

Appendix A

Consideration of clause 228(2) factors and matters of national environmental significance and Commonwealth land

Clause 228(2) checklist

In addition to the requirements of the *Is an EIS required?* guideline (Department of Planning, 1995) and the *Roads and Related Facilities EIS Guideline* (Department of Urban Affairs and Planning, 1996) as detailed in the REF, the following factors, listed in clause 228(2) of the Environmental Planning and Assessment Regulation 2000, have also been considered to assess the likely impacts of the proposal on the natural and built environment.

Factor	Impact
<p>a) Any environmental impact on a community?</p> <p>Construction of the proposal would result in some short term negative impacts due to</p> <ul style="list-style-type: none"> • construction noise due to the use of construction plant and machinery for the proposal during and outside of standard work hours for the duration of construction • visual amenity due to the removal of vegetation and the construction of the proposal • traffic impacts due to an increase in construction vehicles and heavy vehicles transporting materials to and from the proposal, traffic and safety management measures temporarily reducing speed limits within the construction area, and temporary traffic changes resulting in increased traffic. <p>Environmental impacts on the community would be mitigated following the safeguards and mitigation measures within this REF (refer to Chapter 7).</p>	<p>Short term, minor (negative)</p>
<p>The construction of the proposal would result in long term minor positive improvements to road safety and traffic efficiency within the community and broader Blue Mountains region, and maintenance and enhancement of the local amenity and character of Medlow Bath including the protection of environmental and cultural assets. This would result in a positive net benefit to the community.</p>	<p>Long term, minor (positive)</p>
<p>b) Any transformation of a locality?</p> <p>The proposal would temporarily transform the locality during construction due to the visual amenity, traffic and noise impacts from construction works.</p>	<p>Short term minor (negative)</p>
<p>The proposal would result in the long term transformation of the locality through the upgrade and duplication of the existing surface road corridor, intersection improvements and a new pedestrian bridge in Medlow Bath resulting in long term improvements to traffic, safety and access.</p>	<p>Long term minor (positive)</p>
<p>c) Any environmental impact on the ecosystems of the locality?</p> <p>Construction of the proposal would have the potential to involve the removal of native vegetation, removal of threatened fauna habitat, removal of threatened flora, aquatic impacts, fauna injury or mortality, impacts from construction noise, light and vibration.</p> <p>Furthermore, operation of the proposal would have the potential to result in reduced wildlife connectivity and habitat fragmentation, edge effects on adjacent native vegetation, invasion and spread of weeds, pests, pathogens and disease, changes to hydrology, impacts to groundwater dependent ecosystems and cumulative biodiversity impacts.</p> <p>The proposal would have a minor negative impact on the ecosystems of the locality in both the short term and the long term. Mitigation and management measures are proposed to minimise impacts on the ecosystems to the locality (refer to Chapter 7).</p>	<p>Short term and long term, minor (negative)</p>
<p>d) Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality?</p> <p>During construction, the proposal would temporarily reduce the visual amenity of the locality due to the removal of vegetation, and visibility of the construction works. During operation, the new pedestrian bridge would be visible to residents, businesses and travellers through Medlow Bath. The proposal is being designed sympathetic to the existing natural, social, and cultural values of the locality to minimise aesthetic impacts. Further, landscaping would be implemented during operation of the proposal to mitigate visual amenity impacts of the proposal.</p> <p>During construction there would be additional construction traffic movements and traffic impacts on the Medlow Bath locality, and to travellers passing through Medlow Bath along the Great Western Highway. During operation, traffic and safety aspects of the proposal are anticipated to be improved.</p> <p>No scientific or recreational values of the locality are anticipated to be impacted due to the proposal.</p>	<p>Short term, minor, (negative)</p> <p>Long term (neutral)</p>
<p>e) Any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations?</p>	<p>Short term and long term, minor (negative)</p>

