

Appendix D

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

Clause 228(2) Checklist

In addition to the requirements of the Is an EIS required? guideline (DUAP 1995/1996) and the Roads and Related Facilities EIS Guideline (DUAP 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, such as visual amenity impact, traffic and access disruptions, in addition to potential noise and air emissions impacts. These could impact negatively on the local community as described in this REF.</p> <p>Potential visual amenity impact during construction would include the placement and movement of construction vehicles and stockpile areas within the proposal area. Potential traffic impact during construction would include an increase in the volume of heavy vehicles, interruption of traffic flows along Cessnock Road and temporary changes in speed limit potentially resulting in increased travel times. Impact to access may be experienced by residences and other sensitive receivers within the proposal area. Construction noise would be generated from construction plant and vehicles. Air quality impacts would result from dust and vehicle emissions. These impacts would likely occur for the duration of construction.</p> <p>The primary long-term positive impact of the proposal would include improved flood immunity and connectivity within the area during future flood events.</p>	<p>Short-term, minor, negative</p> <p>Long-term, minor, positive</p>
<p>b) Any transformation of a locality?</p> <p>Construction of the proposal would temporarily impact the existing locality, predominantly through a negative visual impact, associated with the placement and movement of construction plant and equipment and stockpile areas.</p> <p>In the longer term, the proposal would not result in a substantial transformation of the locality as it would be located immediately next to the west of the existing road.</p>	<p>Short term minor negative</p>
<p>c) Any environmental impact on the ecosystems of the locality?</p> <p>About 1.56 ha of native vegetation would be removed as part of the proposal. This would include vegetation meeting the description of the endangered Water Couch - Tall Spike Rush freshwater wetland of the Central Coast and lower Hunter (0.91 ha), Swamp Oak - Prickly Paperbark - Tall Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast (0.56 ha) and Spotted Gum - Narrow-leaved Ironbark-Red Ironbark shrub - grass open forest of the central and lower Hunter (<0.01 ha) under the BC Act (refer to Section 6.1). The proposal would also potentially impact about 35 <i>Eucalyptus parramattensis</i> subsp. <i>decadens</i>. Assessments under the BC Act and EPBC Act have been undertaken and are provided in Appendix B. The removal of up to 35 juvenile planted <i>Eucalyptus parramattensis</i> subsp. <i>decadens</i> trees is unlikely to result in a significant impact to this species.</p> <p>Removal of habitat may also affect other threatened fauna, however, tests of significance found no significant impact to these species as a result of the proposal. Mitigation measures to manage impacts to these species are summarised in Section 6.1.4.</p> <p>Assessments of significance were carried out for the threatened species and endangered ecological communities that would likely occur in the proposal area. With appropriate safeguards, the proposal would be unlikely to have a significant</p>	<p>Long-term, negative.</p>

Factor	Impact
<p>impact on any listed threatened species, populations or ecological communities (refer Section 6.1).</p> <p>The proposal would result in the loss and modification of aquatic habitat by the partial filling of existing farm dams/ponds and installation of new drainage pipes. This small loss and modification of habitat would be unlikely to significantly impact the aquatic ecosystems of the Testers Hollow and Wallis Creek floodplain environment.</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 have the potential to create a reduction in the overall aesthetic quality of the proposal area due to the equipment associated with the construction worksite, dust and noise generation as well as traffic and access disruption. However, impact would be minimised as far as practicable through the implementation of safeguards outlined in Section 7.2.</p> <p>No recreational or scientific qualities of the proposal area are anticipated to be impacted during the construction or operation of the proposal.</p>	Short-term negative
<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>The proposal area contains a locally listed heritage item consisting of the coal precinct identified in the Cessnock Local Environmental Plan 2011 as the Collieries of the South Maitland Coalfields/Greta Coal Measures Group. This coal precinct is partially located in the southern end of the proposal area. The principal remaining features of the Ayrfield Colliery site are located at least 850 m to the west of the proposal area. A statement of significance was carried out for this site (as described in Section 6.5.3) in which it was found that the heritage significance or any remaining features of the Ayrfield Colliery site would not be impacted by the proposal. During construction, land within the Collieries of the South Maitland Coalfields/Greta Coal Measures Group heritage area would be temporarily used for a construction compound. This is not expected to impact on the heritage values of this place over the long-term. Specific mitigation measures are provided in Section 6.5.4.</p> <p>The proposal would avoid all previously recorded AHIMS registered archaeological sites as they are located outside of the proposal area. However, the proposal would directly impact newly recorded sites TH-AS-001 and TH-PAD-001 which have been assessed as having low and moderate significance respectively (Section 6.4.2).</p> <p>Mitigation measures to manage impacts to these Aboriginal sites are summarised in Section 6.4.4. Roads and Maritime will seek an AHIP under the <i>National Parks and Wildlife Act 1974</i> before construction.</p>	<p>Long term, minor, negative</p> <p>Long-term, negative</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>The proposal would require the clearing of about 1.56 ha of native vegetation and 0.01 ha of planted exotic/non-indigenous vegetation, which provides potential habitat for 15 species listed under the BC Act. The removal of habitat may impact threatened fauna, however, tests of significance have found no significant impact to these species as a result of the proposal. Mitigation measures to manage impacts to these species are summarised in Section 6.1.4.</p>	Short term, minor, negative

