8 Conclusion

This chapter provides the justification for the proposal taking into account its biophysical, social and economic impacts, the suitability of the site and whether or not the proposal is in the public interest. The proposal is also considered in the context of the objectives of the EP&A Act, including the principles of ecologically sustainable development as defined in Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*.

8.1 Justification

The proposal is considered to be consistent with a number of strategies or plans, including:

- NSW 2021: A Plan to Make NSW No 1.
- NSW State Infrastructure Strategy 2012-2032.
- Roads and Maritime 2012-2016 Corporate Strategy.
- Albury to Cowra Corridor Strategy.
- Wagga Wagga Bicycle Plan 2011.

The existing bridge at Kapooka and approaches pose a number of safety risks, which have the potential to cause injury or loss of life.

The proposal would result in:

- Improved road safety by upgrading the road geometry and alignment of the Olympic Highway.
- Improved road freight efficiency by upgrading the alignment of the Olympic Highway and removing the restriction to higher mass limit vehicles at the existing bridge at Kapooka.
- Improved travel times on the Olympic Highway by removing the constraints posed by the existing bridge and approaches.

There would also be a number of adverse environmental impacts as a consequence of the proposal. Principal among these would be the impacts on an ecological community, a population and two species listed as threatened under State and Commonwealth legislation.

The impact of the proposal on the threatened ecological community Box-Gum Woodland, which is listed as endangered under the TSC Act and as critically endangered under the EPBC Act, is likely to be significant.

Where possible, impacts would be avoided or minimised through the design process and site-specific safeguards. An offsetting strategy would be developed in consultation with OEH and DoE to compensate for impacts on biodiversity.

On balance, it is considered that aside from the likely significant impact on Box-Gum Woodland, the adverse environmental impacts of the proposal are outweighed by the beneficial effects and that the proposal is therefore justified.

8.2 Objects of the EP&A Act

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Object	Comment
5(a)(i) To encourage the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment.	The proposal would acquire about 9.5 hectares of agricultural land which is a relatively small proportion of the total agricultural land in the area.
	The proposal would also acquire about 9.9 hectares of the Planning Agreement Areas established for the purpose of offsetting the impacts on biodiversity of other developments in the Wagga Wagga LGA.
	The proposal would minimise demands on water resources by using water from local dams and sediment basins wherever possible.
	The proposal would endeavour to use all material excavated as fill for the new highway alignment.
	The proposal aims to promote the social and economic welfare of the community by improving the safety and efficiency of the Kapooka section of the Olympic Highway.
5(a)(ii) To encourage the promotion and coordination of the orderly economic use and development of land.	Roads and Maritime is undertaking consultation and environmental assessments required to properly plan and develop the proposal without undue impacts on the local economy.
	The road efficiencies achieved as a result of the proposal would contribute to the economy, particularly in relation to removing the existing restriction to higher mass limit vehicles.
	The proposal would also provide increased clearances for trains to facilitate the future construction of a second rail line and double stacking of freight containers, subject to removal of the existing bridge (not part of this proposal).
5(a)(iii) To encourage the protection, provision and co-ordination of communication and utility services.	A number of communication and utility services exist in the vicinity of the proposal, as detailed in Section 3.5. Roads and Maritime has conducted initial consultation with all utility providers regarding the potential relocation of utilities in the vicinity of the proposal, and would continue to consult with these providers during the detailed design phase and throughout the proposal.
5(a)(iv) To encourage the provision of land for public purposes.	The proposal includes the realignment of the Olympic Highway and the construction of a new road-over-rail bridge, which would provide safer road infrastructure for use by the public.

