Northern Road upgrade – Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park (herein referred to as "the project") was carried out under the former Part 5.1 (now Division 5.2) of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) and Part 8 of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The NSW Minister for Planning approved the project under Section 5.19 of the EP&A Act on 30 May 2018 (herein referred to as the "Division 5.2 Approval"). The Commonwealth Minister for the Environment approved the project under Part 8 of the EPBC Act on 15 June 2018 (herein referred to as the "EPBC Approval").

A full description of the approved project is provided in Chapter 5 of the NSW Environmental Impact Statement (EIS) / Commonwealth Draft EIS (herein referred to as the "EIS") and amended in Chapter 4 of the NSW Submissions and Preferred Infrastructure Report and Commonwealth Final EIS (collectively referred to as the "SPIR and Final EIS").

Roads and Maritime proposes to modify the Minister's approval for Stage 6 of the project (between Eaton Road, Luddenham and Littlefields Road, Luddenham) to replace the approved twin bridges over Adams Road with an at-grade signalised intersection. A more detailed description of the modification is found in the Division 5.2 and EPBC Act Approval Modification Assessment – Proposed changes between Eaton Road, Luddenham and Littlefields Road, Luddenham (herein referred to as "the Modification Assessment") prepared by Roads and Maritime in December 2018.

The proposed modification is shown in **Figure 1-1**.

# 1.2 Statutory context

Roads and Maritime proposes to modify the Minister's approval for Stage 6 of the project to replace the approved twin bridges over Adams Road with an at-grade signalised intersection. Roads and Maritime considers this change to be inconsistent with the Division 5.2 Approval. Specifically, the proposed change would not satisfy Condition A1 of the NSW Minister's Conditions of Approval as it is not 'generally in accordance with the description of the CSSI in the EIS as amended by the SPIR'. Accordingly, Roads and Maritime seeks a modification of the Minister's approval under Section 5.25 of the EP&A Act. The modification would update the project description, and amend the Conditions of Approval to:

- A1 The CSSI must be carried out in accordance with the terms of this approval and generally in accordance with the description of the CSSI in the EIS as amended by the SPIR and the Modification Assessment
- A2 The CSSI must be carried out generally in accordance with all procedures, commitments, preventative actions, performance criteria and mitigation measures set out in the EIS as amended by the SPIR and the Modification Assessment unless otherwise specified in, or required under, this approval.

Condition 1 of the EPBC Approval requires that Roads and Maritime 'undertake the action, including but not limited to those parts of the action that occur on Commonwealth Land, in accordance with all conditions in the NSW Infrastructure Approval'. The definition of 'NSW Infrastructure Approval' includes any amendments to the Division 5.2 Approval from time to

time. Accordingly, carrying out the project in accordance with the Division 5.2 Approval as modified from time to time is consistent with the EPBC Approval. Notification of the proposed modification to the Division 5.2 Approval will be provided to the Department of Environment and Energy, in accordance with Condition 2.

#### 1.3 Modification assessment exhibition

The Modification Assessment was exhibited by the Department of Planning and Environment (DPE) for 14 days from 6 December 2018 to 19 December 2018. The exhibition was advertised on the dates and in the publications as per below:

- Sydney Morning Herald, 5/12/2018 and 19/12/2018
- Daily Telegraph, 5/12/2018 19/12/2018
- Liverpool Leader, 5/12/2018 19/12/2018
- Penrith Press, 6/12/2018 19/12/2018

The Modification Assessment was exhibited at:

- Penrith City Council
- Liverpool City Council
- Narellan Library
- Camden City Council
- Department of Planning and Environment website
- Roads and Maritime website linked to DPE website

#### 1.4 Purpose of the document

During the exhibition of the Modification Assessment, 12 submissions were made. The Secretary of DPE provided copies of the submissions to Roads and Maritime. In accordance with section 115Z(6) of the EP&A Act, the Secretary requires Roads and Maritime to respond to the submissions. Roads and Maritimes has prepared this submissions report to address this requirement.

This report identifies the issues raised during exhibition of the Modification Assessment and provides responses to those issues (Chapter 2).

No project changes are proposed that would require the preparation of a preferred infrastructure report. No revisions have been made to the assessment or environmental management measures as described in the Modification Assessment.

