Document control

<table>
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<tr>
<th>File name</th>
<th>TNR Upgrade OACEMP V2</th>
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<tr>
<td>Report name</td>
<td>The Northern Road Upgrade – Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park Overarching Construction Environmental Management Plan</td>
</tr>
</tbody>
</table>

Approval and authorisation

<table>
<thead>
<tr>
<th>Plan reviewed by:</th>
<th>Plan reviewed by:</th>
<th>Plan reviewed and endorsed by:</th>
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</thead>
<tbody>
<tr>
<td>Roads and Maritime Senior Environment Officer</td>
<td>Roads and Maritime Senior Project Manager</td>
<td>Environmental Representative</td>
</tr>
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Revision history

<table>
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<th>Revision</th>
<th>Date</th>
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<tr>
<td>0</td>
<td>21/03/2018</td>
<td>Preliminary draft for information of Tenderers</td>
</tr>
<tr>
<td>0</td>
<td>08/06/2018</td>
<td>Draft for consultation</td>
</tr>
<tr>
<td>1</td>
<td>29/08/2018</td>
<td>Updated in response to DP&amp;E, ER and consultation comments Issued to DP&amp;E for approval</td>
</tr>
<tr>
<td>2</td>
<td>27/09/2018</td>
<td>Final updated in response to DP&amp;E comments</td>
</tr>
</tbody>
</table>
List of emergency and key contacts

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Contact Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPA pollution hotline</td>
<td>~</td>
<td>131 555</td>
</tr>
<tr>
<td>Fire and Rescue NSW</td>
<td>~</td>
<td>000 (for pollution incidents that present an immediate threat to human health or property) 1300 729 579 (for pollution incidents that do not present an immediate threat to human health or property)</td>
</tr>
<tr>
<td>NSW Police Penrith Local Area Command</td>
<td>Sergeant Matt Shirvington</td>
<td>(02) 4721 9415</td>
</tr>
<tr>
<td>The Ministry of Health</td>
<td>Wollongong Hospital</td>
<td>(02) 4222 5000</td>
</tr>
<tr>
<td>SafeWork NSW</td>
<td>~</td>
<td>131 050</td>
</tr>
<tr>
<td>WaterNSW</td>
<td>~</td>
<td>1300 662 077</td>
</tr>
<tr>
<td>Liverpool City Council</td>
<td>~</td>
<td>1300 362 170 (24 hours)</td>
</tr>
<tr>
<td>Penrith City Council</td>
<td>~</td>
<td>4732 7777 (8.30 am-4 pm weekdays)</td>
</tr>
<tr>
<td>24 hour community information line, email address and website</td>
<td>~</td>
<td>1800 703 457 <a href="mailto:thenorthernroad@rms.nsw.gov.au">thenorthernroad@rms.nsw.gov.au</a> <a href="http://www.rms.nsw.gov.au/thenorthernroad">www.rms.nsw.gov.au/thenorthernroad</a></td>
</tr>
<tr>
<td>Environmental Representative</td>
<td>Cameron Weller</td>
<td>0428 271 496 <a href="mailto:Cam@hutchisonweller.com">Cam@hutchisonweller.com</a> 0414 860 356 <a href="mailto:peter@hutchisonweller.com">peter@hutchisonweller.com</a></td>
</tr>
<tr>
<td></td>
<td>Peter Morrall (alt)</td>
<td></td>
</tr>
<tr>
<td>Roads and Maritime Senior Project Manager</td>
<td>Jeff Gilham</td>
<td>1800 703 457 <a href="mailto:Jeff.Gilham@rms.nsw.gov.au">Jeff.Gilham@rms.nsw.gov.au</a></td>
</tr>
<tr>
<td>(24 hour contact)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roads and Maritime Environmental Manager</td>
<td>Anthony Eland</td>
<td>1800 703 457 <a href="mailto:thenorthernroad@rms.nsw.gov.au">thenorthernroad@rms.nsw.gov.au</a></td>
</tr>
<tr>
<td>Roads and Maritime Senior Environmental Officer</td>
<td>Suzette Graham</td>
<td>1800 703 457 <a href="mailto:thenorthernroad@rms.nsw.gov.au">thenorthernroad@rms.nsw.gov.au</a></td>
</tr>
<tr>
<td>Roads and Maritime Community and Stakeholder Engagement Advisor</td>
<td>Kamini Parashar</td>
<td>1800 703 457 <a href="mailto:thenorthernroad@rms.nsw.gov.au">thenorthernroad@rms.nsw.gov.au</a></td>
</tr>
</tbody>
</table>
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Appendix B6  Construction Air Quality Management Plan
Appendix B7  Construction Waste and Energy Management Plan
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Appendix B9  Other Management Measures
Appendix B10 Construction Sustainability Management Plan
Glossary / Abbreviations

<table>
<thead>
<tr>
<th>Term</th>
<th>Expanded text</th>
</tr>
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<tbody>
<tr>
<td>AFMP</td>
<td>Ancillary Facilities Management Plan</td>
</tr>
<tr>
<td>BC Act</td>
<td><em>Biodiversity Conservation Act 2016</em></td>
</tr>
<tr>
<td>CAQMP</td>
<td>Construction Air Quality Management Plan</td>
</tr>
<tr>
<td>CCHMP</td>
<td>Construction Cultural Heritage Management Plan</td>
</tr>
<tr>
<td>CCS</td>
<td>Community Communication Strategy</td>
</tr>
<tr>
<td>CEMP</td>
<td>Construction Environmental Management Plan</td>
</tr>
<tr>
<td>CFFMP</td>
<td>Construction Flora and Fauna Management Plan</td>
</tr>
<tr>
<td>CMS</td>
<td>Complaints Management System</td>
</tr>
<tr>
<td>CNVMP</td>
<td>Construction Noise and Vibration Management Plan</td>
</tr>
<tr>
<td>CoA</td>
<td>Condition of approval</td>
</tr>
<tr>
<td>Compliance audit</td>
<td>Verification of how implementation is proceeding with respect to an OACEMP (which incorporates the relevant approval conditions)</td>
</tr>
</tbody>
</table>

Construction includes all physical work required to construct the CSSI, other than the following low impact work:

(a) survey works including carrying out general alignment survey, installing survey controls (including installation of global positioning system (GPS), installing repeater stations) and building and road dilapidation surveys;

(b) investigations including investigative drilling and excavation including unexploded ordinance clearance and associated work;

(c) establishment of ancillary facilities in accordance with conditions Condition A15, A16, and A17 of the approval, including constructing ancillary facility access roads and providing utilities to the facility, and any ancillary facility boundary fencing required under the conditions of this approval;

(d) operation of ancillary facilities if the ER has determined the operational activities will have minimal impact on the environment and community;

(e) Minor clearing and relocation of native vegetation as identified in the documents listed in Condition A1

(f) installation of mitigation measures including erosion and sediment controls and fencing;

(g) property acquisition, adjustment works including installation of property fencing, access tracks and relocation and adjustments of utilities to property including water supply and electricity;

(h) relocation and connection of utilities where the relocation or connection has a minor impact to the environment as determined by the ER;

(i) work associated with the Sydney Water pipeline cut-ins (that doesn’t meet (h) above) where a Construction Environmental Management Plan/Environmental Work Method Statement has been approved by the Environmental Representative. The pipeline cut-in works include preparation works, excavation, piling and cut-ins;

(j) archaeological testing under the Code of practice for archaeological investigation of Aboriginal objects in NSW (DECCW, 2010) or archaeological monitoring undertaken in association with [a]-[i] above to ensure that there is no impact on heritage items;

(k) archaeological investigations including testing and salvage of archaeological objects in accordance with a salvage strategy prepared in accordance with the conditions of this approval;

(l) other activities determined by the ER to have minimal environmental impact as determined by the ER;
impact which may include construction of minor access roads, temporary relocation of pedestrian and cycle paths and the provision of property access; and

(m) maintenance of existing buildings and structures required to facilitate the carrying out of the CSSI.

However, where heritage items (excluding for work outlined (j) or (k) above), or threatened species, populations or ecological communities (within the meaning of the EP&A Act) are affected or potentially affected by any low impact work, that work is Construction, unless

(i) otherwise determined by the Secretary in consultation with OEH or DPI Fisheries (in the case of impact upon fish, aquatic invertebrates or marine vegetation); or

(ii) the work is in accordance with an Ancillary Facilities Management Plan, approved by the Secretary, under condition A16.

The low impact work described in this definition becomes Construction with the approval of a Construction Environmental Management Plan.

<table>
<thead>
<tr>
<th>Term</th>
<th>Expanded text</th>
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<tbody>
<tr>
<td>CPESC</td>
<td>Certified practising erosion and sediment control professional</td>
</tr>
<tr>
<td>CRM</td>
<td>Community Relations Manager</td>
</tr>
<tr>
<td>CSMP</td>
<td>Construction Sustainability Management Plan</td>
</tr>
<tr>
<td>CSSI</td>
<td>Critical State Significant Infrastructure</td>
</tr>
<tr>
<td>CSWMP</td>
<td>Construction Soil and Water Management Plan</td>
</tr>
<tr>
<td>CTMP</td>
<td>Construction Traffic Management Plan</td>
</tr>
<tr>
<td>CWEMP</td>
<td>Construction Waste and Energy Management Plan</td>
</tr>
<tr>
<td>DEC</td>
<td>Department of Environment and Conservation (NSW) (former)</td>
</tr>
<tr>
<td>DECC</td>
<td>Department of Environment and Climate Change (NSW) (former)</td>
</tr>
<tr>
<td>DEOH</td>
<td>Defence Establishment Orchard Hills</td>
</tr>
<tr>
<td>DIPNR</td>
<td>Department of Infrastructure, Planning and Natural Resources (former)</td>
</tr>
<tr>
<td>DoEE</td>
<td>Commonwealth Department of the Environment and Energy</td>
</tr>
<tr>
<td>DIP - Water</td>
<td>NSW Department of Industry – Water (former)</td>
</tr>
<tr>
<td>DP&amp;E</td>
<td>NSW Department of Planning and Environment</td>
</tr>
<tr>
<td>DPI</td>
<td>NSW Department of Primary Industries</td>
</tr>
<tr>
<td>Ecologically sustainable development (ESD)</td>
<td>Using, conserving and enhancing the community’s resources so that the ecological processes on which life depends are maintained and the total quality of life now and in the future, can be increased (Council of Australian Governments, 1992)</td>
</tr>
<tr>
<td>EIS</td>
<td>Environmental Impact Statement</td>
</tr>
<tr>
<td>EMS</td>
<td>Environmental Management System</td>
</tr>
<tr>
<td>Environmental aspect</td>
<td>Defined by AS/NZS ISO 14001:2015 as an element of an organisation’s activities, products or services that can interact with the environment</td>
</tr>
<tr>
<td>Environmental impact</td>
<td>Defined by AS/NZS ISO 14001:2015 as any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation’s environmental aspects</td>
</tr>
<tr>
<td>Environmental incident</td>
<td>An unexpected event that has, or has the potential to, cause harm to the environment and requires some action to minimise the impact or restore the environment</td>
</tr>
<tr>
<td>Term</td>
<td>Expanded text</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Environmental objective</td>
<td>Defined by AS/NZS ISO 14001:2015 as an overall environmental goal, consistent with the environmental policy, that an organisation sets itself to achieve</td>
</tr>
<tr>
<td>Environmental policy</td>
<td>Statement by an organisation of its intention and principles for environmental performance</td>
</tr>
<tr>
<td>Environmental Representative (ER)</td>
<td>A suitably qualified and experienced person independent of project design and construction personnel employed for the duration of Construction. The principal point of advice in relation to all questions and complaints concerning environmental performance.</td>
</tr>
<tr>
<td>Environmental target</td>
<td>Defined by AS/NZS ISO 14001:2015 as a detailed performance requirement, applicable to the organisation or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives.</td>
</tr>
<tr>
<td>EPA</td>
<td>NSW Environment Protection Authority</td>
</tr>
<tr>
<td>EP&amp;A Act</td>
<td><em>NSW Environmental Planning and Assessment Act 1979</em></td>
</tr>
<tr>
<td>EPBC Act</td>
<td><em>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</em></td>
</tr>
<tr>
<td>EPL</td>
<td>NSW Environment Protection Licence under the <em>Protection of the Environment Operations Act 1997</em></td>
</tr>
<tr>
<td>ERG</td>
<td>Environmental Review Group</td>
</tr>
<tr>
<td>ESCP</td>
<td>Erosion and Sediment Control Plan</td>
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<tr>
<td>EWMS</td>
<td>Environmental Work Method Statement</td>
</tr>
<tr>
<td>Federal-CoA</td>
<td>Condition of the Federal Department of the Environment and Energy Approval Decision</td>
</tr>
<tr>
<td>Hold point</td>
<td>Is a verification point that prevents work from commencing prior to approval from Roads and Maritime Services</td>
</tr>
<tr>
<td>LGA</td>
<td>Local Government Area</td>
</tr>
<tr>
<td>MNES</td>
<td>Matters of National Environmental Significance</td>
</tr>
<tr>
<td>Non-compliance</td>
<td>Failure to comply with the requirements of the Project approval or any applicable licence, permit or legal requirements</td>
</tr>
<tr>
<td>Non-conformance</td>
<td>Failure to conform to the requirements of Project system documentation including this OACEMP or supporting documentation</td>
</tr>
<tr>
<td>NRAR</td>
<td>Natural Resources Access Regulator (previously DPI-Water and Dol Water)</td>
</tr>
<tr>
<td>NSW-CoA</td>
<td>Condition of the NSW DP&amp;E Infrastructure Approval</td>
</tr>
<tr>
<td>NSW Infrastructure Approval</td>
<td>The Infrastructure Approval for the Northern Road Upgrade issued by the New South Wales Government on 30 May 2018</td>
</tr>
<tr>
<td>OACEMP</td>
<td>Overarching Construction Environmental Management Plan</td>
</tr>
<tr>
<td>OEH</td>
<td>NSW Office of Environment and Heritage</td>
</tr>
<tr>
<td>OOOHW</td>
<td>Out of hours work</td>
</tr>
<tr>
<td>Term</td>
<td>Expanded text</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Operation</td>
<td>The Operation of the CSSI (whether in full or in part) for its intended purpose, excluding the following activities carried out during Construction:</td>
</tr>
<tr>
<td></td>
<td>• commissioning trials of equipment;</td>
</tr>
<tr>
<td></td>
<td>• temporary use of any part of the CSSI; and</td>
</tr>
<tr>
<td></td>
<td>• maintenance works</td>
</tr>
<tr>
<td>Note:</td>
<td>Construction and Operation are not mutually exclusive</td>
</tr>
<tr>
<td>PESCP</td>
<td>Progressive Erosion and Sediment Control Plan</td>
</tr>
<tr>
<td>PIRMP</td>
<td>Pollution Incident Response Management Plan</td>
</tr>
<tr>
<td>POEO Act</td>
<td>Protection of the Environment Operations Act 1997 (NSW)</td>
</tr>
<tr>
<td>Principal, the</td>
<td>NSW Roads and Maritime Services</td>
</tr>
<tr>
<td>Project, the</td>
<td>The Northern Road Upgrade– Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park</td>
</tr>
<tr>
<td>RAP</td>
<td>Registered Aboriginal Party</td>
</tr>
<tr>
<td>RBL</td>
<td>Rating background level</td>
</tr>
<tr>
<td>REMM</td>
<td>Revised Environmental Management Measure as provided in the Final EIS / SPIR</td>
</tr>
<tr>
<td>Roads and Maritime, RMS</td>
<td>NSW Roads and Maritime Services</td>
</tr>
<tr>
<td>ROL</td>
<td>Road occupancy licence</td>
</tr>
<tr>
<td>SAP</td>
<td>Sensitive Area Plan</td>
</tr>
<tr>
<td>Secretary</td>
<td>Secretary of the NSW Department of Planning and Environment, or delegate</td>
</tr>
<tr>
<td>SEARs</td>
<td>Secretary's Environmental Assessment Requirements</td>
</tr>
<tr>
<td>SEPP</td>
<td>State Environmental Planning Policy</td>
</tr>
<tr>
<td>SPIR</td>
<td>Submissions and Preferred Infrastructure Report</td>
</tr>
<tr>
<td>TNR</td>
<td>The Northern Road</td>
</tr>
<tr>
<td>TSC Act</td>
<td>Threatened Species Conservation Act 1995 (NSW) (former)</td>
</tr>
<tr>
<td>UXO</td>
<td>Unexploded Ordnance</td>
</tr>
<tr>
<td>WSIP</td>
<td>Western Sydney Infrastructure Plan</td>
</tr>
</tbody>
</table>
1 Introduction

1.1 Background

The Northern Road Upgrade – Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park Project (the Project) comprises the upgrade of 16 km of The Northern Road (TNR) as part of the broader Western Sydney Infrastructure Plan (WSIP). The Project will improve traffic flow and connectivity in the western Sydney region and facilitate the construction of the Western Sydney Airport.

The Project is located approximately 45 km west of the Sydney central business district and traverses the local government areas of Penrith in the north and Liverpool in the south, as shown in Figure 2-1.

Roads and Maritime Services is planning and delivering the Project. The Project will be constructed in three separate stages under three separate Construction contracts:

- Stage 4 - Mersey Road, Bringelly, to Eaton Road, Luddenham
- Stage 5 - Littlefields Road, Luddenham, to Glenmore Parkway, Glenmore Park
- Stage 6 - Littlefields Road, Luddenham to Eaton Road, Luddenham

The Project has been assessed under both State and Federal planning approval pathways. The Project was declared by the NSW Minister for Planning to be critical State significant infrastructure (CSSI) development under Schedule 5 of the State Environmental Planning Policy (State and Regional Development) 2011 on 31 March 2017. The Secretary’s Environmental Assessment Requirements (SEARs) for the Project were issued on 28 July 2015 and amended SEARs were issued on 9 March 2016. The Project was assessed under Part 5.1 of the Environmental Planning and Assessment Act 1979 (NSW) (EP&A Act).

The Project has the potential to significantly impact on Matters of National Environmental Significance (MNES) including Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) listed Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest. The Project will also impact on areas of Commonwealth land associated with the Defence Establishment Orchard Hills (DEOH) and land purchased by the Australian Government for the Western Sydney Airport. Accordingly, the Project was referred to the then Australian Government Department of the Environment (now Department of the Environment and Energy (DoEE)). The Project was declared by the Federal Minister for the Environment and Energy to be a ‘controlled action’ under the EPBC Act and Commonwealth Environmental Impact Statement Guidelines were issued in August 2016.

A single Environmental Impact Statement (EIS)/Draft EIS was prepared for the Project to satisfy the environmental assessment requirements of both Part 5.1 of the EP&A Act and Part 8 of the EPBC Act. The EIS was placed on public exhibition between 21 June 2017 and 2 August 2017.

A Submissions and Preferred Infrastructure Report (SPIR) was prepared to provide responses to issues raised during exhibition of the initial EIS, to propose Project design refinements and to provide revised environmental management measures (REMMs) for the Project. The SPIR was submitted to the NSW Minister for Planning. A Final EIS satisfying the requirements of the EPBC Act was submitted to the Federal Minister for the Environment and Energy in December 2017.
Approval for the Project under the EP&A Act was granted by the Minister for Planning on 30 May 2018. Approval for the Project under the EPBC Act was granted by the Federal Minister for the Environment and Energy on 15 June 2018.

A detailed description of the Project is provided in Section 2. Construction of the Project will be undertaken in stages. Further detail of the proposed Project staging is provided in the Project Staging Report, which has been prepared in accordance with NSW Condition of Approval (NSW-CoA) A10.

### 1.2 Purpose of this OACEMP

This Overarching Construction Environmental Management Plan (OACEMP) and associated sub-plans provides an overarching management system to ensure that Roads and Maritime and its Contractors establish and maintain best practice controls to manage potential environmental impacts during the Construction of the three Project stages, which are outlined in Section 2.3. The strategies defined in this OACEMP have been developed to address the NSW and Federal conditions of approval and the management measures presented in the EIS and SPIR. This OACEMP includes general requirements for implementation, monitoring and auditing which will be applied to, and further developed in, the stage specific Contractor CEMPs prepared under this OACEMP by the Contractors responsible for delivering the Project stages. The approach to the preparation of the stage specific CEMPS is provided in Section 3.3 and Figure 3-2.

This OACEMP has been prepared to outline and describe how the NSW Minister for Planning’s Conditions of Approval (NSW-CoA) and the Federal Minister for the Environment and Energy’s Conditions of Approval (Federal-CoA) will be complied with during the Construction of the Project.

This OACEMP, and all stage specific CEMPs prepared by the Contractors under the OACEMP, is consistent with:

- the NSW Minister’s Infrastructure Approval dated 30 May 2018 and Federal Minister for the Environment and Energy’s Approval dated 15 June 2018
- Roads and Maritime QA Specifications
- AS/NZS ISO 14001: Environmental Management Systems
- ISO 9001: Quality Management Systems

The purpose of this OACEMP is to provide a structured approach to the management and minimisation of environmental risks and issues during construction of the Project. The OACEMP outlines the requirements, controls and management procedures that provide an overall approach to the Project. It also provides requirements for and directs Contractors and suppliers for the Project regarding specific measures that will be adopted for their work on the Project. Implementing this OACEMP effectively will ensure that Roads and Maritime and its Contractors and suppliers to the Project meet regulatory and policy requirements in a systematic manner and continually improve environmental performance.

The OACEMP provides:

- a description of activities to be undertaken during Construction
This OACEMP is the overarching document in the environmental management system for the Project that includes a number of management documents, including stage specific Contractors’ CEMPs to be prepared under the OACEMP, which are described in Section 3.3.3.

This OACEMP and Contractors’ CEMPs will be available to all Contractor personnel and sub-contractors via the Project document control management system and onsite. The OACEMP will be available for public inspection on the Project website (refer Section 5.5.4). Confidential information, which may include the location of threatened species, Aboriginal objects or places and personnel contact details, will be removed from all documents provided or made available to the public.

1.2.1 Conditions of approval

This OACEMP provides a consistent approach to address the requirements of both the State and Federal approvals in the one document. The OACEMP meets the requirements of the NSW and Federal conditions relating to the preparation of a CEMP. The requirements of the State conditions and where they are met in this OACEMP are shown in Table 1-1 and the requirements of Federal conditions and where they are met in this OACEMP is shown in Table 1-2.

The Project is located on both NSW and Federal (Stages 4 and 5 only) land. However, the NSW Infrastructure Approval conditions apply to both NSW and Federal land within the Project. The Federal approval conditions also apply to both NSW and Federal land within the Project. The extent of Federal land in the vicinity of the Project is shown on Figure 2-1 and Figure 2-2.
Construction Monitoring Programs have been included in the applicable sub-plans and therefore the CoA relating to monitoring programs are also included in Table 1-1.

Table 1-1: NSW CoA requirements for the OACEMP, sub-plans and monitoring programs

<table>
<thead>
<tr>
<th>NSW CoA</th>
<th>Requirement</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>A <strong>Construction Environmental Management Plan</strong> (CEMP) must be prepared in accordance with the <em>Department of Infrastructure, Planning and Natural Resources Guideline for the Preparation of Environmental Management Plans</em> (DIPNR; 2004) to detail how the performance outcomes, commitments and mitigation measures specified in the documents listed in Condition A1 will be implemented and achieved during all stages of Construction.</td>
<td>This OACEMP</td>
</tr>
<tr>
<td>C2</td>
<td>The <strong>CEMP</strong> must provide:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(a) a description of activities to be undertaken during Construction (including the scheduling of construction)</td>
<td>Section 2</td>
</tr>
<tr>
<td></td>
<td>(b) details of environmental policies, guidelines and principles to be followed in the construction of the CSSI</td>
<td>Sections 4.1 &amp; 4.2, Appendix A1, Sub-plans</td>
</tr>
<tr>
<td></td>
<td>(c) a schedule for compliance auditing</td>
<td>Section 6.4</td>
</tr>
<tr>
<td></td>
<td>(d) a program for ongoing analysis of the key environmental risks arising from the activities described in subsection (a) of this condition, including an initial risk assessment undertaken before the commencement of construction of the CSSI</td>
<td>Section 4.3, Appendix A2</td>
</tr>
<tr>
<td></td>
<td>(e) details of how the activities described in subsection (a) of this condition will be carried out to:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>i. meet the performance outcomes stated in the documents listed in Condition A1; and</td>
<td>Section 6, Section 4.4, Appendix A2, Sub-plans</td>
</tr>
<tr>
<td></td>
<td>ii. manage the risks identified in the risk analysis undertaken in subsection (d) of this condition;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(f) an inspection program detailing the activities to be inspected and frequency of inspections;</td>
<td>Section 6.1, Sub-plans</td>
</tr>
<tr>
<td></td>
<td>(g) a protocol for managing and reporting any:</td>
<td>Section 5.6, Section 6.5, Section 6.6, Appendix A7</td>
</tr>
<tr>
<td></td>
<td>i. Incidents; and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ii. non-compliances with this approval and with statutory requirements;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(h) procedures for rectifying any non-compliance with this approval identified during compliance auditing, incident management or at any time during construction;</td>
<td>Section 6.3, Section 6.6</td>
</tr>
<tr>
<td></td>
<td>(i) a list of all the <strong>CEMP Sub-plans</strong> required in respect of Construction, as set out in Condition C4. Where staged Construction of the CSSI is proposed, the <strong>CEMP</strong> must also identify which <strong>CEMP Sub-plan</strong> applies to each of the proposed stages of construction;</td>
<td>Section 3.3, Staging Report</td>
</tr>
<tr>
<td></td>
<td>(j) a description of the roles and environmental responsibilities for relevant employees and their relationship with the ER;</td>
<td>Section 5.1</td>
</tr>
<tr>
<td></td>
<td>(k) for training and induction for employees, including contractors and sub-contractors, in relation to environmental and compliance obligations under the terms of this approval; and</td>
<td>Section 5.3</td>
</tr>
<tr>
<td></td>
<td>(l) for periodic review and update of the CEMP and all associated plans and programs.</td>
<td>Section 6.8, Section 1.6</td>
</tr>
</tbody>
</table>
C3 The CEMP must be endorsed by the ER and then submitted to the Secretary for approval no later than one (1) month before the commencement of Construction or within another timeframe agreed with the Secretary.

C4 The following CEMP Sub-plans must be prepared in consultation with the relevant government agencies identified for each CEMP Sub-plan and be consistent with the CEMP referred to in Condition C1:

(a) Traffic and transport - Relevant Councils
(b) Noise and vibration - Relevant Councils
(c) Biodiversity - OEH and DPI Fisheries
(d) Water, soil and contamination - DoI Water (NRAR), DPI Fisheries and relevant Councils
(e) Heritage - OEH, relevant Councils, registered Aboriginal Parties (RAPs)

C5 The CEMP Sub-plans must state how:

(a) the environmental performance outcomes identified in the documents listed in Condition A1, as modified by these conditions, will be achieved
(b) the mitigation measures identified in the documents listed in Condition A1 as modified by these conditions will be implemented
(c) the relevant terms of this approval will be complied with
(d) the identification of the relevant environmental specific training and induction processes for construction personnel and
(e) issues requiring management during Construction, as identified through ongoing environmental risk analysis, will be managed.

C6 The CEMP Sub-plans must be developed in consultation with relevant government agencies identified in Table 3 of Condition C4. Where an agency(ies) request(s) is not included, the Proponent must provide the Secretary justification as to why. Details of all information requested by an agency to be included in a CEMP Sub-plan as a result of consultation, including copies of all correspondence from those agencies, must be provided with the relevant CEMP Sub-Plan.

C7 Any of the CEMP Sub-plans may be submitted to the Secretary along with, or subsequent to, the submission of the CEMP but in any event, no later than one (1) month before commencement of Construction.

C8 Subject to the provisions in this condition relating to staging Construction must not commence until the CEMP and all CEMP Sub-plans have been approved by the Secretary. The CEMP and CEMP Sub-plans, as approved by the Secretary, including any minor amendments approved by the ER must be implemented for the duration of Construction. Unless otherwise agreed by the Secretary where the CSSI is being staged, Construction of that stage is not to commence unless the CEMP and CEMP sub-plans referred to above cover those stages or the Secretary has approved a specific CEMP and sub-plans for that stage.

C9 The following Construction Monitoring Programs must be prepared in consultation with the relevant government agencies identified for each Construction Monitoring Program to compare actual performance of construction of the CSSI against performance predicted performance.

- Air quality - Nil
- Noise and vibration - Nil
- Water, soil and contamination - DPI, Dol (NRAR) and relevant Councils

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**NSW CoA**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3 The CEMP must be endorsed by the ER and then submitted to the Secretary for approval no later than one (1) month before the commencement of Construction or within another timeframe agreed with the Secretary.</td>
<td>Section 1.4</td>
</tr>
<tr>
<td>C4 The following CEMP Sub-plans must be prepared in consultation with the relevant government agencies identified for each CEMP Sub-plan and be consistent with the CEMP referred to in Condition C1:</td>
<td></td>
</tr>
<tr>
<td>(a) Traffic and transport - Relevant Councils</td>
<td>Appendix B1</td>
</tr>
<tr>
<td>(b) Noise and vibration - Relevant Councils</td>
<td>Appendix B3</td>
</tr>
<tr>
<td>(c) Biodiversity - OEH and DPI Fisheries</td>
<td>Appendix B2</td>
</tr>
<tr>
<td>(d) Water, soil and contamination - DoI Water (NRAR), DPI Fisheries and relevant Councils</td>
<td>Appendix B4</td>
</tr>
<tr>
<td>(e) Heritage - OEH, relevant Councils, registered Aboriginal Parties (RAPs)</td>
<td>Appendix B5</td>
</tr>
<tr>
<td>C5 The CEMP Sub-plans must state how:</td>
<td></td>
</tr>
<tr>
<td>(a) the environmental performance outcomes identified in the documents listed in Condition A1, as modified by these conditions, will be achieved</td>
<td>App B1 CTMP, App B2 FFMP, App B3 CNVMP, App B4 CSWMP, App B5 CHMP, App B6 CAQMP, App B7 CWEMP, App B8 CCLMP, App B9 Other measures</td>
</tr>
<tr>
<td>(b) the mitigation measures identified in the documents listed in Condition A1 as modified by these conditions will be implemented</td>
<td></td>
</tr>
<tr>
<td>(c) the relevant terms of this approval will be complied with</td>
<td></td>
</tr>
<tr>
<td>(d) the identification of the relevant environmental specific training and induction processes for construction personnel and</td>
<td></td>
</tr>
<tr>
<td>(e) issues requiring management during Construction, as identified through ongoing environmental risk analysis, will be managed.</td>
<td></td>
</tr>
<tr>
<td>C6 The CEMP Sub-plans must be developed in consultation with relevant government agencies identified in Table 3 of Condition C4. Where an agency(ies) request(s) is not included, the Proponent must provide the Secretary justification as to why. Details of all information requested by an agency to be included in a CEMP Sub-plan as a result of consultation, including copies of all correspondence from those agencies, must be provided with the relevant CEMP Sub-Plan.</td>
<td>App B1 – B9</td>
</tr>
<tr>
<td>C7 Any of the CEMP Sub-plans may be submitted to the Secretary along with, or subsequent to, the submission of the CEMP but in any event, no later than one (1) month before commencement of Construction.</td>
<td>Section 1.4</td>
</tr>
<tr>
<td>C8 Subject to the provisions in this condition relating to staging Construction must not commence until the CEMP and all CEMP Sub-plans have been approved by the Secretary. The CEMP and CEMP Sub-plans, as approved by the Secretary, including any minor amendments approved by the ER must be implemented for the duration of Construction. Unless otherwise agreed by the Secretary where the CSSI is being staged, Construction of that stage is not to commence unless the CEMP and CEMP sub-plans referred to above cover those stages or the Secretary has approved a specific CEMP and sub-plans for that stage.</td>
<td>Section 1.4</td>
</tr>
<tr>
<td>C9 The following Construction Monitoring Programs must be prepared in consultation with the relevant government agencies identified for each Construction Monitoring Program to compare actual performance of construction of the CSSI against performance predicted performance.</td>
<td></td>
</tr>
<tr>
<td>• Air quality - Nil</td>
<td>App B6 CAQMP</td>
</tr>
<tr>
<td>• Noise and vibration - Nil</td>
<td>App B3 CNVMP</td>
</tr>
<tr>
<td>• Water, soil and contamination - DPI, Dol (NRAR) and relevant Councils</td>
<td>App B4 CSWMP</td>
</tr>
</tbody>
</table>
Each Construction Monitoring Program must provide:
- details of baseline data available
- details of baseline data to be obtained and when
- details of all monitoring of the project to be undertaken
- the parameters of the project to be monitored
- the frequency of monitoring to be undertaken
- the location of monitoring
- the reporting of monitoring results
- procedures to identify and implement additional mitigation measures
  where results of monitoring are unsatisfactory and
- any consultation to be undertaken in relation to the monitoring programs

The Construction Monitoring Programs must be developed in consultation with relevant government agencies as identified in Condition C9 and must include, to the written satisfaction of the Secretary, information requested by an agency to be included in a Construction Monitoring Programs during such consultation. Details of all information requested by an agency including copies of all correspondence from those agencies must be provided with the relevant Construction Monitoring Program.

The Construction Monitoring Programs must be endorsed by the ER and then submitted to the Secretary for approval at least one (1) month before commencement of construction or within another timeframe agreed with the Secretary.

Construction must not commence until the Secretary has approved all of the required Construction Monitoring Programs, and all relevant baseline data for the specific construction activity has been collected.

The Construction Monitoring Programs, as approved by the Secretary including any minor amendments approved by the ER, must be implemented for the duration of construction and for any longer period set out in the monitoring program or specified by the Secretary, whichever is the greater.

The results of the Construction Monitoring Programs must be submitted to the Secretary, and relevant regulatory agencies, for information in the form of a Construction Monitoring Report at the frequency identified in the relevant Construction Monitoring Program.

Where a relevant CEMP Sub-plan exists, the relevant Construction Monitoring Program may be incorporated into that CEMP Sub-plan

<table>
<thead>
<tr>
<th>Federal CoA</th>
<th>Requirement</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>C10</td>
<td>Each Construction Monitoring Program must provide:</td>
<td>App B3 CNVMP App B4 CSWMP App B6 CAQMP</td>
</tr>
<tr>
<td></td>
<td>- details of baseline data available</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- details of baseline data to be obtained and when</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- details of all monitoring of the project to be undertaken</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- the parameters of the project to be monitored</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- the frequency of monitoring to be undertaken</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- the location of monitoring</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- the reporting of monitoring results</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- procedures to identify and implement additional mitigation measures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- any consultation to be undertaken in relation to the monitoring programs</td>
<td></td>
</tr>
<tr>
<td>C11</td>
<td>The Construction Monitoring Programs must be developed in consultation with relevant government agencies as identified in Condition C9 and must include, to the written satisfaction of the Secretary, information requested by an agency to be included in a Construction Monitoring Programs during such consultation. Details of all information requested by an agency including copies of all correspondence from those agencies must be provided with the relevant Construction Monitoring Program.</td>
<td>App B3 CNVMP App B4 CSWMP App B6 CAQMP</td>
</tr>
<tr>
<td>C12</td>
<td>The Construction Monitoring Programs must be endorsed by the ER and then submitted to the Secretary for approval at least one (1) month before commencement of construction or within another timeframe agreed with the Secretary.</td>
<td>App B3 CNVMP App B4 CSWMP App B6 CAQMP</td>
</tr>
<tr>
<td>C13</td>
<td>Construction must not commence until the Secretary has approved all of the required Construction Monitoring Programs, and all relevant baseline data for the specific construction activity has been collected.</td>
<td>App B3 CNVMP App B4 CSWMP App B6 CAQMP</td>
</tr>
<tr>
<td>C14</td>
<td>The Construction Monitoring Programs, as approved by the Secretary including any minor amendments approved by the ER, must be implemented for the duration of construction and for any longer period set out in the monitoring program or specified by the Secretary, whichever is the greater.</td>
<td>App B3 CNVMP App B4 CSWMP App B6 CAQMP</td>
</tr>
<tr>
<td>C15</td>
<td>The results of the Construction Monitoring Programs must be submitted to the Secretary, and relevant regulatory agencies, for information in the form of a Construction Monitoring Report at the frequency identified in the relevant Construction Monitoring Program.</td>
<td>App B3 CNVMP App B4 CSWMP App B6 CAQMP</td>
</tr>
<tr>
<td>C16</td>
<td>Where a relevant CEMP Sub-plan exists, the relevant Construction Monitoring Program may be incorporated into that CEMP Sub-plan</td>
<td>App B3 CNVMP App B4 CSWMP App B6 CAQMP</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Federal CoA</th>
<th>Requirement</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The approval holder must undertake the action, including those parts of the action that occur on Commonwealth Land, in accordance with all conditions in the NSW Infrastructure Approval.</td>
<td>This OACEMP and sub-plans</td>
</tr>
</tbody>
</table>
11 The person taking the action must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement all management plans required by this approval, and make them available upon request to the Department (DoEE). Such records may be subject to audit by the Department (DoEE) or an independent auditor in accordance with section 458 of the EPBC Act, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the Department’s (DoEE’s) website. The results of audits may also be publicised through the general media.

12 By 30 June of each year after the commencement of the action, the person taking the action must publish a report on their website addressing compliance with the conditions of this approval over the previous 12 months, including implementation of any management plans as specified in the conditions. Non-compliance with any of the conditions of this approval must be reported to the Department (DoEE) at the same time as the compliance report is published.

13 The person taking the action must provide the Department with a copy of each approved or finalised document provided to the DP&E Secretary in accordance with conditions A27 to A43 on the NSW Infrastructure Approval.

Note: These conditions relate to documenting and reporting compliance and non-compliance with the conditions of the NSW Infrastructure Approval.

14 Upon the direction of the Minister, the person taking the action must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the Minister. The independent auditor must be approved by the Minister prior to the commencement of the audit. Audit criteria must be agreed to by the Minister and the audit report must address the criteria to the satisfaction of the Minister.

The issue-specific sub-plans are provided as appendices to this OACEMP. A list of the sub-plans and their associated procedures and plans required under the NSW and Federal CoA is provided in Appendix A5.

Other relevant management measures to be addressed in Construction (including socio-economic and land use, urban design and visual impact, hydrology and flooding, hazards and risks, pesticides, fire management and cumulative impacts) which have not been addressed in the sub-plans are provided in Appendix B9.

1.2.2 Ecologically Sustainable Development

The principles of ecologically sustainable development (ESD) were considered and incorporated throughout the identification and development of the Project and are reflected in this OACEMP. The ESD principles as defined by the Environmental Planning and Assessment Regulation 2000 (made under the Environmental Planning and Assessment Act 1979) include:

- the precautionary principle
- intergenerational equity
- conservation of biological diversity and ecological integrity
- improved valuation, pricing and incentive mechanisms.
The Sustainability Management Plan (Appendix B10) outlines the management measures to be implemented during Construction to achieve the sustainability measure identified in the EIS and SPIR.

1.3 Consultation

1.3.1 Consultation during the Environmental Assessment process

Consultation was carried out prior to and during preparation of the EIS. Consulted parties included the community, Federal, State and local government agencies, special interest groups and industry stakeholders with a specific interest in the Project. The primary objective of the consultation was to keep the community and stakeholders informed and involved during the Project development.

1.3.2 Consultation for the preparation of the OACEMP

Consultation with relevant stakeholders and Government agencies was undertaken as part of the development of this OACEMP and sub-plans in accordance with the requirements of the Infrastructure Approval. The agencies required to be consulted under the Infrastructure Approval are listed in Table 1-3.