Object	Comment
5(a)(v) To encourage the provision and coordination of community services and facilities.	As part of the proposal, a shared bicycle and pedestrian pathway would be constructed to enable public access from Kapooka to the Wiradjuri Walking Track, which is used by the public for recreation. The Wiradjuri Walking Track and Silvalite Reserve are available to the public as community facilities. Access between Kapooka and the Wiradjuri Walking Track would be improved by constructing the proposed shared bicycle and pedestrian pathway. Impacts on Silvalite Reserve would be minimised as much as possible. The proposal is unlikely to substantially affect the use of the reserve by the public.
5(a)(vi) To encourage the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats.	The proposal would benefit the social welfare of the local and regional community by creating a safer road environment. However, the proposal is also expected to impact on biodiversity, as described in Section 6.1. The proposal would be likely to have a significant impact on the threatened ecological community Box-Gum Woodland. The proposal would also be likely to impact a threatened population, threatened woodland bird species and threatened bat species.
5(a)(vii) To encourage ecologically sustainable development. 5(a)(viii) To encourage the provision and	Ecologically sustainable development is considered in Sections 8.2.1 – 8.2.4 below. Not relevant to the project.
maintenance of affordable housing. 5(b) To promote the sharing of the responsibility for environmental planning between different levels of government in the State.	Not relevant to the project.
5(c) To provide increased opportunity for public involvement and participation in environmental planning and assessment.	Roads and Maritime has undertaken consultation for the proposal as described in Chapter 5. This has included consultation with stakeholders and the community, including the Aboriginal community. Issues raised during consultation in relation to the proposal have been addressed during the environmental planning and assessment process. This REF would also be displayed for public comment.

8.2.1 The precautionary principle

This principle states that "if there are threats of serious or irreversible damage, lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation".

The proposal has been assessed as being likely to have a significant impact on the threatened ecological community Box-Gum Woodland, which is listed under the TSC Act and the EPBC Act, as described in Section 6.1. The proposal has the potential to

cause serious and irreversible damage to the ecological community. A species impact statement has been prepared to assess the ecological impacts of the proposal, as required by the EP&A Act and TSC Act. The concurrence of the Director-General of OEH is required for the proposal. The proposal has also been referred to the Australian Government DoE under the EPBC Act. DoE has determined that the proposal is a 'controlled action' requiring the approval of the Minister for the Environment. As well, Roads and Maritime will consult closely with OEH and DoE to develop an effective offset and mitigation strategy.

Issues raised in relation to the proposal during stakeholder and community consultation have been considered in the assessment of the environmental impacts of the proposal. Preliminary environmental investigations were undertaken for key issues to provide accurate and impartial information to assist in the evaluation of options.

The assessment of potential environmental impacts completed during the planning process has sought to minimise impacts on the rural and natural amenity of the study area while maintaining engineering feasibility and safety for all road users. A number of safeguards have been proposed to minimise potential impacts. These safeguards would be implemented during construction and operation of the proposal.

A CEMP would be prepared before commencing construction. This would enable a high level of environmental performance to be achieved. No mitigation measures or management mechanisms would be postponed as a result of a lack of information.

8.2.2 Intergenerational equity

The principle states that "the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations".

The proposal has been assessed as being likely to have a significant impact on the threatened ecological community Box-Gum Woodland, which is listed under the TSC Act and the EPBC Act, as described in Section 6.1. A species impact statement has been prepared to assess the ecological impacts of the proposal and will therefore contribute to the assessment of whether the proposal would substantially affect the health, diversity and productivity of the environment for future generations.

In relation to other potential environmental impacts, the proposal would benefit future generations by ensuring that proposed works do not give rise to long-term adverse impacts. Potential impacts would be minimised by implementation of appropriate safeguards. The proposal would also benefit future generations by improving road safety, road freight efficiency and travel times.

Should the proposal not proceed, the principle of intergenerational equity may be compromised, as future generations would inherit a lower level of service associated with the Olympic Highway. Public safety and travel times may be affected by future vehicle crashes within the corridor due to substandard road geometry and alignment.

The proposal would benefit future generations as it would promote the operation of the Olympic Highway in the Kapooka area in a reliable and safe manner in the future.

8.2.3 Conservation of biological diversity and ecological integrity

This principle states that the "diversity of genes, species, populations and communities, as well as the ecosystems and habitats to which they belong, must be maintained and improved to ensure their survival".