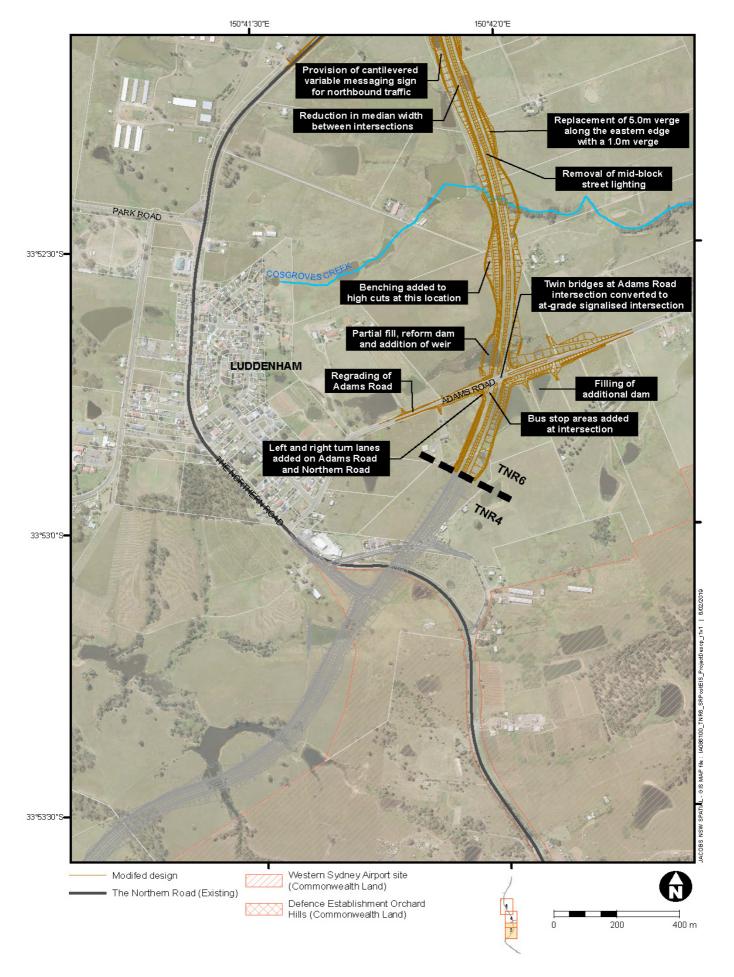


Figure 1-1 | Overview of proposed changes to Stage 6 of the project

Page 1 of 3

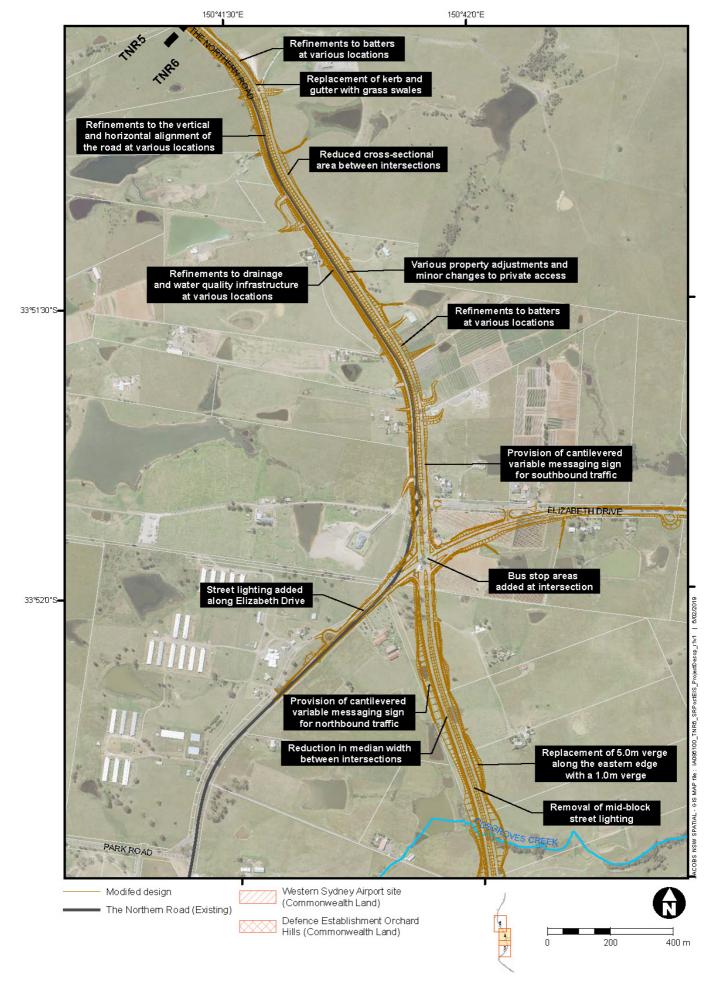


Figure 1-1 | Overview of proposed changes to Stage 6 of the project

Page 2 of 3

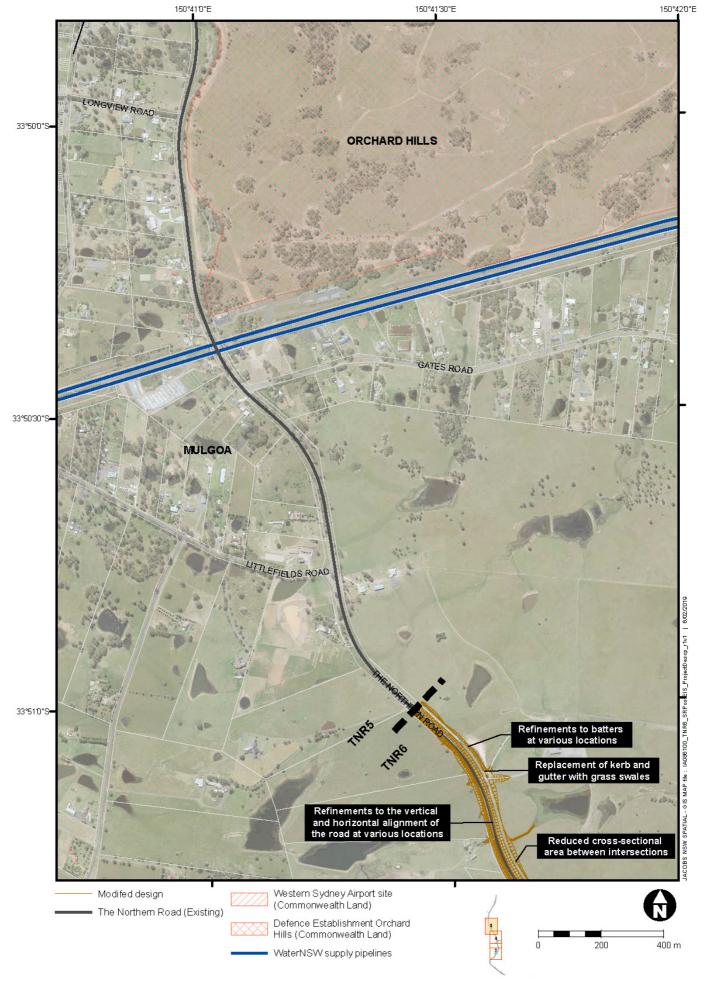


Figure 1-1 | Overview of proposed changes to Stage 6 of the project

Page 3 of 3

# 2 Response to issues

# 2.1 Respondents

The DPE received a total of 12 submissions during exhibition of the Modification Assessment between 6 December and 19 December 2018. Of these submissions, five were received from the community and seven were received from government agencies. Submission no. 2 (from an anonymous respondent) was received twice as the exact same document, both anonymous, and so was considered a duplicate.

A list of submissions received is provided in Table 2-1, including where in this report the issue has been addressed. Each submission was assigned an individual number by DPE. These numbers are referred to in Table 2-1 and throughout this chapter.