Table 1-3: Consultation requirements under the Infrastructure Approval

<table>
<thead>
<tr>
<th>NSW CoA</th>
<th>OACEMP Plan</th>
<th>Agency to be consulted</th>
<th>OACEMP Ref</th>
</tr>
</thead>
<tbody>
<tr>
<td>A16</td>
<td>Ancillary Facilities Management Plan</td>
<td>EPA, Penrith City Council, Liverpool City Council</td>
<td>Contractors Plan</td>
</tr>
<tr>
<td>C4(a)</td>
<td>Traffic and transport Management Sub-Plan</td>
<td>Penrith City Council, Liverpool City Council</td>
<td>App B1</td>
</tr>
<tr>
<td>C4(b)</td>
<td>Noise and vibration Management Sub-Plan</td>
<td>Penrith City Council, Liverpool City Council</td>
<td>App B3</td>
</tr>
<tr>
<td>C4(c)</td>
<td>Biodiversity Management Sub-Plan</td>
<td>OEH and DPI Fisheries</td>
<td>App B2</td>
</tr>
<tr>
<td>C4(d)</td>
<td>Water, soil and contamination Management Sub-Plan</td>
<td>DPI Water (NRAR), DPI Fisheries, Penrith City Council, Liverpool City Council</td>
<td>App B4</td>
</tr>
<tr>
<td>C4(e)</td>
<td>Heritage Management Sub-Plan</td>
<td>OEH, Penrith City Council, Liverpool City Council, RAPs</td>
<td>App B5</td>
</tr>
<tr>
<td>C9(c)</td>
<td>Water, soil and contamination Monitoring Program</td>
<td>DPI, Dol Water (NRAR)</td>
<td>App B4</td>
</tr>
<tr>
<td>E12</td>
<td>Historical Archaeological Salvage Strategy</td>
<td>Heritage Council of NSW</td>
<td>App B5</td>
</tr>
<tr>
<td>E15</td>
<td>Unexpected Heritage Finds Procedure</td>
<td>Heritage Council of NSW</td>
<td>App B5</td>
</tr>
<tr>
<td>E17</td>
<td>Aboriginal Cultural Salvage Strategy</td>
<td>OEH and RAPs (as relevant)</td>
<td>App B5</td>
</tr>
</tbody>
</table>
The consolidated evidence of the consultation undertaken for the preparation of the OACEMP is provided in Appendix A8 and the relevant comments are also appended to the applicable sub-plan. Appendix A8 includes:

- documentation of the engagement with the parties identified in Table 1-3 that occurred prior to submitting the document to the Secretary for approval
- a log of the points of engagement or attempted engagement with the identified parties and a summary of the issues raised by them
- documentation of the follow-up with the identified parties where feedback has not been provided to confirm that they have no feedback or have failed to provide feedback after repeated requests
- an outline of the issues raised by the identified parties, a summary of how they have been addressed and a cross reference to the section or sub-plan of the OACEMP where the issue has been addressed
- a description of the outstanding issues raised by the identified parties and the reasons why they have not been addressed.

In accordance with NSW-CoA A8, where a CoA requires consultation with identified parties, details of the consultation undertaken, matters raised by the parties, and how the matters were considered will accompany the strategies, plans, programs, reviews, audits, protocols and the like submitted to the Secretary.

1.3.3 Consultation during Construction

Consultation with the community, relevant stakeholders and agencies by Roads and Maritime and its Contractors will continue throughout the Construction of the Project. The approach to community consultation is documented in the Project Community Communication Strategy. Where relevant, the outcomes of this consultation will be documented in subsequent revisions of the OACEMP (refer Sections 1.6 and 6.8).

1.4 OACEMP endorsement and approval

This OACEMP has been reviewed by the Roads and Maritime Senior Project Manager and the Senior Environment Manager and endorsed by the ER prior to submission to the Secretary of the Department of Planning and Environment (DP&E) in accordance with NSW-CoA C3.

The OACEMP will be submitted to the Secretary for approval no later than one month prior to commencement of Construction of the Project, or as otherwise agreed by the Secretary.

The issue-specific sub-plans prepared under NSW-CoA C4 and construction monitoring programs prepared under NSW-CoA C9 will also be endorsed by the ER and submitted to the Secretary for approval no later than one month prior to commencement of Construction, in accordance with NSW-CoA C7 and C12 respectively.

Prior to endorsement, the ER will review the OACEMP, sub-plans and construction monitoring programs to ensure consistency with the requirements in or under the Infrastructure Approval in accordance with NSW-CoA A24(d).

Construction of the Project will not commence prior to approval of the OACEMP, sub-plans and construction monitoring programs by the Secretary in accordance with NSW-CoA C8 and C13.
1.5 **OACEMP Distribution**

This OACEMP applies to all personnel and sub-contractors associated with the Construction of the Project. The OACEMP is available via the Project document control management system, the Project website and the Project office. Electronic copies of this OACEMP will be distributed to:

- Roads and Maritime Project Director, Stage 4, 5 and 6 Project Managers, Environmental Manager (or delegate) and Community and Stakeholder Engagement Advisor
- the ER
- Contractor Stage 4, 5 and 6 Construction Project Managers, Construction Managers, Environmental Site Representatives, Sustainability Managers and Community Relations Managers
- Secretary of the DP&E
- the DoEE, on request
- Agencies consulted in the preparation of the OACEMP including OEH, EPA, DPI, DPI Fisheries, DoI Water (now the Natural Resources Access Regulator (NRAR)), Heritage Council of NSW, Penrith City Council and Liverpool City Council
- the RAPs.

1.6 **OACEMP and CEMP revision**

The Project environmental management system review process described in Section 6.8 ensures that environmental documentation is updated as required.

The Contractors’ CEMPs and, where applicable, the OACEMP will be reviewed:

- at least annually during the Executive Review (Table 6-5) and
- following reportable environmental incidents
- on identification of new risks, including risks identified during risk register updates
- when non-compliances are identified
- following environmental audits that identify matters that require attention
- in response to project change (including modifications)
- within one month of any of the above occurrences, or as otherwise agreed with the Secretary
- as part of a continuous improvement process.

Should the review process identify any issues or items within the environmental documentation that are in need of updating, it is the responsibility of the Roads and Maritime Environmental Manager (or delegate) to update the OACEMP and Contractors’ Environmental Site Representatives to update the Contractors CEMP, as applicable.

Any revisions to the OACEMP will be endorsed by the ER. The ER can approve minor changes to the OACEMP, including those that:

- are editorial in nature eg staff and agency/authority name changes.
- do not increase the magnitude of impacts on the environment when considered individually or cumulatively.
do not compromise the ability of the Project to meet approval or legislative requirements.

Amendments to the OACEMP which are not considered minor (based on the items above), will be forwarded to the Secretary of DP&E for approval and copies provided to the agencies required to be consulted in the preparation in the OACEMP (refer Section 1.3.2). The OACEMP will also be made available to the Minister for the DoEE upon request.

Changes to the OACEMP will be identified in writing to the Contractors and the Contractor Environmental Site Representatives will be required to update the Contractor’s CEMP to reflect the changes in the OACEMP.

Any revisions to the Contractors’ CEMPs will be issued to the Roads and Maritime Environmental Manager (or delegate) for review.

Revised versions of the OACEMP and the Contractors’ CEMPs will be made available through the document control process described in Section 6.7.2. Revised versions of the OACEMP will be made available on the website in accordance with NSW-CoA B11.
## Project description

### 2.1 Project overview

The Project involves the upgrade of 16 km of The Northern Road between Mersey Road, Bringelly and Glenmore Parkway, Glenmore Park, via the construction of new, additional and renewed infrastructure. The Project will cater for future road network use in the area, improve transport connections to surrounding areas, provide improved facilities for public and active transport for residents and facilitate development of the Western Sydney Airport at Badgerys Creek. The location of the Project is shown in Figure 2-1 and an overview of the Project is provided in Figure 2-2. The main features of the Project include:

- a six-lane divided road between Mersey Road, Bringelly and Bradley Street, Glenmore Park (two general traffic lanes and a kerbside bus lane in each direction to be delivered when demand requires). The road design includes a wide central median to allow for an additional lane in each direction in the future, if required
- an eight-lane divided road between Bradley Street, Glenmore Park and about 100 m south of Glenmore Parkway, Glenmore Park (three general traffic lanes and a kerbside bus lane in each direction separated by a median to be delivered when demand requires)
- approximately 8 km of new road between Mersey Road, Bringelly and just south of the existing Elizabeth Drive, Luddenham to realign the section of The Northern Road that currently bisects the Western Sydney Airport site and to bypass Luddenham
- approximately 8 km of upgraded and widened road between the existing Elizabeth Drive, Luddenham and about 100 m south of Glenmore Parkway, Glenmore Park
- closure of the existing The Northern Road through the Western Sydney Airport site
- tie-in works with The Northern Road Upgrade, between Peter Brock Drive, Oran Park and Mersey Road, Bringelly (to the south), and The Northern Road Upgrade, between Glenmore Parkway, Glenmore Park and Jamison Road, South Penrith (to the north)
- new intersections including:
  - a traffic light intersection connecting the existing The Northern Road at the southern boundary of the Western Sydney Airport, incorporating a dedicated u-turn facility on the western side
  - a traffic light intersection for service vehicles accessing the Western Sydney Airport, incorporating 160 m of new road connecting to the planned airport boundary
  - a traffic light intersection connecting the realigned The Northern Road with the existing The Northern Road (west of the new alignment) south of Luddenham
  - a ‘give way’ controlled intersection connecting the realigned The Northern Road with Eaton Road
  - a four-way traffic light intersection formed from the realigned Elizabeth Drive, the realigned The Northern Road and the existing The Northern Road, north of Luddenham
  - a traffic light intersection at the DEOH entrance, incorporating a u-turn facility
- new traffic lights at four existing intersections:
  - Littlefields Road, Luddenham
  - Kings Hill Road, Mulgoa
- Chain-O-Ponds Road, Mulgoa
- Bradley Street, Glenmore Park incorporating a u-turn facility.

- modified intersection arrangements at:
  - Dwyer Road, Bringelly (left in, left out only)
  - Existing Elizabeth Drive, Luddenham (access removed)
  - Gates Road, Luddenham (left in only)
  - Longview Road, Luddenham (left in, left out only)
  - Grover Crescent south, Mulgoa (access removed)
  - Grover Crescent north, Mulgoa (left in, left out only).

- dedicated u-turn facilities at:
  - the existing The Northern Road at Luddenham, south-west of Elizabeth Drive
  - the existing Elizabeth Drive, Luddenham around 800 m east of The Northern Road
  - Chain-O-Ponds Road, Mulgoa

- twin bridges over Adams Road, Luddenham

- local road changes and upgrades, including:
  - closure of Vicar Park Lane, east of the realigned The Northern Road, Luddenham
  - Eaton Road cul-de-sac, west of the realigned The Northern Road, Luddenham
  - Eaton Road cul-de-sac, east of the realigned The Northern Road, Luddenham
  - Elizabeth Drive cul-de-sac, about 300 m east of The Northern Road with a connection to the realigned Elizabeth Drive, Luddenham
  - extension of Littlefields Road, east of The Northern Road, Mulgoa
  - a new roundabout on the Littlefields Road extension, Mulgoa
  - a new service road between the Littlefields Road roundabout and Gates Road, including a ‘give way’ controlled intersection (that is, no traffic lights) at Gates Road, Luddenham
  - extension of Vineyard Road, Mulgoa between Longview Road and Kings Hill Road
  - a new roundabout on the Vineyard Road extension at Kings Hill Road, Mulgoa.

- a new shared path on the western side of The Northern Road and footpaths on the eastern side of The Northern Road where required

- the upgrading of drainage infrastructure

- operational ancillary facilities including:
  - heavy vehicle inspection bays for southbound traffic, adjacent to Longview Road, Mulgoa
  - an incident response facility on the south-western corner of the proposed four-way traffic light intersection at Elizabeth Drive, Luddenham to be implemented for the operation of the Western Sydney Airport and the proposed M12 Motorway

- roadside furniture and lighting as required

- the relocation of utilities and services
• changes to property access along The Northern Road (generally left in, left out only)
• establishment and use of temporary ancillary facilities and access tracks during Construction
• property adjustments as required
• clearance of unexploded ordnance (UXO) within the DEOH as required.
Figure 2-2: Overview of the Project (northern section)
Figure 2-3: Overview of the Project (southern section)
2.2 Project program

Construction of the Project will take approximately 4.5 years, with commencement in mid-2018 and a targeted completion of the end of 2022. Sections of the road are expected to open to traffic in mid-2020. Construction of the incident response facility will occur in the mid-2020s to coincide with the commencement of operations at the Western Sydney Airport and proposed M12 Motorway.

2.3 Staging

The Project will be delivered in three stages, with each stage delivered in a separate Construction package that will include all activities needed to complete the stage, including utilities adjustments, road construction, bridge construction, traffic management, lighting and finishing work. Stages are expected to occur concurrently. The indicative Construction staging timeframe for the Project is shown in Figure 2-4.

<table>
<thead>
<tr>
<th>Project Construction stage</th>
<th>Project Construction timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 4 Mersey Road to Eaton Road</td>
<td>2018</td>
</tr>
<tr>
<td>Stage 5 Littlefields Road, to Glenmore Parkway</td>
<td></td>
</tr>
<tr>
<td>Stage 6 Eaton Road to Littlefields Road</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 2-4:** Timeframe for Project Construction stages

An overview of the key features of each stage are described below. In accordance with the requirements of NSW-CoA A11, details of the Project staging, including Construction activities and submission of corresponding environmental plans, strategies and protocols, will be documented in the Project Staging Report. Further details of the programs for the Project stages will be provided in the Contractor’s CEMPs to be prepared under this OACEMP.

2.3.1 Stage 4 - Mersey Road, Bringelly, to Eaton Road, Luddenham

This stage involves the realignment of The Northern Road around the Western Sydney Airport site and includes:

- construction of approximately 5.7 km of The Northern Road including clearing and grubbing, earthworks, stormwater drainage, subsurface drainage and pavement
- construction of three-way traffic light intersection at Leppington Pastoral Company, Airport Access and tie-in at new and existing The Northern Road
- construction of approximately 300 m of The Northern Road (East) connecting to existing The Northern Road
- construction of three drainage culverts and two stock underpasses
- construction of and switching traffic onto interim southbound carriageway from Leppington Pastoral Company and Eaton Road
• construction of footpaths and shared pedestrian/cycle paths
• adjustment of utilities and construction of (Intelligent Transport Systems ) ITS
• landscaping
• property adjustment.

2.3.2 Stage 5 - Littlefields Road, Luddenham, to Glenmore Parkway, Glenmore Park

This stage primarily involves road widening, generally within and to the east of the existing road corridor and includes:
• upgrade and widening of approximately 6.7 km of existing The Northern Road from Littlefields Road, Luddenham to Glenmore Parkway, Glenmore Park
• wide central median to allow future widening south of Bradley Street
• new traffic light intersections at Littlefields Road, Kings Road, Chain-O-Ponds Road, Defence Facility Orchard Hills and Bradley Street
• left-in left-out intersections at Gates Road, Grover Crescent and Longview Road
• side street improvements and u-turn facilities at Vineyard Road extension and Gates Link Road, Littlefields Road extension and Chain-O-Ponds Road
• construction of footpaths and shared pedestrian/cycle paths
• adjustment of utilities and construction of ITS
• landscaping
• property adjustment.

2.3.3 Stage 6 - Littlefields Road, Luddenham to Eaton Road, Luddenham

Construction of this stage of the Project will involve:
• construction and upgrade of about 3.8 km of The Northern Road
• construction of a twin bridge over Adams Road
• new traffic light intersection with the realignment of Elizabeth Drive and The Northern Road
• u-turn facilities on the existing The Northern Road and Elizabeth Drive
• tie-in of the existing Elizabeth Drive to the realigned Elizabeth Drive
• construction of footpaths and shared pedestrian/cycle paths
• adjustment of utilities and construction of ITS
• landscaping
• property adjustment.

2.4 Construction activities

The Project will involve the following activities:
• early works and property adjustments
• construction of ancillary facilities
• earthworks
• traffic management and access
• road widening and new road work
• intersection works
• construction of bridges and viaducts
• construction drainage
• construction of pavements
• installation of noise mitigation measures
• relocation of utilities and services
• finishing work.

The indicative Construction activities, plant and equipment and approximate duration of activities are provided in Table 2-1. The activities are common to all stages unless noted otherwise in Table 2-1.
### Table 2-1: Construction activities and sequencing

<table>
<thead>
<tr>
<th>Construction activity</th>
<th>Proposed work</th>
<th>Plant and equipment</th>
<th>Approximate duration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Early works</strong></td>
<td>• Notification of residents of Construction work</td>
<td>• Trucks</td>
<td>6 months</td>
</tr>
<tr>
<td></td>
<td>• Leasing or acquisition of land</td>
<td>• Light vehicles</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Relocation of fencing on DEOH lands (Stage 5)</td>
<td>• Generators</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Clearance of unexploded ordinance within DEOH (Stage 5)</td>
<td>• Crane</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Installation of Construction signage and advisory signs</td>
<td>• Bobcat</td>
<td></td>
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<tr>
<td></td>
<td>• Installation of environmental controls</td>
<td>• Excavator</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Preparation of dilapidation and building condition surveys</td>
<td></td>
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<tr>
<td></td>
<td>• Adjustment, relocation and protection of public utilities and services</td>
<td></td>
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<tr>
<td></td>
<td>• Site establishment activities, such as:</td>
<td></td>
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<tr>
<td></td>
<td>• establishment of temporary ancillary facilities</td>
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<tr>
<td></td>
<td>• establishment of Construction site fencing, signage and lighting</td>
<td></td>
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<td></td>
<td>• establishment of Construction site access points, traffic management measures, alternative public access routes, diversions and minor road modifications if required</td>
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<tr>
<td></td>
<td>• demolition of redundant structures on acquired/leased land</td>
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<tr>
<td></td>
<td>• relocation and/or removal of farm infrastructure</td>
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<td></td>
<td>• Activities prior to vegetation clearing, including:</td>
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<td></td>
<td>• pre-clearing surveys</td>
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<tr>
<td></td>
<td>• marking out ‘no go’ zones</td>
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<td></td>
<td>• identifying fauna habitat trees and fauna release areas</td>
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<tr>
<td></td>
<td>• Establishment of temporary drainage</td>
<td></td>
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<tr>
<td></td>
<td>• Aboriginal heritage salvage</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• Non-Aboriginal heritage salvage (Stages 4 and 5)</td>
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<tr>
<td></td>
<td>• Contamination investigations</td>
<td></td>
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<tr>
<td></td>
<td>• Construction of temporary sediment basins</td>
<td></td>
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</tr>
<tr>
<td><strong>Earthworks</strong></td>
<td>• Stripping, stockpiling and management of topsoil and unsuitable material</td>
<td>• Light vehicles</td>
<td>18 months</td>
</tr>
<tr>
<td></td>
<td>• Vegetation clearing</td>
<td>• Excavator</td>
<td></td>
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<tr>
<td></td>
<td>• Installation of further environmental controls</td>
<td>• Dump trucks</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Excavation and fill to road formation levels, including excavations for embankments and cuttings and boxing out the new pavement</td>
<td>• Compactors</td>
<td></td>
</tr>
<tr>
<td>Construction activity</td>
<td>Proposed work</td>
<td>Plant and equipment</td>
<td>Approximate duration</td>
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</tr>
<tr>
<td></td>
<td>• Importation of fill material</td>
<td>• Bulldozers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Disposal of unsuitable and/or surplus excavated material to other project sites or a licensed facility</td>
<td>• Graders</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Construction of retaining walls</td>
<td>• Water carts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Preparation of site for the new bridge over Adams Road (Stage 6)</td>
<td>• Bobcat</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Installation of road drainage infrastructure</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• Construction of temporary haul roads</td>
<td>• Excavators</td>
<td>4 months</td>
</tr>
<tr>
<td>Road work (widening and new roads) and intersections</td>
<td>• Minor demolition of kerbs, other road elements and other structures</td>
<td>• Bulldozers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Removal and stockpiling of topsoil</td>
<td>• Water carts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Excavation of any excess or geotechnically unsuitable subsoils</td>
<td>• Graders</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Cut to fill operations including the removal of spoil</td>
<td>• Dump trucks</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Importation, placement and compaction of fill material</td>
<td>• Vibrating rollers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Placing, compacting and finishing of road surface sub-base and base layers</td>
<td>• Spray sealing equipment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Placing, compacting and finishing of asphalt road surface base layers</td>
<td>• Asphalt paving machines</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Installation of new drainage infrastructure and any other services</td>
<td>• Compactors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Modification of existing stormwater systems including water management ponds and culverts</td>
<td>• Cranes</td>
<td></td>
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<tr>
<td></td>
<td>• Installation of traffic lights</td>
<td>• Slip-forming machines</td>
<td></td>
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<tr>
<td></td>
<td>• Installation of kerbing and barriers</td>
<td>• Concrete pumps</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Finishing work, such as line marking; kerb and gutter construction; installation of safety barriers, street lighting and sign posting; and landscaping</td>
<td>• Concrete trucks</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Decommissioning and rehabilitation of temporary ancillary facilities and temporary works</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Piling</td>
<td>• Light vehicles</td>
<td>6 months</td>
</tr>
<tr>
<td>Construction of bridge over Adam Road (Stage 6)</td>
<td>• Construction of bridge abutments</td>
<td>• Excavators</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Installation of pre-cast concrete planks/girders and barriers</td>
<td>• Generators</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Excavation of existing embankment material to create a new bridge opening</td>
<td>• Rock breaker</td>
<td></td>
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<tr>
<td></td>
<td>• Installation of throw screens</td>
<td>• Concrete pumps</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Welding equipment</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Cranes</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Piling machines</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Concrete machines</td>
<td></td>
</tr>
<tr>
<td>Construction activity</td>
<td>Proposed work</td>
<td>Plant and equipment</td>
<td>Approximate duration</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------</td>
<td>----------------------</td>
</tr>
</tbody>
</table>
| Drainage work         | • Excavation, compaction and installation of drainage pipes and pits  
• Construction of table drains  
• Installation of culverts and other drainage structures  
• Construction of temporary diversion channels  
• Construction of temporary watercourse crossings such as causeways  
• Realignment of Surveyors Creek (Stage 5), including:  
  - removal of vegetation and topsoil  
  - construction of the new channel alignment, including establishing natural bed and bank profiles  
  - installation of scour protection measures  
  - establishment of vegetation  
  - diversion of the creek to the new channel  
• Dewatering of farm dams, if required  
• Removal of temporary drainage structures | • Light vehicles  
• Excavators  
• Generators  
• Jackhammers  
• Concrete pumps  
• Concrete trucks  
• Cranes  
• Compactors  
• Boring machines  
• Bobcats | 15 months |
| Pavements             | • Placing select material (usually crushed rock, natural gravels or suitable soils)  
• Placing, compacting and finishing concrete to form sub-base pavements  
• Placing, compacting and finishing the open grade or dense grade asphalt wearing course  
• Widening, changes in configuration, removal, milling and pavement build-up and resurfacing  
• Pavement marking | • Light vehicles  
• Excavators  
• Generators  
• Asphalt paving machines  
• Concrete trucks  
• Cranes  
• Concrete saws  
• Compactors  
• Slip-forming machines  
• Concrete pumps  
• Generators | 18 months |
| Utility relocation    | • Relocation of transmission lines, low voltage cables, gas mains, optic fibre and coaxial cables | • Light vehicles  
• Excavators | 15 months |
<table>
<thead>
<tr>
<th>Construction activity</th>
<th>Proposed work</th>
<th>Plant and equipment</th>
<th>Approximate duration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Construction of new driveway access points</td>
<td>• Generators</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Adjustments to street lighting</td>
<td>• Excavators</td>
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<td></td>
<td>• Line marking</td>
<td>• Boring machines</td>
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<tr>
<td></td>
<td>• Installation of directional signage and roadside furniture, such as street lighting</td>
<td>• Piling machines</td>
<td></td>
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<td></td>
<td>• Landscaping</td>
<td>• Generators</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Site demobilisation and rehabilitation of temporary Construction compound sites and other areas of Construction disturbance</td>
<td>• Dump trucks</td>
<td></td>
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<tr>
<td></td>
<td>• Light vehicles</td>
<td>• Concrete trucks</td>
<td>9 months</td>
</tr>
<tr>
<td></td>
<td>• Road marking machine</td>
<td>• Hydro-mulching equipment</td>
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<tr>
<td></td>
<td>• Welding equipment</td>
<td>• Cranes</td>
<td></td>
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<td></td>
<td>• Compactor</td>
<td>• Water cart</td>
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<td></td>
<td>• Bobcats</td>
<td>• Compactor</td>
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<tr>
<td></td>
<td></td>
<td>• Road marking machine</td>
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<td></td>
<td></td>
<td>• Welding equipment</td>
<td></td>
</tr>
</tbody>
</table>
2.5 Compounds and ancillary facilities

Ancillary facilities are defined in the Infrastructure Approval as a “a temporary facility for Construction of the Project including an office and amenities compound, Construction compound, material crushing and screening plant, materials storage compound, maintenance workshop and testing laboratory.” As the OACEPM contains a template stockpile management protocol and the Contractors will be required to prepare a stockpile management protocol in accordance with this template, any temporary material stockpile areas located within the Construction footprint are not considered to be an ancillary facility, in accordance with the Infrastructure Approval definition. Any stockpile area located outside the Construction footprint will be classified as an ancillary facility and will be required to comply with the requirements for ancillary facilities.

A range of Construction related facilities will be required to build the Project, including site compounds, site offices, ancillary facilities, stockpile areas (outside the Construction footprint) and laydown areas. The EIS identified and assessed ancillary facilities C1-C21, the locations of which are shown in Appendix A4. The location of the site compounds and ancillary facilities were nominated, assessed and detailed as part of the EIS and SPIR.

Ancillary facilities will comply with the requirements of NSW-CoAs A15 to A19.

Temporary primary and secondary site compounds will be established for the Project. Compounds will accommodate the majority of management, engineering, specialist and administrative personnel. Temporary compounds will typically include:

- office accommodation and meeting rooms
- staff amenities
- light vehicle parking facilities
- material storage
- stockpile areas.

Due to the large scale of the Project, a number of ancillary facilities will be required across the Project area. These will generally be located close to active work zones and will support site based Construction personnel. Ancillary facilities will typically comprise:

- hardstand parking areas with capacity for all Construction workers expected at any site
- materials laydown and storage areas, including purpose-built temporary structures as required
- perimeter fencing, including visual screening of Construction compounds where necessary
- a pug mill (for mixing and working clay) will be located at either compound site C5 or C8
- temporary acoustic barriers.

Any additional ancillary facilities identified for the Project that have not been assessed in the EIS or SPIR will be assessed in accordance with the criteria in NSW-CoA A15 and NSW-CoA A17, using the ancillary facilities assessment provided in Appendix A4. The assessment will be reviewed by Roads and Maritime and included within the Ancillary Facilities Management Plan (AFMP) (refer Section 3.3.7). Ancillary facilities which do not meet the
criteria under NSW-CoAs A15 and A17 require approval by the Secretary. The ER can assess minor ancillary facilities (refer Appendix A4 for further details).

Some sites will only be used to temporarily stockpile and store materials, such as excess spoil and concrete from demolition before their re-use on-site or disposal, and will therefore contain minimal facilities.

Temporary stockpile sites will be required during Construction to store materials for Construction or materials generated from within the Construction site. This may include temporary storage of excess spoil and inert wastes such as concrete, pavement and steel from demolition, before being either reused on-site or disposed off-site.

Temporary stockpile sites will include environmental protection measures such as sediment barriers and hoardings to minimise impacts on sensitive receivers from dust, and receiving waters from erosion and sedimentation. Stockpile sites will be established and managed in accordance with Roads and Maritime Stockpile Site Management Guideline (2011). The Construction Soil and Water Management Plan (Appendix B4) outlines the mitigation measures that will be implemented to minimise impacts from stockpiles on the environment.
3 Environmental Management System Overview

3.1 Environmental management system

The OACEMP has been prepared in accordance with the overarching environmental management principles outlined in Figure 3-1.

Figure 3-1: Overview of Project environmental management principles


The OACEMP prepared in accordance with these principles provides an overarching structure to the environmental management of the Project. The Contractors delivering the Project stages will have certified EMSs consistent with AS/NZS ISO 14001: Environmental Management Systems and Figure 3-1, and will prepare CEMPs in accordance with this OACEMP and their EMS.

3.2 Environmental policy

Road and Maritime’s environmental policy documents Road and Maritime’s commitment to continual improvement in environmental performance and compliance with applicable legal requirements. Road and Maritime’s environmental policy is provided in Appendix A3. The Contractors delivering the Project stages will provide an environmental policy consistent with Road and Maritime’s policy. The Contractor’s environmental policy will be displayed on the project website and at the Project site offices, and communicated to staff and other interested parties via inductions and ongoing awareness programs.
3.3 OACEMP

This OACEMP is the overarching management plan for a suite of environmental management documents for the Project as shown in Figure 3-2 below.

![Diagram of project environmental management document system overview]

Figure 3-2: Project environmental management document system overview
This OACEMP addresses the requirements of the EMS described in Figure 3-1 in the following sections:

- Environmental Policy Appendix A3
- Planning Sections 4.1 to 4.3
- Implementation and operation Sections 5.1 to 5.6 and Appendices
- Checking Section 6
- Management review Section 6

The supporting appendices prepared under the OACEMP comprise:

- Appendix A1 Legal requirements
- Appendix A2 Environmental aspects and impacts
- Appendix A3 Environmental policy
- Appendix A4 Ancillary facilities assessment criteria
- Appendix A5 Document register
- Appendix A6 Sensitive area plans
- Appendix A7 Environmental Incident Classification and Reporting Procedure
- Appendix A8 OACEMP consultation
- Appendix A9 Environmental work method statements

### 3.3.1 Environmental management sub-plans

Issue-specific environmental management sub-plans including, where required by the Infrastructure Approval, issue-specific construction monitoring programs support the OACEMP. These documents have been prepared to identify requirements and processes applicable to specific impacts or aspects of the activities described in Section 2. They address requirements of the conditions of approval, Environment Protection Licence (EPL) conditions, Roads and Maritime specifications and mitigation measures identified in the environment assessment documentation. The Project sub-plans and monitoring programs and their approval requirements are identified in Table 3-1.

<table>
<thead>
<tr>
<th>NSW-CoA</th>
<th>Appendix</th>
<th>Document name</th>
<th>Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>CoA C4(a)</td>
<td>Appendix B1</td>
<td>Construction Traffic Management Plan (CTMP)</td>
<td>Secretary of DP&amp;E approval</td>
</tr>
<tr>
<td>CoA C4(c)</td>
<td>Appendix B2</td>
<td>Construction Flora and Fauna Management Plan (CFFMP)</td>
<td>Secretary of DP&amp;E approval</td>
</tr>
<tr>
<td>CoA C4(b)</td>
<td>Appendix B3</td>
<td>Construction Noise and Vibration Management Plan (CNVMP)</td>
<td>Secretary of DP&amp;E approval</td>
</tr>
<tr>
<td>CoA C9(b)</td>
<td>Annexure B of Appendix B3</td>
<td>Construction Noise and Vibration Monitoring Program</td>
<td>Secretary of DP&amp;E approval</td>
</tr>
<tr>
<td>CoA C4(d)</td>
<td>Appendix B4</td>
<td>Construction Soil and Water Management Plan (CSWMP)</td>
<td>Secretary of DP&amp;E approval</td>
</tr>
<tr>
<td>CoA C9(c)</td>
<td>Annexure B of Appendix B4</td>
<td>Construction Water, Soil and Contamination Monitoring Program</td>
<td>Secretary of DP&amp;E approval</td>
</tr>
</tbody>
</table>
### Contractors’ Construction environmental management plans

The Construction Contractors will develop stage specific environmental management documentation to address the operational control requirements outlined in the OACEMP that apply to the stages they are delivering. Roads and Maritime will review the Contractor’s CEMPs for compliance with the approved OACEMP.

Specific operational controls relevant to each Contractor’s stage of work and required to manage environmental issues applicable to that stage are defined in either or all of the following:

- Contractor’s CEMP and sub-plans
- Erosion and Sediment Control Plans
- Contractor’s environmental management documentation
- Stage specific environmental work method statements (EWMS)
- Job Safety and Environment Analysis (JSEA), Inspection and Test Plans/check sheets (as appropriate)
- Contractor’s work instructions and stage specific procedures and protocols (e.g. refuelling and servicing)
- Contractors’ monthly progress reports against the requirements of their CEMP including conditions of approval, EPL, incidents, complaints, non-conformances and corrective actions
- a schedule of obligations and requirements against conditions of approval as outlined in the Project Compliance Tracking Program.

Although the Contractors will be responsible for preparing CEMPs for each stage of the Project, both the Contractor and Roads and Maritime will be responsible for the environmental performance of the Project and activities.
3.3.3 Other plans and strategies

In addition to the OACEMP and sub-plans, a number of other plans and strategies are required during Construction under the State and Federal approvals. A list of these documents is provided in Table 6-4. These plans are consistent with, and are cross referenced by and to, the OACEMP. The Staging Report required in accordance with NSW-CoA A11 documents the applicability of the reports and strategies in Table 6-4 to the stages of the Project described in Section 2.2 above.

3.3.4 Environmental work method statements

Environmental work method statements (EWMS) will be prepared to manage and control high risk activities that have the potential to negatively impact on the environment. EWMS will be prepared by the Contractor Environmental Site Representatives and reviewed by the Roads and Maritime Project Manager, Roads and Maritime Environmental Manager (or delegate) and ER prior to the commencement of the Construction activities to which they apply.  

Sydney Water will prepare a CEMP/ EWMS for the low impact cut in work described in the conditions of approval which will be approved by the ER and Secretary. Following approval of the OACEMP, Sydney Water's work will continue to be managed under the approved Sydney Water CEMP / EWMS.

EWMS incorporate appropriate mitigation measures and controls, including those identified in relevant sub-plans. They also identify key procedures to be used concurrently with the EWMS. EWMS are specifically designed to communicate requirements, actions, processes and controls to Construction personnel using plans, diagrams and simply written instructions. A template EWMS for use by the Contractors is provided in Appendix A9. Appendix A9 also contains a template EWMS register and template EWMS training register.

EWMS for activities identified as having high environmental risk will undergo consultation with stakeholders and authorities prior to approval. A list of upcoming/future EWMS will be provided to Environmental Review Group (ERG) participants during regular meetings for consultation.

As a minimum, EWMS will be prepared for the activities identified in Table 3-2.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Stage 4</th>
<th>Stage 5</th>
<th>Stage 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activities with high environmental risk</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Activities that impact on or are in proximity to environmentally sensitive areas such as ecological communities and threatened species</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Activities that impact on or are in proximity to waterways including:</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>• Surveyors Creek</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>• Badgerys Creek</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Cosgroves Creek</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Activity</td>
<td>Stage 4</td>
<td>Stage 5</td>
<td>Stage 6</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Activities that impact on or are in proximity to heritage sites including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Miss Lawson’s Guesthouse</td>
<td>✔️</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Lawson’s Inn</td>
<td>✔️</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• DEOH and the Mulgoa Irrigation Canal</td>
<td></td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Pre-Construction activities including (as relevant):</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>• delineation of sensitive areas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• installation of erosion and sedimentation controls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• heritage excavation and salvage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• treatment of contaminated sites</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Topsoil stripping and earthworks including temporary stockpiling and disposal of excavated material and protocols for the management of materials containing asbestos</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Utilities relocation</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Compound and ancillary facility establishment and use</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Piling</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Contaminated land</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Activities that involve work in waterways or that pose a risk to receiving water quality including:</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>• Construction and operation of sediment basins and/or buffer swales and connecting drainage for the associated catchment area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Construction of culverts, including associated staging, flow diversions, any dewatering, short and long term stabilisation and removal of existing structures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• vegetation clearing and grubbing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• dewatering activities including activities where Construction water may be discharged into natural waterways</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Construction and operation of concrete wash out areas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• managing runoff from curing processes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Activity

<table>
<thead>
<tr>
<th>Activity</th>
<th>Stage 4</th>
<th>Stage 5</th>
<th>Stage 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activities that generate high levels of noise and/or vibration (where there are nearby receptors)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>All works associated with rehabilitation of farm dams including but not limited to dewatering and filling</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

The EWMS will include at least the following elements:

- description of the work activity, including any plant and equipment to be used
- outline of the sequence of tasks for the activity, including interfaces with other Construction activities
- identification of any environmental and/or socially sensitive areas, sites or places
- identification of potential environmental risks/impacts due to the work activity
- mitigation measures to reduce the identified environmental risk, including assigned responsibilities to site management personnel
- process for assessing the performance of the implemented mitigation measures.

All Construction personnel and sub-contractors undertaking a task governed by an EWMS must participate in training on the EWMS as detailed in Section 5.3, and acknowledge that they have read and understood their obligations by signing an attendance record prior to commencing work.

As outlined in Section 6 of this OACEMP, regular monitoring, inspections and auditing of compliance with the EWMS will be undertaken by Project management, quality and environmental personnel to ensure that all controls are being followed and that any non-conformances are recorded and corrective actions implemented. Where appropriate, improvements will be incorporated following reviews as described in Sections 1.6 and 6.8.

A register of EWMS will be maintained in Appendix A9 of the Contractors’ CEMPs.

### 3.3.5 Erosion and Sediment Control Plans

Erosion and Sediment Control Plans (ESCPs) are planning documents for managing on-site and off-site water and show the site layout and the location of erosion and sediment control solutions on-site. They cover all Construction stages from initial vegetation clearing through to rehabilitation when erosion and sediment control are no longer required and are removed. ESCPs will be developed by a certified practising erosion and sediment control professional (CPESC) and implemented by the Contractors across the Project where there is a risk of erosion and sediment loss.

ESCPs may be produced in conjunction with EWMS to provide more detailed site-specific environmental mitigation measures.

ESCPs will be developed by the Contractor’s environment staff in consultation with the superintendent, site engineers, foreman, other relevant site personnel and the Project Soil Conservationist, as required. They will be modified to reflect site condition at the time of Construction. The Contractor Environmental Site Representative will approve ESCPs. Minor changes thereafter will be approved by environment staff in consultation with the Contractor Environmental Site Representative as required.
ESCPs will be developed for all work areas prior to commencing activities.

### 3.3.6 Sensitive area plans

The Project traverses environmentally and socially sensitive areas and sites. To assist pre-Construction planning and on-site Construction management, these site constraints will be consolidated by the Contractors on a series of map-based sheets that extend the length of the Project. Sensitive area plans (SAPs) include information pertaining, but not limited to:

- Threatened Species Conservation Act 1995 (TSC Act) (now Biodiversity Conservation Act 2016 (BC Act)) and EPBC Act Cumberland Plain Woodland areas as outlined in the EIS and SPIR
- BC Act River-Flat Eucalypt Forest on Coastal Floodplains
- Threatened Flora species including *Pultenaea parviflora* and *Marsdenia viridiflora subsp viridiflora*
- actual and potential habitat for Cumberland Plain Land Snail
- areas of vegetation to be retained
- state forest / national parks / nature reserves / flora reserves
- Lawson’s Inn and Miss Lawson’s Guest House archaeological sites
- DEOH Mulgoa Irrigation Canal
- Aboriginal heritage sites including assessment boundaries, items, places, objects and sites
- local waterways including Badgery’s Creek, Cosgroves Creek and Surveyors Creek
- Warragamba Pipelines
- noise sensitive receivers eg. residential dwellings, educational institutions
- potential or actual acid sulphate soil areas
- contaminated sites
- monitoring locations for groundwater, surface water and dust.

Overarching sensitive area plans for the Project are presented in Appendix A6. Stage specific sensitive area plans will be prepared by the Contractors as part of the Contractors’ CEMPs and will provide further detail for the sensitive areas for the applicable stage. The Contractors’ sensitive area plans will be a working element of the Contractors’ CEMPs and will be revised throughout Construction to reflect true ground conditions and the most up-to-date information available on sensitive sites. Sensitive area plans will be used in conjunction with EWMS to help identify key risk areas and to promote ongoing communication with Construction personnel.

The Contractors’ sensitive area plans will be reviewed by the Roads and Maritime Environment Manager or delegate prior to commencement of construction.

### 3.3.7 Ancillary Facilities Management Plan

Before establishment of any ancillary facility (other than minor ancillary facilities), the Contractors will prepare an Ancillary Facilities Management Plan (AFMP) which details the management of the ancillary facilities. The AFMPs will be prepared in consultation with the EPA and the relevant council(s) and submitted to the Secretary for approval one month prior to installation of ancillary facilities. The AFMPs will detail the management of the ancillary facilities and include:
• a description of activities to be undertaken during Construction (including scheduling of Construction)
• a program for ongoing analysis of the key environmental risks arising from these activities including an initial risk assessment undertaken prior to the commencement of Construction
• details of how the activities will be carried out to:
  – meet the performance outcomes stated in the EIS and SPIR
  – manage the risks identified in the risk analysis.