An assessment of the existing local environment has been undertaken in order to identify and manage any potential impacts of the proposal on local biodiversity. The proposal is considered likely to significantly impact on Box-Gum Woodland, an ecological community listed under the TSC Act and EPBC Act. The proposal would also impact a population listed under the TSC Act and bird and bat species listed under the TSC Act and EPBC Act.

As a result of the likely significant impact on Box-Gum Woodland, a species impact statement has been prepared to assess the ecological impacts of the proposal, as required by the EP&A Act and TSC Act. The concurrence of the Director-General of OEH is required for the proposal. The proposal has also been referred to the Australian Government DoE under the EPBC Act. DoE has determined that the proposal is a 'controlled action' requiring the approval of the Minister for the Environment.

An ecological assessment and appropriate site-specific safeguards are provided in Section 6.1 and Appendix D of this REF. Safeguards include development of a biodiversity plan, development of offsetting and mitigation measures in consultation with OEH, consideration of design impacts upon biodiversity, vegetation management and weed management.

8.2.4 Improved valuation, pricing and incentive mechanisms

This principle requires that "costs to the environment should be factored into the economic costs of a project".

The concept design for the proposal endeavours to minimise potential impacts on the surrounding environment as far as possible.

The REF has examined the environmental consequences of the proposal and identified safeguards and environmental management measures where there is potential for adverse impacts. Requirements imposed in terms of implementation of these safeguards and environmental management measures would result in an economic cost to Roads and Maritime. The implementation of safeguards and environmental management measures would increase both the capital and operating costs of the proposal. This signifies that environmental resources have been given appropriate valuation.

8.3 Conclusion

Roads and Maritime Services proposes to construct a new four lane road-over-rail bridge on the Olympic Highway at Kapooka. The proposal would also include realigning about 2.7 kilometres of the Olympic Highway and upgrading the Olympic Highway/Camp Access Road intersection.

The proposal is required to meet current network safety and design standards, remove restrictions to traffic and improve road safety. The proposal would also provide increased clearance for trains on the Sydney to Melbourne Rail Line to facilitate the future construction of a second rail line and double stacking of freight

containers. Increased clearances for trains on the Sydney to Melbourne Rail Line at Kapooka would be subject to the removal of the existing bridge, which is not part of the current proposal or assessed in this REF.

The proposal is subject to assessment under Part 5 of the EP&A Act. The REF has examined and taken into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the proposed activity. This has included consideration of conservation agreements and plans of management under the NPW Act, joint management and biobanking agreements under the TSC Act, wilderness areas, critical habitat, impacts on threatened species, populations and ecological communities and their habitats and other protected fauna and native plants.

The proposal as described in this review of environmental factors best meets the project objectives but would still result in impacts relating to biodiversity, noise and vibration, landscape and visual, soils, water quality, land use, air quality and socioeconomic impacts.

This ecological assessment carried out as part of the REF concludes that the proposal is likely to have a significant impact on Box-Gum Woodland, an ecological community listed under the TSC Act and EPBC Act.

All other adverse environmental effects would be minimised through the implementation of safeguards and management measures outlined in this review of environmental factors.

The proposal would improve road safety, freight efficiency and travel times. On balance, it is considered that aside from the likely significant impact on Box-Gum Woodland, the adverse environmental impacts of the proposal are outweighed by the beneficial effects and that the proposal is therefore justified.

This review of environmental factors concludes that the proposal is likely to have a significant impact on an ecological community listed under the *Threatened Species Conservation Act 1995*. A species impact statement has been prepared and the proposal requires the concurrence of the Director-General of the Office of Environment and Heritage.

This REF finds that the proposal is unlikely to have a significant impact on any other environmental factor and therefore an Environmental Impact Statement is not required. Approval from the Minister for Planning and Infrastructure under Part 5.1 of the *Environmental Planning and Assessment Act 1979* would not be required.

The proposal would be likely to significantly impact a matter of national environmental significance, Box-Gum Woodland. A referral to the Australian Government Department of the Environment under the *Environment Protection and Biodiversity Conservation Act 1999* has been prepared. The proposal has been determined to be a 'controlled action' and will require the approval of the Minister for the Environment. Preliminary documentation has been prepared to inform the Minister's decision.