**Table 2-1 List of respondents** 

Respondent	Submission No.	Section number where issues are addressed
Individual	1	2.3, 2.4, 2.10, 2.6,
Individual	2	2.5, 2.3, 2.9, 2.6, 2.10
Sydney Water	3	2.7, 2.9
Individual	4	2.9, 2.3, 2.10, 2.6, 2.8
Luddenham Progress Association	5	2.9, 2.3, 2.10, 2.6, 2.8
Individual	6	2.5, 2.6, 2.10
NSW Environment Protection Authority	7	2.7
Office of Environment & Heritage	8	2.10
Heritage Council (Office of Environment and Heritage)	9	2.7
Liverpool City Council	10	2.7, 2.9
Penrith City Council	11	2.7
Western Sydney Airport	12	2.7

#### 2.2 Overview of the issues raised

As identified above, a total of 12 submissions were received from the community and government agencies during exhibition of the Modification Assessment.

Each submission has been examined individually to understand the issues being raised. The issues raised in each submission have been extracted and collated, and corresponding responses to the issues have been provided. Where similar issues have been raised in different submissions, only one response has been provided. The issues raised and Roads and Maritime's response to these issues forms the basis of this chapter.

Of the 12 submissions received, five submissions object to the proposed modification and seven do not offer a position on the proposed modification.

The most common issues raised by the community and government agencies included:

- Traffic, transport and access relating to traffic volumes, traffic flow, potential delays and travel time
- Road safety
- Inadequate consultation
- Option analysis relating to methodology and preferred design option
- No objection to the modification
- Construction sequencing of the project
- Socio-economic, land use, property and utility impacts relating to property acquisition and road maintenance
- Natural environment and amenity relating to air and noise emissions, visual impact, biodiversity and hydrology.

# 2.3 Traffic, transport and access

#### Submission number(s)

1, 2, 4, 5

#### **Issue description**

In summary, the respondents raised the following issues:

- 1. Concerns that a signalised intersection would disrupt traffic flow, causing traffic delays and increased travel times
- 2. Concerns regarding the increase in traffic volumes along Adams Road and impacts to local residents
- 3. Concerns regarding the access restrictions as a result of the proposed network changes
- 4. Concerns about the traffic assessment methodology and traffic projections.

#### Response

Traffic flow, potential delays and travel time

The Modification Assessment includes an assessment of potential traffic and transport impacts resulting from the proposed design changes (Adams Road intersection), outlined in Section 5.2.3. The assessment includes professional traffic modelling based on existing and forecast traffic data.

The assessment found that the introduction of the signalised intersection with Adams Road would increase travel times along The Northern Road between Mersey Road and Elizabeth Drive by less than one minute compared to the Final EIS and Submission report design, as shown in Table 5-3 of the Modification Assessment. However, travel times along The Northern

Road would still be substantially lower than under the Do Minimum scenario without the project.

Vehicles travelling eastbound along Adams Road would typically experience a 55 second delay due to introduction of the intersection and vehicles travelling westbound along Adams Road would typically experience an 86 second delay.

Transport modelling results indicate that the proposed new intersection of The Northern Road and Adams Road would meet the performance target of Level of Service D and proposed bay lengths are sufficient to contain maximum queue lengths under 2031 traffic demands. The forecast traffic data account for the airport and other future developments. The design includes a dedicated turning bay from Adams Road to The Northern Road to separate traffic turning right and traffic going straight on Adams Road.

#### Local traffic impact

As per Section 5.2.3 of the Modification Assessment, the proposed changes would not result in substantial changes to construction traffic generation as assessed in the SPIR and Final EIS. Therefore, no change to the assessment findings of the construction traffic assessment is expected. During construction, at least one lane would remain open on Adams Road, managed by traffic control. The traffic volumes are low for this road and the lane closures are not expected to cause any significant delays for vehicles. Traffic control measures would be implemented in line with the approved Construction Environmental Management Plan (CEMP).

Adams Road is currently a local road providing primarily access to properties along Adams Road with a secondary role providing access to Luddenham Town Centre. With the realignment and upgrade of The Northern Road, the intended access to Luddenham town centre will be via Elizabeth Drive and The Northern Road. The desired function of Adams Road is to continue as a local road, however it is acknowledged that the Modification Assessment includes an evaluation of traffic volume increases along Adams Road - see Section 5.2.3. The forecast increased traffic numbers along Adams Road primarily related to a redirection of traffic from The Northern Road to Adams Road as it provides a link to Elizabeth Drive. The total forecast increased traffic numbers are not additional to that of the Final EIS and SPIR.