Information on ancillary facilities assessment is provided in Appendix A4.

3.3.8 Environmental system procedures, forms and other documents

The Project environmental management system procedures, forms and other documents provide instructions and records related to both environmental and non-environmental activities throughout the Project.

Project specific procedures will be developed by the Contractors in response to the requirements of the Project. Where applicable, existing Contractor procedures and work instructions will be applied or amended for use on the Project. Roads and Maritime will review the Contractors’ documentation to confirm consistency with the requirements of this OACEMP and specifications.

The Contractor will maintain a register of relevant environmental procedures and forms in Appendix A5 of the Contractors’ CEMP's.
4 Planning

4.1 Project environmental obligations

The following environmental obligations have been adopted for the Project:

- minimise pollution of land, air and water
- use pollution control equipment and keep it in proper working order
- preserve the natural and cultural heritage environment
- give notice to Roads and Maritime and relevant authorities of a non-Aboriginal or Aboriginal heritage discovery
- minimise the occurrence of offensive noise. Where a noise management level has been exceeded, undertake review and investigate what reasonable and feasible actions can be implemented
- be a good neighbour to surrounding land users
- keep the community informed of Project milestones, upcoming activities and duration of relevant aspects of the works
- use equipment with noise control features where available and ensure that it is properly maintained
- take all steps necessary to ensure compliance with the requirements of this OACEMP and the Contractors stage specific CEMPs.

4.2 Regulatory requirements

4.2.1 Legislation

A register of legal requirements for the Project is contained in Appendix A1. This register will be maintained by the Contractor. The Contractor will review the register at regular intervals, such as during management reviews (refer Section 6), and update with any applicable changes. Any changes made to the legal requirements register will be communicated to the wider project team, including sub-contractors where necessary, through toolbox talks, specific training and other methods detailed in Section 5.3.2 of this OACEMP.

4.2.2 Approvals, permits and licences

A number of approvals, permits and licenses have and/or will be obtained for the Project. The following approvals and licences have been or will be obtained by Roads and Maritime:

- Infrastructure Approval under Part 5.1 of the EP&A Act – SSI 7127 granted by the Minister for Planning on 30 May 2018
- A Commonwealth controlled action approval from the Department of the Environment and Energy under Part 8 of the EPBC Act - EPBC 2016/7696
- EPLs for the Project under Schedule 1 of the Protection of the Environment Operations Act 1997 (POEO Act) for ‘road construction’ and for ‘extractive activity’ where the stage meets the criteria.

The EPLs will be held by Roads and Maritime and/or the Contractors throughout the life of the Project.

The Contractors will obtain the following licences and approvals:
• Road Occupancy Licence (ROL) under Section 138 of the Roads Act 1993
• An aquifer interference approval under the Water Management Act 2000 if Construction requires intersection of a groundwater source.

Environmental approvals, permits and licences applicable under the legislation are also noted within the register in Appendix A1.

All necessary licences, permits and approvals required for the development of the Project will be obtained and maintained as required throughout the life of the Project. No condition of the Infrastructure Approval removes the obligation for Roads and Maritime or the Contractors to obtain, renew or comply with such necessary licences, permits or approvals except as provided under Section 115ZG of the EP&A Act.

4.3 Environmental aspects and impacts

Appendix A2 contains a list of overall Project environmental aspects and impacts. The Contractor responsible for each stage of the Project will further update and develop the aspects and impacts listed in Appendix A2 based on the outcomes of the risk assessment workshop (Section 4.3.1) and as appropriate for the applicable stage of Construction.

Where relevant, the requirements from the Roads and Maritime Environmental Specifications, CoA and Revised Environmental Management Measures (REMMS) will be incorporated into the environmental risk assessment, particularly in developing the agreed activity specific site controls.

4.3.1 Environmental risk assessment workshop

Environmental risk assessment workshops will be held for each stage of the Project by the Contractors responsible for that stage of the Project.

Participants will be agreed with Roads and Maritime Representative and include the Contractor’s site management and environmental personnel, representatives from all relevant regulatory agencies, the ER and any other personnel including subcontractors who will be performing work on the Project.

The risk workshop will identify high risk activities. Each activity will be assessed to identify the relevant steps in the activity and the associated environmental hazards, initial risk levels, mitigation measures and to avoid, manage and/or minimise the risks and residual risks. Each of these items will be documented in an environmental risk register (Appendix A2). Where residual risk is assessed as high, or if required under the Contract Specification, the Contractor will develop an EWMS for that activity.

The workshop will also be used to the workshop to raise general awareness of good environmental management practices among the Contractor’s staff and subcontractors working on the Project and to develop ideas and actions to improve environmental practices.

Following the workshops the OACEMP will be updated by the Roads and Maritime Environment Manager (or delegate) with the Contractors stage specific risk assessments and provided to DP&E.
4.3.2 Ongoing risk analysis

The Contractor Environmental Representatives are responsible for ensuring Project environmental risks are identified and included in the risk register and appropriate mitigation measures implemented throughout the Construction of the Project (Section 5.1.10).

Review and, if necessary, update of the Project risk register will be an ongoing process which will occur, as a minimum:

- when a risk has been identified
- where there is a change in work systems, materials, equipment, practices or procedures on site
- in response to incidents
- where new information about an environmental risk becomes available or where personnel raise concerns about an environmental risk
- at regularly scheduled times, including during reviews of the Project risk register at the Contractor Project meetings and the quarterly management review meetings (Table 6-5).

The requirement for the regular review and update of the aspects and impacts register as part of continuous improvement is included in Table 4-1.

Where new risks are identified, these will be included in the risk register, assessed and control measures put in place to eliminate or minimise the level of risk. Monitoring and review of the effectiveness of control measures will be carried out during weekly environmental inspections and may include consultation with site personnel involved in managing the identified risks.

4.4 Environmental objectives and targets

The Project is a critical component of the WSIP. WSIP is a major Australian and NSW government road investment program to improve and upgrade road infrastructure in western Sydney. The program will deliver new and upgraded roads to support an integrated transport solution for the western Sydney region and capitalise on the economic benefits from developing the Western Sydney Airport at Badgerys Creek.

The strategic aims of WSIP are:

- development and demand – support the Western Sydney Airport, land use change and residential growth; balancing functional, social, environmental and value for money considerations
- connectivity to airport – provide a resilient connection to the Western Sydney Airport site for freight and people
- integrated network – provide road improvements to support and integrate with the broader transport network
- customer focus – provide meaningful engagement with customers and stakeholders throughout the program life.

As a critical component of the broader WSIP program, the Project will provide upgraded infrastructure to improve road safety and travel reliability, increase road capacity and reduce travel times and congestion in western Sydney in the future. The upgrade of The Northern...
Road will reduce travel times along the Project corridor, resulting in productivity and economic benefits for NSW businesses.

Specific Project objectives are to:

- realign The Northern Road around the Western Sydney Airport site to allow construction and facilitation of the Western Sydney Airport at Badgerys Creek
- cater for future traffic demand to improve the flow of traffic to provide reliable journeys
- improve transport connections to the Western Sydney Airport site and surrounding developments including the South West Priority Growth Area and Western Sydney Priority Growth Area
- improve facilities for public and active transport to promote sustainable and efficient journeys.

Environmental objectives and targets have been established as a means of assessing environmental performance during Construction of the Project. These objectives and targets have been developed with consideration of the key issues identified through the environmental assessment and risk assessment process. The objectives and targets are consistent with Roads and Maritime’s and the Contractors’ Environmental Policies and will assist in monitoring whether the policy commitments are being met. The performance of the Project will be monitored against the objectives and targets and documented in the Contractors’ monthly reports (Section 6.5), the six monthly Construction compliance reports (Section 6.3) and on a quarterly basis as part of the management review (Section 6.8).

Environmental objectives and targets for the Project have been incorporated into issue-specific sub-plans. A summary of objectives and targets is provided in Table 4-1.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Target</th>
<th>Measurement tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct the Project in accordance with environmental approvals</td>
<td>• Full compliance with statutory approvals</td>
<td>Audits, reporting, management reviews</td>
</tr>
<tr>
<td>Compliance with all legal requirements</td>
<td>• No regulatory infringements (PINs or prosecutions)</td>
<td>Audits, reporting, management reviews</td>
</tr>
<tr>
<td></td>
<td>• No formal regulatory warning</td>
<td></td>
</tr>
<tr>
<td>Implement a rigorous and comprehensive EMS that meets the requirements of AS/NZS ISO 14001</td>
<td>• Address non-conformances and corrective actions within specific timeframes</td>
<td>Audits, management reviews</td>
</tr>
<tr>
<td>Engage with the affected and broader community, minimise complaints and respond to any complaints within a suitable timeframe</td>
<td>• Disseminate regular Project updates and other information through the Project website and other tools identified in the Community Communication Strategy</td>
<td>Review complaints register, reporting, audits</td>
</tr>
<tr>
<td></td>
<td>• Record and respond to complaints within the timeframe specified in the Community Communication Strategy</td>
<td></td>
</tr>
<tr>
<td>Objective</td>
<td>Target</td>
<td>Measurement tool</td>
</tr>
<tr>
<td>-----------</td>
<td>--------</td>
<td>------------------</td>
</tr>
</tbody>
</table>
| Continuously improve environmental performance | • Develop and maintain a program of ongoing environmental training  
• Capture and disseminate lessons learnt from environmental incidents to minimise repeat issues  
• Encourage and reward innovation and effort throughout the workforce  
• Regular review and update of the aspects and impacts register, legal register and environmental induction | Audits, reporting, management reviews  
Revisions of management plans in response to incidents or NCRs  
Risk register |
| Implement sustainability initiatives on the Project | • Adopt sustainability leadership and continual improvement  
• Integrate governance, environmental, social and economic considerations into decision-making processes within the Project  
• Enhance positive environmental, social and economic outcomes wherever possible, while minimising adverse impacts, resource use and embodied impacts | Measure, monitor and report on the implementation of the sustainability initiatives identified in the Construction Sustainability Management Plan (Appendix B10) |
5 Implementation and operation

5.1 Resources, roles, responsibilities and authority

The key environmental management roles and responsibilities for the Construction of the Project are described below. The general structure of these roles is shown in Figure 5-1. Stage specific resources, roles and responsibilities will be further described in the Contractors’ CEMPS as well as the names of the Contractors’ key personnel. The Contractors will provide sufficient resources to implement the requirements of this OACEMP and their CEMPs.

5.1.1 Independent Environmental Representative (ER)

The environmental responsibilities of the ER are detailed in NSW-CoA A24 and include, for Stages 4, 5 and 6 of the Project:

- receive and respond to communication from the Secretary in relation to the environmental performance of the Project
- consider and inform the Secretary on matters specified in the terms of the Infrastructure Approval
- consider and recommend to Roads and Maritime and the Contractor any improvements that may be made to work practices to avoid or minimise adverse impact to the environment and to the community
- review documents identified in NSW-CoAs C1, C4 and C9 and any other documents that are identified by the Secretary, to ensure they are consistent with requirements in or under the Infrastructure Approval and if so:
  - make a written statement to this effect before submission of such documents to the Secretary (if those documents are required to be approved by the Secretary) or
  - make a written statement to this effect before the implementation of such documents (if those documents are required to be submitted to the Secretary / Department for information or are not required to be submitted to the Secretary/Department)
- regularly monitor the implementation of the documents listed in NSW-CoAs C1, C4 and C9 to ensure implementation is being carried out in accordance with the document and the terms of the Infrastructure Approval
- as may be requested by the Secretary, help plan, attend or undertake audits of the development commissioned by the Department including scoping audits, programming audits, briefings and site visits, but not independent environmental audits required under NSW-CoA A35
- as may be requested by the Secretary, assist the Department in the resolution of community complaints
- assess the impacts of minor ancillary facilities comprising lunch sheds, office sheds and portable toilet facilities as required by NSW-CoA A17 and
Figure 5-1: Project organisation structure
• prepare and submit to the Secretary and other relevant regulatory agencies, for information, an Environmental Representative Monthly Report providing the information set out in the Environmental Representative Protocol (DP&E, 2017) under the heading "Environmental Representative Monthly Reports." The Environmental Representative Monthly Report must be submitted within seven calendar days following the end of each month for the duration of the ER's engagement for the Project, or as otherwise agreed with the Secretary in accordance with NSW-CoA A26, facilitate and assist the Secretary in any audit of the ER’s exercise of its functions under NSW-CoA A24.

5.1.2 Environmental Review Group (ERG)

The ERG comprises the ER and representatives of Roads and Maritime, the Project delivery team, regulatory authorities (EPA, NRAR, OEH) and local councils (Penrith City Council, Liverpool City Council).

The purpose of the ERG is to ensure prompt and effective consultation and resolution of environmental issues raised by or affecting Government agencies, Council, Roads and Maritime, the community and the Contractors. The role of the ERG is to work collaboratively with the Project teams for each Project stage to provide proactive advice on environmental management issues on the Project and review the environmental performance of the Project.

The ERG will be maintained for the duration of the Project and will meet monthly (or as otherwise agreed by the regulatory agencies and Roads and Maritime) and undertake environmental inspections.

The Contractors’ relevant personnel including the Project Manager and Environmental Site Representative will attend the ERG meetings.

Roads and Maritime roles

5.1.3 Roads and Maritime Project Director

The environmental responsibilities of the Roads and Maritime Project Director for all stages of the Project include (but are not limited to):

• evaluate and advise on high risk compliance issues relating to the Contractor and Roads and Maritime environmental requirements

• provide Construction Contractor management with environmental advice and/or directions, in consultation with Roads and Maritime environmental staff.

5.1.4 Roads and Maritime Senior Project Manager

The environmental responsibilities of the Roads and Maritime Senior Project Manager for all stages of the Project include (but are not limited to):

• evaluate and advise on high risk compliance issues relating to the Contractor and Roads and Maritime environmental requirements

• review and endorse documentation to be submitted to the Secretary of DP&E and the Federal Minister of DoEE for approval

• have oversight of the review and approve any environmental management plans for the Project or related activities that are not required to be approved by the Secretary of DP&E in consultation with Roads and Maritime environmental staff and the ER.
• provide Construction Contractor management with environmental advice and/or directions, in consultation with Roads and Maritime environmental staff.

5.1.5 Roads and Maritime Project Managers

The environmental responsibilities of the Roads and Maritime Project Managers for Stages 4, 5 and 6 of the Project include (but are not limited to):

• evaluate and advise on compliance with Roads and Maritime environmental requirements
• review and approve any environmental management plans for the Project or related activities that are not required to be approved by the Secretary of DP&E
• provide Construction Contractor staff with environmental advice and/or directions, in consultation with Roads and Maritime environmental staff.

5.1.6 Roads and Maritime Environmental Manager (or delegate)

The environmental responsibilities of the Roads and Maritime Environmental Manager (or delegate) across Stages 4, 5 and 6 of the Project include (but are not limited to):

• review any environmental management plans and related documents prepared for the Project
• review and consider minor project refinements that are consistent with the Project environmental assessment in accordance with the Roads and Maritime Part 5.1 environmental assessment procedure
• monitor the environmental performance of the Project in relation to Roads and Maritime requirements
• provide guidance and where appropriate, monitor compliance with DP&E post approval document submission requirements.

Contractor roles

The Contractor roles below will be present for each stage of the Project.

5.1.7 Contractor Project Manager

The environmental responsibilities of the Contractor Project Manager include (but are not limited to) for the applicable Project stage:

• ensure all works comply with relevant regulatory and Project requirements, including compliance with the approvals, EPL, REMMs, Roads and Maritime specifications
• ensure the requirements of this OACEMP and the Contractor’s CEMP are fully implemented, and in particular, that environmental requirements are not secondary to other Construction requirements
• endorse and support the Roads and Maritime and Contractor’s environmental policy attached at Appendix A3 of the OACEMP and Contractor’s CEMP respectively
• liaise with Roads and Maritime, ER and other government authorities as required
• participate and provide guidance in the regular review of the OACEMP and the Contractor's CEMP and supporting documentation
• provide adequate resources (personnel, financial and technological) to ensure effective development, implementation and maintenance of this OACEMP and the Contractor’s CEMP
• ensure that all personnel receive appropriate induction training, including details of the environmental and community requirements
• ensure that complaints are investigated to ensure effective resolution
• stop work immediately if an unacceptable impact on the environment is likely to occur.

5.1.8 Contractor Construction Manager
The environmental responsibilities of the Contractor Construction Manager include (but are not limited to) for the applicable Project stage:
• plan Construction works in a manner that avoids or minimises impact to environment
• ensure the requirements of this OACEMP and the Contractor’s CEMP are fully implemented
• ensure Construction personnel manage Construction works in accordance with statutory and approval requirements
• support the Contractor’s Environmental Site Representatives in achieving the Project environmental objectives
• ensure environmental management procedures and protection measures are implemented
• ensure all Project personnel attend an induction prior to commencing works
• liaise with Roads and Maritime, the ER and government authorities as required
• stop work immediately if an unacceptable impact on the environment is likely to occur.

5.1.9 Contractor Superintendent
The environmental responsibilities of the Contractor Superintendent include (but are not limited to) for the applicable Project stage:
• communicate with all personnel and sub-contractors regarding compliance with the OACEMP, the Contractor’s CEMP and site-specific environmental issues
• ensure all site workers attend an environmental induction prior to the commencement of works
• co-ordinate the implementation of the OACEMP and the Contractor’s CEMP
• develop EWMS in consultation with Contractor Environmental Site Representatives
• co-ordinate the implementation and maintenance of pollution control measures
• identify resources required for implementation of the OACEMP and the Contractor’s CEMP
• support the Contractor Environmental Site Representatives in achieving the project environmental objectives, including on ground implementation of the EWMS and PESCP
• report any activity that has resulted, or has the potential to result, in an environmental incident immediately to the Contractor Environmental Site Representatives
• co-ordinate action in emergency situations and allocate required resources
• stop activities where there is an actual or immediate risk of harm to the environment and advise the Contractor Construction Manager and Contractor Environmental Site Representatives.
5.1.10 Contractor Environmental Site Representatives

The environmental responsibilities of the Contractor Environmental Site Representatives include (but are not limited to) for the applicable Project stage:

- overall responsibility for the implementation of environmental matters on the Project
- implementation of the OACEMP
- the development, implementation, monitoring and updating of the Contractor’s CEMP and sub-plans in accordance with ISO14001
- report to the Contractor Project Manager on the performance and implementation of the OACEMP and the Contractor’s CEMP
- ensure management reviews of the Contractor’s CEMP are undertaken annually, documented and actions implemented
- ensure environmental risks of the Project are identified ongoing and appropriate mitigation measures implemented
- identify where environmental measures are not meeting the targets set and where improvement can be achieved
- ensure environmental protocols are in place and managed
- ensure environmental compliance
- obtain and update all environmental licences, approvals and permits as required
- liaise with the ER, the Roads and Maritime Environmental Manager (or delegate) and approval authorities
- manage environmental document control, reporting, inductions and training
- manage environmental reporting within the Contractor’s Project team and to the Roads and Maritime and regulatory authorities
- prepare reports on a monthly basis outlining the Project works undertaken and the achievements that have been met, as well as identifying those areas where improvements were made
- oversee site monitoring activities, site inspections, audits and site checklists
- ensure monitoring records are appropriately maintained, reviewed and any non-compliance issues addressed
- record and provide written reports to the Contractor Construction Manager of non-conformances or corrective actions with the OACEMP and the Contractor’s CEMP. This may include the need to implement additional, or revise existing, mitigation measures
- provide reports to the Contractor Project Manager on any major issues resulting from the Project
- assist all site staff with issues concerning Project environmental matters
- manage all sub-contractors and consultants with regard to environmental matters, including assessing their environmental capabilities and overseeing the submission of their environmental documents
- develop and facilitate induction, toolbox talks, environment awareness notes and other training programs regarding environmental requirements for all site personnel
- notify Roads and Maritime and relevant authorities in the event of an environmental incident and manage close-out of these
• assist in identifying environmental risks and advise the Contractor Construction Manager of any requirements to avoid or minimise impacts
• stop activities where there is an actual or immediate risk of harm to the environment, or to prevent environmental non-conformities, and advise the Contractor Project Manager, Contractor Construction Manager and Contractor Superintendent
• assist the Contractor Community Relations Manager to resolve environment-related complaints
• develop, review and approve PESCPs in consultation with the Contractor’s Superintendent, Site engineers, Foreman and other relevant site personnel, as required
• manage the day-to-day environmental elements of Construction.

5.1.11 Contractor Communications Relations Manager
The environmental responsibilities of the Contractor Communications Relation Manager (CRM) include (but are not limited to) for the applicable Project stage:
• ensure that all community consultation activities are carried out in accordance with the overarching and stage specific Community Communication Strategy (CCS)
• report any environmental issues to the Contractor Environmental Site Representatives raised by stakeholders or members of the community
• communicate general Project progress, performance and issues to stakeholders including the community
• maintain the 24 hour complaints hotline
• maintain the complaints register in accordance with the Complaints Management System.

Further details of the CRM’s responsibilities are provided in the CCS.

5.1.12 Contractor Project/Site Engineers
The environmental responsibilities of the Contractor Project/Site Engineers include (but are not limited to) for the applicable Project stage:
• provide input into the preparation of environmental planning documents as required
• ensure that instructions are issued and adequate information provided to employees that relate to environmental risks on-site
• ensure that the works are carried out in accordance with the requirements of the OACEMP and the Contractor’s CEMP and supporting documentation, including the implementation of all environmental controls
• identify any environmental risks
• identify resource needs for implementation of OACEMP and the Contractor’s CEMP requirements and related documents.
• ensure that complaints are investigated to ensure effective resolution
• take action in the event of an emergency and allocate the required resources to minimise the environmental impact
• report any activity that has resulted, or has the potential to result, in an environmental incident immediately to the Contractor Superintendent and Contractor Environmental Site Representatives.
5.1.13 Contractor Foreman

The environmental responsibilities of the Contractor Foreman include (but are not limited to) for the applicable Project stage:

- undertake any environmental duties as defined by the Contractor Superintendent or Contractor Project/Site Engineers
- control field works and implement/maintain effective environmental controls
- where required, undertake environmental risk assessment of works prior to commencement
- ensure site activities comply with EWMS and relevant records are kept
- ensure all site workers are site inducted prior to commencement of works
- attend to any spills or environmental incidents that may occur on-site
- report any activity that has resulted, or has the potential to result, in an environmental incident immediately to the Contractor Superintendent
- stop activities where there is an actual or immediate risk of harm to the environment and advise the Contractor Project Manager, Contractor Construction Manager, Contractor Superintendent or Contractor Environmental Site Representatives.

5.1.14 Contractor Project Team (including sub-contractors)

The environmental responsibilities of the wider Project Team (including sub–contractors) include (but are not limited to) for the applicable Project stage:

- comply with the relevant requirements of the OACEMP and the Contractor’s CEMP, or other environmental management guidance as instructed by a member of the Project’s management
- participate in the mandatory Project/site induction program
- report any environmental incidents to the Contractor Foreman immediately or as soon as practicable if reasonable steps can be adopted to control the incident
- undertake remedial action as required to ensure environmental controls are maintained in good working order
- stop activities where there is an actual or immediate risk of harm to the environment and advise the Contractor Project Manager, Contractor Construction Manager, Contractor Superintendent or Contractor Environmental Site Representatives.

5.2 Sub-contractor management

The Contractor will be responsible for environmental performance of the sub-contractor. The Contractor will specify environmental requirements and responsibilities to sub-contractors in the contract documentation. The Contractor Environmental Site Representatives, or delegate, will participate in the tender assessment and selection process where it is deemed necessary due to associated environmental risks. All sub-contractors are required to complete a sub-contractor questionnaire or similar. As part of the sub-contractor selection process, consideration will be given to past environmental performance.

The Contractors’ CEMPs will include procedures for ensuring subcontractor compliance including details of:

- the duties of each sub-contractor for planning, implementing and monitoring environmental protection measures and for keeping environmental records
• the duties the Contractor will retain for environmental protection of sub-contracted work
• how environmental protection measures on sub-contracted work interact with adjacent work areas as applicable
• the Contractor’s surveillance program to monitor the effectiveness of each sub-contractor’s environmental protection measures together with the relevant Project documentation.

The Contractor and sub-contractor will determine how environmental management controls will interact.

All sub-contractors are required to work in accordance with the approved OACEM and the Contractor’s CEMP. The Contractor will monitor sub-contractors to ensure compliance with the OCEMP, Contractor’s CEMP and sub-plans is achieved.

All sub-contractors are required to attend Project and/or site inductions where the requirements and obligations of the OACEMP and the Contractor’s CEMP are communicated. A record of all sub-contractors inducted will be maintained as part of the Project induction and training register.

The Contractor will regularly review and keep a record of:
• the sub-contractor’s general work practices
• the effectiveness of the sub-contractor’s environmental protection measures
• the sub-contractor’s compliance with the requirements of this OACEMP and the Contractor’s CEMP
• the maintenance of environmental measures.

All environmental documentation submitted by sub-contractors will be subject to review and approval by the Contractor to ensure compliance with Roads and Maritime contract requirements and the CoA, EPL, REMMs and Roads and Maritime specifications before works may begin.

5.3 Competence, training and awareness

To ensure that this OACEMP and the Contractor’s CEMP are effectively implemented, each level of management is responsible for ensuring that all personnel reporting to them are aware of the requirements of this OACEMP and the Contractors’ CEMPs. The Contractor Environmental Site Representative will coordinate the environmental training in conjunction with other training and development activities (eg safety).

5.3.1 Environmental induction

All personnel (including sub-contractors) are required to attend a compulsory site induction that includes an environmental component prior to commencement on-site. This is undertaken to ensure all personnel involved in the Project are aware of the requirements of the OACEMP and the Contractors’ CEMPs.

Short-term visitors to site undertaking inspections / entering the site (such as regulators) will be required to undertake a visitor’s induction and be accompanied by inducted personnel at all times.
Temporary visitors to site for purposes such as deliveries will be required to be accompanied by inducted personnel at all times.

The Contractor Environmental Site Representatives will conduct the environmental component of the site inductions. The environmental component of the induction will cover relevant elements of the OACEMP and the Contractors’ CEMPs and may include:

- relevant details of the OACEMP, the Contractors’ CEMPs, including all sub-plans, procedures and strategies, their purpose and objectives
- requirements of due diligence and duty of care
- relevant legislation, and conditions of environmental licences, permits and approvals
- potential environmental emergencies on-site and the emergency response procedures
- the PIRMP
- reporting and notification requirements for pollution and other environmental incidents
- key environmental issues
- mitigation measures for the control of environmental issues
- complaints response and reporting
- high risk activities and associated environmental safeguards and EWMS
- site specific environmental management requirements and responsibilities
- incident and emergency response and reporting requirements
- information relating to the location of environmental constraints
- sensitive area plans
- environmentaly sensitive locations and no-go/exclusion zones
- site flagging protocol
- erosion and sediment controls, water quality controls and sediment basin management
- management of contaminated material (including asbestos impacted material)
- location of identified potential contaminated land sites
- signs of contaminated soil, including visual asbestos identification protocols
- procedure for unexpected finds of contaminated land, asbestos or UXO
- groundwater and surface water
- mulch and tannin management
- stockpile location criteria
- working near or in drainage lines and creeks
- the location of acid sulfate soils or potential acid sulfate soils
- water quality management and protection measures
- groundwater issues
- obligation to report and the process for reporting environmental issues on-site including damaged environmental controls
- obligations under the *Biosecurity Act 2015* to prevent the spread of weeds during Construction
• responsibilities under the *National Parks and Wildlife Act 1974*, including the need to cease work immediately and report any object of potential Aboriginal heritage unearthed during clearing, grubbing and earthworks operations

• responsibilities under the *Heritage Act 1977* if an object of potential Non-Aboriginal heritage is uncovered during Construction

• location of identified Aboriginal and non-Aboriginal archaeological heritage sites, areas of cultural sensitivity and areas of archaeological potential and the kinds of historical relics, structures or deposits which may be encountered during the Construction works

• responsibilities under the *Contaminated Land Management Act 1997*

• noise, vibration and air quality management controls

• standard Construction hours and the process for seeking approval for out of hours works, including consultation

• noise management measures during night works

• location of noise, vibration and air quality sensitive receivers

• road safety

• road occupancy and other temporary and interim traffic arrangements

• response procedure for dealing with traffic incidents

• the requirement to maintain surrounding property access for residences, business owners, and their visitors, and to minimise disruptions to these properties for the duration of Construction

• the location of refuse bins, washing, refuelling and maintenance of vehicles, plant and equipment

• waste minimisation principles, waste reporting and waste / recycle storage requirements

• best practice energy efficiency

• equipment start up and shut down procedures

• sustainability management measures and initiatives

• boundaries for vegetation clearing, fauna and fauna habitat management, including awareness of threatened fauna species and fauna rescue

• weed control measures

• specific species likely to be affected by the Construction works and how these species can be recognised

• specific responsibilities for the protection of flora and fauna.

A record of all environment inductions will be maintained in a Project induction and training Register and kept on-site. The training register will identify who is trained, when trained, the trainer and what they were trained in.

The Contractor will provide refresher environmental awareness training as required, but at not less than six monthly intervals, based on the environmental risk assessment and turnover of project personnel. Refresher environmental awareness training will be included on the register of environmental training.
The Contractor Environmental Site Representatives may authorise amendments to the induction where required to address Project modifications, legislative changes or amendments to this OACEMP or related documentation.

The ER will review and approve the induction program prior to the induction being delivered and monitor implementation.

5.3.2 Toolbox talks, training and awareness

Toolbox talks will be used to raise awareness and educate personnel on Construction-related environmental issues. The toolbox talks are used to ensure environmental awareness continues throughout Construction.

Toolbox talks will be tailored to specific environmental issues relevant to upcoming work, including (but not limited to):

- erosion and sedimentation control
- dewatering
- hours of work
- emergency and spill response
- Aboriginal and non-Aboriginal heritage
- threatened species and ecological communities
- clearing controls and vegetation protection
- weed management
- dust control
- EWMS, for relevant personnel.

Toolbox talk attendance is mandatory and attendees of toolbox talks are required to sign an attendance form and the records maintained.

Targeted environmental awareness training will be provided to individuals or groups of workers with a specific authority or responsibility for environmental management or those undertaking an activity with a high risk of environmental impact. Topics covered may include those detailed above, or others deemed necessary in the lead up to or during Construction.

Awareness notes, in the form of posters, booklets, or similar will be developed and distributed to the Contractor Superintendent, Contractor Project Engineers, Contractor Foreman and other personnel with a responsibility for managing specific work locations or activities. This documentation will be distributed to the broader Project workforce through daily pre-starts meetings and made available in Project offices / break facilities.

The ER will review and approve the training program and monitor implementation.

5.3.3 Daily pre-start meetings

Daily pre-start meetings are used to inform the workforce of the day’s activities, safe work practices, environmental protection practices, work area restrictions, activities that may affect the work, coordination issues with other trades, hazards and other information that may be relevant to the day’s work.
The Contractor Foreman will conduct a daily pre-start meeting with the site workforce before the commencement of work each day (or shift) or where changes occur during a shift. Daily pre-start meetings are generally succinct in nature and take approximately 10-15 minutes.

The environmental component of pre-start meetings will include any environmental issues that could potentially be impacted by, or impact on, the day’s activities. All attendees will be required to sign on to the pre-start meeting and acknowledge their understanding of the issues explained.

Pre-start meeting topics, dates delivered and a register of attendees will be recorded by the Contractor Environmental Site Representatives and the records maintained.

5.3.4 Communications Training

All staff (including plant operators and truck drivers) and subcontractor personnel working on the delivery of the Project will be required to behave in a courteous and professional manner when in dialogue with any community member. All personnel will be:

- trained on how to respond to community queries
- aware of and abide by the requirements for the release of information
- advised on the identity of the community within which they are working prior to their involvement in the Contractor’s Work.

Community involvement obligations will be included in the site induction of all personnel working on the Project.

5.4 Working hours

5.4.1 Hours of work

In accordance with NSW-CoA E23 and the EPL, work will be undertaken during standard Construction working hours:

- 7:00 am to 6:00 pm Monday to Friday
- 8:00 am to 1:00 pm Saturday
- at no time on Sunday or public holidays.

As required by NSW-CoA E24, activities, except as permitted by an EPL, highly noise intensive works that result in an exceedance of the applicable noise management level at the relevant receiver must only be undertaken:

- between 8:00 am to 6:00 pm Monday to Friday
- between 8:00 am to 1:00 pm Saturday
- in continuous blocks not exceeding three hours each with a minimum respite from those activities and works of not less than one hour between each block.

'Continuous' includes any period during which there is less than a one hour respite between ceasing and recommencing the work.

All conditions relating to Construction hours outlined in the Project EPL will be complied with.
In accordance with NSW-CoA E25, the Contractor will identify and consult with receivers identified as being subject to levels that exceed the Highly Noise Affected criteria with the objective of determining appropriate hours of respite unless an agreement is reached with those receivers.

5.4.2 Variation to hours of work

Works associated with the delivery of the Project may be undertaken outside the hours of work identified in Section 5.4.1 in the following circumstances:

- for the delivery of materials required by the NSW Police Force or other authority for safety reasons or
- where it is required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent material environmental harm or
- where it causes $L_{Aeq(15\text{ minute})}$ noise levels:
  - no more than 5 dB(A) above the day, evening and night rating background level at any residence in accordance with the *Interim Construction Noise Guideline* (DECC, 2009) and
  - no more than the noise management levels specified in Table 3 of the *Interim Construction Noise Guideline* (DECC, 2009) at other sensitive land uses and
  - continuous or impulsive vibration values, measured at the most affected residence are no more than those for human exposure to vibration, specified in Table 2.2 of *Assessing Vibration: a technical guideline* (DEC, 2006) and
  - intermittent vibration values measured at the most affected residence are no more than those for human exposure to vibration, specified in Table 2.4 of *Assessing Vibration: a technical guideline* (DEC, 2006) or
- no more than 15 dB(A) above the night time rating background level at any residence during the night time period, when measured using the $L_{Aeq(1\text{ minute})}$ noise descriptor or
- where different hours are permitted or required under an EPL in force in respect of the works, in which case those hours must be complied with.

On becoming aware of the need for emergency works in accordance with the above, the Contractor will notify the Roads and Maritime Project Manager, the ER and the EPA’s Environment Line of the need for those works. The Contractor will submit a report to the EPA by 2 pm on the next business day after the emergency works commenced that describes:

- the cause, time and duration of the emergency
- action taken by or on behalf of the licensee in relation to the emergency
- details of any measures taken or proposed to be taken by the Contractor to prevent or mitigate against a recurrence of the emergency.

The Contractor will use its best endeavours to notify all affected sensitive receivers of the likely impact and duration of those works.

The Contractors will prepare a procedure for out of hours work, prepared in accordance with the Construction Noise and Vibration Guidelines (Roads and Maritime, 2016). The procedure will be prepared to address the requirements of NSW-CoA E26 and E27 and the EPL relating to out of hours works (OOHW). The Procedure will be provided in the Contractors’ CNVMPs.

Approvals for any changes to the Construction hours outlined in Section 5.4.1 above will be attached to the Contractors’ CEMPs.
5.4.3 Community agreements for works outside of standard Construction hours

Works outside of standard Construction hours that do not meet the circumstances listed in Section 5.4.2 above may be undertaken if agreement between the Contractor and a substantial majority of noise sensitive receivers has been reached, where approved under the EPL, for OOHW not approved by other EPL conditions. Further details of the requirements, including community consultation, relating to community agreements are provided in the CNVMP.

5.5 Communication

5.5.1 Internal communication

The Contractor’s environment team will meet regularly to discuss any issues with environmental management on-site, any amendments to plans that might be required or any new / changes to Construction activities. Regular meetings will also occur with the ER and Roads and Maritime environment staff. These meetings will discuss ongoing environmental performance and identify any issues to be addressed.

In addition, environment team members will participate in regular toolbox talks to communicate on environmental performance, advise on any upcoming sensitive environmental matters for future work areas and to receive feedback from on-site personnel.

Further internal communications regarding environmental issues and aspects will be through awareness training and pre-start meetings as described in Section 5.3.

5.5.2 Liaison with EPA and government authority consultation

The Contractor Environmental Site Representative will be the main point of contact regarding specific environmental issues. The Contractor Environmental Site Representative is responsible for reporting on the ongoing environmental performance of the Project to Roads and Maritime, the ER and EPA. The Contractor Environmental Site Representative will report regularly to Roads and Maritime on progress and any key environmental matters, and to the EPA through monthly EPL reports.

Two project team members nominated as 24-hour contacts for environmental regulatory authorities will be identified in the Contractors’ CEMPs. They have the authority to halt the progress of the work if necessary, and are the key emergency response personnel during an environmental site emergency. The name, position and contact details of these members will be provided in the Contractors’ CEMPs.

Roads and Maritime will be immediately notified on each occasion that the site is visited by EPA and/ or other relevant agencies. The Contractor will prepare a report for each occasion when the Site is visited by the EPA and/ or other relevant agencies, notifying Roads and Maritime of the purpose and outcome of the EPA and/ or other relevant agencies visit, and of all actions taken by the Contractor in response to the EPA visit and/ or other relevant agencies. The report will be provided to Roads and Maritime within one working day of the visit.

Relevant government authorities will be consulted throughout Construction through their involvement in regular Environment Review Group (ERG) meetings. These meetings will discuss environmental performance, upcoming work, high risk activities and will include inspections of the work sites as required.
5.5.3 Community liaison and notification

Community Communication Strategy

Roads and Maritime will prepare a Community Communication Strategy (CCS) in accordance with the requirements of NSW-CoA B1 to document the approach to stakeholder and community communications for the Project. The CCS will identify opportunities for providing information and consulting with the community and stakeholders during the Construction of the Project. Contractors will support the delivery of the CCS.

The CCS will be implemented for the duration of the Project and for 12 months following the completion of all Construction stages of the Project.

The CCS includes:

- principles to guide the overall approach to community and stakeholder involvement
- identification of the stakeholders and groups to be consulted during the Project
- procedures and tools for the distribution of information about the Project, such as regular updates about Construction activities, the program for Construction activities and key milestone dates
- opportunities for the community to visit Project Construction sites
- methods for involving Construction personnel in engaging with the local community;
- methods and tools for engaging with the local community, including community forums to discuss key environmental management issues of concern for the Project
- procedures and mechanisms:
  - detailing how the community can discuss or provide feedback in relation to the Project
  - detailing how the Project team will respond to community enquiries and feedback
  - describing how issues will be resolved or disputes mediated in relation to environmental management and Construction of the Project.
- procedures to consult with local communities potentially affected by the impacts of multiple projects in addition to the Project.

The CCS also provides details on the requirements for coordination and communication between the Contractors working on the Project stages which will include:

- liaison meetings
- mailing list for all communications (including Community Updates)
- email communication
- Project briefings.

Where relevant, the Roads and Maritime Community and Stakeholder Engagement Advisor and the Contractor CRMs will undertake consultation with proponents of other nearby developments to increase the overall awareness of project timeframes and impacts.

A range of communication tools will be defined in the CCS, and may include:

- targeted community open days
- media releases and advertisements in local and metropolitan papers
• public displays
• door-knocks
• letterbox drops
• community update newsletters, information brochures and fact sheets
• community information sessions and community forums
• signage at Construction sites
• Construction updates (including for councils, emergency services and bus operators)
• Project website
• Project 1800 number, email address and postal address.

The CCS will be submitted for approval to the Secretary of DP&E at least one month prior to the commencement of Construction of the Project, as required by NSW-CoA B3. Work on the Project will not commence until the CCS has been approved by the Secretary.

Complaints management

Roads and Maritime will develop a Complaints Management System (CMS) to document the overall approach to complaints management for the Project. The CMS will be consistent with AS-ISO 10002-2006 Complaints Handling in accordance with the requirements of NSW-CoA B6 and B7. The Contractors will adopt the requirements of the CMS, including reporting requirements.

The CMS will be provided to the Secretary for information prior to any work commencing on the Project.

