

22. Justification and conclusions

The proposed Kempsey to Eungai Pacific Highway Upgrade project has been declared a critical infrastructure project in accordance with Part 3A of the EP&A Act. A critical infrastructure project recognises the importance of an individual project in meeting the existing and future needs of the NSW population. The following section describes how the proposed upgrade further demonstrates the achievement of RTA project objectives in meeting the identified need.

22.1 Justification of the proposed upgrade

22.1.1 Achievement of project objectives

The proposed upgrade can be justified on the basis of its ability to meet the adopted project objectives. These objectives, outlined in Section 2.5, were developed for the proposed upgrade based on the objectives for the Pacific Highway Upgrade program and from the community and other stakeholders.

The objectives of the proposed upgrade fall under the following categories - travel, economic development, environment, local community and cost.

Table 22-1 Performance against project objectives

Objectives	Response
Travel	
<ul style="list-style-type: none">• To improve the reliability and efficiency of travel between Kempsey and Eungai.• To improve the safety of travel between Kempsey and Eungai.• To improve or maintain accessibility to local and regional centres.	<ul style="list-style-type: none">• Approximately 40.8 kilometres of motorway standard dual carriageway.• Travel time reductions of 23 minutes (2011) and 35 minutes (2031) leading to improved travel and freight efficiency.• Reduced traffic congestion in Kempsey and Frederickton.• Improved road safety and reduced accident risk.• Flood immunity up to 20 year ARI event on the Macleay River floodplain, 100 year ARI everywhere else.• Location of interchanges close to existing urban areas to maintain good access to the local road network.
Economic Development	
<ul style="list-style-type: none">• To support the region and economic development.	<ul style="list-style-type: none">• Short-term decrease in highway related trade offset by economic activity generated by improved local amenity and location of interchanges.• Construction related trade and employment opportunities.• Opportunities for commercial and industrial development at South Kempsey interchange.

Objectives	Response
Environment	
<ul style="list-style-type: none"> To enhance the potential beneficial environmental effects of the proposed upgrade and to manage potential adverse environmental impacts by: Conserving biological and ecological integrity. Reducing as far as practicable the threat of serious or irreversible environmental damage. Improving air quality and reducing greenhouse gas emissions. Minimising use of energy and non-renewable resources. Encourage the use (where practicable) of renewable resources or energy (green energy). 	<ul style="list-style-type: none"> Route selection in response to environmental constraints, using the principle of avoid, minimise, mitigate. Concept design developed in response to environmental constraints (flora, fauna, water quality, hazard and risks, waste). Construction and operation environmental management plans and sub-plans produced. More efficient vehicle usage and fuel consumption and minor reductions in vehicle emissions. Potential use of recycled water during construction. Statement of Commitments to a range of environmental measures and offsets to mitigate residual impacts.
Local Community	
<ul style="list-style-type: none"> To enhance the potential benefits to the community in the short and long-term. To manage potential adverse impacts on the community. 	<ul style="list-style-type: none"> Improved traffic safety and efficiency on the Pacific Highway. Improved noise, air and visual amenity in town centres of Kempsey and Frederickton. Safer vehicle, pedestrian and cyclist environment in town centres. Retaining local and private property access where possible. Statement of Commitments to a range of community measures and offsets to mitigate residual impacts.
Cost	
<ul style="list-style-type: none"> To minimise construction and related project risks. To minimise the financial cost to government. 	<ul style="list-style-type: none"> Proposal developed to provide value for money. The total estimated project cost is \$900 million. The Benefit Cost Ratio (BCR) of the project is in the range of 1.4. to 1.7

22.2 Conclusions

The proposed Kempsey to Eungai Pacific Highway Upgrade satisfies the project objectives (refer Table 22-1) and would meet broader planning objectives to sustain economic and population growth on the east coast of NSW.

The Environmental Assessment addresses the key issues identified in the Director-General's Environmental Assessment requirements under Part 3A of the *EP&A Act*. A checklist of these requirements and where they are addressed in this Environmental Assessment is provided in Appendix B.

The proposed upgrade is expected to have significant environmental, social and economic benefits on a local, regional and national scale as demonstrated in meeting project objectives. However, the nature of the proposal means that some adverse impacts are unavoidable.