An additional mitigation measure is proposed by the Modification Assessment to mitigate the impact of the proposed modification on Adams Road. Consultation with the local Council is proposed to develop measures to dissuade vehicles from using Adams Road and therefore mitigate the increase in forecast traffic volumes on Adams Road. Roads and Maritime understands community concerns and will begin consultation with Council on suitable traffic calming and other measures which can be implemented when traffic volumes increase. Council has already had an opportunity to comment on the Modification Assessment and Roads and Maritime will continue consultation with Council once the modification is approved.

Affected driveways that connect to Adams Road have been redesigned in consultation with impacted property owners as part of the modification to ensure safe access.

Adams Road is a load limited road and trucks above 3 tonnes cannot use it. There is no proposal to change this as a part of The Northern Road upgrade.

Roads and Maritime's design process includes a road safety assessment of all road design prior to construction as well as after construction is complete. The proposed design includes signalised pedestrian crossings at all sides of the intersection and provides a new shared path for pedestrians and cyclists on the western side of The Northern Road. Speeding vehicles is a matter for the NSW Police.

The intersection provides improved access to the proposed The Northern Road for properties along Adams Road.

#### Access restrictions

At Eaton Road west of The Northern Road, all movements will be allowed. A publication distributed by Roads and Maritime erroneously identified this as left-in, left-out only.

#### Traffic assessment methodology

The Modification Assessment includes an evaluation of traffic volume increases along Adams Road (see Section 5.2.3). The forecast increased traffic numbers along Adams Road primarily relate to a redirection of traffic from The Northern Road to Adams Road as it provides a link to Elizabeth Drive. The Adams Road connection will also allow increased use of Adams Road to access Luddenham. The forecast traffic data account for the airport and other future developments, however they are not the primary cause of forecast increased traffic numbers.

#### 2.4 Safety

#### Submission number(s)

1

#### Issue description

The respondent was concerned that the signalised intersection would adversely impact on road safety.

#### Response

The proposed new Adams Road intersection has been designed to relevant safety standards and includes a dedicated turning bay from Adams Road to The Northern Road to separate traffic turning right and traffic going straight on Adams Road. The design also includes signalised pedestrian crossings at all sides of the intersection and a new shared path for pedestrians and cyclists on the western side of The Northern Road.

#### 2.5 Consultation

#### Submission number(s)

2, 6

#### Issue description

The respondents believe that the community consultation around the design and the responses to stakeholder submissions was inadequate.

#### Response

Community and stakeholder consultation is outlined in Section 4 of the Modification Assessment, including responses to feedback received.

For the proposed modification, a communication plan was developed that highlighted details such as key messages, identified stakeholders to be consulted and communication delivery methods. This plan was implemented during August and September 2018 with directly impacted landowners and stakeholders provided with advance information before the public consultation. Consultation activities to date have included a community update newsletter, meetings with directly impacted property owners and other stakeholders, a media release, newspaper advertisement, email notifications, webpage and a pop-up session. Table 4-2 of the Modification Assessment provides a summary of the issues raised during the consultation, and the response provided by Roads and Maritime to each issue.

In conjunction with the lodgement of the modification approval with the DPE, Roads and Maritime will respond to those who submitted comments to the proposal. The Department will decide on whether further consultation is required, or to approve the modification. Should further consultation be required, Roads and Maritime would consider the issues raised during this consultation.

The changes, if approved, will be communicated as part of the changes to the wider project (including other stages) via briefings to stakeholders, ongoing consultation with affected property owners and public information material.

#### 2.6 Options analysis

#### Submission number(s)

1, 2, 4, 5, 6

#### **Issue description**

In summary, the respondents raised the following issues:

- 1. The respondents believe that the preferred option is not the best option for the community and prefer an alternative design option
- 2. Concerns about the assumptions adopted by the options assessment.

#### Response

Roads and Maritime continually assesses its projects so that it is providing value for money for taxpayers. The design for the upgrade between Mersey Road and Glenmore Parkway has been through a value engineering process following project approval and an intersection was identified as providing better value for taxpayer funds, as well as providing safer access for pedestrians and cyclists, without too much impact on other road users. Retention of the bridges was considered in the Value Engineering Study, but even with a reduction in the bridge deck width, cost implications did not favour this option.