All community enquiries and complaints related to the Construction activities will be referred to the 24-hour toll free community information line (1800 703 457). The Project postal address (Western Sydney Infrastructure Plan, PO Box 973 Parramatta CBD NSW 2124) and email address (thenorthernroad@rms.nsw.gov.au) are also available for receipt of enquiries and complaints. Stage specific contact details will be provided in the Contractors’ CEMPs.

Details of the telephone number, postal address and email address for enquiries and complaints related to the Project will be published in newspapers circulating in the local area, on site hoardings at each Construction site and on the Project website, prior to the commencement of Construction of each stage of the Project, as required under NSW-CoA B10.

The CMS will include a Complaints Register which will record the details of all complaints relating to the Project including the following as a minimum:

• date and time of the complaint
• method by which the complaint was made
• any personal details of the stakeholder
• number of people affected in relation to a complaint
• nature of the complaint
• action taken in relation to the complaint, means by which the complaint was addressed and any follow up
• whether resolution was reached, with or without mediation
• if no action taken, reasons why
• the status of resolution of the complaint.
The Complaints Register will also record the number of complaints received, as required by NSW-CoA B7. The Complaints Register will be provided to the Secretary on request in accordance with NSW-CoA B8. In accordance with NSW-CoA A25, the Complaints Register will be provided to the ER on a daily basis.

Attempts will be made to resolve all complaints in accordance with the CMS. Figure 5-2 provides a flow chart of the complaints management process provided in the CMS. All complaints will be investigated and the source of the complaint determined immediately, with a phone call made to the complainant (when received by phone) within 2 hours. An initial response will be provided during this phone call, unless the complainant agrees otherwise.

An initial written response to email complaints will be provided within 24 hours (or during the next business day if received out-of-hours) and a resolution provided within 7 business days, if the complaint cannot be resolved in the initial contact.

The complainant will be kept informed and updated of the progress until the complaint is resolved.

All complaints will be recorded in the Complaints Register (Consultation Manager) within 24 hours. The ER will have access to the Complaints Register on a daily basis in accordance with the requirements of NSW-CoA A25(a).

An initial internal escalation process will be followed for the resolution of complaints which requires escalation to the Roads and Maritime Communication and Stakeholder Engagement Advisor and Roads and Maritime Project Director and following that to the next level which includes the ER as per the Complaints Management Process (Figure 5-2).

The Contractor Environmental Site Representative will submit a report to the EPA each business day that provides details of all complaints received in relation to construction activities regulated by the EPL. The report will be prepared in accordance with the requirements of the EPL. No report is required for any reporting period during which no complaints have been received.

Roads and Maritime will set up a mediation system for complaints unable to be resolved prior to the commencement of pre-Construction (within one month of NSW Infrastructure Approval). The mediation system will be available for the duration of the Project. Further details of the mediation system are provided in the CCS.

The Contractor Environmental Site Representatives will apply an adaptive approach to ensure that corrective actions are applied in consultation with the appropriate Construction staff to allow modifications and improvements in the management of any environmental issues resulting in community complaints.
Figure 5-2: Complaints management process
5.5.4 Project website

A website has been established for the Project (www.rms.nsw.gov.au/thenorthernroad) and will be regularly maintained during Construction of the Project. The website will be kept up to date with the latest Project information, environmental assessments, and will include all community updates. It will also publish methods to communicate feedback, enquiries and complaints related to the Project.

In accordance with NSW-CoA B11, the following information will be maintained on the Project website:

- information on the current implementation status of the Project
- the EIS, the SPIR and any documentation relating to any modifications made to the Project
- a copy of the Infrastructure Approval in its original form, a current consolidated copy of the Approval (including any approved modifications to its terms), and copies of any approval granted by the Minister to a modification of the terms of the Approval;
- a copy of each statutory approval, licence or permit required and obtained in relation to the Project and
- a current copy of each document required under the terms of the Approval and any endorsements, approvals or requirements from the ER and Secretary, published prior to the commencement of any works to which they relate or before their implementation
- any community agreement(s) between the Contractor and noise sensitive receivers under the EPL to undertake works outside of standard construction hours (refer Section 5.4.3) (personal details of residents to be omitted)
- information on how the public can make a complaint on the telephone complaints line and how complaints will be processed.

Relevant Project information will be published on the website throughout the duration of Construction.

Confidential information, which may include the location of threatened species, Aboriginal objects or places and personnel contact details, will be removed from all documents provided or made available to the public.

In accordance with EPL Condition A2.5, premises maps will be made available for public viewing on either the Contractor’s website or Roads and Maritime’s Project website no more than three business days after the approval of the maps by the EPA.

Monitoring data required under the EPL will be made available by the EPA on the EPA website and published monthly by Roads and Maritime in accordance with the EPA Guide for publishing Pollution Monitoring Data.
5.6 Emergency and incident planning, management and reporting

5.6.1 Emergency and incident management

An incident is defined under the NSW Infrastructure Approval as:

- an occurrence or set of circumstances that causes, or threatens to cause, material harm to the environment, community or any member of the community, being actual or potential harm to the health or safety of human beings or to threatened species, endangered ecological communities or ecosystems that is not trivial or

- an occurrence which results in non-compliance with the Infrastructure approval

where the meaning of “material harm” applies for the purpose of the NSW Infrastructure approval only.

All environmental incidents will be managed and reported in accordance with the Roads and Maritime Environmental Incident Classification and Reporting Procedure (refer to Appendix A7) and the NSW CoA. The Roads and Maritime Procedure provides the approach to:

- types of incidents
- criteria for classifying of environmental incidents processes for systematically responding to and managing emergency situations
- processes, and legal requirements (eg Acts, Regulations, EPL) for the reporting and notification of an environmental incident.

The Procedure covers the management of events including:

**Category 1 incidents:**
- potential breaches of legislation or failures of process that result in actual off-site environmental harm or
- residual on-site environmental harm or
- work undertaken outside approved areas, without required approval or without environmental assessment or
- any Material Harm pollution incident as defined by Part 5.7 of the Protection of the Environment Operations Act 1997 (POEO Act) including:
  - pollution incidents
  - conservation breaches
  - heritage breaches
  - planning and compliance breaches.

**Category 2 incidents:**
- failures of process or events that do not result in off-site environmental harm, or residual on-site environmental harm. These incidents may result in temporary on-site environmental harm that can be rectified to pre-existing conditions

**Reportable events:**
- an event or unexpected find that occurs outside the scope of reasonable environmental controls and mitigation measures

**Regulatory action:**
- formal regulatory action from an environmental regulator (that has not already been reported in conjunction with another incident)
Environmental incidents that would be, or have the potential to be, classified as Category 1 under the Procedure, will be notified verbally immediately to the Roads and Maritime Representative and Roads and Maritime Environmental Manager (or delegate). Incident reports will be provided to Roads and Maritime Project Manager and the ER in accordance with the Procedure, including lessons learnt from each environmental incident and proposed measures to prevent the occurrence of a similar incident. All efforts will be undertaken immediately to avoid and reduce impacts of incidents and suitable controls put in place. Incidents will be closed out as quickly as possible, taking all required action to resolve each environmental incident.

The Contractor will notify the EPA of any pollution incident that occurs during the Construction of the Project via the EPA Environment Line (telephone 131 555) in accordance with Part 5.7 of the *Protection of the Environment Operations Act 1997* (NSW) (POEO Act). Roads and Maritime will provide the Secretary with a record of any such notification within 24 hours of the EPA being notified, as required by NSW-CoA A43.

The circumstances where this will take place include:

- it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or
- it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000 (or such other amount as is prescribed by the regulations).

Where an incident involves a potential impact to an Aboriginal site, relevant Registered Aboriginal Parties will be notified and their input sought in closing out the incident.

In accordance with NSW-CoA A40, Roads and Maritime will notify the Secretary of any incident (other than those relating to the POEO Act) as soon as practicable and within 24 hours of the incident. The notification will include the time and date of the incident, details of the incident and must identify any non-compliance with the Infrastructure Approval.

Any notifications made under NSW-CoA 40 or 43 will also be provided to the Minister for DoEE.

In accordance with NSW-CoA A42, the Contractor will meet the requirements of the Secretary or relevant government authority (as determined by the Secretary) to address the cause or impact of any incident reported in accordance with NSW-CoA A40, within such period as the Secretary may require.

All other environmental incidents, reportable events and regulatory action will be reported to Roads and Maritime as outlined in the Procedure.

The requirements for incident reporting under the POEO Act, Roads and Maritime Procedure and the Infrastructure approval are summarised in Table 5-1.

The Contractor will provide all records of incidents and regulatory action to the Roads and Maritime Project team. Roads and Maritime Environment Branch will maintain records relating to environmental incidents.
### Table 5-1: Summary of requirements for incident notification and reporting

<table>
<thead>
<tr>
<th>Incident type</th>
<th>Notify</th>
<th>Notification timeframe</th>
<th>Notification responsibility</th>
<th>Written report timeframe</th>
<th>Written report responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulatory action (material harm under the POEO Act)</td>
<td>EPA environment line</td>
<td>Immediately</td>
<td>Contractor</td>
<td>In accordance with S5.1.4 of the RMS Procedure</td>
<td>Contractor</td>
</tr>
<tr>
<td></td>
<td>Fire and Rescue NSW</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ministry of health</td>
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<tr>
<td></td>
<td>SafeWork NSW</td>
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<tr>
<td></td>
<td>Local council</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Secretary of DP&amp;E</td>
<td>Within 24 hours of notification given to EPA</td>
<td>Roads and Maritime</td>
<td>In accordance with CoA A41</td>
<td>Roads and Maritime / Contractor</td>
</tr>
<tr>
<td></td>
<td>Minister for DoEE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regulatory action (other than material harm under the POEO Act):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• discovery of Aboriginal remains</td>
<td>Minister of DoEE</td>
<td></td>
<td>Contractor / Roads and Maritime</td>
<td></td>
<td>Contractor / Roads and Maritime</td>
</tr>
<tr>
<td>• if Roads and Maritime activities have contaminated land or if Roads and Maritime owns land that has been contaminated</td>
<td>EPA</td>
<td></td>
<td>Contractor / Roads and Maritime</td>
<td></td>
<td>Contractor / Roads and Maritime</td>
</tr>
<tr>
<td>• the location of a relic once a relic has been discovered or located</td>
<td>OEH (Heritage Council)</td>
<td></td>
<td>Contractor / Roads and Maritime</td>
<td></td>
<td>Contractor / Roads and Maritime</td>
</tr>
<tr>
<td>• the inability to extinguish any fire burning during a bush fire danger period applicable to the land</td>
<td>An appropriate officer of the NSW Rural Fire Service</td>
<td></td>
<td>Contractor / Roads and Maritime</td>
<td></td>
<td>Contractor / Roads and Maritime</td>
</tr>
<tr>
<td>Incident type</td>
<td>Notify</td>
<td>Notification timeframe</td>
<td>Notification responsibility</td>
<td>Written report</td>
<td>Written report timeframe</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>• environmental incident with the potential for unapproved impacts on a drinking water supply</td>
<td>Local water supply authority</td>
<td>Contractor/ Roads and Maritime</td>
<td>Contractor/ Roads and Maritime</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RMS Category 1 Incident (excluding material harm)</td>
<td>Roads and Maritime Project Manager and Environmental Manager (or delegate)</td>
<td>Immediately</td>
<td>Contractor</td>
<td>Incident form</td>
<td>Within 3 business days of the incident</td>
</tr>
<tr>
<td>Critical Incident - Category 1 incidents with potential for:</td>
<td>Roads and Maritime Director Environment</td>
<td></td>
<td>Roads and Maritime Director Environment Operation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• regulatory action (e.g. EPA Penalty Infringement Notice) and/or</td>
<td>Roads and Maritime Chief Executive and relevant Executive Director</td>
<td></td>
<td>Roads and Maritime Chief Executive and relevant Executive Director</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• reputational damage (e.g. media coverage) and/or</td>
<td></td>
<td></td>
<td>Roads and Maritime Chief Executive and relevant Executive Director</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• significant environmental harm.</td>
<td></td>
<td></td>
<td>Roads and Maritime Chief Executive and relevant Executive Director</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RMS Category 2 Incident / Reportable Events</td>
<td>Roads and Maritime PM and Environmental Manager (or delegate)</td>
<td>Day of incident</td>
<td>Contractor</td>
<td>Incident form</td>
<td>Within 3 business days of the incident</td>
</tr>
<tr>
<td>Any incident (as defined in the Infrastructure approval)</td>
<td>Secretary DP&amp;E Minister for DoEE</td>
<td>ASAP, at least 24 hours of the incident</td>
<td>Roads and Maritime</td>
<td>In accordance with CoA A41</td>
<td>Roads and Maritime /Contractor</td>
</tr>
<tr>
<td>Any incident that affects or could affect the Warragamba Pipelines, including the pipeline corridor</td>
<td>WaterNSW</td>
<td>ASAP, at least 24 hours of the incident</td>
<td>Roads and Maritime</td>
<td></td>
<td>Roads and Maritime</td>
</tr>
</tbody>
</table>

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Pollution incidents will also be managed in accordance with stage specific Pollution Incident Response Management Plans (PIRMP), to be prepared by the Contractors as required by the EPL and included in the Contractors’ CEMPs. The PIRMP will be prepared and tested in accordance with Environmental guidelines: Preparation of pollution incident response management plans (EPA, 2012).

The Contractors’ PIRMPs will document the procedures to be followed in the event of an environmental emergency including:

- the names and contact details (including all-hours telephone numbers) for emergency response personnel
- response personnel responsibilities
- contact details for emergency services (ambulance, fire brigade, spill clean-up services)
- the location of on-site information on hazardous materials, including Material Safety Data Sheets and spill containment materials
- steps to following to minimise damage and control and environmental emergency
- instructions and contact details for notifying relevant government agencies, local councils and, if necessary, nearby residents
- include measures to avoid spillages of fuels, chemicals, and fluids onto any surfaces or into any adjacent waterways.

All necessary contact numbers will be identified in advance and stored for immediate access should a pollution incident need to be notified. These contact numbers will also be identified in the PIRMP prepared for the Project by the Contractor in accordance with the EPL.

The Contractors CEMPs will nominate a contact person(s) for emergencies who will be available 24 hours a day, seven days a week, and who has the authority to stop or direct works.

The responsibilities for incident management are provided in Section 5.1. The Contractors Environmental Site Representatives are responsible for:

- notifying Roads and Maritime and relevant authorities in the event of an environmental incident, reporting on the incidents and managing the close-out of incidents
- stopping activities where there is an actual or immediate risk of harm to the environment, or to prevent environmental non-conformities, and advising the Contractor Project Manager, Contractor Construction Manager and Contractor Superintendent.

Emergency planning and awareness training will be undertaken for the Project and will include, but not be limited to, PIRMP training, development of internal and external communication protocols during emergencies, identified potential environmental emergencies that may occur on the Project, the response procedures for these emergencies and tests of the emergency response procedures.
The Contractors’ PIRMPs will include details on the nature and objectives of the PIRMP training program. Details of the training program will include frequency of training and how the records of any training are kept. Training may include toolbox talks, formal staff training on incident management and simulated incident exercises, including with emergency services. The training will be suitable for the level of risk and likelihood of incidents for the Project.

5.6.2 Incident investigation and reporting

Reporting of environmental incidents will be in accordance with the Roads and Maritime Environmental Incident Classification and Reporting Procedure (Appendix A7).

The responsibilities for incident reporting are provided in Section 5.1. The Contractor Environmental Site Representatives are responsible for reporting on incidents.

Where required, due to the severity or ongoing nature of the incident, investigations will be conducted and action plans established to ensure that the incident does not occur again. Environmental investigations will include:

- identification of the cause, extent and responsibility of the incident
- identification and implementation of the necessary corrective action
- identification of the personnel responsible for carrying out the corrective action
- implementation or modification of controls necessary to avoid a repeat occurrence of the incident
- recording of any changes in written procedures required
- notifying all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the POEO Act.

Where there are lessons learnt from the investigation or current procedures are identified as being ineffective, the Contractor’s CEMP will be revised by the Contractor Environmental Site Representatives to include the improved procedures or requirement.
6 Monitoring and review

6.1 Environmental inspections

The purpose of the inspections is to identify and minimise environmental risk. A summary of the overarching approach to inspections are provided in the sections below. Further details of proposed inspections regimes will be provided in the Contractors’ CEMPs.

Copies of all environmental inspection reports prepared by the Contractors will be kept with the Project records and closed out within the agreed timeframes.

6.1.1 Weekly and post rainfall site inspections

The Contractor Environmental Site Representatives will undertake weekly and post rainfall inspections of the work sites to evaluate the effectiveness of environmental controls. Weekly inspections will also inspect work adjacent to or within sensitive areas and high risk activities.

The Contractor Environmental Site Representatives will record inspection findings on an inspection checklist form. Observed deficiencies in maintenance, environmental controls or standard of environmental performance will be recorded on the checklist form. Details of any maintenance required, the nature of the deficiency, any actions required and an implementation priority will be recorded. Actions will be closed out in accordance with the identified priority and evidence of close out will be kept on file.

6.1.2 Environmental Representative and Roads and Maritime inspections

The ER and Roads and Maritime Project Managers (or delegates) and Roads and Maritime Environmental Manager (or delegate) will undertake regular inspections of work sites and critical activities throughout Construction of the Project. Inspections by the ER and Roads and Maritime will typically occur on a weekly or fortnightly basis depending on the complexity and anticipated risks associated with the stage of Construction. Inspections will be carried in accordance with the Roads and Maritime inspection procedure.

The Contractors’ Environmental Site Representatives will participate in all ER and Roads and Maritime inspections and will maintain appropriate records. Deficiencies and required actions will be analysed and prioritised at the completion of the inspection and timeframes for implementation of corrective actions agreed in accordance with the Roads and Maritime inspection procedure. Timeframes for the Contractor to close out issues will be nominated on the inspection form.

6.1.3 Environmental Review Group (ERG) inspections

ERG inspections will typically occur on monthly timeframe or as otherwise required depending on the Construction staging of the Project. Section 6.6 describes the process if the ERG raises non-conformances or issues requiring corrective/preventative action during site inspections.

The Contractor Environmental Site Representatives will also participate in all ERG inspections to maintain appropriate records, identify required actions and timeframes for implementation of corrective actions.
6.1.4 Inspections by EPA and other agencies

The Contractor will prepare a report on each occasion that the site is visited by the EPA and/or other relevant agencies. The report will advise Roads and Maritime of the purpose and outcome of the EPA and/or other relevant agencies visit, and of all actions taken by the Contractor in response to the EPA visit and/or other relevant agencies. The report will be provided to Roads and Maritime within one working day of the visit.

6.1.5 Pre-work inspections

Prior to the commencement of each shift, the Contractor Foreman will inspect the environmental controls in place for the work to ensure they are operating as designed. The Contractor Foreman will also ensure that all resources required to perform the works effectively are available and in place. Works will not commence unless inspections are found to be satisfactory.

6.2 Environmental monitoring

Monitoring will be undertaken to validate the impacts predicted for the Project, to measure the effectiveness of environmental controls and implementation of this OACEMP and the Contractor’s CEMP and to address approval requirements. The monitoring requirements for required aspects are included in the relevant issue-specific environmental management plans and summarised in Table 6-1.

<table>
<thead>
<tr>
<th>NSW-CoA</th>
<th>Description</th>
<th>Relevant plan</th>
<th>Reporting requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>CoA A16</td>
<td>Measures to monitor impacts associated with the Construction and operation of ancillary facilities</td>
<td>Ancillary Facilities Management Plan</td>
<td>Refer to Section 2.5 and Appendix A4</td>
</tr>
<tr>
<td>CoA C9(a)</td>
<td>Air quality monitoring of dust and other emissions</td>
<td>Construction Air Quality Monitoring Program</td>
<td>Refer to Appendix B6</td>
</tr>
<tr>
<td>CoA C9(b), E32 and E33</td>
<td>Noise and vibration monitoring</td>
<td>Construction Noise and Vibration Monitoring Program</td>
<td>Refer to Appendix B3</td>
</tr>
<tr>
<td>CoA C9(c)</td>
<td>Water, soil and contamination monitoring</td>
<td>Construction Water, Soil and Contamination Monitoring Program</td>
<td>Refer to Appendix B4</td>
</tr>
</tbody>
</table>

The Construction Monitoring Programs required by NSW-CoA C9 will provide:
- details of all monitoring of the project to be undertaken
- the parameters of the project to be monitored
- the frequency of monitoring to be undertaken
- the location of monitoring
- the reporting of monitoring results
- procedures to identify and implement additional mitigation measures where results of monitoring are unsatisfactory
- any consultation to be undertaken in relation to the monitoring programs.
The Monitoring Programs will also include:

- purpose and scope
- minimum acceptable frequency and standards listed in applicable approvals, licences and regulations
- relevant EPA approved methods, Australian Standards or, in the absence of an Australian Standard, industry acceptable procedures
- targets and parameters
- processes for response to any exceedances of targets/standards
- processes for recording and reporting results.

The Water, Soil and Contamination Construction Monitoring Program will be prepared in consultation with DPI, DoI Water (NRAR) and the relevant Councils and will include, to the written satisfaction of the Secretary, information requested by an agency to be included in the program during the consultation. Details of all information requested by an agency including copies of all correspondence from those agencies will be provided within the relevant Construction Soil and Water Management Plan (refer Appendix B4). Appendix A8 contains the consultation information required by NSW-CoA A6 (refer Section 1.3.2 for further details).

The Construction Monitoring Programs will be endorsed by the ER and submitted to the Secretary for approval at least one month before commencement of Construction or within another timeframe agreed with the Secretary.

Construction will not commence until the Secretary has approved the Construction Monitoring Programs required under NSW-CoA C9, and all relevant baseline data for the specific construction activity has been collected.

The Construction Monitoring Programs, as approved by the Secretary including any minor amendments approved by the ER, will be implemented for the duration of Construction and for any longer period set out in the monitoring program or specified by the Secretary, whichever is the greater.

The Contractors will prepare Construction Monitoring Reports detailing the results of the monitoring undertaken in accordance with the Construction Monitoring Programs for inclusion in the Six Monthly Construction Compliance Reporting required under NSW-CoA A32. The Reports will be submitted to the Secretary and to relevant regulatory agencies for information. Reports will be prepared six monthly for the duration of Construction of the Project.

The Construction Monitoring Programs will be incorporated into the sub-plan as listed in Table 6-1.

The ER, Roads and Maritime Project Manager and Environmental Manager (or delegate) will be advised of any non-conformances from monitoring and details reported in the Monthly Environmental Reports and six monthly Monitoring Reports.

Should a non-conformance be detected or monitoring results directly attributable to the Project exceed the target set in the monitoring programs, the process described in Section 5.6 will be implemented. Steps in the process will include:

- analysis of the results by the Contractor Environmental Site Representative in more detail with a view of determining possible causes for the non-conformance
• site inspection by the Contractor Environmental Site Representatives
• advising relevant personnel of the problem
• identifying and agreeing on actions to resolve or mitigate the non-conformance
• implementing actions to rectify or mitigate the non-conformance.

A non-conformance Environmental Incident Report and/or Environmental Improvement Notice may be issued by the Roads and Maritime Environmental Manager (or delegate) or the Roads and Maritime Project Manager in response to the non-conformance if it is found to be Construction related. The timing for any improvement will be agreed between the relevant Contractor Project Engineer/Superintendent and Roads and Maritime Environmental Manager (or delegate) based on the level of risk (eg a significant risk will require immediate action).

All environmental monitoring equipment will be maintained and calibrated according to manufacturers’ specifications and appropriate records kept.

6.3 Compliance

An overarching Compliance Tracking Program (CTP) will be developed for the Project in accordance with NSW-CoA A27. The Compliance Tracking Program describes the approach to be taken to monitor compliance with the terms of the Approval, taking into consideration the staging of the Project proposed in the Staging Report prepared in accordance with NSW-CoA A11 and A12.

The CTP will be endorsed by the ER and then submitted to the Secretary for information prior to the commencement of the first stage of Construction of the Project. The CTP will also be submitted to the Minister for DoEE.

The CTP will be implemented for the duration of Construction and for a minimum of one year following commencement of Operation, or for a longer period as determined by the Secretary based on the outcomes of independent environmental audits, ER Reports and regular compliance reviews submitted through Compliance Reports.

The CTP describes how the requirements of NSW-CoA A27 will be met and sets out a program and frequency for compliance reporting as summarised in Table 6-2.

Appendix A of the Project Staging Report contains the Condition of Approval compliance staging table, which identifies the applicability of each of the conditions to the Project stages.

<table>
<thead>
<tr>
<th>Report and CoA no.</th>
<th>Requirement</th>
<th>Timing</th>
<th>Responsibility</th>
<th>Recipient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance tracking program</td>
<td>Describes how the requirements of NSW-CoA A27 will be met and sets out an overarching program and frequency for compliance reporting for the Project</td>
<td>Prior to commencement of Construction and continuing for a minimum of 1 year following commencement of Project Operation</td>
<td>Roads and Maritime to prepare ER to endorse</td>
<td>Secretary, DP&amp;E (for information) Minister for DoEE</td>
</tr>
<tr>
<td>NSW-CoA A27</td>
<td></td>
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<tr>
<td>Federal-CoA 13</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Report and CoA no.</td>
<td>Requirement</td>
<td>Timing</td>
<td>Responsibility</td>
<td>Recipient</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>-------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>Pre-Construction Compliance Report NSW-CoA A30 Federal-CoA 12, 13</td>
<td>Review of compliance status of the Project against the requirements of the Project approval prior to Construction of each Project stage</td>
<td>1 month prior to Construction commencing</td>
<td>Contractor/ Roads and Maritime to prepare, Roads and Maritime to review and submit</td>
<td>Secretary, DP&amp;E (for information) Minister for DoEE</td>
</tr>
<tr>
<td>Construction Compliance reporting NSW-CoA A32 Federal-CoA 13</td>
<td>Periodic review of compliance status of the Project against the requirements of the Project approval during Construction for each stage of the Project</td>
<td>6 monthly during Construction</td>
<td>Contractor/ Roads and Maritime to prepare, Roads and Maritime to review and submit</td>
<td>Secretary, DP&amp;E (for information) Minister for DoEE</td>
</tr>
<tr>
<td>Pre-Operation Compliance Report NSW-CoA A33 Federal-CoA 13</td>
<td>Review of compliance status of the Project against the requirements of the Project approval prior to Operation of each Project stage</td>
<td>1 month prior to Operation commencing</td>
<td>Contractor/ Roads and Maritime to prepare, Roads and Maritime to review and submit</td>
<td>Secretary, DP&amp;E (for information) Minister for DoEE</td>
</tr>
</tbody>
</table>

Pre-Construction, Construction and Pre-Operation Compliance Reporting required under the CTP provides evidence of compliance with the applicable conditions of approval.

The Pre-Construction Compliance Reporting provides details of how the CoA that must be addressed before the commencement of Construction have been complied with and identifies the proposed commencement date for Construction. A separate Pre-Construction Compliance Report will be prepared for each of the Project stages, prior to the commencement of Construction of that stage. Construction of the stage will not commence until the Pre-Construction Compliance Report for that stage has been submitted to the Secretary for information. The Pre-Construction and Construction Compliance reporting will also be provided to the Minister for the DoEE.

The Construction Compliance Reports will include:
- a results summary and analysis of environmental monitoring
- the number of any complaints received, including a summary of main areas of complaint, action taken, response given and proposed strategies for reducing the recurrence of such complaints
- details of any review of, and minor amendments made to, the OACEMP or Contractor’s CEMP as a result of Construction carried out during the reporting period
- a register of any consistency assessments undertaken and their status
- results of any environmental audits and details of any actions taken in response to the recommendations of an audit
• a summary of all incidents notified in accordance with NSW-CoA A40 and NSW-CoA A43
• any other matter relating to compliance with the approval or as requested by the Secretary.

The DoEE requires that the compliance reporting for the preceding 12 months be published on the Project website. Non-compliance with any of the Federal CoA will be reported to the DoEE at the same time as the compliance report is published.

The Pre-Operation Compliance reporting details how the CoA that must be addressed before the commencement of Operation have been complied with and identifies the proposed commencement date for Operation. A separate Pre-Operation Compliance Report will be prepared for each of the Project stages, prior to the commencement of Operation of that stage. Operation of the stage will not commence until the Pre-Operation Compliance Report for that stage has been submitted to the Secretary for information. The Pre-Operation Compliance reporting will also be provided to the Minister for the DoEE.

6.4 Auditing

6.4.1 Independent audits

An overarching Environmental Audit Program for independent environmental auditing against the Approval has been prepared in accordance with AS/NZS ISO 19011:2014 - Guidelines for Auditing Management Systems, in accordance with NSW-CoA A35.

The Audit Program will be submitted to the Secretary for information no later than one month before the commencement of work on the first stage of the Project, in accordance with NSW-CoA A36. The Audit Program will also be provided to the Minister for the DoEE.

The Environmental Audit Program will be implemented for the duration of Construction, in accordance with NSW-CoA A36.

In accordance with NSW-CoA A37, the independent environmental audits of the Project will be conducted by a suitably qualified, experienced and independent team of experts in auditing and be documented in an Environmental Audit Report which:

• assesses the environmental performance of the Project and its effects on the surrounding environment
• assesses whether the Project is complying with the NSW and Federal CoA, REMMS
• reviews the adequacy of any document required under the Approval
• verifies compliance with this OACEMP, the Contractors' CEMPs and issue-specific plans
• verifies compliance with any relevant legal and other requirements (eg licenses, permits, regulations, Roads and Maritime contract documentation including specifications) and
• recommends measures or actions to improve the environmental performance of the Project, and improvements to any document required under the Approval.

The independent auditor must be approved by the Minister of the DoEE prior to the commencement of the audit. Audit criteria must be agreed to by the Minister and the audit report must address the criteria to the satisfaction of the Minister.
The first Environmental Audit will be carried out within 12 months of works commencing and annually thereafter during the delivery of the Project and within 12 months of the commencement of Operations and then as required by the Secretary in accordance with NSW-CoA A38.

Roads and Maritime will submit a copy of the Environmental Audit Report to the Secretary with a response to any recommendations contained in the audit report within six weeks of completing the audit, or within another timeframe agreed with the Secretary, in accordance with NSW-CoA A39. The Environmental Audit Reports will also be provided to the Minister for the DoEE.

Contractors will maintain accurate records substantiating all activities associated with or relevant to the Federal CoA, including measures taken to implement all management plans required by the Federal CoAs, and make them available upon request to the DoEE. Such records may be subject to audit by the DoEE or an independent auditor in accordance with section 458 of the EPBC Act, or used to verify compliance with the Federal CoA. Summaries of audits will be posted on the Department’s website. The results of audits may also be publicised through the general media.

6.4.2 Internal audits

Internal auditing will be undertaken by the Contractor on at least an annual basis during Construction of the Project to verify compliance with:

- this OACEMP, the Contractors' CEMPs and sub-plans
- approval requirements (CoAs, REMMS)
- any relevant legal and other requirements (eg licenses, permits, regulations, Roads and Maritime contract documentation, including specifications).

An audit checklist will be developed and amended as necessary to reflect changes to this OACEMP, subsequent approvals and changes to Acts, regulations or guidelines.

All internal environmental audits will be undertaken in accordance with AS/NZS ISO 19011.

6.4.3 Audit of the ER's exercise of its functions

The Secretary may at any time commission an audit of an ER’s exercise of its functions under NSW-CoA A24. Roads and Maritime, the Contractor and ER will facilitate and assist the Secretary in any such audit.

Table 6-3 summarises the auditing to be undertaken for the Project.
### Table 6-3: Audit requirements

<table>
<thead>
<tr>
<th>Audit Program</th>
<th>Requirement</th>
<th>Timing</th>
<th>Responsibility</th>
<th>Recipient</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSW-CoA A35</td>
<td>Program for independent environmental auditing against the Approval in accordance with AS/NZS ISO 19011:2014 - Guidelines for Auditing Management Systems</td>
<td>Program to be submitted no later than one month before the commencement of work on the first stage of the Project</td>
<td>Roads and Maritime to prepare</td>
<td>Secretary, DP&amp;E (for information) Minister for DoEE</td>
</tr>
<tr>
<td>NSW-CoA A36</td>
<td></td>
<td>Program will be implemented for the duration of Construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal-CoA 14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Independent audit and Environmental Audit Report</th>
<th>Requirement</th>
<th>Timing</th>
<th>Responsibility</th>
<th>Recipient</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSW-CoA A37</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
| Federal-CoA 11, 12, 13, 14 | - Assess the environmental performance of the Project  
- Assess compliance with NSW and Federal CoA and REMMs  
- Review adequacy of documents required under the Approval  
- Verify compliance with OACEMP, Contractors’ CEMPs and sub-plans  
- Verify compliance with legal and other requirements  
- Recommend measures to improve the environmental performance and documentation | Annually, commencing within 12 months from commencement of Construction | Roads and Maritime to procure suitably qualified, experienced and independent team of auditors  
Independent auditor to undertake audit and prepare audit report | Secretary, DP&E (for information) Minister for DoEE |

<table>
<thead>
<tr>
<th>Internal audit</th>
<th>Requirement</th>
<th>Timing</th>
<th>Responsibility</th>
<th>Recipient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Verify compliance with approval and legal requirements, Roads and Maritime specifications and Construction documentation</td>
<td>The first audit to be carried out within three months of the commencement of Construction and then at six monthly intervals thereafter. The final submitted within five working days of contract completion date.</td>
<td>Construction Site Environmental Representatives</td>
<td>Project manager Roads and Maritime ER</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ER</th>
<th>Requirement</th>
<th>Timing</th>
<th>Responsibility</th>
<th>Recipient</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSW-CoA A26</td>
<td>Audit of the ER’s exercise of it functions</td>
<td>As required by the Secretary</td>
<td>Roads and Maritime and the ER to facilitate and assist with the audit</td>
<td>Secretary DP&amp;E</td>
</tr>
</tbody>
</table>
6.5 Reporting

Prior to, during and following Construction, various reports will be prepared to address the requirements of the Infrastructure Approval, commitments under the EIS and SPIR, Roads and Maritime specifications and other reporting needs. Table 6-4 sets out the overarching reporting requirements for the Project. Further details will be provided in the Contractors’ CEMPs. The OACEMP sub-plans also identify reports, plans, strategies and procedures that will be prepared by the Contractors. Section 6.7.2 outlines the approach to be adopted for document control on the Project. The Contractors’ approach to document control will be described in the Contractors’ CEMPs.

The Contractor will maintain accurate records substantiating all activities associated with the Project or relevant to the conditions of approval, including measures taken to implement all management plans. Records will be made available to the DP&E and DoEE upon request, within the timeframe nominated in the request.