Factor	Impact
<p>There are a number of listed heritage items located within the proposal area. The proposal would impact on the State heritage listed Medlow Bath Station due to the upgrade and installation of the new pedestrian bridge, and would also impact local heritage listed items such as the Hydro Majestic and Avenue of Trees. Mitigation and management measures would be implemented during construction and operation of the proposal to minimise impacts to non Aboriginal heritage due to the proposal.</p> <p>The proposal would not impact on any known Aboriginal heritage items or places.</p>	
<p>f) Any impact on the habitat of protected fauna (within the meaning of the <i>National Parks and Wildlife Act 1974</i>)?</p> <p>Approximately 0.32 hectares of potential habitat of threatened flora, fauna and migratory bird species with a moderate or greater likelihood of occurrence would be removed by the proposal. The proposal is however not considered to have a significant impact on any threatened or endangered species or threatened ecological community. Mitigation and management measures are outlined in Chapter 7 to minimise biodiversity impacts due to the proposal.</p>	<p>Short term and long term, minor (negative)</p>
<p>g) Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air?</p> <p>The proposal is considered not likely to endanger any species of animal, plant or other form of life due to the limited amount of vegetation to be removed by the proposal that forms potential habitat for threatened flora, fauna and migratory bird species. Vegetation removal would be minimised following the mitigation and management measures outlined in Chapter 7.</p> <p>The proposal is to be constructed within a constrained corridor of limited space as it is located atop a ridgeline adjacent to residents and businesses. The proposal is also located nearby the World Heritage Listed Blue Mountains National Park that provides a vast area of protected habitat for wildlife within the locality.</p>	<p>Long term, minor (positive)</p>
<p>h) Any long-term effects on the environment?</p> <p>The proposal would have minor long term impacts on the environment due to removal of vegetation and the expansion of the road corridor. There would be long term visual amenity impacts on the proposal due to the changes to the road alignment and the construction of the new pedestrian bridge. The proposal would minimise any adverse impacts due to the proposal through sensitive design, and by completing progressive landscaping of the proposal area. The mitigation and management measures for the proposal are outlined in Chapter 7 to minimise environmental impacts due to the proposal.</p>	<p>Long term, minor (negative)</p>
<p>i) Any degradation of the quality of the environment?</p> <p>The proposed upgrade has the potential to degrade the quality of the environment through construction noise, visual impacts of the construction works, water impacts due to erosion and sedimentation, air impacts due to dust from construction works and emissions from construction plant and vehicles, as well as accidental spills during construction. These potential impacts would be managed using a suite of safeguards and mitigation measures outlined in section 7. The construction footprint would be reduced as far as practicable, and the site would be rehabilitated as work progresses to minimise impacts.</p>	<p>Short-term, minor (negative)</p>
<p>In the long-term, the project would provide a range of benefits including improved safety, traffic and transport conditions and amenity due to the construction of the new pedestrian bridge, shared path and dual carriageway of the highway as well as landscaping of the proposal area.</p>	<p>Long-term, major (positive)</p>
<p>j) Any risk to the safety of the environment?</p> <p>The proposal is likely to temporarily reduce safety along the road during construction due for the works being within the existing highway. This would be managed through appropriate signage and a traffic management following an appropriate traffic management plan.</p>	<p>Short-term, minor (negative)</p>
<p>The proposal would improve road safety and traffic in the long term due to the separation of road carriageways for traffic travelling in each direction along the highway, improved shared path and pedestrian bridge amenity. The proposal would improve access to local business such as the Hydro Majestic Hotel and to local roads adjacent to the highway within Medlow Bath that would also result in improvements to road safety and traffic during operation of the proposal.</p>	<p>Long term, major (positive)</p>
<p>k) Any reduction in the range of beneficial uses of the environment?</p> <p>The proposal would result in traffic impacts during construction which would include an increase in the volume of heavy vehicles, interruption of traffic flow and temporary reduced speeds to implement safety measures, and temporary impacts to access. These traffic impacts would reduce the beneficial use of the Great Western Highway at Medlow Bath during the construction phase.</p>	<p>Short-term, minor (negative)</p>