The issues and score weightings considered by the Adams Road intersection options analysis adopted the same approach taken for the wider project Options Assessment, which was undertaken as part of the EIS, including Elizabeth Drive intersection options assessment. The Northern Road Stage 6 Adams Road Intersection – Options Analysis memorandum describes each criterion and provides commentary for the score for each option. The criteria, sub-criteria and a summary of the results of the options analysis are presented in Table 2-4 of the Modification Assessment.

The purpose of the Northern Road upgrade is to provide access to Western Sydney Airport and the growth areas of south-west and western Sydney. Agriculture and agribusiness land use will also generate traffic.

Traffic modelling completed for the Options Analysis considered local traffic movements based on surveyed traffic volumes. While there was no specific consultation with the community about a preferred option for the intersection, the options analysis considered likely community concerns based on previous engagement throughout the development of the EIS. Roads and Maritime has also needed to consider the future development in the area and the preference for an intersection with all movements instead of an intersection with limited movements. The weightings were derived to enable the consideration of a wide range of factors including those important to the local and regional communities.

# 2.7 No objection to the modification

#### Submission number(s)

7, 9, 10, 11, 12

#### Issue description

The respondents had no objection to the proposed modification or any further comments.

#### Response

Noted.

#### 2.8 Construction

#### Submission number(s)

4, 5

#### Issue description

These respondents were concerned about the construction sequencing of Stages 4, 5 and 6 of the project and the impacts on Luddenham Village.

#### Response

The project delivery has been staged to ensure that contractors can deliver the projects in the overall timeline. This also allows resources to be procured for all three stages of the upgrade for construction to progress concurrently. The contract for Stage 6 (between Eaton Road and Littlefields Road) is due to be let shortly, with overall completion of all stages scheduled for the end of 2022. The section of road required by Western Sydney Airport for the construction of the airport will be completed in early 2020.

In this scenario, traffic volumes along the existing The Northern Road through Luddenham township during construction will not be worse than the Do Minimum scenario (without the project).

# 2.9 Socio-economic, land use, property and utilities

#### Submission number(s)

2, 3, 4, 5, 10

#### **Issue description**

In summary, the respondents raised the following issues:

- 1. Concerns regarding the additional property acquisition associated with the construction footprint of the signalised intersection at Adams Road
- 2. Concerns regarding the extent and responsibility of maintenance along Adams Road
- 3. Consultation required to manage potential impacts on existing and planned Sydney Water assets and other utilities.

#### Response

Additional property acquisition

As per Section 5.1 of the Modification Assessment, the additional construction footprint for the intersection at Adams Road requires increased areas of property acquisition at four already affected properties and two additional properties. This additional strip acquisition is not expected to impact on the wider use of these properties.

Roads and Maritime conducted comprehensive consultation about the design change which included meetings with directly impacted property owners, as detailed in Table 4-1 of the Modification Assessment.

Roads and Maritime and its contractors will continue to consult with property owners prior to and during construction of The Northern Road upgrade.

Adams Road maintenance responsibility

Roads and Maritime will work with Liverpool City Council to hand over maintenance of Adams Road as per the standard work practices for local roads.

#### Utilities

Roads and Maritime has begun consultation with Sydney Water and will continue to carry out ongoing consultation with Sydney Water as per the SPIR. The proposed modification represents marginal changes to this required consultation and utility management.

### 2.10 Natural environment and amenity

#### Submission number(s)

1, 2, 4, 5, 6, 8

#### **Issue description**

In summary, the respondents raised the following issues:

- Concerns about the increased air and noise pollution associated with the increased traffic along Adams Road
- 2. Concerns about the visual impact of the signalised intersection
- 3. Concerns about the additional vegetation removal and the re-use of cleared vegetation
- 4. Concerns about the impact on local surface water flow.

#### Response

Air and noise pollution

Traffic lights will preference The Northern Road traffic flow at Adams Road due to relatively low existing and forecast traffic numbers. Therefore, traffic will be free-flowing most of the time northbound and southbound along The Northern Road. Additional traffic noise from the operation of the intersection (vehicles braking and accelerating) is not expected to be material, with the prevailing noise source being flowing traffic along The Northern Road.