The presence of the proposed upgrade close to residential dwellings would increase noise, air and visual impacts and reduce existing access within properties and on public roads. The design of the proposed upgrade reduces these impacts where possible. In addition, amenity-related impacts can be substantially mitigated through the application of noise attenuation measures, landscape screening and other mitigation measures.

The key potential environmental, social and economic impacts of the proposed upgrade include:

- Increased flood levels and changes in flood behaviour:
 - *Afflux* – increase in peak flood levels during March 2001 (13 year ARI), 20 year ARI and 100 year ARI event.
 - *Flow velocity* – minor increase in velocity of flows.
 - *Rate of rise* – flood levels on the Macleay River floodplain would breach South West Rocks road approximately 30 minutes earlier during major flood events.
 - *Inundation* – the period of inundation would increase by less than 1 hour during major flood events.
- The proposed Frederickton flood levee would protect over 20 properties previously subject to flooding risk.
- Direct and indirect impacts on threatened biodiversity. The proposal would require the clearing of 261 hectares of native vegetation for the proposed upgrade footprint (not including ancillary areas) including areas of four endangered ecological communities (Freshwater Wetlands, Swamp Sclerophyll Forest, Swamp Oak Floodplain Forest and River-flat Eucalypt Forest). This would affect significant foraging resources for the threatened Glossy Black-cockatoo as well as habitat for the Brush-tailed Phascogale, large forest owls and microchiropteran bats. North of the Macleay River the proposed upgrade would increase fragmentation in the Collombatti and Tambaran State Forest areas, affecting habitat for the Koala, Brush-tailed Phascogale and Green-thighed Frog.
- Impacts on directly affected landholders and land uses. These properties would be acquired (in full or in part) in accordance with the *RTA Land Acquisition Policy* and the *Land Acquisition (Just Terms Compensation) Act 1991*. There is likely to be considerable stress during the period of land acquisition, particularly for landholders who need to relocate.
- Land use and access impacts. The majority of land crossed by the proposed upgrade is used for agricultural and rural residential purposes. Some agricultural land uses would require operational changes to be made. The concept design of the proposed upgrade incorporates appropriate property access and other features that will help landholders continue their operations during and after construction.
- Direct and indirect impacts on heritage items. The proposed upgrade would directly affect four known archaeological sites and 12 potential Aboriginal archaeological deposits. It is considered appropriate to conduct a salvage collection of artefacts within the site areas prior to the commencement of construction. Consultation with local Aboriginal stakeholder groups would continue through the construction phase of the proposed upgrade. The proposed upgrade would directly affect the Ferry Lane memorial avenue at Frogmore. Measures would be implemented during construction to minimise impacts on remaining trees in the avenue and enhance heritage values.

- Impacts on local business and the economic environment. The proposed upgrade would remove highway trade from the Kempsey and Frederickton, reducing the expenditure of stopping motorists. On the basis of the estimated decrease in gross annual trade at the 79 highway-dependant businesses, a total of 176 jobs could be lost at these businesses. This is expected to be offset to some extent with the location of interchanges close to Kempsey and Frederickton, the improved amenity within the town and the likely land use development stimulated by improved transport access (e.g. a highway service centre).
- Social impacts, including community severance and immediate impacts on residential amenity. Highways that carry high volumes of traffic or are access controlled, form a barrier severing both physical and social links within communities. Whilst, the proposed upgrade would remove this barrier from the main urban areas of Kempsey and Frederickton, it would introduce a new barrier in fringe urban areas such as the Crescent Head Road precinct.
- Direct and indirect impacts on the visual environment. The proposed upgrade would be a visually dominant feature in the Macleay Valley landscape, particularly as it crosses the low-lying areas of the Macleay River and Collombatti Creek floodplains. Views from East Kempsey over the floodplain would be most affected by the proposed upgrade. Landscaping and urban design features would be incorporated to reduce the visual impact of the proposed upgrade.
- Construction impacts on adjacent landholders, including noise and vibration, air quality, visual amenity and traffic changes. These issues are considered to be manageable given effective implementation of standard construction environmental management measures.

Consistency with principles of ecologically sustainable development (ESD)

The RTA is committed to ensuring that its projects are undertaken in a manner that is consistent with the principles of ESD. The proposed upgrade has been developed and assessed with due consideration of the principles of ESD.