Factor	Impact
<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 not anticipated to endanger any species of animal, plant or other form of life. Biodiversity impacts associated with the proposal would be mitigated through the implementation of safeguards outlined in Section 6.1.4.</p>	<p>Nil impacts</p>
<p>h) Any long-term effects on the environment?</p> <p>The proposal would have an overall minor negative long term impact on the existing environment through permanent clearance of up to 1.56 ha of native vegetation.</p> <p>The proposal would also have a direct impact on TH-AS-001 and TH-PAD-001. Roads and Maritime will seek an AHIP under the <i>National Parks and Wildlife Act 1974</i> before construction.</p> <p>The proposal would have positive long-term effects on the environment due to improved flood immunity of Testers Hollow at Cessnock Road and improved connectivity during future flood events.</p>	<p>Short-term, minor, negative</p> <p>Long-term, moderate, negative</p> <p>Long term positive</p>
<p>i) Any degradation of the quality of the environment?</p> <p>The proposal has the potential to degrade the quality of the environment through accidental spills and erosion and sediment during construction. An Erosion and Sediment Control Plan and spill prevention and response procedures would be implemented to mitigate the impact.</p>	<p>Short-term, minor, negative</p>
<p>j) Any risk to the safety of the environment?</p> <p>The construction work has the potential to temporarily decrease safety along Cessnock Road and local roads within proposal area due to road work and movement of construction plant.</p>	<p>Short-term, minor, negative</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 change in speed limit. These impacts would reduce the beneficial use of Cessnock Road during construction.</p> <p>In the long-term, the proposal would be consistent with future uses and there would be no reduction in the range of beneficial uses of the environment that do not exist.</p>	<p>Short-term, minor, negative</p> <p>Long-term, minor, positive</p>
<p>l) Any pollution of the environment?</p> <p>The proposal would have the potential to result in some minor negative short-term water pollution risks including from sediments, soil nutrients, waste, and spillage of fuels and chemicals. Management of water quality impacts would be carried out in accordance with the safeguards and management measures outlined in Chapter 7.</p> <p>Short-term noise and air quality impacts (dust and exhaust emissions) would be expected during the construction of the proposal. Management of noise and air quality impacts would be carried out in accordance with the safeguards and management measures summarised in Chapter 7.</p> <p>The operation of the proposal would be unlikely to substantially alter the air quality from the existing conditions.</p>	<p>Short-term, minor, negative</p>

Factor	Impact
<p>m) Any environmental problems associated with the disposal of waste?</p> <p>Contaminated waste may occur as a result of the proposal. Ancillary sites would be managed in a way that minimise waste on site and manage excess materials. Waste associated with the proposal would be managed in accordance with the <i>Waste Avoidance and Resource Recovery Act 2001</i> and recycled where possible or disposed of by a license contractor at a license facility. Issues associated with the disposal of waste are not expected.</p>	Nil
<p>n) Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply?</p> <p>The proposal would require a number of resources as described in Chapter 3. None of these resources are or are likely to become in short supply as a result of the proposal. Resource use management measures are provided which would include reuse and recycling when feasible (refer to Section 6.1).</p>	Nil
<p>o) Any cumulative environmental effect with other existing or likely future activities?</p> <p>No developments were identified near the proposal that would have the potential to overlap. Cumulative impacts would not be expected.</p>	Nil
<p>p) Any impact on coastal processes and coastal hazards, including those under projected climate change conditions?</p> <p>The proposal is not located within a coastal area and would not result in any impact on coastal processes and coastal hazards.</p>	Nil

Matters of National Environmental Significance

Under the environmental assessment provisions of the *Environment Protection and Biodiversity Conservation 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 the Environment and Energy.

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's significant impact criteria and taking into account relevant guidelines and policies.

Factor	Impact
Any impact on a World Heritage property? There would be no impact to World Heritage properties by the proposal.	Nil
Any impact on a National Heritage place? There would be no impact to National Heritage places by the proposal.	Nil
Any impact on a wetland of international importance? There would be no impact to wetlands of international importance by the proposal.	Nil
Any impact on a listed threatened species or communities? There would be no impact to Commonwealth listed threatened species or communities.	Nil
Any impacts on listed migratory species? The proposal would not impact any listed migratory species.	Nil
Any impact on a Commonwealth marine area? There would be no impact to Commonwealth marine areas by the proposal.	Nil
Does the proposal involve a nuclear action (including uranium mining)? The proposal does not involve a nuclear action (including uranium mining).	Nil
Additionally, any impact (direct or indirect) on Commonwealth land? The proposal does not involve any impact on Commonwealth land.	Nil