As described in the SPIR and Final EIS, the noise environment would be affected by the construction of the approved project, and during operation of the new The Northern Road alignment. Operational noise predictions for the current revised design have been compared against those for the EIS. A quantitative assessment of potential operational noise impact resulting from the proposed design changes (including the Adams Road intersection) is included in Section 5.3.3 of the Modification Assessment. The assessment includes professional acoustic modelling based on forecast traffic data, topography and distance to receivers. The findings of the noise modelling indicate that overall, the noise level predictions between the proposed design and SPIR and Final EIS alignments are similar. The assessment has identified properties that are adversely affected and will be considered for noise mitigation measures in addition to those identified by the SPIR and Final EIS.

Roads and Maritime is committed to minimising the impact of traffic noise on the community. The Modification Assessment identified properties where it is predicted that the goals set out in the NSW Road Noise Policy (DECCW, 2011) are likely to be exceeded. These residences will be offered noise treatment. Once the project is complete, noise monitoring will be carried

out to verify the predictive noise modelling, and suitable action taken if it is determined that additional noise is being generated. This is an existing condition of approval.

The noise from tonal beepers at signalised pedestrian crossings was assessed as part of the Modification Assessment (Section 5.3.3). Each signalised tonal beeper was assumed to generate a noise level of at least 80 dB at one metre. The noise model indicated that no receivers experience noise emissions over 40 dB due to the traffic signals at the intersection. Therefore, the potential for sleep disturbance events is negligible.

The SPIR and Final EIS calculated the predicted concentrations of exhaust emission pollutants ( $PM_{10}$ ,  $PM_{2.5}$ , CO,  $NO_2$  and VOCs) at the nearest sensitive receiver to the twin bridges across Adams Road (a distance of about 100 metres). Only the  $PM_{2.5}$  value was not compliant with the threshold criteria, and this was noted to be due to elevated background concentrations. All other predicted values reported in the SPIR and Final EIS were compliant and at least below 75 per cent of the threshold criteria.

A qualitative assessment of air quality impact resulting from the proposed design changes (Adams Road intersection) is included in Table 5-1 of the Modification Assessment. It shows that there are no receivers affected over NSW Environment Protection Agency (EPA) air quality impact assessment criteria thresholds (NSW EPA, 2016), based on a review of motor vehicle emission factors for traffic conditions of the signalised intersection and distance to nearest receivers. The SPIR and Final EIS contain air quality mitigations measures and the Modification Assessment did not identify that any additional measures would be required.

#### Urban design and visual impact

Urban design and visual impact assessment is provided in Section 5.7 of the Modification Assessment. The key change to the design from the Final EIS and SPIR is the replacement of the twin bridges over Adams Road with an at-grade intersection. The intersection is considered to integrate The Northern Road alignment more seamlessly into the existing landscape than the bridge design and has therefore been deemed to be an improved outcome from an urban design perspective. However, the introduction of high embankments and increased road infrastructure on Adams Road results in locally increased landscape character and visual impact.

The proposed changes would not alter the overall magnitude of the project and therefore the landscape character impact rating identified in the Final EIS and SPIR remains unchanged at moderate-high. The combined visual impact of the current revised design results in the magnitude rating remaining high at a viewpoint nearest to the proposed Adams Road intersection.

#### **Biodiversity**

Potential biodiversity impacts of the proposed design changes are assessed in Section 5.4 of the Modification assessment.

The additional native vegetation clearing is considered minor and generally in accordance with the SPIR and Final EIS. The overall impact to the critically endangered Cumberland Plain Woodland in the Sydney Basin Bioregion ecological community has increased slightly by 0.03 from 21.19 hectares to 21.22 hectares due to a small change in the footprint in an area of Derived Native Grassland. This change is not considered substantial. A summary of the assessment of the biodiversity values prescribed in the Biodiversity Conservation Act 2016 and Biodiversity Conservation Regulation 2017 is presented in Table 5-9 of the Modification Assessment and it is considered that the impact on biodiversity values as identified under the BC Act has been suitably assessed. As per Section 5.4.3 of the Modification Assessment, the conclusion is that the modification is likely to result in a minor effect on biodiversity values and

as such does not warrant a Biodiversity Development Assessment Report (BDAR), under clause 30A (2)(c) of the amended transitional arrangements.