The rigour of the assessment and approval process and documentation presented demonstrates the ability of the project to address the broad principles of ESD. These principles include:

- The precautionary principle.
- Social equity and inter-generational equity.
- Conservation of biological diversity and ecological integrity.
- Improved valuation and pricing of environmental resources.

Precautionary principle

The assessment summarised in this document has been prepared for the RTA by environmental specialists and has relied on the best available technical information. The use of this information, coupled with best practice environmental standards, goals and measures has also been relied on in the development of management measures to minimise the risks associated with potential environmental impacts.

Social equity and inter-generational equity

The potential adverse impacts on environmental resources likely to affect social equity have been assessed and management measures included in the Environmental Assessment. These measures relate to erosion and sediment control, surface and groundwater management, air quality controls, noise controls, traffic and waste management. Implementation of the measures would result in a reduction in effects on social and inter-generational equity.

Conservation of biological diversity and ecological integrity

While the proposed upgrade has been designed to minimise impacts on native vegetation, its implementation would result in the removal of significant areas of listed endangered ecological communities under State legislation. Initiatives directed at offsetting the residual impacts on these communities would be considered in consultation with the relevant government agency and other stakeholders. Such initiatives include compensatory habitat, progressive revegetation using seed of local provenance and enhancing areas of communities to be retained in the road corridor with supplementary plantings.

Improved valuation and pricing of environmental resources

It is difficult to place a monetary value on the residual, environmental and social effects of the proposed upgrade. The value placed on environmental resources on and around the proposed upgrade corridor is evident in the extent of environmental investigations, planning and design of impact mitigation measures to prevent irreversible damage of those resources.

Suitability of the corridor

The proposed upgrade, following a route to the east of Kempsey and Frederickton, is considered to be the most suitable corridor considering the range of community, environmental and engineering issues.

Route options were assessed during the route selection phase of the project. The preferred route was announced in July 2004, completing the route selection phase of the Kempsey to Eungai Pacific Highway Upgrade project. Documentation supporting the selection of the preferred route, including the *Preferred Route Option Report* and accompanying technical reports was placed on the RTA website following the announcement of the preferred route.

The route selection phase and subsequent refinements to the alignment made during the concept design and environmental assessment phase are detailed in Chapter 5 – *Approach to route selection and design*.

Public interest

The proposed upgrade has been developed as part of the Pacific Highway Upgrade Program. This is an essential program aimed at improving the standard of the Pacific Highway, eliminating accident 'blackspots' and cutting overall journey times for the benefit of interstate and intrastate motorists and residents on the east coast of NSW. Improvements to the Pacific Highway support the population and economic growth projected for the Mid North Coast region by providing high quality road infrastructure with direct access to employment, education, health, commercial services and retail and recreational facilities in the region.

Although there would be localised impacts for some property owners and business operators, the provision of a safer, more efficient highway link between Kempsey and Eungai would also be of benefit for both inter-regional travellers and residents in the Macleay Valley.

Consequences of not proceeding

The consequences of not proceeding with the proposed upgrade would include:

- Continuing and increasing high traffic flows through Kempsey and Frederickton.
- Continuing and increasing delays to regional traffic, especially during peak periods.
- Continuing and increasing high numbers of traffic accidents.
- Not realising substantial environmental and social benefits for the towns of Kempsey and Frederickton including pedestrian and road safety, accessibility and reduced noise, air and visual impacts associated with traffic.

- Need for significant upgrade of the existing Pacific Highway along the existing alignment.
- Potential for diversion of traffic onto local and arterial roads.

A range of adverse localised amenity and property impacts would be avoided should the proposed upgrade not proceed.

22.3 Next steps

The next steps for the Kempsey to Eungai Pacific Highway Upgrade project are as follows:

- Exhibition of the Environmental Assessment for a minimum of 30 days and invitation for the community and stakeholders to make submissions.
- RTA prepares Submissions Report and, if required, a Preferred Project report and final Statement of Commitments.
- Director-General of the Department of Planning provides an Assessment Report on the Environmental Assessment to the Minister for Planning, who then makes a decision on the project and, if approved, sets conditions of approval.