<table>
<thead>
<tr>
<th>Table 6-4: Reporting requirements</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Report</th>
<th>Requirement</th>
<th>Timing</th>
<th>Responsibility</th>
<th>Recipient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractor reporting to Roads and Maritime under the Contract</td>
<td>For incorporation in Project Monthly Reports including environmental statistics (ie incidents, regulatory action, complaints on environmental issues), regulatory and authority considerations, monitoring program performance, compliance report and key environmental issues in accordance with G1 and G36</td>
<td>Monthly</td>
<td>Contractor Environmental Site Representatives</td>
<td>Roads and Maritime</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reporting to EPA under the EPL</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Report</th>
<th>Requirement</th>
<th>Timing</th>
<th>Responsibility</th>
<th>Recipient</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPL monthly report</td>
<td>Details of all non-compliances with conditions of EPL, measures taken to prevent recurrence</td>
<td>Within 10 working days of the end of each calendar month.</td>
<td>Contractor Environmental Site Representatives</td>
<td>EPA</td>
</tr>
<tr>
<td>EPL annual returns</td>
<td>Report on compliance with EPL including: • statement of Compliance • monitoring and Complaints Summary, • statement of Compliance for: - licence conditions - load based fee - requirement to prepare PIRMP - publish pollution monitoring data - environmental management systems and practices</td>
<td>Within 60 days of the anniversary of the EPL</td>
<td>Contractor Environmental Site Representatives</td>
<td>EPA</td>
</tr>
<tr>
<td>Report</td>
<td>Requirement</td>
<td>Timing</td>
<td>Responsibility</td>
<td>Recipient</td>
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<td>-----------------------------------------------------------------------</td>
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<tr>
<td>Inspection reports (not related to CoA)</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>EPA or any other Agency inspection report, other than for arranged inspections</td>
<td>The report will detail the purpose, outcome and actions pertaining to the visit and will be submitted to the Roads and Maritime Project Manager</td>
<td>Within one working day of the EPA or any other Authority visit, other than for arranged inspections</td>
<td>Contractor Environmental Site Representatives</td>
<td>Roads and Maritime</td>
</tr>
<tr>
<td>Roads and Maritime and/or EPA environmental inspection reports</td>
<td>Response to matters raised in Roads and Maritime and/or EPA site inspections Refer Section 6.1.2</td>
<td>As required. Typically every two weeks for Roads and Maritime inspection reports and monthly for EPA inspection reports</td>
<td>Contractor Environmental Site Representatives</td>
<td>Roads and Maritime /EPA</td>
</tr>
<tr>
<td>Reporting under the NSW Infrastructure Approval</td>
<td></td>
<td></td>
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<tr>
<td>Part A - Administrative</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Staging Report</td>
<td>Details the work and activities to be carried and their timing for each Project stage</td>
<td>1 month prior to commencement of Construction of the first stage of the Project</td>
<td>Roads and Maritime</td>
<td>Secretary (for information)</td>
</tr>
<tr>
<td>Ancillary Facilities Management Plan</td>
<td>Refer Section 3.3.7 and Appendix A4</td>
<td>One month prior the installation of any ancillary facilities</td>
<td>Stage specific AFMP - Contractors</td>
<td>Secretary (for Approval)</td>
</tr>
<tr>
<td>ER reports</td>
<td>Report of site environmental performance following routine inspections Refer Section 5.1.1</td>
<td>Monthly, and submitted within seven days following the end of each month</td>
<td>ER</td>
<td>Secretary and other regulatory agencies Roads and Maritime</td>
</tr>
<tr>
<td>Compliance Tracking Program</td>
<td>Refer Section 6.3</td>
<td>One month prior to commencement of Construction</td>
<td>Roads and Maritime</td>
<td>ER for endorsement Secretary (for information) Minister for DoEE</td>
</tr>
<tr>
<td>Pre-Construction Compliance Report</td>
<td>Refer Section 6.3</td>
<td>One month prior to commencement of Construction</td>
<td>Roads and Maritime /Contractors</td>
<td>Secretary (for information) Minister for DoEE</td>
</tr>
<tr>
<td>Construction Compliance Reports</td>
<td>Refer Section 6.3</td>
<td>6-monthly from the date of the commencement of Construction</td>
<td>Roads and Maritime /Contractors</td>
<td>Secretary (for information) Minister for DoEE</td>
</tr>
<tr>
<td>Pre-Operation Compliance Report</td>
<td>Refer Section 6.3</td>
<td>One month prior to commencement of Operation</td>
<td>Roads and Maritime /Contractors</td>
<td>Secretary (for information) Minister for DoEE</td>
</tr>
<tr>
<td>Report</td>
<td>Requirement</td>
<td>Timing</td>
<td>Responsibility</td>
<td>Recipient</td>
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<td>--------------------------------------------</td>
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</tr>
<tr>
<td>Environmental Audit Program</td>
<td>Refer Section 6.4</td>
<td>One month prior to commencement of Construction</td>
<td>Roads and Maritime</td>
<td>Secretary (for information)</td>
</tr>
<tr>
<td>NSW-CoA A35</td>
<td></td>
<td></td>
<td>Minister for DoEE</td>
<td></td>
</tr>
<tr>
<td>Environment Audit Report</td>
<td>Refer Section 6.4</td>
<td>Annually, starting within 12 months of commencement of Construction Audit report to be submitted within 6 weeks of completing the audit</td>
<td>Suitably qualified, experienced, independent team of auditors</td>
<td>Secretary (for information)</td>
</tr>
<tr>
<td>NSW-CoA A37</td>
<td></td>
<td></td>
<td>Minister for DoEE</td>
<td></td>
</tr>
<tr>
<td>Notification of incident</td>
<td>Refer Section 5.6</td>
<td>As early as possible and within 24 hours of the incident</td>
<td>Roads and Maritime / Contractors</td>
<td>Secretary (for information)</td>
</tr>
<tr>
<td>NSW-CoA A40, A41</td>
<td></td>
<td></td>
<td>Minister for DoEE</td>
<td></td>
</tr>
<tr>
<td>Notification of Incident notified to the EPA under the POEO Act</td>
<td>Refer Section 5.6</td>
<td>Within 24 hours of notifying the EPA</td>
<td>Contractor Environmental Site Representatives</td>
<td>Secretary (for information)</td>
</tr>
<tr>
<td>NSW-CoA A43</td>
<td></td>
<td></td>
<td>Relevant authorities</td>
<td>Minister for DoEE</td>
</tr>
<tr>
<td>Part B - Communication Information and Reporting</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Community Communication Strategy</td>
<td>Refer Section 5.5.3</td>
<td>One month prior to commencement of Construction</td>
<td>Roads and Maritime Community and Stakeholder Engagement Advisor</td>
<td>Secretary (for Approval)</td>
</tr>
<tr>
<td>NSW-CoA B1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction complaints management system including Complaints Register</td>
<td>Refer Section 5.5</td>
<td>One month prior to commencement of Construction</td>
<td>Roads and Maritime Community and Stakeholder Engagement Advisor</td>
<td>Secretary (for information)</td>
</tr>
<tr>
<td>NSW-CoA B6</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Complaints Register</td>
<td>Refer Section 5.5</td>
<td>On request during Construction</td>
<td>Contractor Environmental Site Representatives</td>
<td>Secretary (for information)</td>
</tr>
<tr>
<td>NSW-CoA B7, B8</td>
<td></td>
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<tr>
<td>Part C – Construction Environment Management</td>
<td></td>
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</tr>
<tr>
<td>CEMP</td>
<td>This document</td>
<td>OACEMP - one month prior to commencement of Construction of Project</td>
<td>Roads and Maritime</td>
<td>ER (for endorsement) Secretary (for Approval)</td>
</tr>
<tr>
<td>NSW-CoA C1</td>
<td>Refer Sections 1.2 and 1.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contractors CEMP - one month prior to commencement of Construction of stage</td>
<td></td>
<td>Contractor Environmental Site Representatives</td>
<td>Roads and Maritime</td>
<td></td>
</tr>
<tr>
<td>Report</td>
<td>Requirement</td>
<td>Timing</td>
<td>Responsibility</td>
<td>Recipient</td>
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</tr>
<tr>
<td>CEMP Sub-plans NSW-CoA C4</td>
<td>Refer Section 3.3.1</td>
<td>OACEMP sub-plans - one month prior to commencement of Construction of Project</td>
<td>Roads and Maritime</td>
<td>ER (for endorsement) Secretary (for Approval)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contractors CEMP sub-plans - one month prior to commencement of Construction of stage</td>
<td>Contractor Environmental Site Representatives</td>
<td>Roads and Maritime</td>
</tr>
<tr>
<td>Construction Monitoring Programs NSW-CoA C9</td>
<td>Refer Section 6, Appendix B3 CNVMP, Appendix B4 CSWMP, Appendix B6 CAQMP</td>
<td>OACEMP monitoring programs - one month prior to commencement of Construction or within another timeframe agreed with the Secretary</td>
<td>Roads and Maritime</td>
<td>ER (for endorsement) Secretary (for Approval)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contractors monitoring programs - one month prior to commencement of Construction or within another timeframe agreed with the Secretary</td>
<td>Contractor Environmental Site Representatives</td>
<td>Roads and Maritime</td>
</tr>
<tr>
<td>Construction monitoring report NSW-CoA C15</td>
<td>Report on monitoring data recorded and potential exceedances against criteria</td>
<td>As required in OACEMP and Contractors’ CEMP sub-plans</td>
<td>Contractor Environmental Site Representatives</td>
<td>Secretary and relevant regulatory agencies (for information)</td>
</tr>
</tbody>
</table>

**Part E – Key Issues**

**Heritage**

<table>
<thead>
<tr>
<th></th>
<th>Refer Appendix B5 CCHMP</th>
<th>One month prior to the commencement of excavation and salvage works</th>
<th>Roads and Maritime</th>
<th>Secretary (for information)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historical Archaeological Salvage Strategy NSW-CoA E12</td>
<td>Refer Appendix B5 CCHMP</td>
<td>12 months after the completion of the work</td>
<td>Contractor Environmental Site Representatives</td>
<td>Secretary (for information)</td>
</tr>
<tr>
<td>Historical Archaeological Excavation Report NSW-CoA E13</td>
<td>Refer Appendix B5 CCHMP</td>
<td>12 months after completion of the work</td>
<td>Contractor Environmental Site Representatives</td>
<td>Secretary (for information)</td>
</tr>
<tr>
<td>Archaeological Excavation Report NSW-CoA E13, E14</td>
<td>Details of any archival recording, historical research and excavations undertaken Refer Appendix B5 CCHMP</td>
<td>12 months after completion of the work</td>
<td>Contractor Environmental Site Representatives</td>
<td>Secretary (for information)</td>
</tr>
<tr>
<td>Unexpected Heritage Finds Procedure NSW-CoA E16</td>
<td>Refer Appendix B5 CCHMP</td>
<td>One month prior to commencement of Construction</td>
<td>Roads and Maritime</td>
<td>Secretary (for information)</td>
</tr>
<tr>
<td>Report</td>
<td>Requirement</td>
<td>Timing</td>
<td>Responsibility</td>
<td>Recipient</td>
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<td>---------------------------------------------</td>
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</tr>
<tr>
<td>Aboriginal Cultural Salvage Strategy</td>
<td>Refer Appendix B5 CCHMP</td>
<td>One month prior to the commencement of excavation and salvage works</td>
<td>Roads and Maritime</td>
<td>Secretary (for information)</td>
</tr>
<tr>
<td>Aboriginal Cultural Heritage Report</td>
<td>Refer Appendix B5 CCHMP</td>
<td>12 months after the completion of the work</td>
<td>Contractor Environmental Site Representatives</td>
<td>Secretary (for information)</td>
</tr>
<tr>
<td>Noise and Vibration</td>
<td>Operational noise mitigation report</td>
<td>Prior to commencement of Construction which would affect identified receivers</td>
<td>Roads and Maritime</td>
<td>Secretary (for approval)</td>
</tr>
<tr>
<td></td>
<td>Implementation of noise mitigation measures report</td>
<td>Prior to commencement of Construction which would affect the identified receivers</td>
<td>Roads and Maritime</td>
<td>Secretary (for approval)</td>
</tr>
<tr>
<td>Soils</td>
<td>Site Contamination Report</td>
<td>Documents outcomes of contamination assessments of land on which the Project is located Refer Appendix B8 CCLMP</td>
<td>Suitably qualified and experienced person under the CLM Act</td>
<td>Secretary (for information)</td>
</tr>
<tr>
<td></td>
<td>Remedial Action Plan</td>
<td>Documents approach to remediation of specified contaminated land Refer Appendix B8 CCLMP</td>
<td>Suitably qualified and experienced person under the CLM Act and approved by Approval by a NSW EPA accredited Site Auditor</td>
<td>Roads and Maritime</td>
</tr>
<tr>
<td></td>
<td>Site Audit Statement and Site Audit Report</td>
<td>Verifies land is suitable for intended land use Refer Appendix B8 CCLMP</td>
<td>EPA Accredited Site Auditor</td>
<td>Secretary and the relevant local Council(s)</td>
</tr>
<tr>
<td></td>
<td>Unexpected Contaminated Land and Asbestos Finds Procedure</td>
<td>Refer Appendix B8 CCLMP</td>
<td>Implement during Construction</td>
<td>Secretary (for information)</td>
</tr>
<tr>
<td></td>
<td>Sustainability Strategy</td>
<td>Refer Appendix B10 – Sustainability Management Plan</td>
<td>Prior to the commencement of Construction</td>
<td>Secretary (for information)</td>
</tr>
<tr>
<td></td>
<td>Road Dilapidation Report</td>
<td>Road dilapidation report for local roads outside the Project boundary</td>
<td>Within 3 weeks of completing the surveys and no later than 1 month before the use of local roads by project vehicles</td>
<td>Relevant local Council(s)</td>
</tr>
</tbody>
</table>
### 6.6 Environmental non-conformity, corrective and preventative actions

A non-conformance is the failure or refusal to comply with the requirements of project system documentation including this OACEMP and supporting documentation.

A non-compliance is the failure to comply with the requirements of the Infrastructure Approval or any applicable licence, permit or legal requirements. Under the Infrastructure Approval, a non-compliance with a condition of the Approval is classified as an incident and therefore should be managed in accordance with Section 5.6. Non-conformances may be identified through the review of compliance (Section 6.3) environmental auditing (Section 6.4) or incident management (Section 5.6).

Contractors will provide procedures for dealing with non-compliance with environmental management controls, environmental incidents and emergencies. These procedures will define who is responsible and has the authority for handling and investigating non-compliance, taking action and completing corrective and preventative action. Details will be provided in the Contractors’ CEMPs.

When a non-conformity occurs, the Contractor will:

- react to the non-conformity and, as applicable:
  - take action to control and correct it
  - deal with the consequences, including mitigating adverse environmental impacts
- evaluate the need for action to eliminate the causes of the nonconformity in order that it does not recur or occur elsewhere by:
  - reviewing the non-conformity
  - determining the causes of the non-conformity
  - determining if similar non-conformities exist or could potentially occur
- implement any action needed
- review the effectiveness of any corrective action taken and
- make changes to the environmental management system if necessary.
Corrective actions will be appropriate to the significance of the effects of the non-conformities encountered, including the environmental impacts.

The Contractor will retain documented information as evidence of:

- the nature of the non-conformities and any subsequent actions taken and
- the results of any corrective action.

### 6.6.1 Non-conformances

Any member of the Contractors’ Project team may raise a non-conformance or improvement opportunity. The Contractor’s Quality Plan describes the process for managing non-conforming work practices and initiating corrective/preventative actions or system improvements. The ER, Roads and Maritime Senior Project Manager, Project Manager, Environmental Manager (or delegate) or a representative of a public authority may also raise a non-conformance or improvement opportunity using the same process.

Non-conforming activities may be stopped, if necessary, by the Contractor Environmental Site Representatives or Contractor Project / Site Engineers following consultation with the Contractor Construction Manager or delegate. The ER may also stop works in these circumstances, in which case a non-conformance report will be prepared by the Contractor in accordance with the Quality Plan. The works will not recommence until corrective/preventative actions have been closed out.

### 6.6.2 Corrective action

For each non-conformance identified, the Contractor will implement corrective / preventative actions. In addition, any environmental management improvement opportunities can be initiated as a result of incidents or emergencies, monitoring and measurement, review of compliance, audit findings or other reviews. Improvement opportunities may also result in the implementation of corrective/preventative actions. The Construction Contractor will provide this information to Roads and Maritime in monthly reports.

Corrective/preventative actions and improvement opportunities will be entered into the Contractor’s quality system database and include detail of the issue, action required and timing and responsibilities. The record will be updated with date of close out and any necessary notes. The database will be reviewed regularly to ensure actions are closed out as required.

Procedures for corrective actions will include a process for verification of how the non-conformance has been closed out and to confirm that it is effective in addressing the non-conformance.

### 6.7 Records of environmental activities

#### 6.7.1 Environmental records

The Contractor Environmental Site Representative is responsible for maintaining the Contractor’s environmental management documents and records as current at the point of use. Types of documents and records include:

- monitoring, inspection and compliance reports/records
- correspondence with public authorities
• internal and external audit reports
• induction and training records
• reports on environmental incidents, other environmental non-conformances, complaints and follow-up action
• community engagement information
• minutes of Contractor’s CEMP and Construction environmental management system review meetings and evidence of any action taken
• Contractor’s CEMP and sub-plans
• EWMS.

The Contractor’s environmental management documents are subject to ongoing review and continual improvement. This includes times of change to scheduled activities or to legislative or licensing requirements.

Only the Contractor Environmental Site Representative has the authority to change the Contractor’s environmental management documentation. This documentation will be held for five years after the actual completion date and be available to Roads and Maritime and EPA upon request.

The Roads and Maritime Environmental Manager (or delegate) is responsible for amending the OACEMP and OACEMP sub-plans and maintaining Roads and Maritime’s environmental records.

6.7.2 Document control

The Contractor Environmental Site Representative will coordinate the preparation, review and distribution of the Contractor’s environmental documents and records listed in Section 6.7.1. The distribution list for the Contractor’s CEMP and sub-plans will be provided in the Contractor’s CEMP.

The Roads and Maritime Environmental Manager (or delegate) and Project Managers will coordinate the preparation, review and distribution of the OACEMP and sub-plans. The distribution list for the OACEMP and sub-plans is provided in Section 1.5.

Table 6-4 identifies the recipients for the overarching Project documentation.

During the Project, the Contractor’s environmental documents and records will be stored at the main site compounds for each stage. The documents required to be prepared under the Infrastructure Approval will be made available on the Project website (refer Section 5.5.4).

The Contractors will implement a document control procedure to control the flow of documents within and between Roads and Maritime, stakeholders and sub-contractors. The procedure will ensure that documentation is:

• developed, reviewed and approved prior to issue
• issued for use
• controlled and stored for the legally required timeframe
• removed from use when superseded or obsolete
• archived.

A register and distribution list will identify the current revision of documents, records or data. The Document Register is maintained in Appendix A5.
6.8 Environmental management system review

Periodic reviews of the Project environmental management system will be undertaken as part of the continual improvement process for the Project through meetings of relevant personnel. Table 6-5 sets out the purpose, frequency and attendees for the environmental management system review meetings.

The outcomes of the management, environmental group and executive reviews could include amendments to this OACEMP, Contractors’ CEMPs, sub-plans and related documentation, revision to the Project’s environmental management system, review of the risk assessment, re-evaluation of the Project objectives and targets as well as input into other Project documents. For further details on the OACEMP and CEMP revision process, refer to Section 1.6.

Table 6-5: Project environmental management system reviews

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Purpose</th>
<th>Frequency</th>
<th>Attendees</th>
</tr>
</thead>
</table>
| Management review  | • Identification of areas of opportunity for improved environmental performance  
                        • Analysis of the causes of nonconformities and deficiencies, including those identified in environment inspections and audits  
                        • Verification of the effectiveness of corrective and preventative actions  
                        • Highlight any changes in procedures resulting from process improvement  
                        • A review of the aspects and impacts register, legal register and environmental induction | Quarterly      | At minimum:                                                                                     |
|                    |                                                                         |                | • Roads and Maritime Project Managers and Environmental Manager (or delegate)  
                        • Contractor’s Project Manager, Construction Manager, Superintendent and Environmental Site Representatives |
| Environment group  | • A review of the aspects and impacts register, legal register and environmental induction  
                        • Consideration of monitoring, inspection and audit results  
                        • Consideration of incidents and any lessons learnt  
                        • Consideration of any new regulatory issues  
                        • A review of the effectiveness of erosion and sediment controls  
                        • Consideration of ERG issues  
                        • Consideration of changes in operational needs such as resourcing  
                        • Feedback from management reviews | Quarterly      | • Roads and Maritime Environmental Manager (or delegate)  
                        • Contractor’s Environmental Site Representatives |
| Executive review   | • Review of OACEMP and Contractors CEMPs  
                        • Effectiveness of environmental management documentation implementation | Annually       | • Roads and Maritime Senior Project Manager and Environmental Manager (or delegate) |
### Meeting Purpose Frequency Attendees

- Management effectiveness
- Potential improvements to the environmental management documentation
- Adequacy of resources
- Findings of audits
- Environmental objectives and targets
- Environmental performance
- Compliance with legal and other requirements
- Critical non-conformance or repeated non-conformances
- Organisation changes
- Effectiveness of training and inductions

- Contractor’s Project Manager, Construction Manager and Environmental Site Representatives

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#### 6.8.1 Project refinements

Modifications or refinements to the Project may result from detailed design refinement or changed circumstances during Construction. Roads and Maritime is responsible for formally seeking approval from the Secretary for any Project modifications and for documenting refinements that are consistent with the approved Project.

The Roads and Maritime Environmental Manager (or delegate) is responsible for the assessment of Project refinements and management of the consistency assessment process. The Contractor Environmental Site Representatives are responsible for incorporating any new environmental impacts and/or new statutory approval requirements into the appropriate environmental management documentation.

Any design changes or changes in scope of works will be communicated to the Contractor’s Environmental Site Representatives. The Contractor Environmental Site Representatives will undertake an environmental assessment and consistency review for the proposed changes in consultation with the Roads and Maritime Environmental Manager (or delegate) to determine if a Project modification may be required.

Should the consistency review determine that a Project modification may be required i.e. the impacts are of a nature and scale that it is not considered consistent with the Project approval, the Environmental Representative will be informed immediately and a modification application under Section 115ZI of the EP&A Act will be prepared and submitted to the Secretary for determination.

The Roads and Maritime Senior Project Manager and Roads and Maritime Environmental Manager (or delegate) and will approve all refinements that are deemed consistent with the Infrastructure Approval. Endorsement will be sought from the ER.
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## Legal requirements

### Table 1-1: Legal register

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<tr>
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<th>Activity / aspect</th>
<th>Requirement</th>
<th>Reference</th>
<th>Division 5.2 applicability and approval/licence requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Environmental Planning and Assessment Act, 1979</em></td>
<td>All</td>
<td>Comply with the terms Minister for Planning’s approval for the project. Obtain the Minister’s approval for any project modifications that are not consistent with the planning approval.</td>
<td>Part 5 S5.14 S5.25</td>
<td>Yes NSW Minister’s Infrastructure Approval dated 30 May 2018</td>
</tr>
<tr>
<td></td>
<td>All</td>
<td>To examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the activity.</td>
<td>Part 5 S5.5 S5.17</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Protection of the Environment Operations Act 1997</strong></td>
<td>Site licensing</td>
<td>Do not carry out or allow an activity listed in Schedule 1, or carry out work to enable such an activity, unless the premises are licensed by the EPA. This applies to:</td>
<td>S47 S48</td>
<td>Yes An EPL will be required for road construction for all stages of the Project.</td>
</tr>
</tbody>
</table>
|                                               |                   | • ‘road construction’ meaning the construction, widening or re-routing of roads if it results in the existence of 4 or more traffic lanes (other than bicycle lanes or lanes used for entry or exit) for 1 km of their length in the metropolitan area, or 5 km in length in any other area, where the road is classified, or proposed to be classified, as a freeway or tollway under the *Roads Act 1993*  
• ‘crushing, grinding and separating’ and ‘extractive activities’ that meet the criteria listed in Schedule 1 (and any other scheduled activity undertaken for the Project). |                 |                                                            |
<table>
<thead>
<tr>
<th>Act</th>
<th>Activity / aspect</th>
<th>Requirement</th>
<th>Reference</th>
<th>Division 5.2 applicability and approval/licence requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Acquisition (Just Terms Compensation) Act 1991</td>
<td>Property acquisition</td>
<td>Applies to the acquisition of any land required for the project.</td>
<td></td>
<td>Yes Individual agreements with landowners</td>
</tr>
<tr>
<td>Roads Act 1993</td>
<td></td>
<td>Prior to construction, a notice must be placed in the local newspaper allowing for any submissions to be made by any person.</td>
<td>S79</td>
<td>Yes</td>
</tr>
<tr>
<td>Pollution</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protection of the Environment Operations Act 1997</td>
<td>Harming the environment</td>
<td>Do not risk harming the environment by wilfully or negligently:</td>
<td>S115</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• disposing of waste unlawfully.</td>
<td>S116</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• causing any substance to leak, spill or otherwise escape (whether or not from a container); or</td>
<td>S117</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• emitting an ozone depleting substance</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Control equipment</td>
<td>Properly and efficiently maintain and operate any installed pollution control equipment (including monitoring devices).</td>
<td>S167</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Notification of pollution incidents</td>
<td>Notify the EPA immediately of pollution incidents where material harm to the environment is caused or threatened.</td>
<td>S148</td>
<td>Yes</td>
</tr>
<tr>
<td>Water</td>
<td>Water access and use.</td>
<td>Do not take water from a water source (a lake, river or estuary or place where water occurs naturally on or below the surface of the ground, and includes coastal waters) without an access licence.</td>
<td>S56 S60A S89 S91A S91(3)</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Do not use of water on land (unless supplied by a water utility, irrigation corporation etc. or in accordance with basic landholder rights) without a water use approval.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Act</td>
<td>Activity / aspect</td>
<td>Requirement</td>
<td>Reference</td>
<td>Division 5.2 applicability and approval/licence requirement</td>
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</tr>
<tr>
<td>Water Management Act 2000</td>
<td>Water management works</td>
<td>Do not construct/use a water supply work, drainage work or flood work without the appropriate approval.</td>
<td>S90 S91B S91C S91D</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Waterfront land.</td>
<td>Do not deposit material, excavate, or remove material within a watercourse bank, shore or bed, or on land 40 metres inland, or interfere with the likely flow of water to such a body, without a controlled activity approval.</td>
<td>S91</td>
<td>No</td>
</tr>
<tr>
<td>Water Act 1912</td>
<td>Surface water</td>
<td>Obtain a licence or permit for construction or use of ‘work’ for purposes including the taking and using of water</td>
<td>S21B</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Groundwater</td>
<td>Obtain a licence where interference with groundwater is likely to occur. Roads and Maritime being a department of NSW government and as defined within the Water Act 1912 as the Crown is exempt from the prevision of obtaining a licence.</td>
<td>S112 S121A</td>
<td>S112 does not apply to the Crown. Roads and Maritime is therefore not required to obtain a licence under this provision.</td>
</tr>
<tr>
<td>Act</td>
<td>Activity / aspect</td>
<td>Requirement</td>
<td>Reference</td>
<td>Division 5.2 applicability and approval/licence requirement</td>
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</tr>
<tr>
<td>operational water sharing plans – these areas cover most of the State’s major regulated river systems.</td>
<td>Floodplains</td>
<td>Obtain an approval for controlled works. These include works which occur on a designated floodplain, which can prevent land from being flooded or which can affect water flow to or from a river or lake.</td>
<td>S180</td>
<td>An exemption in relation to roads potentially applies – see clause 4 of the Water (Part 8- General) Regulation 1995.</td>
</tr>
<tr>
<td><strong>Protection of the Environment Operations Act 1997</strong></td>
<td>Water pollution</td>
<td>Do not cause water pollution (other than to a sewer), except in accordance with the conditions of any EPA licence.</td>
<td>S120 S122</td>
<td>Yes Refer EPL</td>
</tr>
<tr>
<td><strong>Noise</strong></td>
<td>Plant maintenance and operation</td>
<td>Do not operate plant if it emits noise caused by poor maintenance or operation.</td>
<td>S139</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Materials management</td>
<td>Do not cause noise by failing to properly and efficiently deal with materials.</td>
<td>S140</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Contaminated material</strong></td>
<td>Land pollution</td>
<td>Do not cause or permit land pollution other than under authority of a licence or regulation. (However it is not a land pollution offence to place virgin excavated natural material or lawful pesticides and fertilisers on land, or by placing matter on land that has been notified to the EPA as an unlicensed landfill and which is operated in accordance with the regulations.)</td>
<td>S142A – S142E</td>
<td>Yes Refer EPL and Resource recovery Exemption (refer NSW-CoA E69)</td>
</tr>
<tr>
<td>Act</td>
<td>Activity / aspect</td>
<td>Requirement</td>
<td>Reference</td>
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<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Contaminated Land Management Act 1997</td>
<td>Reporting contamination</td>
<td>Notify the EPA if:</td>
<td>S60</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Contaminants exceed thresholds contained in guidelines or the regulations where contamination has entered or will foreseeably enter neighbouring land, the atmosphere, groundwater or surface water.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Contaminants in soil are equal to or exceed guideline levels with respect to the current or approved use of the land.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Contamination meets other criteria that may be prescribed by the regulations.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Biodiversity**

**Biosecurity Act 2015**

<table>
<thead>
<tr>
<th>Activity / aspect</th>
<th>Requirement</th>
<th>Reference</th>
<th>Division 5.2 applicability and approval/licence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weed control</td>
<td>In NSW all plants are regulated with a general biosecurity duty under the <em>Biosecurity Act 2015</em> to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</td>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>

**National Parks and Wildlife Act 1974**

<table>
<thead>
<tr>
<th>Activity / aspect</th>
<th>Requirement</th>
<th>Reference</th>
<th>Division 5.2 applicability and approval/licence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Native fauna</td>
<td>Do not harm any animal that is of a threatened species population or ecological community, or its habitat except in accordance with a planning approval.</td>
<td>Part 8A</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Do not harm critical habitat except as in accordance with a planning approval.</td>
<td>S98</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Do not harm native fauna (other than listed unprotected fauna) except in accordance with a planning approval or licence.</td>
<td>S120 S127</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Biodiversity Conservation Act 2016**

<table>
<thead>
<tr>
<th>Activity / aspect</th>
<th>Requirement</th>
<th>Reference</th>
<th>Division 5.2 applicability and approval/licence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biodiversity Conservation</td>
<td>Do not cause a significant impact to listed threatened species, populations or ecological communities, or their habitats.</td>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Threatened Species Conservation Act 1995 (repealed)**

<table>
<thead>
<tr>
<th>Activity / aspect</th>
<th>Requirement</th>
<th>Reference</th>
<th>Division 5.2 applicability and approval/licence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flora and fauna conservation</td>
<td>Do not cause a significant impact to listed threatened species, populations or ecological communities, or their habitats.</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Act</td>
<td>Activity / aspect</td>
<td>Requirement</td>
<td>Reference</td>
</tr>
<tr>
<td>-----</td>
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<td>-----------</td>
</tr>
<tr>
<td><strong>Native Vegetation Act 2003</strong></td>
<td>Flora and native vegetation conservation</td>
<td>Only clear native vegetation in accordance with a planning approval or property vegetation plan.</td>
<td>S12</td>
</tr>
<tr>
<td><strong>National Parks and Wildlife Act 1974</strong></td>
<td>Flora and native vegetation conservation</td>
<td>Do not pick protected native plants without a licence</td>
<td>S117</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>S131</td>
</tr>
<tr>
<td><strong>Fisheries Management Act 1994</strong></td>
<td>Dredging or reclamation</td>
<td>A permit to authorise dredging or reclamation work must be obtained from the Minister</td>
<td>S201</td>
</tr>
<tr>
<td></td>
<td>Mangroves, seagrasses and marine vegetation</td>
<td>Do not harm any mangroves, seagrasses or other marine vegetation on public water land protected by the regulations without a permit</td>
<td>S205</td>
</tr>
<tr>
<td></td>
<td>Fish passage</td>
<td>Do not block fish passage without a permit</td>
<td>S219</td>
</tr>
<tr>
<td><strong>Environment Protection Biodiversity Conservation Act, 1999 (Commonwealth)</strong></td>
<td>Flora and fauna conservation</td>
<td>Do not undertake an action that will or is likely to have a significant impact on a listed threatened species or threatened ecological community</td>
<td>Part 3</td>
</tr>
<tr>
<td></td>
<td>Flora and fauna conservation</td>
<td>Do not undertake an action that will or is likely to have a significant impact on the environment on Commonwealth land</td>
<td>Part 3</td>
</tr>
<tr>
<td></td>
<td>Compliance</td>
<td>Do not take any action to contravene any conditions of approval attached to the project approval</td>
<td>Part 9</td>
</tr>
<tr>
<td><strong>Waste</strong></td>
<td>Littering</td>
<td>Do not litter in a public place or an open private place. Do not litter from a vehicle. Only deposit advertising material in receptacles provided for mail or newspapers or under the door of the premises. Do not deposit advertising material on or in vehicles.</td>
<td>Part 5.6A</td>
</tr>
<tr>
<td>Act</td>
<td>Activity / aspect</td>
<td>Requirement</td>
<td>Reference</td>
</tr>
<tr>
<td>------------------------------------------</td>
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<td>-----------------------------</td>
</tr>
</tbody>
</table>
| *Protection of the Environment Operations Act 1997* | Waste and transportation | Do not undertake a scheduled waste activity unless in accordance with an environmental protection licence. A licence must be obtained when construction and demolition wastes are applied to land under certain circumstances. This includes the reincorporation of crushed road base material back into roads and the placing of excess fill material onto properties. A licence is not required if the material:  
- Is VENM.  
- Does not exceed 200 tonnes in the Sydney, Newcastle and Wollongong areas, or 20,000 tonnes outside these areas.  
- Is covered by a “general exemption”. Current exempted materials are ENM, recycled aggregates and raw mulch. These exemptions are conditional and require some chemical testing of materials before they are placed onto land.  
A licence must be obtained if more than 2,500 tonnes (or cubic metres) is stored on a stockpile site at any one time, or more than 30,000 tonnes of waste is received per year from off site.  
Only transport waste to a facility that can lawfully accept the waste.  
Do not dispose of waste in a manner that harms or is likely to harm the environment. | Part 3.2 Schedule 1  
Yes EPL and Resource Recovery Exemption (refer NSW-CoA E69) |                                                                                                           |
| *Protection of the Environment Operations (Waste) Regulation 2005* | Waste and transportation | Comply with general requirements for the transport of waste. For example, any vehicle used by the person to transport waste must be kept in a clean condition and be maintained so as to prevent spillage of waste. For some wastes, only licensed transporters can be used.  
Comply with record keeping requirements in relation to the transport of certain types of waste. | Regulation cl.49  
Yes |                                                                                                           |
<table>
<thead>
<tr>
<th>Act</th>
<th>Activity / aspect</th>
<th>Requirement</th>
<th>Reference</th>
<th>Division 5.2 applicability and approval/licence requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment Protection Biodiversity Conservation Act, 1999 (Commonwealth)</td>
<td>National Heritage</td>
<td>Do not take an action that will or is likely to have a significant impact on the National Heritage values of a National Heritage place</td>
<td>Part 3</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>National Heritage</td>
<td>Do not undertake an action that will or is likely to have a significant impact on the environment on Commonwealth land</td>
<td>Part 3</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Compliance</td>
<td>Do not take any action to contravene any conditions of approval attached to the project approval</td>
<td>Part 9</td>
<td>Yes</td>
</tr>
<tr>
<td>Heritage Act 1977</td>
<td>Heritage</td>
<td>Do not undertake an activity that will affect a place, building, work, relic, moveable object or precinct which is subject to an Interim Heritage Order or is listed on the State Heritage Register without approval from the Heritage Council.</td>
<td>S56-57</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Do not disturb or excavate land with knowledge or reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed; or Do not disturb or excavate land on where a relic has been discovered or exposed.</td>
<td>S139</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Notify the heritage Council on discovery of a relic</td>
<td>S146</td>
<td>Yes</td>
</tr>
<tr>
<td>National Parks and Wildlife Act 1974</td>
<td>Aboriginal places and objects</td>
<td>Do not harm or desecrate an Aboriginal object or Aboriginal place without consent.</td>
<td>S86 S90</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Notify the NPWS within reasonable time of becoming aware of the location or discovery of certain Aboriginal objects.</td>
<td>S89A</td>
<td>Yes</td>
</tr>
<tr>
<td>National Parks and Wildlife Regulation 2009</td>
<td>Aboriginal consultation</td>
<td>Consult with Aboriginal parties on the methodology and draft cultural heritage assessment report</td>
<td>80C</td>
<td>Yes</td>
</tr>
<tr>
<td>Act</td>
<td>Activity / aspect</td>
<td>Requirement</td>
<td>Reference</td>
<td>Division 5.2 applicability and approval/licence requirement</td>
</tr>
<tr>
<td>--------------------------------------------------------------------</td>
<td>-----------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Commonwealth)</strong></td>
<td>Protection of areas and objects</td>
<td>Report any discovery of Aboriginal remains to the Federal Minister for the Environment and Heritage.</td>
<td>S20</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Comply with the provisions of any declaration in relation to a significant Aboriginal area or object.</td>
<td>S22</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Hazards and risks</strong></td>
<td></td>
<td><strong>Environmentally Hazardous Chemicals Act, 1985</strong></td>
<td>S28</td>
<td>Yes Contractors to obtain as required</td>
</tr>
<tr>
<td></td>
<td>Hazards and risks</td>
<td>Obtain a licence to undertake prescribed activities involving environmentally hazardous chemicals or declared chemical wastes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dangerous Goods (Road and Rail Transport) Act 2008</strong></td>
<td>Hazards and risks</td>
<td>Ensure that dangerous goods are transported in a safe manner.</td>
<td>S9</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Pesticides Act 1999</strong></td>
<td>Hazards and risks</td>
<td>Use pesticides in an environmentally sensitive manner.</td>
<td>S12</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Do not use an unregistered pesticide without a permit.</td>
<td>S13</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Read the label or permit for the pesticide.</td>
<td>S14</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use registered pesticides in accordance with instructions on the label.</td>
<td>S15</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Do not use any restricted pesticide unless authorised by a certificate of competency or a pesticide control order under the Act.</td>
<td>S17</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Compliance with pesticide codes of practice is required.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Greenhouse gas emissions</strong></td>
<td>Greenhouse gas emissions</td>
<td>Accounting and reporting of greenhouse gases produced and energy consumed during construction. Applicability dependent on thresholds.</td>
<td>-</td>
<td>Yes Applicability dependent on thresholds</td>
</tr>
</tbody>
</table>
2 Roads and Maritime specification requirements

The Project will be delivered in stages, with separate construction contracts for each stage. Roads and Maritime specifications form part of the contract documentation for the Project. The specifications describe environmental management processes which will be implemented by the Construction Contractors during construction of the Project. A range of Roads and Maritime specifications will apply to each of the stages of the Project, including:

- Specification G1 – Job Specific Requirements
- Specification G10 – Traffic Management
- Specification G36 – Environmental Protection
- Specification G38 – Soil and Water Management
- Specification G40 – Clearing and Grubbing
- Specification G44 – Earthworks
- Specification R178 – Vegetation
- Specification R179 – Landscape Planting

Roads and Maritime will prepare specifications for each stage of the Project. Specifications will be consistent but some aspects may differ between each stage to enable management of stage specific issues.

Specific requirements from the Roads and Maritime specifications listed above will apply to certain activities undertaken during construction of the Project stages. The Contractors will be required to identify the hold points and witness points from the specifications to address the requirements relevant to the Project stage that they are responsible for delivering for inclusion in their CEMPs. The Contractors will include the information in a format similar to Table 2-1 below as part of their CEMPs.

This table may serve as a checklist for internal audits to verify compliance with the hold points and witness points from the Roads and Maritime specifications. Internal audits will be carried out by the Construction Site Environmental Representatives and reviewed by the independent Environmental Representative and Roads and Maritime Project Managers.
<table>
<thead>
<tr>
<th>Clause no.</th>
<th>Description</th>
<th>Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Stage 4</td>
</tr>
<tr>
<td><strong>Specification G01 – Job Specific Requirements</strong></td>
<td></td>
<td>✔️</td>
</tr>
<tr>
<td>11</td>
<td>Concreting work for reinforced concrete structures and concrete pavement construction</td>
<td>✔️</td>
</tr>
<tr>
<td>15</td>
<td>Commencement of construction</td>
<td>✔️</td>
</tr>
<tr>
<td>15</td>
<td>Commencement of construction in accordance with the revised Construction Staging Drawings</td>
<td>✔️</td>
</tr>
<tr>
<td>18</td>
<td>Commencement of construction activities</td>
<td>✔️</td>
</tr>
<tr>
<td>19</td>
<td>Removal or cold milling of asphalt pavement</td>
<td>✔️</td>
</tr>
<tr>
<td>20.4</td>
<td>Construction activities in the vicinity of the demolition area</td>
<td>✔️</td>
</tr>
<tr>
<td>21</td>
<td>Commencement of earthworks</td>
<td>✔️</td>
</tr>
<tr>
<td>22.2</td>
<td>Commencement of cofferdams and/or shoring construction</td>
<td>✔️</td>
</tr>
<tr>
<td>22.3</td>
<td>Dewatering activities</td>
<td>✔️</td>
</tr>
<tr>
<td>24</td>
<td>Installation of regulatory signposting and final pavement marking</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Specification G10 – Traffic Management</strong></td>
<td></td>
<td>✔️</td>
</tr>
<tr>
<td>1.5.4</td>
<td>Submission of traffic control personnel details</td>
<td>✔️</td>
</tr>
<tr>
<td>2.3.1</td>
<td>Submission of Traffic Management Plan (TMP) and associated documents</td>
<td>✔️</td>
</tr>
<tr>
<td>2.6.1</td>
<td>Submission of Traffic Control Plan (TCP), where submitted separately from TMP</td>
<td>✔️</td>
</tr>
<tr>
<td>Clause no.</td>
<td>Description</td>
<td>Applicability</td>
</tr>
<tr>
<td>-----------</td>
<td>------------------------------------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stage 4</td>
</tr>
<tr>
<td>3.2.2</td>
<td>Opening of temporary roadway or detour to traffic</td>
<td>✓</td>
</tr>
</tbody>
</table>

**Specification G36 – Environmental Protection**

<table>
<thead>
<tr>
<th>Clause no.</th>
<th>Description</th>
<th>Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Stage 4</td>
</tr>
<tr>
<td>3.1</td>
<td>Submission of CEMP and selected CEMS documents</td>
<td>✓</td>
</tr>
<tr>
<td>3.1</td>
<td>Resubmission of CEMP and selected CEMS documents</td>
<td>✓</td>
</tr>
<tr>
<td>3.2.2</td>
<td>Evidence of approvals, licences and permits obtained</td>
<td>✓</td>
</tr>
<tr>
<td>3.2.4</td>
<td>Submission of EWMSs</td>
<td>✓</td>
</tr>
<tr>
<td>3.5</td>
<td>Submission of Draft Environmental Training Materials</td>
<td>✓</td>
</tr>
<tr>
<td>3.10</td>
<td>Verification that environmental nonconformities has been rectified</td>
<td>✓</td>
</tr>
<tr>
<td>4.2</td>
<td>Submission of Remediation Action Plan for contaminated land</td>
<td>✓</td>
</tr>
<tr>
<td>4.2.7</td>
<td>Submission of Stage 2 Contamination Assessment Report</td>
<td>✓</td>
</tr>
<tr>
<td>4.7</td>
<td>Building Condition Inspection Reports and Vibration Management Sub-Plan</td>
<td>✓</td>
</tr>
<tr>
<td>4.9</td>
<td>Engagement of the archaeological consultant</td>
<td>✓</td>
</tr>
<tr>
<td>4.9</td>
<td>Commencement of construction in the vicinity of the partially and totally impacted sites</td>
<td>✓</td>
</tr>
<tr>
<td>4.10</td>
<td>Engagement of the archaeological consultant</td>
<td>✓</td>
</tr>
<tr>
<td>4.10</td>
<td>Commencement of construction in the vicinity of the impacted sites</td>
<td>✓</td>
</tr>
<tr>
<td>4.11</td>
<td>Copy of “s.143 Notice”</td>
<td>✓</td>
</tr>
<tr>
<td>Clause no.</td>
<td>Description</td>
<td>Applicability</td>
</tr>
<tr>
<td>-----------</td>
<td>------------------------------------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>4.13</td>
<td>Working in or near environmentally sensitive areas</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>4.15.2</td>
<td>Submission of pre-construction land condition assessment report for each area you intend to occupy for your site facilities</td>
<td>✓  ✓  ✓</td>
</tr>
</tbody>
</table>

**Specification G38 – Soil and Water Management**

<table>
<thead>
<tr>
<th>Clause no.</th>
<th>Description</th>
<th>Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2.7</td>
<td>Submission of evidence of appropriate Soil and Water Management Plan and Erosion and Sediment Control personnel</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>3.1</td>
<td>Submission of an ESCP(s) and, where required, WQMP for a section of the Work Under the Contract</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>3.1</td>
<td>Submission of written notice that measures set out in the ESCP for a section of the work have been installed</td>
<td>✓  ✓  ✓</td>
</tr>
</tbody>
</table>

**Specification G40 – Clearing and Grubbing**

<table>
<thead>
<tr>
<th>Clause no.</th>
<th>Description</th>
<th>Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.4</td>
<td>Written notification of intention to clear any area</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>6</td>
<td>Submission of Weed Management Sub-Plan prior to clearing in any area</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>8</td>
<td>Removal and disposal of disused asbestos pipes, conduits and pits</td>
<td>✓  ✓  ✓</td>
</tr>
</tbody>
</table>

**Specification R44 – Earthworks**

<table>
<thead>
<tr>
<th>Clause no.</th>
<th>Description</th>
<th>Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td>G71 3.2</td>
<td>Notification of joint survey</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>2.3.1</td>
<td>Removal of topsoil</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>2.3.2</td>
<td>Removal of topsoil</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>2.3.5, G71 3.2</td>
<td>Submission of joint survey results</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>Clause no.</td>
<td>Description</td>
<td>Applicability</td>
</tr>
<tr>
<td>-----------</td>
<td>------------------------------------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>2.4</td>
<td>Inspection after removal of unsuitable material and prior to backfilling</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>2.5.2.1</td>
<td>Removal of asbestos contaminated material</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>2.5.2.2</td>
<td>On Site encapsulation of asbestos contaminated material</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>3.2</td>
<td>Presentation of each Lot of embankment foundation after removal of topsoil, and submission of CBR and PI test results of material in foundation, if required</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>3.4</td>
<td>Presentation of each Lot of floor of cutting, and submission of CBR and PI test results of material in floor of cutting, if required</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>4.2</td>
<td>Presentation of cleaned batter and bench/floor surfaces for geotechnical inspection</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>6.1.1</td>
<td>Submission of details of location, quantities, type and verification of conformity of Upper Zone Material (including Selected Material). If imported, verification that all possible sources of material within the Site have been exhausted.</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>6.1.2</td>
<td>Verification of conformity of stockpiled Selected Material</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>6.1.2</td>
<td>Verification of conformity of each Lot of Selected Material Zone placed, with test and survey reports.</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>6.2</td>
<td>Submission of details of location, quantities, type and verification of conformity of verge material. If imported, verification that all possible sources of material within the Site have been exhausted.</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>7.5</td>
<td>Verification of conformity of each trial section of rock fill, including submission of compaction procedure, test results and survey reports</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>7.5</td>
<td>Construction of each trial section of rock fill</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>7.6.1</td>
<td>Proof rolling of embankment layers and other surfaces within 1.5 m of the underside of the Selected Material Zone</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>Clause no.</td>
<td>Description</td>
<td>Stage 4</td>
</tr>
<tr>
<td>-----------</td>
<td>------------------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>7.6.2</td>
<td>Submission of deflection test results, finished surface levels and verification of conformity of each Lot of Selected Material Zone placed (or pavement where no Selected Material Zone is specified).</td>
<td>✓</td>
</tr>
<tr>
<td>7.6.2</td>
<td>Benkelman Beam testing of Selected Material Zone</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Specification R178 – Vegetation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>Engagement of Soil Scientist and Arborist</td>
<td>✓</td>
</tr>
<tr>
<td>2.1.1</td>
<td>Topsoil stripping</td>
<td>✓</td>
</tr>
<tr>
<td>2.1.1</td>
<td>Use of topsoil from stockpile</td>
<td>✓</td>
</tr>
<tr>
<td>2.1.3</td>
<td>Delivery of imported topsoil</td>
<td>✓</td>
</tr>
<tr>
<td>2.3</td>
<td>Supply of seed</td>
<td>✓</td>
</tr>
<tr>
<td>2.4</td>
<td>Application of fertiliser</td>
<td>✓</td>
</tr>
<tr>
<td>2.7</td>
<td>Use of non-potable water</td>
<td>✓</td>
</tr>
<tr>
<td>2.13</td>
<td>Use of compost blanket</td>
<td>✓</td>
</tr>
<tr>
<td>3.1.2</td>
<td>Preparation of subsoil</td>
<td>✓</td>
</tr>
<tr>
<td>3.2</td>
<td>Topsoiling</td>
<td>✓</td>
</tr>
<tr>
<td>3.3</td>
<td>Use of off site pre-treated seed</td>
<td>✓</td>
</tr>
<tr>
<td>3.4.1</td>
<td>Sowing</td>
<td>✓</td>
</tr>
</tbody>
</table>
### Specification R179 – Landscape Planting

<table>
<thead>
<tr>
<th>Clause no.</th>
<th>Description</th>
<th>Stage 4</th>
<th>Stage 5</th>
<th>Stage 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4</td>
<td>Training day</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>1.7.1</td>
<td>Inviting tenders for landscape planting and maintenance until Completion subcontract</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>1.7.2</td>
<td>Accepting tenders for landscape planting and maintenance until Completion subcontract</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>2.12</td>
<td>Use of imported organic topsoil</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>3.4</td>
<td>Advice that the setting out of all planting positions is complete</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>3.6.2</td>
<td>Advice that planting holes are ready for inspection</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>
Appendix A2
Aspects and Impacts Register

The Northern Road Upgrade –
Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park
September 2018
Introduction

This overarching Environmental Aspects and Impacts Register summarises the Environmental Risk Analysis conducted as part of the Environmental Impact Statement (EIS) for the Project.