Factor	Impact
<p>In the long term there would be no reduction in the range of existing beneficial uses of the environment. The proposal is being design sensitive to the existing features of the locality.</p>	<p>Long term (neutral)</p>
<p>l) Any pollution of the environment? There would be some potential construction noise due to the operation of plant and machinery, visual due to the construction site within the locality, air pollution due to dust from the construction site, water pollution due to potential spills, contamination due to the location of the proposal adjacent to a petrol station and the potential for uncovering unexpected contaminated materials, erosion and sedimentation impacts associated with construction of the proposed upgrade. Construction activities would be carefully managed with numerous safeguards for the protection of the environment from pollution (refer to Chapter 7).</p> <p>During operation of the proposal the proposal area would be restored and landscaped, noise impacts would be mitigated and reduced due to the completion of the construction works, minor long term benefits to air quality may occur due to the reduced vehicle emissions from improved traffic conditions.</p>	<p>Short-term, minor (negative)</p> <p>Long term, minor (positive)</p>
<p>m) Any environmental problems associated with the disposal of waste? Waste would be generated across a number of waste streams during construction. These streams would be managed in accordance with Transport for NSW specification, the <i>Waste Avoidance and Resource Recovery Act 2001</i> and recycled where possible (refer to section 7 for safeguards). There is the potential for uncovering contaminated material due to the proposal from the United Petrol Station, the Mazda car dealership, stockpiled ballast and uncontrolled fill material. Material would be appropriately managed following the safeguards and mitigation measures within section 7 and any material removed from site would be taken to an appropriately licenced facility.</p> <p>No impacts are proposed during the operation of the proposal.</p>	<p>Short-term, minor (negative)</p> <p>Long term (neutral)</p>
<p>n) Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply? None of the resources required to construct this proposal are, or are likely to become, in short supply.</p>	<p>Nil</p>
<p>o) Any cumulative environmental effect with other existing or likely future activities? The proposal forms part of the Great Western Highway Upgrade throughout the Blue Mountains between Katoomba and Lithgow delivering about 34 kilometres of four lane divided highway, building on the already upgraded section between Emu Plains and Katoomba. There are potential cumulative impacts due to the proposal and associated construction works within the locality such as combined traffic impacts, visual amenity for travellers along the highway, and minor air impacts from plant and vehicle emissions. The proposal is not anticipated to generate any major environmental impacts.</p> <p>Operation of the proposal would likely result in an overall positive cumulative impact due to the combined traffic and safety benefits of the upgraded transport corridor throughout the Blue Mountains and western Sydney.</p>	<p>Short term, minor (negative)</p> <p>Long term, major (positive)</p>
<p>p) Any impact on coastal processes and coastal hazards, including those under projected climate change conditions? The proposal is not located within a coastal zone.</p>	<p>Nil</p>

Matters of National Environmental Significance and Commonwealth land

Under the environmental assessment provisions of the EPBC Act 1999, the following matters of national environmental significance and impacts on Commonwealth land are required to be considered to assist in determining whether the proposal should be referred to the Australian Government Department of Agriculture, Water and the Environment.

A referral is not required for proposed actions that may affect nationally listed threatened species, endangered ecological communities and migratory species. Impacts on these matters are still assessed as part of the REF in accordance with Australian Government significant impact criteria and taking into account relevant guidelines and policies.

Factor	Impact
a) Any impact on a World Heritage property? The proposal is not expected to impact on a World Heritage property as there are no World Heritage listed items located in the proposal area or within close proximity to the proposal area. The Greater Blue Mountains World Heritage Area is located over two kilometres from the proposal area and would not be impacted by the proposal.	Nil
b) Any impact on a National Heritage place? The proposal is not expected to impact on a National Heritage place as there are no National Heritage listed items located in or within close proximity to the proposal area. The Greater Blue Mountains National Heritage Area is located over two kilometres from the proposal area and would not be impacted by the proposal.	Nil
c) Any impact on a wetland of international importance? The proposal is not expected to impact on a wetland of international importance as there are no wetlands of international importance (as listed in the RAMSAR convention) located in or within close proximity to the proposal area.	Nil
d) Any impact on a listed threatened species or communities? The proposal would not have a significant impact on threatened or endangered species or communities. However, would have the potential to impact on habitat for threatened flora and fauna, and migratory birds due to the proposed removal of 0.34 hectares of vegetation.	Minor impact
e) Any impacts on listed migratory species? The proposal would impact on habitat for migratory birds due to the proposed removal of 0.34 hectares of vegetation. The proposal would not have a significant impact on migratory bird species.	Minor impact
f) Any impact on a Commonwealth marine area? The proposal would not impact on a Commonwealth marine area as there are no Commonwealth marine areas located in or within close proximity to the proposal.	Nil
g) Does the proposal involve a nuclear action (including uranium mining)? The proposal related to road and rail infrastructure and does not involve a nuclear action.	Nil
h) Additionally, any impact (direct or indirect) on the environment of Commonwealth land? The proposal is not located on Commonwealth land and would not result in any impact (direct or indirect) on Commonwealth land.	Nil