While there is an increase in vegetation clearance as a consequence of the proposed modification, the project's impact on biodiversity is calculated based on the entire construction footprint, which is conservative. The SPIR, Final EIS and Modification Assessment are based on the maximum clearing anticipated. The actual vegetation cleared would be equal to or lower than that assessed. Requirements for construction contractors to minimise clearing during construction could reduce the impact calculated in the SPIR and Final EIS and associated offset requirements.

Final offset calculations will be based on survey of actual vegetation cleared and reported in the Biodiversity Offset Package in consultation with OEH. This may result in an increase in the biodiversity offset requirements for the project.

The Division 5.2 approval under Section 5.19 of the EP&A Act outlines a condition that during vegetation clearing, timber and root balls must be retained where practicable for reuse in habitat enhancement and rehabilitation work. The retained timber and root balls may be used on or off the CSSI site. Before the start of vegetation clearing, the Proponent must consult with community groups, the Mulgoa Valley Landcare Group and relevant Government agencies to determine if retained timber and root balls could be used for environmental rehabilitation projects, before pursuing other disposal options.

Mitigation measures and construction safeguards were set out in the EIS and revised in the SPIR and Final EIS. These requirements will be included in a CEMP which must be followed by the selected construction contractor. The modification would adopt all the relevant revised environmental management measures committed to for the approved project in accordance with Condition A2 of the Minister's Conditions of Approval. Separation of woody vegetation to identify suitable items for secondary re-use is an existing environmental management measure and would be a condition of the CEMP.

#### Hydrology

Potential hydrology impacts of the proposed design changes are assessed in Section 5.5 of the Modification Assessment.

The potential impact of the project on flooding behaviour and the scour potential within receiving drainage lines has been considered during the detailed design phase of the project. Detailed flood modelling has also been carried out to identify the potential residual flooding and drainage related impact of the project after the incorporation of a preferred set of transverse drainage upgrade and flood mitigation measures into the detailed design. The results indicate that the impact of the modified design on flooding behaviour in the Cosgroves Creek catchment would generally be the same as was assessed in the SPIR and Final EIS. By extension, the impact of the project on scour potential in the receiving drainage lines would also generally be the same as what was assessed in the SPIR and Final EIS. There are minor exceptions to this, which have been assessed and described in Section 5.5.3 of the Modification Assessment.

# 3 Revised environmental management measures

Roads and Maritime understands community concerns around the modification and has reviewed the Modification Assessment including environmental management measures considering the submissions received. These existing environmental safeguards are considered to sufficiently address the potential environmental impacts and community concerns expressed by submissions received. No additional assessments have been undertaken since the exhibition of the Modification Assessment and no further changes to the environmental management measures in the Modification Assessment are proposed.

# 4 Proposed amendments to conditions of approval

Roads and Maritime has reviewed the Modification Assessment including Conditions of Approval considering the submissions received. The existing Conditions of Approval are considered to sufficiently address the potential environmental impacts and community concerns expressed by submissions received. No further changes to the Conditions of Approval in the Modification Assessment are proposed.

#### 5 References

NSW Environment Protection Authority (2016) Approved Methods for Modelling and Assessment of Air Pollutants in NSW.

Roads and Maritime, June 2017. The Northern Road upgrade - Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park - NSW Environmental Impacted Statement/Commonwealth Draft Environmental Impact Statement.

Roads and Maritime, December 2017. The Northern Road upgrade - Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park - Commonwealth Final Environmental Impact Statement.

Roads and Maritime, December 2017. The Northern Road upgrade - Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park - Submissions and Preferred Infrastructure Report.

Roads and Maritime, December 2018. Modification Assessment, Proposed changes between Eaton Road, Luddenham and Littlefields Road, Luddenham.



rms.nsw.gov.au

contactus@rms.nsw.gov.au

Customer feedback Roads and Maritime Locked Bag 928, North Sydney NSW 2059