The identification of significant construction activities and associated impacts that could eventuate during construction of the Project is central to the selection of appropriate environmental safeguards.

The risk management process undertaken for the EIS involved an assessment of all Project specific construction activities and aspects which are anticipated to be undertaken in or near environmentally sensitive areas. The EIS assigned each potential impact an environmental risk category of either ‘key issue’ or ‘other issue’, as described in Table 1.

The EIS provided potential impacts and proposed mitigation strategies for each identified issue. Management documents and training requirements applicable to the proposed mitigation strategies were also outlined.

Table 1: Environmental risk categories

<table>
<thead>
<tr>
<th>Risk category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key issue</td>
<td>High or moderate impact (actual or perceived) requiring further investigation to identify specific management and mitigation measures.</td>
</tr>
<tr>
<td>Other issue</td>
<td>Moderate or low impact that can be managed effectively with standard and best practice management and mitigation measures.</td>
</tr>
</tbody>
</table>

Table 2 sets out the register of environmental aspects and impacts for the Project, along with the risk category and indicative management measures, based on the information provided in the EIS.

Construction Contractors will conduct environmental risk assessment workshops during the development of Contractors’ stage specific CEMPs, as described in Section 4.3.1 of the Overarching Construction Environmental Management Plan (OACEMP).

The environmental aspects and impacts register in Table 2 will be updated and further developed with stage-specific risks and mitigation measures to be identified and assessed during the environmental risk assessment workshops.

The Contractors’ risk assessment will be undertaken in accordance with AS/NZS ISO 31000: 2009 - Risk management - Principles and guidelines and will be consistent with the Contractors’ EMS. The Contractors’ risk assessment may be guided by the Roads and Maritime PN224P RMS Risk Management Procedure (January 2018) as an appropriate procedure. Each identified risk will be categorised according to likelihood and consequence and a risk ranking allocated, both before and after the implementation the proposed mitigations measures.

The Contractor will further develop the appropriate mitigation measures, management documents, training required to mitigate the identified risks and provide the cross reference to these documents in the updated Risk Register. The updated Risk Register will be included in Appendix A2 of the Contractors’ CEMPs.
## Table 2: Overarching aspects and impacts register

<table>
<thead>
<tr>
<th>Issue</th>
<th>Risk category</th>
<th>Construction activity / aspect</th>
<th>Potential impact</th>
<th>Indicative management measures</th>
<th>Management documents / training required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic and transport</td>
<td>Key issue</td>
<td>• Temporary access roads&lt;br&gt;• General earthworks and construction&lt;br&gt;• Import of material / plant / equipment&lt;br&gt;• Construction site compounds&lt;br&gt;• Construction vehicle movements and deliveries&lt;br&gt;• Travel to/from site</td>
<td>Potential for safety impacts, due to temporary road arrangements or the proximity of construction activities to general traffic</td>
<td>Traffic control plans would address safety risks and would be incorporated in the Construction Traffic Management Plan developed, for the project.</td>
<td>Construction Traffic Management Plan&lt;br&gt;Environmental Work Method Statement (EWMS)&lt;br&gt;Induction and training</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Temporary impacts to The Northern Road and surrounding local roads (disruptions and delays) due to reduced speed limits, increased truck and construction machinery movements and temporary traffic management procedure.</td>
<td>Measures to manage construction related delays as part of the Construction Traffic Management Plan.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Potential for cumulative traffic impacts due to concurrent construction with other The Northern Road upgrade projects or other nearby developments.</td>
<td>Coordination between the various projects in the planning of major works to schedule construction activities in a way that minimises traffic disruption</td>
<td></td>
</tr>
<tr>
<td>Noise and vibration</td>
<td>Key issue</td>
<td>• Site establishment&lt;br&gt;• Clearing and grubbing&lt;br&gt;• Demolition&lt;br&gt;• Earthworks and drainage&lt;br&gt;• Piling&lt;br&gt;• Paving&lt;br&gt;• Drilling&lt;br&gt;• Saw cutting&lt;br&gt;• Road furnishing</td>
<td>Noise associated with construction activities and compound / laydown areas.</td>
<td>Prepare a Construction Noise and Vibration Management Plan. Implement reasonable and feasible measures to address construction noise.</td>
<td>Construction Noise and Vibration Management Plan&lt;br&gt;EWMS&lt;br&gt;Complaints management system&lt;br&gt;Induction and training</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Noise associated with construction traffic.</td>
<td>The Construction Noise and Vibration Management Plan would identify requirements for minimising night-time construction traffic and include out-of-hours work procedures.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Building damage is unlikely due to achieved separation distances. Some potential for vibration to be perceptible at times during work.</td>
<td>Prepare a Construction Noise and Vibration Management Plan and implement measures to address construction vibration (including equipment selection, working distances and response to vibration related complaints).</td>
<td></td>
</tr>
<tr>
<td>Biodiversity</td>
<td>Key issue</td>
<td>• Clearing of native vegetation&lt;br&gt;• Stockpile/haul road construction near vegetation&lt;br&gt;• Works near / in creeks and temporary crossings&lt;br&gt;• General earthworks near vegetation&lt;br&gt;• Vehicular movements&lt;br&gt;• Open excavation works&lt;br&gt;• Use of chemicals&lt;br&gt;• Noise impacts&lt;br&gt;• Bushfires</td>
<td>Clearing of vegetation including threatened species and communities listed under both the TSC Act and the EPBC Act.</td>
<td>Flora and Fauna Management Plan would be included in the project CEMP. The plan would identify potential impacts, describe mitigation measures and controls. Preparation of a biodiversity offset strategy</td>
<td>Construction Flora and Fauna Management Plan&lt;br&gt;Biodiversity offset strategy&lt;br&gt;EWMS&lt;br&gt;Vegetation clearing procedure&lt;br&gt;Fauna handling and rescue procedure&lt;br&gt;Induction and training</td>
</tr>
<tr>
<td>Social and economic</td>
<td>Key issue</td>
<td>• Property acquisition&lt;br&gt;• Property adjustments&lt;br&gt;• General earthworks and construction&lt;br&gt;• Stockpiling</td>
<td>Impacts on residents and businesses as a result of the total or partial acquisition</td>
<td>Early and on-going consultation. Carry out acquisition consistent with the requirements of the Land Acquisition (Just Terms Compensation) Act 1991. Establish a direct contact at Roads and Maritime for businesses to consult with as required.</td>
<td>Urban Design and Landscape Plan&lt;br&gt;Community Communication Strategy</td>
</tr>
<tr>
<td>Issue</td>
<td>Risk category</td>
<td>Construction activity / aspect</td>
<td>Potential impact</td>
<td>Indicative management measures</td>
<td>Management documents / training required</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>• Open excavation works • Clearing of vegetation • Construction site compounds and ancillary facilities • Rehabilitation of disturbed land • Bridge design • Cuttings and cut finishes • Evening / night works</td>
<td>Reduced local amenity (dust, noise and visual impact) from construction activities</td>
<td>Roads and Maritime would continue to consult with the community, in accordance with the Draft Community Involvement Plan. Mitigation measures in this EIS for dust, noise and visual impacts would be implemented.</td>
<td></td>
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<td></td>
<td></td>
<td>• Waterway crossings • Transverse drainage • General earthworks and construction</td>
<td>Construction sites could increase potential runoff and scour to during heavy rainfall</td>
<td>Appropriate scour protection measures would be implemented at drainage structures during construction.</td>
<td>Construction Soil and Water Management Plan EWMS Establish design for temporary waterway crossings. Induction and training</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Clearing and grubbing • Earthworks • Storage of fuels, chemicals and other dangerous goods • Material stockpiles • Maintenance of plant and equipment, including servicing and refuelling • Sediment basin management • Drainage works • Water use / extraction • Concrete works • Bridge construction • Waterway crossings • Landscaping • Noxious weed treatment</td>
<td>Impacts on soil and water quality from erosion and sedimentation and accidental spills.</td>
<td>Soil and Water Management Plan (SWMP) would be prepared as part of the CEMP. Erosion and sediment controls would be implemented before any construction starts and sediment basins would be regularly serviced and maintained to comply with water quality and capacity requirements.</td>
<td>Construction Soil and Water Management Plan Contaminated Land Management Plan EWMS Erosion and Sediment Control Plans (ESCP) Stockpile Management Protocol Tannin Leachate Management Control Unexpected discovery of contamination land procedure Induction and training</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Early works • Planned salvage • Clearing of vegetation • Initial removal of topsoil • Construction of site compounds and stockpile areas • Temporary access roads</td>
<td>Potential harm of the project on 28 Aboriginal archaeological heritage sites.</td>
<td>Salvage excavation must be completed prior to any activities which may harm Aboriginal objects in accordance with the management procedures outlined in the Construction Cultural Heritage Management Plan.</td>
<td>Construction Cultural Heritage Management Plan Roads and Maritime Standard Management Procedure - Unexpected Heritage Items Salvage Strategy EWMS Induction and training</td>
</tr>
<tr>
<td>Issue</td>
<td>Risk category</td>
<td>Construction activity / aspect</td>
<td>Potential impact</td>
<td>Indicative management measures</td>
<td>Management documents / training required</td>
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</tr>
</tbody>
</table>
| Non-Aboriginal heritage | Other issue | • Early works  
• Planned salvage  
• Clearing of vegetation  
• Initial removal of topsoil  
• Construction of site compounds and stockpile areas  
• Temporary access roads | Direct impacts to three Non-Aboriginal heritage sites including Miss Lawson’s Guesthouse, Miss Lawson’s Inn and the Orchard Hills Cumberland Plain Woodland Commonwealth Heritage Place, including the Chaffey Brothers Irrigation Scheme Canal. | Management in accordance with the detailed measures outlined in this EIS including archival photography and salvage archaeological investigations.  
A Construction Cultural Heritage Management Plan would be prepared as part of the CEMP prior to construction in consultation with the NSW Heritage Division of OEH | Construction Cultural Heritage Management Plan  
Roads and Maritime Standard Management Procedure - Unexpected Heritage Items  
EWMS  
Induction and training |
| Urban design and VIA | Other issue | • General earthworks and construction  
• Stockpiling  
• Open excavation works  
• Clearing of vegetation  
• Construction site compounds and ancillary facilities  
• Rehabilitation of disturbed land  
• Bridge design  
• Cuttings and cut finishes  
• Evening / night works | Visual impact associated with construction activities and construction compounds | Consider the provision of barriers to screen views from visually sensitive nearby areas such as rural dwellings, residential and recreational areas. Rehabilitation of sites after construction in accordance with a detailed landscape plan. | Urban Design and Landscape Plan  
Construction Flora and Fauna Management Plan  
EWMS  
Induction and training |
| Air quality | Other issue | • Site establishment  
• Earthworks  
• Vegetation clearing  
• Spoil handling – including liming of Acid Sulphate Soils.  
• Stockpiling  
• Vehicular movements  
• Material haulage  
• Handling of chemicals, waste and hazardous goods | Mobilisation of dust and odour from construction activities and compound sites | Prepare an Air Quality Management Plan to detail potential sources and impacts of dust and measures to minimise dust including minimising exposed surfaces, water suppression and covering of loads. | Construction Air Quality Management Plan  
EWMS  
ESCP  
Complaints procedure  
Induction and training |
| Resources and waste | Other issue | • Earthworks  
• Vegetation clearing  
• Excavation works  
• Spoil handling  
• Stockpiling  
• Material haulage | Generation and disposal of waste | The waste minimisation hierarchy principles of avoid/reduce/reuse/ recycle/dispose would be used  
A project-specific Construction Waste and Energy Management Plan (CWEMP) would be prepared before construction | Construction Waste and Energy Management Plan  
EWMS  
Induction and training |
| Climate change and GHG | Other issue | • Vehicular movements  
• Vehicle emissions  
• Equipment / plant use  
• Vegetation clearing | Increase in greenhouse gas emissions from construction (Scope 1 and 3 emissions). | To minimise emissions, the project would maximise reuse and recycling, implement energy efficiency measures, and source materials locally where possible to reduce transport emissions. | Construction Waste and Energy Management Plan  
Sustainability Strategy  
EWMS  
Induction and training |
<table>
<thead>
<tr>
<th>Issue</th>
<th>Risk category</th>
<th>Construction activity / aspect</th>
<th>Potential impact</th>
<th>Indicative management measures</th>
<th>Management documents / training required</th>
</tr>
</thead>
</table>
| Cumulative impacts                         | Other issue   | ■ Construction of adjacent Projects                     | Additional impacts arising from interaction with adjacent upgrade projects and other surrounding developments during the construction period. | Local communities potentially affected by the impact of multiple projects would be consulted. Where relevant, consultation would be undertaken with proponents of other nearby developments to increase the overall awareness of project timeframes and impacts.                                                                                      | Construction Traffic Management Plan  
Community Communication Strategy                                                                           |
Appendix A3

Environmental Policy

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

September 2018
Roads and Maritime Services commits to undertaking its activities in a safe and environmentally responsible manner while effectively managing any risks that may lead to an impact on the environment. Our benchmark is best practice, cost effective environmental performance for our road and maritime network.

We are accountable
We take personal and collective accountability for addressing and minimising the environmental impacts of our activities and deliver our projects to satisfy the expectations and legislative requirements of the NSW and Federal governments and the NSW community.

We provide solutions
We lead the management of environmental risks and incorporate innovative solutions to ensure that all our activities are undertaken to minimise our environmental footprint.

We collaborate
We deliver our projects within a whole-of-government framework, by working in collaboration with our industry partners and regulatory stakeholders to achieve enhanced environmental outcomes and encourage a culture of environmental responsibility.

We listen and respond
We communicate openly, responsively and empathetically with our customers, partners and stakeholders on environmental matters.

We improve
We deliver continual improvement in environmental performance in all our activities.

Ken Kafiofski
Chief Executive

October 2016
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Annexure B  EIS assessment of ancillary facility locations
Annexure C  Environmental procedure - management of wastes on Roads and Maritime Services land
## Glossary / Abbreviations

<table>
<thead>
<tr>
<th>Term</th>
<th>Expanded text</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFMP</td>
<td>Ancillary Facilities Management Plan</td>
</tr>
<tr>
<td>Ancillary Facility</td>
<td>A temporary facility for construction of the project including an office and amenities compound, construction compound, material crushing and screening plant, materials storage compound, maintenance workshop, testing laboratory and material stockpile area. Where an approved CEMP contains a stockpile management protocol, a material stockpile area located within the construction footprint is not considered to be an ancillary facility.</td>
</tr>
<tr>
<td>CEMP</td>
<td>Construction Environmental Management Plan</td>
</tr>
<tr>
<td>CNVG</td>
<td>Construction Noise and Vibration Guidelines</td>
</tr>
<tr>
<td>CoA</td>
<td>Condition of approval</td>
</tr>
<tr>
<td>CSSI</td>
<td>Critical State Significant Infrastructure</td>
</tr>
<tr>
<td>DECC</td>
<td>NSW Department of Environment and Climate Change (former)</td>
</tr>
<tr>
<td>DoEE</td>
<td>Commonwealth Department of the Environment and Energy</td>
</tr>
<tr>
<td>DP&amp;E</td>
<td>NSW Department of Planning and Environment</td>
</tr>
<tr>
<td>EIS</td>
<td>Environmental Impact Statement</td>
</tr>
<tr>
<td>Environmental Representative (ER)</td>
<td>A suitably qualified and experienced person independent of project design and construction personnel employed for the duration of construction. The principal point of advice in relation to all questions and complaints concerning environmental performance.</td>
</tr>
<tr>
<td>EPA</td>
<td>NSW Environment Protection Authority</td>
</tr>
<tr>
<td>EP&amp;A Act</td>
<td><em>NSW Environmental Planning and Assessment Act 1979</em></td>
</tr>
<tr>
<td>EPBC Act</td>
<td><em>Commonwealth Environmental Protection and Biodiversity Conservation Act 1999</em></td>
</tr>
<tr>
<td>ESCP</td>
<td>Erosion and Sediment Control Plan</td>
</tr>
<tr>
<td>EWMS</td>
<td>Environmental Work Method Statements</td>
</tr>
<tr>
<td>Federal-CoA</td>
<td>Commonwealth Department of the Environment and Energy Condition of Approval</td>
</tr>
<tr>
<td>Term</td>
<td>Expanded text</td>
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</tr>
<tr>
<td>Heritage item</td>
<td>A place, building, work, relic, archaeological site, tree, movable object or precinct of heritage significance, that is listed or may be eligible to be listed under one or more of the following registers: the State Heritage Register under the <em>Heritage Act 1977</em> (NSW), a state agency heritage and conservation register under section 170 of the <em>Heritage Act 1977</em> (NSW), a Local Environmental Plan under the EP&amp;A Act, the World, National or Commonwealth Heritage lists under the <em>Environment Protection and Biodiversity Conservation Act 1999</em> (Commonwealth), and an Aboriginal object or Aboriginal place as defined in section 5 of the <em>National Parks and Wildlife Act 1974</em> (NSW)</td>
</tr>
</tbody>
</table>

- **ICNG**: NSW EPA Interim Construction Noise Guideline
- **NML**: Noise Management Level
- **NSW-CoA**: Condition of the NSW Infrastructure Approval
- **OACEMP**: Overarching Construction Environmental Management Plan
- **OEH**: NSW Office of Environment and Heritage
- **Principal, the**: NSW Roads and Maritime Services
- **Project, the**: The Northern Road Upgrade – Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park
- **REMM**: Revised Environmental Management Measure
- **Roads and Maritime**: NSW Roads and Maritime Services
- **SEARs**: Secretary’s Environmental Assessment Requirements
- **Secretary**: Secretary of the NSW Department of Planning and Environment (or nominee) whether nominated before or after the date on which the Infrastructure approval was granted
- **SPIR**: Submissions and Preferred Infrastructure Report
1 Introduction

Ancillary facilities are defined in the NSW Infrastructure Approval as:

“A temporary facility for construction of the project including an office and amenities compound, construction compound, material crushing and screening plant, materials storage compound, maintenance workshop, testing laboratory and material stockpile area.”

The definition in the Approval notes that: “Where an approved CEMP contains a stockpile management protocol, a material stockpile area located within the construction footprint is not considered to be an ancillary facility.”

As a stockpile management protocol will be prepared by the Contractors as part of the Construction CEMPs, material stockpile areas are not included in the definition of Ancillary Facilities for the Project.

The Environmental Impact Statement (EIS) for the Project identified a number of compounds and ancillary facilities that would be required for the construction of the Project, including locations for hardstand areas, temporary building and offices, parking areas, material laydown and storage areas. A description of the ancillary facilities assessed in the EIS is provided in Section 2 and their location shown in Annexure A. Section 2 outlines the key features, aspects and impacts and proposed environmental management measures for the assessed ancillary facilities.

Section 3 provides the ancillary facilities assessment criteria to be adopted where Contractors proposed to use ancillary facilities that are not identified by description and location in the EIS.

Section 4 of this report outlines the requirements for the preparation of the Ancillary Facilities Management Plan (AFMP).
## 2 Approved ancillary facilities

### 2.1 Key features

A summary of the key details of the ancillary facilities assessed in the EIS is contained in Table 2-1. The location of these facilities is shown in Annexure A.

**Table 2-1: Key features of the proposed ancillary facilities**

<table>
<thead>
<tr>
<th>Location</th>
<th>Purpose</th>
<th>Proposed activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>Materials storage</td>
<td>Storage of pits, pipes and culvert material. No stockpiling of earthworks.</td>
</tr>
<tr>
<td>C2</td>
<td>Materials storage</td>
<td>Storage of pits, pipes and culvert material. No stockpiling of earthworks.</td>
</tr>
<tr>
<td>C3</td>
<td>Staff amenities, shed and parking</td>
<td>Outpost site office (secondary compound). The site would consist of a shed, lunch room, portable toilets and parking.</td>
</tr>
<tr>
<td>C4</td>
<td>Staff amenities, shed and parking Materials storage, stockpiling</td>
<td>Outpost site office (secondary compound). The site would consist of a shed, lunch room, portable toilets and parking. Storage of items such as concrete pits, pipes and culverts. Could be used to stockpile topsoil, mulch and drainage backfill materials.</td>
</tr>
<tr>
<td>C5</td>
<td>Partially located on Commonwealth land associated with the Western Sydney Airport. Materials storage, stockpiling Pug mill</td>
<td>Storage of concrete pits, pipes and culverts. Could be used to stockpile topsoil, mulch and drainage backfill materials. Possible pug mill site.</td>
</tr>
<tr>
<td>C6</td>
<td>Materials storage, stockpiling</td>
<td>Storage of concrete pits, pipes and culverts. Could be used to stockpile topsoil, mulch and drainage backfill materials.</td>
</tr>
<tr>
<td>C7</td>
<td>Partially located on Commonwealth land associated with the Western Sydney Airport. Materials storage, stockpiling</td>
<td>Storage of concrete pits, pipes and culverts. Could be used to stockpile topsoil, mulch and drainage backfill materials.</td>
</tr>
<tr>
<td>C8</td>
<td>Staff amenities, shed and parking Materials storage, stockpiling Pug mill</td>
<td>Main compound. The site would consist of office facilities for the contractor and RMS. It would include toilets, amenities, car parking, a shed and lunch room. Storage of concrete pits, pipes and culverts. Stockpile of topsoil and mulch and drainage backfill materials. Possible pug mill site. Potential for out of hours work required for bridge construction at Adams Road.</td>
</tr>
<tr>
<td>Location</td>
<td>Purpose</td>
<td>Proposed activities</td>
</tr>
<tr>
<td>----------</td>
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<td>---------------------</td>
</tr>
<tr>
<td>C9</td>
<td>Staff amenities, shed and parking</td>
<td>Secondary compound. The site would consist of a shed, lunch room, portable toilets and parking facilities. Potential for out of hours work required for bridge construction at Adams Road.</td>
</tr>
<tr>
<td>C10</td>
<td>Materials storage, stockpiling</td>
<td>Storage of concrete pits, pipes and culverts. Could be used to stockpile topsoil, mulch and drainage backfill materials. Potential for out of hours work required for bridge construction at Adams Road.</td>
</tr>
<tr>
<td>C11</td>
<td>Materials storage, stockpiling</td>
<td>Storage of concrete pits, pipes and culverts. Could be used to stockpile topsoil, mulch and drainage backfill materials.</td>
</tr>
<tr>
<td>C12</td>
<td>Staff amenities, shed and parking</td>
<td>Main compound. The site would consist of office facilities for the contractor and RMS, toilets, amenities, tool sheds and car parking.</td>
</tr>
<tr>
<td>C13</td>
<td>Materials storage, stockpiling</td>
<td>Storage of concrete pits, pipes and culverts. Could be used to stockpile topsoil, mulch and drainage backfill materials.</td>
</tr>
<tr>
<td>C14</td>
<td>Staff amenities, shed and parking</td>
<td>Alternative site compound or small site office shed with amenities and car parking, and storage of concrete pits, pipes and culverts. Could be used to stockpile topsoil, mulch and drainage backfill materials.</td>
</tr>
<tr>
<td>C15</td>
<td>Materials storage, stockpiling</td>
<td>Storage of concrete pits, pipes and culverts. Could be used to stockpile topsoil, mulch and drainage backfill materials.</td>
</tr>
<tr>
<td>C16</td>
<td>Materials storage, stockpiling</td>
<td>Storage of concrete pits, pipes and culverts. Could be used to stockpile topsoil, mulch and drainage backfill materials. Main compound site</td>
</tr>
<tr>
<td>C17</td>
<td>Stockpiling</td>
<td>Stockpile site early in construction. However, once the new southbound carriageway is completed, it is unlikely to be used further as a stockpile site.</td>
</tr>
<tr>
<td>C18</td>
<td>Materials storage, stockpiling</td>
<td>Storage of concrete pits, pipes and culverts. Could be used to stockpile topsoil, mulch and drainage backfill materials.</td>
</tr>
<tr>
<td>C19</td>
<td>Materials storage, stockpiling</td>
<td>Storage of concrete pits, pipes and culverts. Could be used to stockpile topsoil, mulch and drainage backfill materials.</td>
</tr>
<tr>
<td>C20</td>
<td>Staff amenities, shed and parking</td>
<td>The site would consist of office facilities for the contractor and RMS, toilets, amenities, tool sheds and car parking.</td>
</tr>
<tr>
<td>C21</td>
<td>Materials storage, stockpiling</td>
<td>Storage of concrete pits, pipes and culverts. Could be used to stockpile topsoil, mulch and drainage backfill materials.</td>
</tr>
</tbody>
</table>
2.2  Environmental aspects and impacts

The impacts of the ancillary facilities listed in Table 3-1 were assessed in Section 5.4.12 of the EIS in accordance with criteria for ancillary facility location set out in the Critical SSI Standard Conditions of Approval for linear infrastructure projects (refer DP&E website). A summary of the assessment of the ancillary facilities against the criteria is provided in Annexure B.

Establishment and operation of the ancillary facilities will result in a range of potential construction noise, air (dust), biodiversity, traffic and visual impacts, including those identified in Table 2-2 below.

Table 2-2: Environmental aspects and potential impacts

<table>
<thead>
<tr>
<th>Environmental aspect</th>
<th>Potential impacts</th>
</tr>
</thead>
</table>
| Flora and fauna              | Vegetation clearing  
                             | Disturbance or mortality of fauna during clearing works  
                             | Habitat loss, degradation, or fragmentation |
| Traffic                      | Traffic impacts associated with spoil and material haulage including potential conflicts with local traffic and increased congestion |
| Erosion and sedimentation    | Mobilisation of sediment laden/contaminated runoff entering waterways and drainage lines |
| Noise and vibration          | Noise and vibration disturbance to neighbouring sensitive receivers during compound/ancillary facility establishment and operation  
                             | Noise disturbance to sensitive receivers due to out of hours work  
                             | Noise generated by operation of facility and construction traffic accessing facilities |
| Air quality                  | Generation of dust emissions and odours from stockpiles, access roads and transport of materials and from earthworks and clearing during facility establishment |
| Heritage                     | Permanent disturbance/destruction of identified heritage sites  
                             | Impact to undiscovered or undocumented heritage sites |
| Storage of hazardous substances | Accidental spills and leaks, resulting in pollution of waterways and soils |
| Waste and recycling          | Generation of waste by site personnel using offices and staff amenities  
                             | Generation of waste during establishment of ancillary facilities disposed of incorrectly, e.g. recyclable materials being sent to landfill |
| Visual amenity               | Potential for site hoardings or other exposed surfaces to be vandalised -  
                             | Potential for site lighting to affect the amenity of surrounding land uses -  
                             | Potential for waste to not be placed in appropriate bins and result in litter around the construction worksites |
| Contaminated land            | Potential for encountering previously undocumented contaminated material |
| Socio-economic               | Direct land use impacts associated with the location of construction compounds, temporarily disrupting use and access to land including rural or vacant land, residential and commercial uses |
2.2.1 Noise

Noise generated at ancillary facilities will potentially arise due to use of heavy vehicles and reversing beepers at stockpile, laydown or maintenance facilities and loading operations at larger compounds during night-time work. In addition, a pug mill may be required at ancillary facility C5 or C8. The requirement will be assessed further prior to commencement of Construction.

Residential receivers are located within 200 m of the proposed ancillary facilities. Noise impacts associated with construction noise at ancillary facilities are expected to occasionally exceed the ICNG Noise Management Levels (NMLs) at some sensitive receivers during standard hours of work. Exceedances of night time NMLs as a result of construction activity within ancillary facilities is expected to affect most sensitive receivers within the Project area at some time during Construction of the Project. Noise generated during out of hours due to the use of ancillary facilities will primarily be in association with activities such as paving and bridge construction. Bridge construction works will likely utilise ancillary facilities C8, C9 and C10. Use of ancillary facilities for paving works during out of hours will be dependent on the location of works at the time.

Works outside of standard Construction hours that do not meet the circumstances listed in CoA E26 or the EPL conditions may be undertaken if agreement between the Contractor and a substantial majority of noise sensitive receivers has been reached, where approved under the EPL. Further details of the requirements, including community consultation, relating to community agreements are provided in the overarching CNVMP (Appendix B3).

Further detail regarding out of hours work activities, locations and justification will be identified in the stage specific Construction CEMPs and CNVMPs to be developed by the Construction Contractors in accordance with the overarching CNVMP. Any variation to hours of work will be undertaken in accordance with NSW-CoA E26 and E27 and the conditions of the approved EPL.

Roads and Maritime and its Contractors will consult with identified potentially affected community, religious, educational institutions and noise and vibration-sensitive businesses to identify periods during which they would be adversely affected by noise generating works. Works will not be undertaken unless arrangements have been made with the potentially affected sensitive receivers (at no cost to the affected receiver) or approval has been provided by the Secretary, as required by NSW-CoA E29.

2.2.2 Traffic

With the exception of ancillary facilities C5 and C6, designated access and haulage routes for construction vehicles entering and exiting temporary ancillary facilities will be along The Northern Road and surrounding arterial network. Access to ancillary facility C5 and C6 will be via the mainline construction access to a suitable access point on The Northern Road. The use of local roads by heavy vehicles to access ancillary facilities will be limited as far as is reasonably practicable.

In accordance with NSW-CoA E28, construction vehicles arriving at ancillary facilities outside the standard hours of work will not queue with idling engines. Site personnel will be provided with specific training on mitigation of noise emissions from construction vehicles.
Further information is provided in the overarching CTMP (Appendix B1) and the Construction Contractors’ stage specific CTMPs.

2.2.3 Air quality

Construction activities associated with the Project, including operation of ancillary facilities, have the potential to generate dust and other emissions. Construction activities that involve handling, disturbance and management of materials have the highest potential to generate air quality impacts during construction. Establishment and operation of ancillary facilities will involve vegetation clearing, the disturbance and exposure of surfaces, operation of plant and machinery and haulage of materials. These activities may generate increased dust and debris that may settle on nearby properties, causing a disturbance to residents and business owners located near ancillary facilities. Substantial dust generation could result in health impacts to nearby receivers. Further information is provided in the Construction Air Quality Management Plan (refer to Appendix B6 of the OACEMP) and the Construction Contractors’ stage specific CAQMPs.

2.3 Environmental management measures

Specific environmental management measures relevant to ancillary facilities required by the conditions of approval and Roads and Maritime specifications are provided below.

In addition, a number of general environmental management measures identified in the EIS and SPIR that are relevant to ancillary facilities are referenced in the following OACEMP issue-specific environmental management plans:

- Construction Traffic Management Plan (Appendix B1) – ancillary facility access locations and haulage routes
- Construction Flora and Fauna Management Plan (Appendix B2) - procedures for vegetation clearance and retention
- Construction Noise and Vibration Management Plan (Appendix B3) - location of sensitive receivers, hours of work, noise and vibration goals and management measures to be implemented
- Construction Soil and Water Management Plan (Appendix B4) - erosion and sediment control
- Construction Cultural Heritage Management Plan (Appendix B5) – location of Aboriginal and non-Aboriginal heritage sites within the Project area and heritage management strategies
- Construction Air Quality Management Plan (Appendix B6) – minimisation of generation of dust and emissions
- Construction Waste and Energy Management Plan (Appendix B7) - waste management procedure, including disposal of waste and spoil management
- Community Communication Strategy – procedures to address community issues and provide community with information and notification during Construction
General revised environmental management measures identified in the SPIR that are relevant to ancillary facilities are listed in Table 2-3. While the general environmental management measures listed in Table 2-3 provide overarching guidance for management of environmental aspects and impacts relevant to ancillary facilities, the Contractors will identify specific management measures within the stage-specific AFMP prepared for the Construction CEMPs.

Further details on proposed management measures are provided in the sections following Table 2-3.
Table 2-3: Revised environmental management measures relevant to ancillary facilities

<table>
<thead>
<tr>
<th>ID</th>
<th>Measure / requirement</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-1</td>
<td>A Construction Traffic Management Plan (CTMP) would be developed, approved, implemented and monitored as part of the project. The TMP would:</td>
<td>Appendix B1 - Construction Traffic Management Plan</td>
</tr>
<tr>
<td></td>
<td>• ensure the use of local roads by heavy vehicles to access temporary ancillary facilities would be limited as far as is reasonably practicable.</td>
<td></td>
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<tr>
<td>B-1</td>
<td>A Flora and Fauna Management Plan (FFMP) would be developed for the project. The plan would include procedures for pre-clearance surveys that are consistent with the Roads and Maritime Biodiversity Guidelines (RTA, 2011). The FFMP would outline:</td>
<td>Appendix B2 – Construction Flora and Fauna Management Plan</td>
</tr>
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<td></td>
<td>• exclusion zones and fencing or other means to demarcate vegetation to be retained (endangered ecological communities) in close proximity to the works</td>
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<td></td>
<td>• clearing of vegetation and removal of bush rock (Guide 7) including implementation of the pre-clearing process (Guide 1) and the associated staged habitat removal process where hollow-bearing trees, habitat trees or bush rock is to be removed</td>
<td></td>
</tr>
<tr>
<td>B-6</td>
<td>Native vegetation would be re-established in accordance with Guide 3: Re-establishment of native vegetation of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (NSW Roads and Traffic Authority Ref # Environmental management measure Responsibility Timing 2011).</td>
<td>Appendix B4 – Construction Soil and Water Management Plan</td>
</tr>
<tr>
<td>SWC-1</td>
<td>A Soil and Water Management Plan (SWMP) would be developed in accordance with the Roads and Maritime specification G38 – Soil and Water Management and the Blue Book – Soils and Construction – Managing Urban Stormwater Volume 1 (Landcom, 2004) and Volume 2D (DEC, 2008a). The SWMP would include but not be limited to:</td>
<td>Appendix B4 – Construction Soil and Water Management Plan</td>
</tr>
<tr>
<td></td>
<td>• an erosion and sedimentation control plan and maintenance schedule for ongoing maintenance of temporary erosion and sediment controls</td>
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<td></td>
<td>• a Sediment Basin Management Plan to guide appropriate management of runoff during construction and operation</td>
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<td></td>
<td>• an incident emergency spill plan which would include measures to avoid spillages of fuels, chemicals and fluids onto any surfaces or into any nearby waterways</td>
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<tr>
<td>SWC-6</td>
<td>Erosion and sediment controls would be implemented before construction starts in accordance with Blue Book requirements:</td>
<td></td>
</tr>
<tr>
<td>ID</td>
<td>Measure / requirement</td>
<td>Reference</td>
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<tr>
<td>SWC-8</td>
<td>All fuels, chemicals, and liquids would be stored at least 50 m away from the existing stormwater drainage system and would be stored in an impervious bunded area within the compound site. The refuelling of plant and maintenance machinery would be undertaken at least 50m from waterways with appropriate spill containment mechanisms in place such as impervious bunding and the provision of spill kits nearby. Vehicle wash downs and/or concrete truck washouts would be undertaken within a designated bunded area of an impervious surface or undertaken off-site.</td>
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<tr>
<td>SWC-12</td>
<td>There would be no stockpiling of soil or construction materials within utility easement corridors</td>
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</tr>
<tr>
<td>NV-1</td>
<td>Construction Noise and Vibration Management Plan (CNVMP) would be prepared during the detailed design stage of the project and applied to all construction processes throughout the project. The CNVMP would be prepared in accordance with the requirements in the ICNG and RMS CNVG.</td>
<td>Appendix B3 – Construction Noise and Vibration Management Plan</td>
</tr>
<tr>
<td>NV-2</td>
<td>Viable mitigation measures that would be expected to be deployed by the construction contractor once the final construction sequencing and scheduling is known include:</td>
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<td>• minimising the annoyance from reversing alarms by either fitting closed circuit monitors or non-tonal reversing alarms (“quackers”) on vehicles or deploying ‘spotters’ to oversee reversing movement</td>
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<tr>
<td></td>
<td>• hoarding (2.4 metres) to be installed at the perimeter of all ancillary facilities except where it can be justified that the acoustic benefit of the hoarding is not warranted</td>
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<td></td>
<td>• haulage routes will be located as far away as possible from residential receivers, where this is reasonable and feasible.</td>
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<td></td>
<td>• static noise sources, such as generators, pumps and lighting towers, will be located as far as possible from sensitive receivers</td>
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<td></td>
<td>• loading and unloading will be carried out away from sensitive receivers, where practicable</td>
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<tr>
<td></td>
<td>• ensure all deliveries occur during standard construction hours where reasonable and feasible.</td>
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</table>

<p>| AH-1  | A Construction Cultural Heritage Management Plan (CHMP) would be prepared prior to construction and implemented as part of the CEMP. The CHMP would include details on:                                                                                                                      |
|       | • the erection of any temporary fencing for the protection of heritage sites being partially impacted |
|       | • unexpected finds procedures | Appendix B5 - Construction Cultural Heritage Management Plan |</p>
<table>
<thead>
<tr>
<th>ID</th>
<th>Measure / requirement</th>
<th>Reference</th>
</tr>
</thead>
</table>
| NAH-1| A Construction Cultural Heritage Management Plan would be prepared as part of the CEMP prior to construction in consultation with the NSW Heritage Division of OEH. As a minimum, the plan would include the following:  
• a list, plan and GIS layer showing the location of identified heritage items  
• provide protocols and procedures to be enacted during construction to ensure the protection of items of heritage significance  
• an unexpected finds procedure in the event that further sites are identified during works | Appendix B5 - Construction Cultural Heritage Management Plan |
| SE-2 | Areas affected by construction would be reinstated and restored in accordance with the urban design and landscape strategy | Urban Design and Landscape Plan  
Appendix A4 Section 2.3.6 and Annexure C |
| SE-7 | Undertake property adjustments and relocation of infrastructure (for example, fencing, dams, property access) in consultation with the property owner. | Community Communication Strategy  
Contractor’s CEMP  
Approved Property Adjustment Plan |
| SE-9 | On-going consultation with local business owners, including owners of agricultural businesses, located close to construction works about the timing, duration and likely impact of construction activities on their business operations would be carried out. | |
| AQ-2 | Dust and emissions generation at compounds would be managed by:  
• installation of perimeter screening around compound sites  
• impose low speeds limits around compound sites to limit the generation of dust from vehicle movements  
• apply wheel-wash or rumble grid facilities at access points to limit the tracking of materials beyond the site boundary  
• ensure that compound area surfaces are well compacted or sealed to limit the potential for dust generation  
• regularly water stockpiles and limit the amount of materials stockpiled around the site  
• position stockpiling areas as far as possible from surrounding receivers  
• limit stockpiling activities during conditions where winds are blowing strongly in the direction(s) from the stockpiling location to nearby receivers  
• consultation would be carried out consistent with the Community Consultation Framework in relation to air quality near ancillary sites and relevant incident management process during construction. | Appendix B4 – Construction Soil and Water Management Plan  
Appendix B6 – Construction Air Quality Management Plan  
Community Communication Strategy |
<table>
<thead>
<tr>
<th>ID</th>
<th>Measure / requirement</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQ-3</td>
<td>Dust generation and emissions from construction activities and materials haulage would be managed by • install depositional dust gauges to quantify dust levels and determine whether control measures are adequate or whether further actions are required • these gauges should be installed at regular intervals along the project alignment at representative receiver locations. Gauges should also be installed around major construction compound and stockpiling locations.</td>
<td>Appendix B6 – Construction Air Quality Management Plan and Air Quality Construction Monitoring Program</td>
</tr>
<tr>
<td>WR-1</td>
<td>The waste minimisation hierarchy principles of avoid/reduce/reuse/recycle/dispose would be used</td>
<td>Appendix B7 - Construction Waste and Energy Management Plan</td>
</tr>
<tr>
<td>WR-2</td>
<td>A project-specific Construction Waste and Energy Management sub-plan (CWEMP) would be prepared before construction. The plan would adopt the Resources Management Hierarchy principles of the WARR Act and include: • re-use and recycling practices to be implemented • measures to be applied where waste is required to be handled and stored onsite prior to onsite reuse or offsite recycling/disposal • specific measures to manage vegetation waste • procedures for the identification, handling and disposal of hazardous materials including potential asbestos waste</td>
<td>Appendix B7 - Construction Waste and Energy Management Plan</td>
</tr>
<tr>
<td>WR-3</td>
<td>All wastes, including contaminated wastes, would be identified and classified in accordance with the Waste Classification Guidelines: Part 1 Classifying Waste</td>
<td>Appendix B7 - Construction Waste and Energy Management Plan</td>
</tr>
<tr>
<td>WR-4</td>
<td>Disposal of any non-recyclable waste would be in accordance with the POEO Act and Waste Classification Guidelines: Part 1 Classifying Waste</td>
<td>Appendix B7 - Construction Waste and Energy Management Plan</td>
</tr>
<tr>
<td>UD-2</td>
<td>The design of temporary lighting must avoid unnecessary light spill on adjacent residents or sensitive receivers and be designed in accordance with AS 1158.1-1986.</td>
<td>Ancillary Facilities Management Plan</td>
</tr>
<tr>
<td>UD-3</td>
<td>Consider the provision of barriers to screen views from visually sensitive nearby areas such as rural dwellings, residential and recreational areas</td>
<td>Ancillary Facilities Management Plan</td>
</tr>
<tr>
<td>UD-4</td>
<td>Contain construction activities within the construction works zone boundary and occupy the minimum area practicable for limiting impacts on adjoining areas, including the extent of native vegetation clearing.</td>
<td>Contractor’s CEMP</td>
</tr>
<tr>
<td>ID</td>
<td>Measure / requirement</td>
<td>Reference</td>
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</tr>
<tr>
<td>HR-2</td>
<td>Storage of dangerous goods and hazardous materials would occur in accordance with suppliers’ instructions and relevant Australian Standards and may include bulk storage tanks, chemical storage cabinets / containers or impervious bunds</td>
<td>Work, Health and Safety plans Appendix B4 – Construction Soil and Water Management Plan</td>
</tr>
<tr>
<td>HR-4</td>
<td>Secure, bunded areas would be provided around storage areas for oils, fuels and other hazardous liquids</td>
<td>Appendix B4 – Construction Soil and Water Management Plan</td>
</tr>
</tbody>
</table>
2.3.1 Pre-construction land condition assessment

A pre-construction land condition assessment will be arranged by the Contractor prior to possession of any area of land nominated by Roads and Maritime for the location of site facilities, including areas for construction materials storage and stockpiling in accordance with the requirements of G36.

The pre-construction land condition assessment will identify any existing waste or stored materials on the land prior to the area being occupied.

The pre-construction land condition assessment will be undertaken by an independent environmental consultant approved by Roads and Maritime, with experience in site environmental inspections and construction waste management.

The pre-construction land condition assessment report will include text, photographs and maps to describe any existing waste or stored materials on the site. The report will be prepared in accordance with Management of Wastes on Roads and Maritime Services Land (Roads and Maritime, 2014) (refer Annexure C).

A pre-construction land condition assessment will be undertaken for any areas, additional to those nominated, that have been authorised by Roads and Maritime and the necessary statutory and environmental planning approvals for the intended use of the land will be obtained.

The pre-construction land condition assessment report will be submitted to the Roads and Maritime Environmental Manager (or delegate) for approval, prior to establishment of the ancillary facility.

The Roads and Maritime Environmental Manager (or delegate), may undertake an inspection of the ancillary facility site, prior to commencement of establishment activities by the Contractor.

2.3.2 Boundary fencing

In accordance with NSW-CoA A18, the Contractor will erect boundary fencing around all ancillary facilities that are adjacent to sensitive receivers for the duration of Construction, unless otherwise agreed with the affected receivers(s). The boundary fencing will minimise visual, noise and air quality impacts on adjacent sensitive receivers, as required by NSW-CoA A19.

2.3.3 Temporary acoustic barriers

In accordance with NSW-CoA E31, the Contractors will install temporary acoustic barriers (2.4 metres high) as soon as site establishment works at the ancillary facility are completed and prior to commencing any works at the facility. The schedule for installing and removing the acoustic barriers, and justification for not installing acoustic barriers in certain locations, will be described in the AFMP (refer Section 4). Acoustic barriers will be inspected during weekly inspections and maintained to ensure they remain effective throughout the period of use of the facility.
2.3.4 Dust and emissions management

To control the spread of potentially dust-generating materials off site, the Contractors will install appropriate controls at ancillary facility access points to limit the tracking of materials beyond the site boundary. Inspections of vehicle tracks will be undertaken during weekly environmental inspections throughout construction of the Project to monitor the effectiveness of environmental controls. The Contractor Traffic Managers will install clear signage to impose low speeds limits around compound sites and ancillary facilities to limit the generation of dust from vehicle movements.

The Contractors will prepare Erosion and Sediment Control Plans (ESCPs) in accordance with Managing Urban Stormwater: Soils and Construction (Landcom, 2004) for the establishment and operation of ancillary facilities. The ESCPs will be included in the Contractor’s Construction Soil and Water Management Plan (refer Appendix B4 of the OACEMP). The ESCPs will include measures to control dust, including ensuring that all compound area surfaces are well compacted or sealed to limit the potential for dust generation. Car parks at compounds and ancillary facilities will be sealed to eliminate dust. If dust becomes an issue, dust controls will include the use of water carts to minimise impacts on sensitive receivers.

Decommissioning and rehabilitation of ancillary facilities will be undertaken progressively where practical. Ancillary facility sites will be rehabilitated to at least their pre-construction condition, including stabilisation and re-vegetation as per the Urban Design and Landscape Management Plan in order to minimise exposure of surfaces.

Regular monitoring of dust and emissions at ancillary facilities and compound sites will be undertaken in accordance with the Air Quality Construction Monitoring Program (refer Appendix B6 of the OACEMP). Additional monitoring will occur where complaints are received from residents or business owners. Where monitoring results determine that it is required, the Contractors will identify and implement corrective or preventative actions to minimise future exceedances or non-conformances of air quality management performance.

When locations of ancillary facilities are confirmed, the Contractor Community Relations Managers will undertake consultation with sensitive receivers located in the vicinity of ancillary facilities to determine if additional mitigation measures are required to minimise impacts from dust or emission-generating activities associate with the ancillary facilities. Consultation will be carried out in accordance with the principles and procedures outlined in the Community Communication Strategy.

2.3.5 Training

All site personnel will undergo induction and training relating to ancillary facilities including:

- recognition and awareness of site hazards
- contingency and emergency response planning
- spill management
- handling and disposal of hazardous goods and materials
- construction vehicle noise minimisation measures
- vegetation clearing
- sensitive areas and exclusion zones
• unexpected heritage finds procedure
• site-specific Work, Health and Safety issues, such as location of protective equipment
• Safe Work Method Statements for specific activities
• waste and recycling.

2.3.6 Post construction restoration and land condition assessment

At the completion of the Project stage, the Contractor will decommission the ancillary facilities and any disturbed land rehabilitated and landscaped to a minimum standard of its pre-construction condition. Any disturbed areas (including areas for site compounds, material storage, access and haul roads and project accommodation) will be restored to a condition similar to that existing before disturbance, unless authorised otherwise by Roads and Maritime.

Restoration will include spill clean-up and soil remediation where applicable, topsoiling of the area, weed control and seeding, planting, watering and maintenance, removal of temporary erosion control devices and of sediment in drainage lines plus removal of unused construction materials.

Areas disturbed as a result of Construction will be progressively rehabilitated as soon as practicable.

The work site will be left tidy and free of rubbish upon Completion of Construction.

Following restoration of the land by the Contractor, a post-construction land condition assessment will be conducted by an independent environmental consultant approved by Roads and Maritime. The report will be prepared in accordance with Management of Wastes on Roads and Maritime Services Land (Roads and Maritime, 2014) (refer Annexure C). The post-construction land condition assessment will confirm that no unauthorised Project waste remains on the site. The post-construction land condition assessment report will be submitted to the Roads and Maritime Environmental Manager (or delegate).

If required by the post-construction land condition assessment report, the Contractors will undertake additional restoration works to ensure all waste is removed and the site returned to pre-construction condition.

The Roads and Maritime Environmental Manager, or delegate, may undertake an inspection of the ancillary facility site, prior to approving that it has been restored.
3 Ancillary facilities assessment criteria

Where Contractors propose to use ancillary facilities, including stockpiles located outside of the Construction footprint, that are not identified by description and location in the EIS (as listed in Table 2-1), they must be assessed against and meet the criteria listed in Table 3-1 unless otherwise approved by the Secretary, in accordance with NSW-CoA A15. The Contractors will document the outcomes of the assessment in a report to be included in the AFMP which will include:

- details on the site location and access arrangements
- a description of the activities to be undertaken including the hours of use and storage of dangerous goods
- outcomes of the assessment of the site against the locational criteria set out in Table 3-1
- an assessment of the environmental impacts on the site and the surrounding environment, including, but not limited to noise, vibration, air quality, traffic and access during site establishment and operation, flora and fauna, heritage, erosion and sedimentation, water quality and light spill
- details of the mitigation, monitoring and management procedures specific to the ancillary facility that would be implemented to minimise environmental impacts
- demonstrated overall consistency with the approved Project (including impacts identified in the EIS and SPIR.

A copy of the assessment report will be provided to the Secretary, as part of the AFMP, at least one month prior to the establishment of the facility.

Where any alternative sites are located outside the Project construction footprint, further environmental assessment will be required.

3.1 Minor ancillary facilities

Minor ancillary facilities include offices, sheds and staff amenities. In accordance with the responsibilities of the ER set out in NSW-CoA A24, the ER can assess the impacts of minor ancillary facilities.

In assessing minor ancillary facilities that are not identified in the EIS and which do not satisfy the criteria set out in Table 3-1, the ER will consider the criteria outlined in NSW-CoA A17, that the ancillary facility is to have:

- no greater environmental and amenity impacts than those that can be managed through the implementation of environmental measures detailed in the OACEMP
- minimal amenity impacts to surrounding residences and businesses, after consideration of matters such as compliance with the ICNG, traffic and access impacts, dust and odour impacts, and visual (including light spill) impacts
- minimal environmental impact with respect to waste management and flooding
- no impacts on biodiversity, soil and water, and heritage items beyond those already approved under the Project approval.
Table 3-1: Ancillary facilities assessment criteria (NSW-CoA A15) for facilities not assessed in the EIS

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Yes/No</th>
<th>Evidence</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>Purpose</strong></td>
<td></td>
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<tr>
<td><strong>Is the facility a minor facility (eg office, shed or staff amenities)?</strong></td>
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</tr>
<tr>
<td><strong>Criteria</strong></td>
<td></td>
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</tr>
<tr>
<td>1. Is the facility development of a type that would, if it were not for the purpose of the Project, otherwise be exempt or complying development? OR</td>
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<td></td>
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</tr>
<tr>
<td>2. Is facility located at least 50 metres from any waterway unless an erosion and sediment control plan is prepared and implemented so as not to adversely affect water quality in the waterway in accordance with <em>Managing Urban Stormwater</em> series?</td>
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<tr>
<td>3. Is facility located within or adjacent to land upon which the CSSI is being carried out?</td>
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<tr>
<td>4. Does facility have ready access to the road network?</td>
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<tr>
<td>5. Is facility located to prevent heavy vehicles travelling on local streets or through residential areas to access the facility, except as identified in the EIS or SPIR?</td>
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<tr>
<td>6. Is facility located so as to be in accordance with the <em>Interim Construction Noise Guideline</em> (DECC 2009) or as otherwise agreed in writing with affected landowners and occupiers?</td>
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<tr>
<td>7. Is facility located so as not to require vegetation clearing beyond the extent of clearing approved under other terms of this approval except as approved by the ER as minor clearing?</td>
<td></td>
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<tr>
<td>8. Is facility located so as not to have any impact on heritage items (including areas of archaeological sensitivity) beyond the impacts identified, assessed and approved under other terms of the Project approval?</td>
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</tr>
<tr>
<td>9. Is facility located so as not to unreasonably interfere with lawful uses of adjacent properties that are being carried out at the date upon which construction or establishment of the facility is to commence?</td>
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<tr>
<td>10. Is facility located so as to enable operation of the ancillary facility during flood events and to avoid or minimise, to the greatest extent practicable, adverse flood impacts on the surrounding environment and other properties and infrastructure?</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Criteria</td>
<td>Yes/No</td>
<td>Evidence</td>
<td>Comments</td>
</tr>
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<tr>
<td>11. Is facility located so as to have sufficient area for the storage of raw materials to minimise, to the greatest extent practicable, the number of deliveries required outside standard construction hours?</td>
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<tr>
<td><strong>Approval of minor ancillary facility</strong></td>
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<tr>
<td>Are criteria 1 or 2 - 11 above met?</td>
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<tr>
<td>If criteria 1 or 2 - 11 above not met, does the ancillary facility have:</td>
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<tr>
<td>12. • no greater environmental and amenity impacts than those that can be managed through the implementation of environmental measures detailed in the OACEMP and</td>
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</tr>
<tr>
<td>13. • minimal amenity impacts to surrounding residences and businesses, after consideration of matters such as compliance with the ICNG, traffic and access impacts, dust and odour impacts, and visual (including light spill) impacts</td>
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<td></td>
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<tr>
<td>14. • minimal environmental impact with respect to waste management and flooding</td>
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<tr>
<td>15. • no impacts on biodiversity, soil and water, and heritage items beyond those already approved under the Project approval.</td>
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<tr>
<td>If criteria 1 OR 2 - 11 OR 12 – 15 above are met, ER can approve the facility.</td>
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<tr>
<td><strong>Date of approval by ER</strong></td>
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</tbody>
</table>
4 Ancillary Facilities Management Plan

In accordance with NSW-CoA A16, prior to establishment of any ancillary facility (other than minor ancillary facilities), the Contractors will prepare an Ancillary Facilities Management Plan (AFMP) as part of the Contractors’ CEMPs. The AFMP will detail the management of the ancillary facilities and include:

- a description of activities to be undertaken during construction (including scheduling of construction)
- a program for ongoing analysis of the key environmental risks arising from the construction activities, including an initial risk assessment undertaken prior to the commencement of construction of the Project
- details of how the construction activities will be carried out to:
  - meet the performance outcomes stated in the EIS and SPIR
  - manage the risks identified in the risk analysis undertaken in the environmental risk assessment prepared for the EIS.

The AFMP will be submitted for approval to the Secretary one month prior to commencement of installation of any ancillary facilities.

4.1 Consultation

The Contractors’ AFMPs will be developed in consultation with the EPA and local Councils (Liverpool City Council and Penrith City Council as appropriate).

In accordance with NSW-CoA A6 and A8, evidence of consultation during the preparation of the Contractors’ AFMPs will be appended to the AFMP and submitted to the Secretary. The information documented will include details of the consultation activities undertaken, a register of completed or attempted engagement with relevant stakeholders, issues raised and addressed, follow-up actions, any outstanding or unresolved issues and reasons why they remain to be addressed. The Contractors will carry out ongoing consultation with the EPA and Councils regarding issues relevant to ancillary facilities throughout Construction of the Project.
Annexure A – Location of ancillary facilities assessed in the EIS and SPIR
Note: extent of stages is indicative only
Annexure B – EIS assessment of ancillary facility locations
The ancillary facilities identified in the EIS were assessed in accordance with the Critical SSI Standard Conditions of Approval for linear infrastructure projects which can be accessed on the DPE website:


These standard conditions have been developed to help infrastructure providers understand the types of conditions likely to be applied to State significant projects if they are approved, including conditions related to ancillary facilities. Condition B4 of the standard conditions outlines expected criteria for locating ancillary facilities. The criteria are generally as follows:

(a) Located more than 50 m from a waterway unless an erosion and sediment control plan is prepared and implemented so as not to affect water quality in the waterway in accordance with Managing Urban Stormwater series
(b) Within or adjacent to land where the critical state significant infrastructure is being carried out
(c) With ready access to a road network
(d) So as to avoid the need for heavy vehicles to travel on local streets or through residential areas in order to access the facility
(e) On level land
(f) So as to be in accordance with the Interim Construction Noise Guidelines (DECC, 2009) or as otherwise agreed in writing with affected landowners and occupiers
(g) So as not to require vegetation clearing beyond the extent of clearing approved under other terms of this approval except as approved by the ER as minor clearing
(h) So as not to have any impact on heritage items (including areas of archaeological sensitivity) beyond the impacts identified, assessed and approved under other terms of this approval
(i) So as not to affect lawful uses of adjacent properties that are being carried out at the date upon which construction or establishment of the facility is to commence
(j) To enable operation of the ancillary facility during flood events referred to in Section 8.1 and to avoid or minimise, to the greatest extent practicable, adverse flood impacts on the surrounding environment and other properties and infrastructure
(k) So as to have sufficient area for the storage of raw materials to minimise, to the greatest extent practicable, the number of deliveries required outside standard construction hours.

The results of the assessment of each proposed ancillary facility against the criteria above is summarised in Table B-1.
Table B-1: Summary of proposed ancillary site locations against criteria

<table>
<thead>
<tr>
<th>Compound location</th>
<th>Ancillary facility site location criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k)</td>
</tr>
<tr>
<td>Stage 4</td>
<td></td>
</tr>
<tr>
<td>C1</td>
<td>Y Y Y Y Y Y No Y Y Y Y Y</td>
</tr>
<tr>
<td>C2</td>
<td>Y Y Y Y Y Y No Y Y Y Y Y</td>
</tr>
<tr>
<td>C3</td>
<td>Y Y Y Y Y Y No Y Y Y Y Y</td>
</tr>
<tr>
<td>C4</td>
<td>Y Y Y Y Y Y No Y Y Y Y Y</td>
</tr>
<tr>
<td>C5</td>
<td>Y Y No Y Y Y Y* Y Y Y Y Y</td>
</tr>
<tr>
<td>C6</td>
<td>Y Y No Y Y Y Y Y Y Y Y</td>
</tr>
<tr>
<td>C7</td>
<td>Y Y Y Y Y Y No Y Y Y Y Y</td>
</tr>
<tr>
<td>C8</td>
<td>Y Y Y Y Y Y No* Y Y Y Y Y</td>
</tr>
<tr>
<td>Stage 6</td>
<td></td>
</tr>
<tr>
<td>C9</td>
<td>Y Y Y Y Y Y No Y Y Y Y Y</td>
</tr>
<tr>
<td>C10</td>
<td>Y Y Y Y Y Y No Y Y Y Y Y</td>
</tr>
<tr>
<td>C11</td>
<td>Y Y Y Y Y Y No Y Y Y Y Y</td>
</tr>
<tr>
<td>C12</td>
<td>Y Y Y Y Y Y No Y Y Y Y Y</td>
</tr>
<tr>
<td>Stage 5</td>
<td></td>
</tr>
<tr>
<td>C14</td>
<td>Y Y Y Y Y Y No Y Y Y Y Y</td>
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<td>C15</td>
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<tr>
<td>C16</td>
<td>Y Y Y Y Y Y No Y Y Y Y Y</td>
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<tr>
<td>Stage 5</td>
<td></td>
</tr>
<tr>
<td>C17</td>
<td>Y Y Y Y Y Y No Y Y Y Y Y</td>
</tr>
<tr>
<td>C18</td>
<td>Y Y Y Y Y Y No Y Y Y Y Y</td>
</tr>
<tr>
<td>C19</td>
<td>Y Y Y Y Y Y No Y Y Y Y Y</td>
</tr>
<tr>
<td>C20</td>
<td>Y Y Y Y Y Y No Y Y Y Y Y</td>
</tr>
<tr>
<td>Stage 5</td>
<td></td>
</tr>
<tr>
<td>C21</td>
<td>Y Y Y Y Y Y No Y Y Y Y Y</td>
</tr>
</tbody>
</table>

*Preferred locations for pug mill
Annexure C – Pre-construction land condition assessment report procedure
ENVIRONMENTAL PROCEDURE
MANAGEMENT OF WASTES ON ROADS AND MARITIME SERVICES LAND

August 2014
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1. Introduction

The construction of road projects often requires contractors to occupy land in Roads and Maritime Services (RMS) owned or leased land for ancillary construction activities such as the temporary stockpiling of soils, concrete batching and locating of site sheds. RMS land adjacent to road corridors may also be used to construct permanent structures such as visual and noise mounds.

This document contains RMS’ procedures for:

- Using RMS owned or leased land sites for ancillary road construction purposes and
- Permanently locating wastes onto RMS owned or leased sites for the creation of permanent structures such as noise and visual mounds.

For the purposes of this procedure, an RMS land site is defined as land that is either:

- Residual to RMS road proposals
- Land that may be required for future infrastructure proposals
- Land that RMS has leased for ancillary construction or maintenance purposes.

1.1. Purpose

The purpose of this document is to set out the RMS approval and waste management procedures for utilising RMS land sites for road construction activities.

This procedure has been developed to minimise the risks of unauthorised waste materials remaining on RMS land after the completion of road construction activities.

The procedure details:

- Environmental planning and internal RMS approval processes.
- Pre-construction land condition assessments.
- Post-construction land condition assessments and site hand back processes.

A summary flowchart outlining the key steps in this procedure is shown in Figure 1.

1.2. Scope

This procedure applies to all RMS land sites outside the road corridor that are used for temporary ancillary construction activities or for permanently placing materials on these sites for beneficial re-use. The procedure applies to RMS and its construction and maintenance contractors.

Temporary ancillary construction activities include but are not limited to:

- Soil and rock stockpiling
- Storage of construction materials
- Locating site sheds, storage sheds and maintenance yards
- Concrete crushing
- Temporary concrete or asphalt batching plants
- Location of temporary sediment basins
- Vegetation storage
- Construction staging areas (e.g. assembling bridge structures)
Permanent beneficial re-uses include:

- Noise mounds
- Visual mounds
- Engineered fill
- Flood relief mounds
Management of Wastes on Roads and Maritime Services Land

Figure 1: Environmental Procedure - Management of Wastes on RMS Land

Summary Flow Chart

Approval to Occupy RMS Owned Site
- RMS owned site identified for temporary construction use or permanent beneficial re-use (e.g. permanent noise or visual mound).
- Refer Section 2.2.5 for definition of beneficial re-uses.
- RMS Project Manager (pre-construction phase) or Contractor (if Contractor identifies additional non RMS nominated site) applies in writing to RMS Regional Commercial Property Officer to use site for temporary construction activity or to permanently place materials on site.
- Refer Section 2.1
- RMS Regional Commercial Property Officer provides written approval to use site subject to the planning and environmental regulatory approvals being obtained.
- Project Manager ensures that statutory planning and environmental approvals have been obtained to use site for proposed temporary or permanent activity.

Pre Construction Land Condition Assessment
- Contractor arranges for pre-construction land condition assessment and report for each RMS approved site prior to taking possession of the site.
- Refer Section 3.1 Pre/forma pre-construction report at Attachment C
- Copy of pre-construction land condition assessment report provided to RMS Project Manager who forwards copies onto Regional Commercial Property Officer, Regional Environment Manager.
- RMS Project Manager provides approval for construction contractor to take possession of site.
- Construction contractor uses site for approved activities in compliance with planning and environmental regulatory requirements and RMS environmental management specifications.

Post Construction Land Condition Assessment
- Contractor arranges post construction land condition assessment and report prior to handing site back to RMS.
- Refer Section 5 for assessment procedure and Appendix D for copy of proforma report.
- Assessment report recommends site hand back to RMS
  - Yes
  - RMS Project Manager formally accepts site back from contractor and advises RMS Regional Commercial Property Officer.
  - No
  - RMS Project Manager instructs Contractor to implement the corrective actions based on the recommendations in the post construction site assessment report.
  - Corrective actions implemented?
    - Yes
      - RMS Project Manager to implement recommended corrective actions and manage the issue in accordance with the contract conditions.
    - No
      - RMS Project Manager to implement recommended corrective actions and manage the issue in accordance with the contract conditions.
2. Obtaining Approval to Use RMS Land Sites

Summary of Approvals Process

2.1 Internal RMS Approval to Occupy Sites

Each RMS regional office has a regional property team, with some teams having a Commercial Property Officer. For the purposes of this procedure, it is assumed, subject to any clarification of organisational roles, that Commercial Property Officers are responsible for providing approval for the use of RMS sites for construction purposes.

RMS’ Project Managers are required to obtain the prior approval of the relevant regional property team prior to nominating any RMS sites for use by the contractor.

In some cases, construction contractors may request the use of additional RMS land not nominated by the RMS Project Manager for temporary or permanent construction use. In these cases, it will be the responsibility of the contractor to seek all RMS and statutory approvals (such as planning approvals) for the use of these sites.

Project Managers or contractors should seek approval via email specifying:

- The site location (Lot and DP)
- Portion of the site required
- Intended use of the site
- Type and estimated quantities of any wastes or materials to be placed on site
- Period of time the site will be required

RMS Regional Commercial Property Officers are to provide written approval for the temporary or permanent use of the site and include any approval conditions. Examples of approval conditions include:

- Requiring that all necessary statutory environmental and planning approvals are obtained to use the proposed site for the proposed construction activities (see Section 2.2).
- Any post construction requirements, such as post construction engineered fill compaction requirements to prepare the site for future land use (such as residential building).

The RMS Project Manager is to ensure that the Contractor is made aware of the approval conditions provided by RMS Commercial Property Officers throughout the contract.

Prior to a contractor taking possession of the site, the contractor is to arrange for a pre-construction land condition assessment to be undertaken as per Section 3 of this procedure.

Important Note: RMS should not make any sites available to a contractor where the site is known or suspected to be contaminated by previous land uses and that contamination poses a known risk to human health and/or the environment. The environmental assessment for the road project should have identified any known or potential contaminated sites.
2.2 Statutory Approvals

This section provides a summary of key statutory environment and planning obligations that relate to waste management and the temporary or permanent use of sites. Detailed advice on environment and planning compliance requirements can be obtained from RMS Environment Branch or RMS Legal Branch.

2.2.1 Environmental Planning and Assessment Act, 1979 (EP&A Act)

RMS has a statutory responsibility under the EP&A Act to consider the impacts of its activities on the environment. This extends to the use of sites for any temporary or permanent road construction related use.

RMS fulfils its statutory planning responsibility through the environmental impact assessment (EIA) process. The likely environmental impacts of a proposed activity are assessed to inform the decision to proceed.

Key Approval Requirements: All RMS land sites proposed for temporary or permanent road construction activities must be assessed and approved for use under the EP&A Act prior to the commencement of any proposed activities.

The proposed activities and specific sites to be used must be described and assessed in the project environmental assessment report, Environmental Impact Assessment (EIS) or Review of Environmental Factors (REF). If the proposed site and activities are not described in the original project EIS or REF then a supplementary assessment must be undertaken and approval obtained. RMS Environment Branch can advise on the correct planning approval pathway to take and the level of documentation required.

Where planning approval has been issued by the Department of Planning it is important to comply with all conditions attached to the approval including those related to the temporary storage of materials or construction and operation of ancillary facilities.

A Best Practice Note for addressing waste contingency planning in environmental assessment documents is provided at Section 2.2.5 of this procedure. The practice note aims to cover the range of possible waste activities that may occur during the construction phase so as to reduce the need to obtain supplementary approvals during the construction stage.

2.2.2 Protection of the Environment Operations Act 1997 (POEO Act)

The Protection of the Environment Operations Act:

- Specifies requirements for licences and the regulation of various activities that have the potential to pollute or harm the environment.
- Integrates EPA licensing with the development approval procedures under the Environmental Planning and Assessment Act 1979.
- Provides for the issuing of clean-up notices, prevention notices and environment protection notices.
- Classifies environment protection offences and penalties.
- Allows for mandatory audits and provides authorised officers’ with the power to undertake investigations.

Key Compliance Requirements: Refer to Attachment A to determine if the proposed waste activity at the site requires an Environment Protection Licence (EPL) noting that the proposed activity may already be covered by an existing EPL for the road construction project. If this is the case, an additional EPL may not be required.
2.2.3 Protection of the Environment Operations (Waste) Regulation 2005

This Regulation sets out the provisions related to the storage and transportation of waste as well as reporting and record keeping requirements for waste facilities. It also provides for:

- Setting special requirements for the management of certain special wastes including asbestos.
- Payment of waste contributions (also referred to as a waste and environment levy) by the occupiers of licensed waste facilities for each tonne of waste received at the facility or generated in a particular area.
- Exemption of certain occupiers or types of waste from paying waste contributions and from requiring an Environment Protection Licence.

**Key Compliance Requirements:** RMS and its contractors must comply with the waste tracking and reporting requirements that apply to wastes. The regulation also specifies the waste and environment levy fees that apply to the disposal of wastes at licensed waste facilities.

“Resource recovery exemptions” for certain road related wastes are issued by the EPA under this regulation where it can be shown that the wastes are being beneficially re-used. Beneficial re-use is described as where the land application of a waste material is a genuine, fit for purpose, reuse of the waste rather than another path to waste disposal. An exemption facilitates the use of these waste materials outside of certain regulatory requirements such as the need to obtain an environment protection licence or the payment of waste levies.

The following resource recovery exemptions are of most relevance to road construction activities:

- Excavated natural material
- Excavated public road material
- Raw mulch
- Reclaimed asphalt pavement
- Recovered aggregate

Summary fact sheets on these wastes and the use of resource recovery exemptions, including any sampling and testing requirements, can be found on RMS’ Intranet site: [Waste Fact Sheets](#).

2.2.4 Contaminated Land Management Act, 1997 (CLM Act)

The CLM Act allows the EPA to respond to contamination of soil, groundwater and surface water and specifies the level of responsibilities for managing contamination. It also provides the regime for the accreditation of site auditors.

Section 60 of the Act introduces a mandatory obligation for a person whose activities have contaminated land or owns land that is contaminated (whether before or during the owner’s ownership) to report contamination in writing to the NSW Environment Protection Authority (NSW EPA).

**Key Compliance Requirements:** There is a duty for landowners and people who have responsibility for contamination to report it to the NSW Environment Protection Authority (NSW EPA).

It should be noted that the RMS protocol is to pro-actively communicate with relevant agencies when contamination is identified. This will ensure that the needs of all relevant stakeholders can be incorporated into the management of contamination.

2.2.5 Best Practice Note: Environmental Assessment Reports and Waste Contingency Planning

Road project environmental assessment (EA) reports include information on the management of excavated soils and other materials. EA reports should identify options for managing road construction materials in accordance with the waste hierarchy principles of:

- **Waste avoidance**: Minimising the amount of material that needs to be excavated and managed in the first place.

- **Re-use on site**: Where possible, the re-use of excavated materials within the project site is to be maximised. This reduces the need to import materials onto the site, reduces the need to find off site re-use or disposal locations and the associated materials handling and transport issues, reduces fuel use and minimises the project footprint.

- **Re-use off site**: Where all attempts to re-use excavated materials on site have been exhausted, re-use opportunities must be found off site. This includes finding sites that are approved by the relevant planning consent authority (e.g. local council) to accept the specific type of material that has been excavated from the road construction project. For example, transporting virgin excavated natural material (VENM) to a building development site that has Development Consent from the local council to accept VENM for use as engineered fill.

- **Disposal**: Disposal is the last and least preferable management option to be considered. If excavated materials must be disposed of, it must be transported to a facility that is licensed by the EPA to accept the specific material that requires disposal.

The EA report should include estimates of the total volume of surplus material to be generated by the project and identify how this material is to be managed in accordance with the waste hierarchy. For materials that are to be re-located off-site, specific details are required for each permanent re-use and disposal site as well as all temporary material storage sites. The EA report should include the following:

- Site locations
- Type of waste to be deposited on the site (e.g. virgin excavated natural material, concrete waste)
- Volume of waste to be deposited on the site
- Whether the material will be placed on the site permanently or temporarily
- If the material is to remain on site permanently, what is the beneficial re-use of the material? (e.g. noise mound, visual barrier, engineered fill) - Note that it is illegal to leave waste on a site permanently unless it is being beneficially re-used as per a relevant EPA resource recovery exemption (see Section 2.2.3) or the site is licensed as a waste facility to accept the waste.

**Planning for Waste Contingencies**

Pre-construction estimates of the volume of surplus material to be generated by a project are often exceeded. One of the main reasons that this occurs is that the quality of the sub-surface ground conditions are only well understood once construction earthworks commence. As a result, materials that were expected to be re-used for engineering purposes can be found to be unsuitable (e.g. soils are found to be too wet to be compacted for use in embankment construction).
Similarly, extended wet weather periods during the construction phase can saturate soils making them no longer suitable for compaction. These types of scenarios can sometimes result in the pre-construction estimates of the volume of surplus material to be significantly exceeded, requiring additional re-use or disposal sites to be identified.

EA reports should cover the possibility of additional surplus material being excavated and identify contingency sites where additional volumes of surplus material can be managed. If the EA report does not identify all potential sites where surplus material may be permanently placed or temporarily stored, there is the potential for significant project delays during the construction stage while supplementary planning approval is sought to use these additional sites.

Ideally, contingency planning should:

- Where possible, estimate the additional volume of surplus material that may need to be managed.
- Build in contingency by considering as many options as possible to beneficially re-use materials so as to allow for flexibility at construction stage (see below for examples of acceptable beneficial re-use options).
- Identify a range of potential sites both within the project boundary and off-site that could be used for the permanent re-use or temporary storage of additional volumes of material.
- Identify possible detailed road design changes that could be made that will allow for the beneficial re-use of additional surplus material (for example, changes to road batters).
- RMS’ Stockpile Management Guidelines (RMS 2011) provides the basic principles for the temporary storage of materials.

Acceptable beneficial re-uses

In assessing permanent re-use options the concept of beneficial re-use is to be applied. Beneficial re-use is where the land application of the material is a genuine, fit for purpose re-use of the waste rather than another path to waste disposal.

Acceptable beneficial re-uses on road projects include:

- Construction of acoustic and visual mounds where there is a benefit to residents and other sensitive receivers
- Flattening of road batters
- Rehabilitation of borrow pits
- Engineered fill (e.g. establishment of house pads on RMS land)
- Approved improvements to flood prone land
**Urban Design Best Practice**

It is RMS urban design policy that earthworks are designed so the project fits into the natural and built landscape. This includes cuttings, embankments, fills, noise mounds and any mounds created out of surplus material either on site or off site.

This means that earthworks must be sensitive to the shape of the natural landform in which the project is situated, unless more formal sculptural forms are created with RMS approval. Slopes should be compatible with stable vegetated slopes of the area. Large unnatural flat horizontal areas should be avoided. Changes in gradients and orientations of slopes should be rounded smooth transitions. Ridges and mounds should be asymmetric and avoid horizontal lines and formal shapes.
3. Pre-Construction Land Condition Assessments

When RMS land is used for ancillary construction purposes, there is the potential for unapproved wastes to remain on the site, or for the site to become contaminated from construction activities.

Prior to an RMS site being handed over to a construction contractor, the contractor must arrange for a pre-construction land condition assessment of the site. The purpose of the pre-construction land assessment is to identify any pre-existing wastes on the site before the contractor takes possession of the site. The pre-construction land condition assessment will be used to compare against the post construction condition of the site.

Summary Pre-Construction Land Condition Assessment

3.1 Pre-Construction Land Condition Assessment Reports

Pre-Construction Land Condition Assessments Reports are not site contamination reports, rather they seek to establish and document whether there are any pre-existing wastes on the site prior to the site being occupied by a construction contractor.

Pre-Construction Land Condition Assessment reports are to be undertaken by a qualified independent environmental consultant approved by RMS. The environmental consultant is to have experience in site environmental inspections and construction waste management. RMS is to be nominated as the primary recipient of the report.

Pre-Construction Land Condition Assessment Reports are to include text, photographs and maps to describe the land condition, focussing on any pre existing wastes on the site.

A proforma Pre-Construction Land Condition Assessment Report is included in Attachment B

As a minimum include the following information:

- Name of RMS project
- Name of construction company and construction site manager
- Description of site being acquired by construction company (Lot and DP)
- Estimated period of site occupation
- Current site use
- Proposed construction activities on the site
- Date of site inspection
- Evidence of RMS approval to use the site for the proposed activities (required where the contractor is seeking approval to use additional sites not already nominated by the Principal)
- Evidence of planning consent to use the site for the proposed activities - confirmation that the environmental assessment report has identified the use of the sites for the proposed activities. (required where the contractor is seeking approval to use additional sites not nominated by the Principal)
Site observations (include descriptions, photographs and annotated site maps) showing:
- Pre-existing wastes on site (stockpiles, type of waste, where on the site is the waste located, estimated quantity)
- Materials stored on site
- Existing excavated areas
- Waterways running through the sites (comments and photographs of any dumped materials in waterways)
- Any other features that help establish the pre construction condition of the site

3.2 Who arranges for the Pre-Construction Land Condition Assessment?
The site contractor is to arrange a Pre-Construction Land condition Assessment and report. It is important that it be made clear to any consultant engaged to prepare a Pre-Construction Land Condition Assessment Report that the primary recipient of the report is RMS.

3.3 Who performs the Pre-Construction Land Condition Assessment?
Pre-Construction Land Condition Assessment inspections and reports are to be prepared by an independent environmental consultant approved by RMS with experience in areas such as site environmental inspections and construction waste management.

3.4 How long will it take to prepare a Pre-Construction Land Condition Assessment Report?
As a guide, Pre-Construction Land Condition Assessment inspections and reports should take approximately one to two weeks to complete.

3.5 Who receives copies of Pre-Construction Land Condition Assessment Report?
The contractor is to provide final copies of Pre-Condition Site Assessment Report to the RMS Project Manager. The RMS Project Manager is to forward copies of the reports to:

- RMS Regional Property Team (Commercial Property Officer)
- RMS Regional or RMS Project Environment Manager
4. Construction Phase Site Management

Construction Phase Management

During the construction phase contractors must comply with all relevant environmental regulatory requirements related to the testing, record keeping, transport and storage of materials onto RMS’ site. RMS’ environmental management specifications G36: Environmental Protection and G38: Soils and Water Management must also be complied with.

The ability to supply records showing compliance with environmental regulations and RMS’ environmental management specifications will facilitate the Post-construction Site Assessment (see Section 5) and approval for the site to be returned to RMS.

These records include:

- Copies of any written approvals from RMS Property to use the site for the construction activities undertaken at the site (where the contractor has sought permission to use sites addition to those nominated by RMS in the contract).
- Copies of planning consents to use the site for the construction activities (where the contractor has sought permission to use sites addition to those nominated by RMS in the contract).
- Evidence of compliance with any planning consent conditions or EPA licence requirements related to the activities on the site.
- Site maps showing location of temporary construction activities including location of temporary stockpiles.
- Site maps showing location and type of waste that permanently remaining on site.
- Evidence of RMS approval to leave materials permanently on the site.
- Register of materials transported to the site in accordance with the requirements of RMS G36 Specification clause 4.11.2 - Waste Management Register.
- Copies of any test results to show compliance with any relevant resource recovery exemptions.
- Evidence of compliance with any additional conditions specified by RMS Property or the Project Manager (e.g. soil engineering compaction rates, retain clean topsoil on the site).
5. Post-Construction Land Condition Assessments

Prior to a site being handed back to RMS, a post-construction land condition assessment is required to verify that no unauthorised construction wastes remain the site.

Summary Post-Construction Land Condition Assessment

5.1 Post-Construction Land Condition Assessment Reports

RMS has developed a pro-forma Post-Construction Land Condition Assessment report which is to be used to determine whether a site is suitable to be handed back to RMS. The report includes a series of waste management and environmental planning compliance questions that are to be answered and the citing of documentary evidence to support the answers to some questions. The report is also to be used to record any observations of significant staining of the ground which needs to be managed. A copy of the Post-Construction Land Condition Assessment Report proforma is included as Attachment C.

Prior to a site being occupied by a construction contractor, a Pre Construction Land Condition Assessment Report (see Section 3) should have been prepared. This report is to be used as the benchmark to compare against the post construction land condition of the site.

In summary, the Post-Construction Land Condition Assessment Report includes the following information.

- Name of RMS project
- Name of construction company and construction site manager
- Description of site being acquired by construction company (Lot and DP)
- Whether the site was used for temporary materials storage.
- Whether materials have permanently been left on site.
- Record of any observations of significant staining of the ground.
- Evidence of compliance with any relevant resource recovery exemptions.
- Evidence of compliance with any EPA licence conditions and Department of Planning consent conditions.
- Evidence of internal and statutory approvals to use the site.
- Recommends whether the site is in a condition to be handed back to RMS.
- Any recommended corrective actions that should be completed before the site is handed back to RMS.
5.2 What if the site is not in a condition to be handed back to RMS?

If the report concludes that unapproved wastes attributable to the activities of the construction contractor remain on site and that RMS should not accept hand back of the site, the construction contractor should be given an opportunity to complete any corrective actions.

If the contractor fails to complete the corrective actions, the RMS Project Manager must make alternative arrangements to implement the corrective actions before handing the site back to the RMS Property. RMS' Project Manager will manage the issue in accordance with the provisions of the construction contract.

5.3 Who arranges for the Post-Construction Land Condition Assessment?

The contractor is to ensure that the post construction site assessment is undertaken. It must be made clear to any consultant engaged to prepare a Post-Construction Land Condition assessment report that the primary recipient of the report is RMS.

5.4 Who performs the Post-Construction Land Condition Assessment?

The Post-Construction Land Condition Assessment is to be completed by an independent environmental consultant approved by RMS with experience in areas such as site environmental inspections, construction waste management.

5.5 Who receives copies of Post-Construction Land Condition Assessment Report?

The contractor is to provide final copies of Post-Construction Land Condition Assessment Reports to the RMS Project Manager. The RMS Project manager is to forward copies of the report to:

- RMS Regional Property Team (Commercial Property Officer)
- RMS Regional or RMS Project Environment Manager
## ATTACHMENT A: WASTE AND MATERIALS MANAGEMENT ACTIVITIES REQUIRING AN ENVIRONMENT PROTECTION LICENCE

<table>
<thead>
<tr>
<th>Activity</th>
<th>Licence Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical storage</td>
<td>- Having on site at any time more than 5 tonnes of hazardous waste, restricted solid waste or liquid waste, or combination of them.</td>
</tr>
<tr>
<td>- hazardous waste, restricted solid waste or liquid waste (or combination of these)</td>
<td></td>
</tr>
</tbody>
</table>
| Contaminated soil treatment                  | - Capacity to treat more than 1,000m³ per year of contaminated soil received from off-site; or  
- Treatment of contaminated soil originating exclusively on-site with capacity:  
  o Greater than 1000m³ per year for incineration  
  o Storage and treatment of greater than 30,000m³ per year where treatment is other than incineration  
  o To disturb more than an aggregate area of 3 hectares of contaminated soil |
| Contaminated groundwater treatment           | - Capacity to treat more than 100 megalitres per year of contaminated groundwater.                                                                                                                                  |
| Waste disposal (application to land)         | Waste disposal by application to land, meaning the application to land of waste received from off site, including (but not limited to) application by any of the following methods:  
(a) spraying, spreading or depositing on the land,  
(b) ploughing, injecting or mixing into the land,  
(c) filling, raising, reclaiming or contouring the land.  
**No licence is required if:**  
  o The material is virgin excavated natural material (VENM)  
  o Covered by a “resource recovery exemption” such as  
    ▪ Excavated public road materials – if applied within road corridors  
    ▪ Excavated natural material - applied off-site  
    ▪ Recovered asphalt pavement – if re-applied for road making activities |
| (eg. re-using excavated road materials)       |                                                                                                                                                                                                             |
| Waste processing (non thermal treatment)     | Receiving and processing of waste from off-site that involves having on site at any time:  
- more than 2,500 m³ or tonnes of general solid waste or involves the processing of more than 120 tonnes per day, or 30,000 tonnes per year.  
- more than 200 kilograms of hazardous waste  
- more than 200 kilograms of liquid waste  
- more than 2,000 litres of waste oil or involves processing of more than 20 tonnes per year  
- more than 50 tonnes of waste tyres or processing more than 20 tonnes per day or, 5,000 tonnes per year.  
**Note:** Crushing, grinding or separating non waste materials such as sand, gravel, rock or minerals, requires a licence if the plant or equipment has a capacity to process more than 150 tonnes of materials per day or 30,000 tonnes of materials per year. |
| (eg. concrete crushing)                       |                                                                                                                                                                                                             |
| Waste storage (storage of waste received from off-site, including storage for transfer of waste) (eg. Stockpiles) | (a) Greater than 5 tonnes of hazardous waste, restricted solid waste, liquid waste, clinical or related waste or asbestos waste is stored on the premises at any time, or  
(b) Greater than 50 tonnes of waste tyres or 5,000 waste tyres is stored on the premises at any time, or  
(c) Greater than 2,500 tonnes or 2,500 cubic metres of waste (other than waste referred to in a and b above) is stored on the premises at any time, or  
(d) Greater than 30,000 tonnes of waste (other than waste referred to in a and b above) is received per year from off-site.  
**No licence is required for stockpiling of excavated road materials if it is done in accordance with the RMS Stockpile Exemption (2011).** |

---

17 of 26  
February 2014
ATTACHMENT B: PRE-CONSTRUCTION LAND CONDITION ASSESSMENT REPORT

Instructions

This report is to be completed by a qualified independent environmental consultant approved by RMS. RMS is the primary recipient of the report.

This report and attached supporting information is to be used to establish and document any pre-existing wastes on an RMS site that is to be used for temporary site facilities or sites where material is to be permanently located for beneficial re-use.

Temporary site facilities include but are not limited sites where the following activities take place:
- Soil and rock stockpiling
- Storage of construction materials
- Locating site sheds, storage sheds and maintenance yards
- Concrete crushing
- Temporary concrete or asphalt batching plants
- Location of temporary sediment basins
- Vegetation storage
- Construction staging areas (e.g. assembling bridge structures)

Permanent beneficial re-use includes:
- Noise mounds
- Visual mounds
- Engineered fill
- Flood relief mounds

This Pre-construction Land Condition Assessment Report is to be completed prior to a contractor taking possession of an RMS site and will be used as the benchmark to compare against the post construction condition of the site.

Copies of the final report and any supporting information are to be provided to the RMS Project Manager. The RMS Project Manager is to provide copies to:
- RMS Regional Commercial Property Officer
- RMS Regional or RMS Project Environment Manager

If multiple RMS sites are to be occupied by a construction contractor, a separate Pre Construction Land condition Assessment report is to be prepared for each site.
### Section A: Project Information

| Project Name: |  |
| RMS Project Manager: |  |
| Construction Contractor: |  |
| Construction Manager: |  |
| Proposed period of site occupation: | dd/mm/yy to dd/mm/yy |

### Section B: Site Location

| Location and current land use of the site | Information attached |
| □ Map showing site location |  |
| □ Lot and DP |  |
| □ Current land use |  |
| □ Other information attached (specify) |  |

### Section C: Proposed Construction Activities for the Site

Describe the construction activities that are proposed for the site.

### Section D: Planning Consent and Internal RMS Consent for Use of Site

| What planning permission has been obtained for the proposed construction activities? (E.g. EIS, REF, local council consent. Attach evidence of approval, consistency assessment) | Information attached |
| □ EIA (Part 5 or 5.1 EP&A Act) |  |
| □ Statement of Environmental Effects (Local council approval under Part 4 EP&A Act) |  |
| □ Written evidence showing that consent is not required |  |
| □ Other (specify) |  |

| Did the Regional RMS Property section provide written consent for the site to be used for the proposed construction activities? | Information attached |
| □ Yes. Written consent provided |  |
| □ No. Written consent not provided |  |
## Section E: Pre-Construction Site Inspection

<table>
<thead>
<tr>
<th>Date of site inspection:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of consultant undertaking inspection:</td>
</tr>
<tr>
<td>Position title:</td>
</tr>
<tr>
<td>Name of consulting company:</td>
</tr>
</tbody>
</table>

Attach to this section of the report text descriptions, photographs and annotated site maps to describe the wastes and materials that exist on the site at the time of inspection. Site observations include the following:

- Pre-existing wastes on site (stockpiles, type of waste, where on the site is the waste located, estimated quantity)
- Existing materials stored on site
- Existing excavated areas
- Waterways running through the sites (comments and photographs of any dumped materials in waterways)
- Any other features that help establish the pre-construction land condition (e.g. obvious staining on the ground).
ATTACHMENT C: POST-CONSTRUCTION LAND CONDITION ASSESSMENT REPORT

**POST-CONSTRUCTION LAND CONDITION ASSESSMENT REPORT**

**Instructions**

This report and attached supporting information is to be used to verify that no unauthorised wastes remain on RMS sites that have been occupied by contractors for road construction activities.

Prior to an RMS site being occupied by a construction contractor, a Pre-Construction Land Condition Assessment Report should have been prepared. The Pre-Construction Land Condition Assessment Report is to be used as the benchmark to compare against the post construction condition of the site.

This report is to be completed by a qualified independent environmental consultant approved by RMS. RMS is the primary recipient of the report.

Copies of the final report and any supporting information are to be provided to the RMS Project Manager. The RMS Project Manager is to provide copies to:

- RMS Regional Commercial Property Officer
- RMS Regional or RMS Project Environment Manager

If multiple sites have been occupied by a construction contractor, use a separate Post-Construction Site Condition Assessment report for each site.

---

## Section A: Project Information

| Project Name: |  |
| RMS Project Manager: |  |
| Construction Contractor: |  |
| Construction Manager: |  |
| Construction commencement date: |  |
| Construction completion date: |  |

## Section B: Site Location

<table>
<thead>
<tr>
<th>Location of the site</th>
<th>Information attached</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Map showing site location</td>
<td></td>
</tr>
<tr>
<td>□ Lot and DP</td>
<td></td>
</tr>
<tr>
<td>□ Other information attached (specify)</td>
<td></td>
</tr>
</tbody>
</table>
### Section C: Waste Information – Temporary Storage

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was any part of the site used to temporarily store project materials or create temporary structures? (e.g. temporary hardstand areas for site sheds or concrete batching facilities)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide information on the location and type of materials temporarily stored or used on the site?</td>
<td>Information attached</td>
<td></td>
</tr>
<tr>
<td>Have all temporary materials been removed from the site?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

### Section D: Waste Information – Materials Permanently Remaining on Site

Describe the types and quantity of wastes left on the site.

<table>
<thead>
<tr>
<th>Type of waste</th>
<th>Quantity (m³)</th>
<th>Dates material was deposited (dd/mm/yyyy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Virgin excavated natural material (VENM)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Excavated natural material (ENM)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Recovered aggregates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Reclaimed asphalt pavement (RAP)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Crushed concrete</td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Mixed building and demolition waste</td>
<td></td>
<td>Not permitted to be permanently left on RMS land</td>
</tr>
<tr>
<td>☐ Mulch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Unmulched vegetation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Other wastes (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Obvious staining indicating a possible fuel or chemical spill</td>
<td>Estimate size of stained area, photograph stained area, make enquiries re. type of liquid spilled and attach information to this pro-forma. Include any recommendations in Attachment A.</td>
<td></td>
</tr>
</tbody>
</table>

If no project wastes remain on the site go to Section F of this report. If you have entered information into the above table you must complete Sections D, E and F of this report.

If more than one type of waste has been left on site, is it mixed together or separated and located in different locations?

| Mixed | Separated in different locations | Not applicable |

### Section D: Location of waste

Describe the exact location(s) of the waste (Attach maps, map co-ordinates (map grid of Australia (mga)), depth of waste below surface, area of waste, lot and DP of site, chainage)

<table>
<thead>
<tr>
<th>Information attached</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Map showing waste deposition area</td>
</tr>
<tr>
<td>☐ Map co-ordinates</td>
</tr>
<tr>
<td>☐ Depth of waste below surface</td>
</tr>
<tr>
<td>☐ Lot and DP of waste deposition site</td>
</tr>
<tr>
<td>☐ Road Chainage</td>
</tr>
<tr>
<td>☐ Other information attached (specify)</td>
</tr>
</tbody>
</table>
### Section E: Compliance with EPA Resource Recovery Exemptions (RRE) or Report Indicating Material is Suitable for Future Land Use

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the material ENM, recovered aggregates or RAP</td>
<td>□ Yes</td>
</tr>
<tr>
<td>If any of the materials are ENM, recovered aggregates or RAP, the conditions attached to</td>
<td>□ No</td>
</tr>
<tr>
<td>the corresponding EPA resource recovery exemptions (RRE) must be complied with.</td>
<td>□ Not applicable</td>
</tr>
<tr>
<td>Have all conditions attached to the relevant RRE been complied with?</td>
<td></td>
</tr>
<tr>
<td>Information attached</td>
<td>□ Test reports</td>
</tr>
<tr>
<td>□ RRE records</td>
<td>□ Other information attached (specify)</td>
</tr>
<tr>
<td>The use of resource recovery exemptions requires that the material has been “beneficially re-used”.</td>
<td></td>
</tr>
<tr>
<td>What is the beneficial re-use of permanently leaving the material on the site (e.g. noise mound, visual mound, engineered fill or earthworks to improve the property)</td>
<td>□ Noise mound</td>
</tr>
<tr>
<td>□ Visual mound</td>
<td>□ Landscape mound</td>
</tr>
<tr>
<td>□ Engineered fill or earthworks (specify how this improves the property)</td>
<td></td>
</tr>
<tr>
<td>□ Other beneficial re-use (specify)</td>
<td></td>
</tr>
<tr>
<td>In some instances, compliance with a relevant RRE is not legally required (e.g. the material was excavated and placed within the site boundary or the material was VENM).</td>
<td>□ Yes</td>
</tr>
<tr>
<td>Are there any other records or reports indicating that the material is suitable for the</td>
<td>□ No</td>
</tr>
<tr>
<td>intended post construction land use?</td>
<td>□ Not applicable</td>
</tr>
<tr>
<td>Information attached</td>
<td>□ Test reports</td>
</tr>
<tr>
<td>□ Other information attached (specify)</td>
<td></td>
</tr>
</tbody>
</table>

### Section E: Consents: RMS Property/Planning Consent/EPA Compliance

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did RMS provide written consent for the specified waste materials to be permanently left on the site?</td>
<td>Information attached</td>
</tr>
<tr>
<td></td>
<td>□ Yes. Written consent provided</td>
</tr>
<tr>
<td></td>
<td>□ No. Written consent not provided</td>
</tr>
<tr>
<td>Did RMS Property require any additional technical requirements to be complied with?</td>
<td>Information attached</td>
</tr>
<tr>
<td>For example, RMS property may have required that material placed on the site be compacted to meet engineering standards for residential sites.</td>
<td>□ Yes</td>
</tr>
<tr>
<td></td>
<td>□ No</td>
</tr>
<tr>
<td></td>
<td>□ Not applicable</td>
</tr>
<tr>
<td>What planning permission was obtained for the material to permanently remain on the site?</td>
<td>Information attached</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>(E.g. EIS, REF, local council consent. Attach evidence of approval, consistency assessment)</td>
<td>□ EIA (Part 5 or 5.1 EP&amp;A Act)</td>
</tr>
<tr>
<td></td>
<td>□ Statement of Environmental Effects (SEE) (Local council approval under Part 4 EP&amp;A Act)</td>
</tr>
<tr>
<td></td>
<td>□ Written evidence showing that consent is not required</td>
</tr>
<tr>
<td></td>
<td>□ Other (specify)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Were the conditions of the planning consent related to waste storage and use of ancillary facilities complied with?</th>
<th>Information attached</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□ Yes.</td>
</tr>
<tr>
<td></td>
<td>□ No.</td>
</tr>
</tbody>
</table>

**Section F: Recommendation**

Based on the above information and the attached evidence it is recommended that:

- □ The site be handed back to RMS as no residual wastes attributable to the activities of the contractor remain on the site.

- □ The site be handed back to RMS as any wastes that remain on the site attributable to the activities of the contractor have been placed on site with the approval of RMS’ regional infrastructure property team and in accordance with all necessary environmental statutory requirements.

- □ The site should not be handed back to RMS as unapproved wastes and/or contamination attributable to the activities of the contractor currently remain on the site. It is recommended that the corrective actions listed in Attachment A to this report be completed before the site is handed back to the landholder.

**Name of Site Assessor:**

**Position:**

**Company:**

**Signed:**

**Date:**
ATTACHMENT A: POST-CONSTRUCTION LAND ASSESSMENT REPORT

CORRECTIVE ACTIONS
It is recommended that the following corrective action be implemented before the site is handed back to the landholder.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td>Definitions</td>
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</tr>
<tr>
<td>-----------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Excavated natural material (ENM)</strong></td>
<td>ENM is naturally occurring rock and soil (including materials such as sandstone, shale, clay and soil) that has:</td>
</tr>
<tr>
<td></td>
<td>a) been excavated from the ground, and</td>
</tr>
<tr>
<td></td>
<td>b) contains at least 98% (by weight) natural material, and</td>
</tr>
<tr>
<td></td>
<td>c) does not meet the definition of Virgin Excavated Natural Material (VENM).</td>
</tr>
<tr>
<td></td>
<td>Excavated Natural Material does not include material that has been processed or contains acid sulphate soils or potential acid sulphate soils.</td>
</tr>
<tr>
<td><strong>Reclaimed asphalt pavement (RAP)</strong></td>
<td>Means and asphalt matrix which was previously used as an engineering material and which must not contain a detectable quantity of coal tar or asphalt.</td>
</tr>
<tr>
<td><strong>Recovered aggregates</strong></td>
<td>Means material comprising of concrete, brick, ceramics, natural rock and asphalt processed into an engineered material. This does not include refractory bricks or associated refractory materials, or asphalt that contains coal tar.</td>
</tr>
<tr>
<td><strong>Resource Recovery Exemptions (RRE)</strong></td>
<td>RREs are granted by the EPA where the land application or use as fuel of a waste material is a genuine, fit for purpose, reuse of the waste rather than another path to waste disposal. An exemption facilitates the use of these waste materials outside of certain requirements of the waste regulatory framework.</td>
</tr>
<tr>
<td><strong>Virgin Excavated Natural Material (VENM)</strong></td>
<td>VENM is natural material:</td>
</tr>
<tr>
<td></td>
<td>• that has been excavated or quarried from areas that are not contaminated with manufactured chemicals or process residues, as a result of industrial, commercial, mining or agricultural activities, and</td>
</tr>
<tr>
<td></td>
<td>• that does not contain sulphidic ores or soils.</td>
</tr>
<tr>
<td><strong>Waste</strong></td>
<td>Waste is as defined in the Protection of the Environment Operations Act 1997 and is classified in accordance with the NSW EPA's Waste Classification Guidelines. Wastes can include excess soil, rock, concrete, aggregates, general construction and demolition waste, waste vegetation.</td>
</tr>
</tbody>
</table>
Appendix A5
Document Register

The Northern Road Upgrade –
Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park
September 2018
Contents

1  Register of Project environmental documents ............................................................. 1
2  OACEMP sub-plan document title register................................................................. 5

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Table 1-1:  Environmental document register for the Project........................................... 1
Table 2-1:  List of OACEMP sub-plan names and alternative name/s.............................. 5
## 1 Register of Project environmental documents

Table 1-1: Environmental document register for the Project

<table>
<thead>
<tr>
<th>Environmental management document</th>
<th>CoA / requirement</th>
<th>Document title / no.</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overarching Construction Environmental Management Plan (OACEMP)</td>
<td>NSW-CoA C1</td>
<td>The Northern Road Upgrade – Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park OACEMP</td>
<td>Approval by Secretary, DP&amp;E</td>
</tr>
<tr>
<td>Environmental Policy</td>
<td>DIPNR Guidelines</td>
<td>Appendix A3</td>
<td>-</td>
</tr>
<tr>
<td>Construction Traffic Management Plan, including:</td>
<td></td>
<td>Appendix B1</td>
<td>Approval by Secretary, DP&amp;E</td>
</tr>
<tr>
<td>• Consultation correspondence</td>
<td>NSW-CoA C4(a)</td>
<td>Appendix B1</td>
<td>Approval by Secretary, DP&amp;E</td>
</tr>
<tr>
<td>• Consultation correspondence</td>
<td>NSW-CoA A6, C6</td>
<td>Annexure A of Appendix B1</td>
<td>Approval by Secretary, DP&amp;E</td>
</tr>
<tr>
<td>Construction Flora and Fauna Management Plan, including:</td>
<td></td>
<td>Appendix B2</td>
<td>Approval by Secretary, DP&amp;E</td>
</tr>
<tr>
<td>• Consultation correspondence</td>
<td>NSW-CoA C4(c)</td>
<td>Appendix B2</td>
<td>Approval by Secretary, DP&amp;E</td>
</tr>
<tr>
<td>• Unexpected Threatened Species or EECs Finds Procedure</td>
<td>NSW-CoA A6, C6</td>
<td>Annexure A of Appendix B2</td>
<td>Approval by Secretary, DP&amp;E</td>
</tr>
<tr>
<td>• Fauna Handling and Rescue Procedure</td>
<td>-</td>
<td>Annexure B of Appendix B2</td>
<td>Approval by Secretary, DP&amp;E</td>
</tr>
<tr>
<td>• Weed and Pathogen Management Plan</td>
<td>-</td>
<td>Annexure C of Appendix B2</td>
<td>Approval by Secretary, DP&amp;E</td>
</tr>
<tr>
<td>• Vegetation Clearing Procedure</td>
<td>-</td>
<td>Annexure D of Appendix B2</td>
<td>Approval by Secretary, DP&amp;E</td>
</tr>
<tr>
<td>• Vegetation Clearing Procedure</td>
<td>-</td>
<td>Annexure E of Appendix B2</td>
<td>Approval by Secretary, DP&amp;E</td>
</tr>
<tr>
<td>Construction Noise and Vibration Management Plan, including:</td>
<td></td>
<td>Appendix B3</td>
<td>Approval by Secretary, DP&amp;E</td>
</tr>
<tr>
<td>• Consultation correspondence</td>
<td>NSW-CoA C4(b)</td>
<td>Appendix B3</td>
<td>Approval by Secretary, DP&amp;E</td>
</tr>
<tr>
<td>• Construction Noise and Vibration Monitoring Program</td>
<td>NSW-CoA C4(b)</td>
<td>Annexure A of Appendix B3</td>
<td>Approval by Secretary, DP&amp;E</td>
</tr>
<tr>
<td>• Out of Hours Work Procedure</td>
<td>NSW-CoA C9(b)</td>
<td>Annexure B of Appendix B3</td>
<td>Approval by Secretary, DP&amp;E</td>
</tr>
<tr>
<td>• Noise and Vibration Construction Monitoring Report</td>
<td>NSW-CoA C15</td>
<td>Noise and Vibration Construction Monitoring Report</td>
<td>For information of Secretary, DP&amp;E</td>
</tr>
<tr>
<td>Environmental management document</td>
<td>CoA / requirement</td>
<td>Document title / no.</td>
<td>Purpose</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>-----------------------------------------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>Construction Soil and Water Management Plan, including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Consultation correspondence</td>
<td>NSW-CoA C4(d)</td>
<td>Appendix B4</td>
<td>Approval by Secretary, DP&amp;E</td>
</tr>
<tr>
<td>• Water, Soil and Contamination Monitoring Program</td>
<td>NSW-CoA A6, C6</td>
<td>Annexure A of Appendix B4</td>
<td></td>
</tr>
<tr>
<td>• Sediment Basin Management Plan</td>
<td>NSW-CoA C9(c)</td>
<td>Annexure B of Appendix B4</td>
<td></td>
</tr>
<tr>
<td>• Stockpile Management Protocol</td>
<td>-</td>
<td>Annexure C of Appendix B4</td>
<td></td>
</tr>
<tr>
<td>• Management of Tannins from Vegetation Mulch Procedure</td>
<td>-</td>
<td>Annexure D of Appendix B4</td>
<td></td>
</tr>
<tr>
<td>• Concept Erosion and Sediment Control Plans</td>
<td>-</td>
<td>Annexure E of Appendix B4</td>
<td></td>
</tr>
<tr>
<td>• Water, Soil and Contamination Monitoring Report</td>
<td>NSW-CoA C15</td>
<td>Water, Soil and Contamination Construction Monitoring Report</td>
<td>For information of Secretary, DP&amp;E</td>
</tr>
<tr>
<td>Construction Contaminated Land Management Plan, including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Consultation correspondence</td>
<td>NSW-CoA C4(d)</td>
<td>Appendix B8</td>
<td>Approval by Secretary, DP&amp;E</td>
</tr>
<tr>
<td>• Unexpected Discovery of Contaminated Land Procedure</td>
<td>NSW-CoA A6, C6</td>
<td>Annexure A of Appendix B8</td>
<td></td>
</tr>
<tr>
<td>• Asbestos Management Plan</td>
<td>NSW-CoA E47</td>
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<td>• Military Material Management Plan</td>
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<td>Construction Air Quality Management Plan, including:</td>
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<tr>
<td>• Construction Air Quality Monitoring Program</td>
<td>NSW-CoA A6, C6</td>
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<tr>
<td>• Construction Air Quality Monitoring Report</td>
<td>NSW-CoA C9(a)</td>
<td>Appendix B6</td>
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<td>Construction Cultural Heritage Management Plan, including:</td>
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<td>• Consultation correspondence</td>
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<td>• Unexpected Heritage Items Procedure</td>
<td>NSW-CoA E16, E21</td>
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<td>Construction Waste and Energy Management Plan, including:</td>
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<tr>
<td>• Location of waste facilities</td>
<td>NSW-CoA E67, E68, E69, E70</td>
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2 | The Northern Road Upgrade – Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park OACEMP
Appendix A5 - Document Register
September 2018    Version 2.0
UNCONTROLLED WHEN PRINTED
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<th>Environmental management document</th>
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<th>Purpose</th>
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<td>Pre-Construction Compliance Report</td>
<td>NSW-CoA A30</td>
<td>Pre-Construction Compliance Report</td>
<td>For information of Secretary, DP&amp;E</td>
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<tr>
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<td>NSW-CoA A32</td>
<td>Construction Compliance Reports</td>
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<td>Pre-Operation Compliance Report</td>
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<td>NSW-CoA B6</td>
<td>Construction Complaints Management System</td>
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<td>NSW-CoA B7</td>
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<tr>
<td>Historical Archaeological Salvage Strategy</td>
<td>NSW-CoA E12</td>
<td>Technical Memorandum: Non-Aboriginal Heritage (Appendix D of SPIR and Final EIS)</td>
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<td>Historical Archaeological Excavation Report</td>
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<td>NSW-CoA E18</td>
<td>Aboriginal Cultural Heritage Assessment Report (Appendix M of EIS)</td>
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<td>For information of Local Councils</td>
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<td>NSW-CoA E46</td>
<td>Site Contamination Report</td>
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<td>Site Audit Report</td>
<td>NSW-CoA E48</td>
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<td>For information of Secretary, DP&amp;E, Local Councils</td>
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<td>Urban Design and Landscape Plan</td>
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<td>For information of Roads and Maritime Environmental Manager (or delegate) / Contractor Construction Manager</td>
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<td>Monitoring and auditing Recording and reporting</td>
<td>For information of Roads and Maritime Project Manager / Roads and Maritime Environmental Manager (or delegate) / Contractor Construction Manager</td>
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4 | The Northern Road Upgrade – Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park OACEMP
Appendix A5 - Document Register
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2 OACEMP sub-plan document title register

A number of sub-plans have been prepared to support the OACEMP for the Project. Table 2-1 contains a list of the OACEMP sub-plans and where relevant, also listed are alternative name/s for the corresponding sub-plan identified from the Project Infrastructure Approval and environmental assessment documents, including the draft Environmental Impact Statement (EIS), Submissions and Preferred Infrastructure Report (SPIR) and Final EIS.

Table 2-1: List of OACEMP sub-plan names and alternative name/s

<table>
<thead>
<tr>
<th>OACEMP sub-plan document title</th>
<th>Identified alternative document title (reference)</th>
</tr>
</thead>
</table>
| Appendix B1 - Construction Traffic Management Plan | Traffic and transport CEMP Sub-plan (NSW-CoA)  
Traffic Management Plan (draft EIS, SPIR)  
Traffic and Transport Management Plan (draft EIS) |
| Appendix B2 - Construction Flora and Fauna Management Plan | Biodiversity CEMP Sub-plan (NSW-CoA)  
Flora and Fauna Management Plan (draft EIS, SPIR, Final EIS) |
| Appendix B3 - Construction Noise and Vibration Management Plan | Noise and vibration CEMP Sub-plan (NSW-CoA)  
Noise and Vibration Management Plan (draft EIS) |
| Appendix B4 - Construction Soil and Water Management Plan | Water, soil and contamination CEMP Sub-plan (NSW-CoA)  
Soil and Water Management Plan (draft EIS, SPIR, Final EIS)  
Soils and Water Management Plan (draft EIS, SPIR, Final EIS) |
| Appendix B5 – Construction Cultural Heritage Management Plan | Heritage CEMP Sub-plan (NSW-CoA)  
Construction Heritage Management Sub-plan (NSW-CoA)  
Cultural Heritage Management Plan (draft EIS, SPIR, Final EIS) |
| Appendix B6 – Construction Air Quality Management Plan | Air Quality Management Plan (draft EIS, SPIR, Final EIS) |
| Appendix B7 – Construction Waste and Energy Management Plan | Construction Waste and Energy Management sub-plan (draft EIS, SPIR, Final EIS)  
Resource Use and Waste Management Plan (draft EIS)  
Waste Management Plan (draft EIS, SPIR, Final EIS) |
| Appendix B8 – Construction Contaminated Land Management Plan | Contaminated Land Management Plan (draft EIS, SPIR, Final EIS) |
| Appendix B9 - Other Relevant Management Measures | - |
| Appendix B10 – Construction Sustainability Management Plan | Sustainability Strategy (NSW-CoA) |
Appendix A6
Sensitive Area Plans

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

September 2018
Overarching sensitive area plans for the Project included in this appendix incorporate the following features and environmental constraints:

- the Project alignment (including carriageways, bridges, interchanges, medians)
- the Project boundary
- the location of commonwealth land
- waterways and water bodies, including Badgerys Creek, Surveyors Creek and Cosgroves Creek.
- Aboriginal and non-Aboriginal heritage sites, including DEOH and Mulgoa Irrigation Canal Lawson’s Inn and Miss Lawson’s Guest House archaeological sites
- actual and potential habitat for Cumberland Plain Land Snail
- threatened plant species and vegetation communities, including TSC Act and EPBC Act Cumberland Plain Woodland areas
- recorded threatened flora and fauna sightings
- wildlife corridors
- exclusion zones
- potential areas of contaminated land
- noise sensitive receivers
- dust sensitive receivers
- light/visually sensitive receivers
- schools and childcare centres
- places of worship.

Construction Contractors will prepare detailed stage-specific sensitive area plans as part of the Contractors’ CEMPs. The sensitive area plans will include, but not be limited to, the items listed above and be specific for their stage of the Project. The sensitive area plans will be included in Appendix A6 of the Contractors’ CEMPs.
Stage 4 Sensitive Area Plans
Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:

- Flora and Fauna Management Plan (FFMP)
- Soil and Water Management Plan (SWMP)
- Construction Cultural Heritage Management Plan (CHMP)
- Construction Traffic Management Plan (CTMP)
- Construction Noise and Vibration Management Plan (CNVMp)
- Waste and Energy Management Plan (WMP)
- Vegetation Management Plan (VMP)
- Contaminated Land Management Plan (CLMP)
- Air Quality Management Plan (AQMP)
- Sustainability Management Plan (SMP)
- Ancillary Facilities Management Plan (AMP)
- Other Management Measures Management Plans (OMMMP)

Non-Aboriginal heritage items

- Canal
- Remnants of The Northern Road
- Sydney Water Pipeline
- Non-Aboriginal heritage site features
- Extent of archaeological excavation
- Non-Aboriginal Heritage sites
- Artefact scatter
- Archaeological potential
  - High
  - Moderate
  - Low

Aboriginal Heritage items

- Archaeological sites

Legend
- Western Sydney Airport site (Commonwealth Land)
- Defence Establishment Orchard Hills (Commonwealth Land)
- Commonwealth Lands
- TNR4 construction boundary
- Construction compound sites
- Submissions design construction footprint (TNR6)
- TNR4 IPT design
- The Northern Road (Existing)
- WaterNSW supply pipelines
- Farm dams
- Key fish habitat waterways (as per EIS)
- AEI contamination sites

Points of interest
- Childcare centres
- Community facility
- Education facilities; Schools
- Place of Worship
- Riparian corridors (Strahler System widths)
- Affected agricultural businesses
- Affected businesses
- Primary agricultural lands

Threatened flora records
- *Marsdenia viridiflora subsp. viridiflora*
- *Pultenaea parviflora*

Threatened fauna records
- Cumberland Plain Land Snail
- Eastern Bentwing-bat, Eastern Free-tailed-bat, Eastern False Pipistrelle
- Latham’s Snipe

Threatened species habitat areas
- Regent Honeyeater habitat
- *Pultenaea parviflora*
- Cumberland Plain Land Snail habitat
- *Marsdenia viridiflora subsp. viridiflora* - endangered population

Threatened ecological communities
- Cumberland Plain Woodland in the Sydney Basin Bioregion
- River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions

Noise sensitive receivers (by land use)
- Residential
- Educational
- Place of Worship
- Active Recreation
- Commercial
- Not acoustically sensitive (Garage/shed etc)
- Dust sensitive receivers (nominal 100 m buffer)

Standard construction hours:
0700 – 1800 Monday – Friday
0800 – 1300 Saturday
No work on Sundays or public holidays
Except as approved in accordance with the NSW Conditions of Approval (CoA), an out of hours work procedure and the Environmental Protection Licence (EPL)
The Northern Road upgrade - Mersey Road to Glenmore Parkway

Sensitive Area Plans

SECTION: TNR4

REVISION DATE: 29/06/2018

Legend (Refer to legend sheet for detailed layer list)

- TNR4 construction boundary
- Construction compound sites
- TNR4 IFT design
- The Northern Road (Existing)

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
- Flora and Fauna Management Plan (FFMP)
- Soil and Water Management Plan (SWMP)
- Construction Cultural Heritage Management Plan (CHMP)
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- Air Quality Management Plan (AQMP)
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- Ancillary Facilities Management Plan (AMP)
- Other Management Measures Management Plans (OMMMP)

Note:
- Design shown outside the construction boundary is subject to property adjustment plans being finalised and consistency assessment

Standard construction hours:
- 0700 – 1800 Monday – Friday
- 0800 – 1300 Saturday
- No work on Sundays or public holidays
- Except as approved in accordance with the NSW Conditions of Approval (CoA), an out of hours work procedure and the Environmental Protection Licence (EPL)

Data sources
Jacobs, Ausage, RMS, LPI
Ab Heritage - KNCC 20150630
Non Ab Heritage - EMU 20171018
The Northern Road upgrade - Mersey Road to Glenmore Parkway

Sensitive Area Plans

SECTIONS

TNR4

REVISION DATE: 29/06/2018

Legend (Refer to legend sheet for detailed layer list)

- Western Sydney Airport site (Commonwealth Land)
- TNR4 construction boundary
- Construction compound sites
- TNR4 IFT design
- The Northern Road (Existing)

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Data sources
Jacobs, Ausimage, RMS, LPI
Ab Heritage - KNC 20180313
Non Ab Heritage - EBM 20171016

Section: TNR4
Revision date: 29/06/2018

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Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
- Flora and Fauna Management Plan (FFMP)
- Soil and Water Management Plan (SWMP)
- Construction Cultural Heritage Management Plan (CHMP)
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Data sources:
Jacobs, Ausimage, RMS, LPI
Ab Heritage - KNCC 20180630
Non Ab Heritage - EMH 20171018

The Northern Road upgrade - Mersey Road to Glenmore Parkway
Sensitive Area Plans
SECTION: TNR4
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Data sources
Jacobs, Ausimage, RMS, LPI
Ab Heritage - KNOC 20180030
Non Ab Heritage - EMM 20171018

Legend (Refer to legend sheet for detailed layer list)
- Western Sydney Airport site (Commonwealth Land)
- TNR4 construction boundary
- Construction compound sites
- TNR4 IFT design
- The Northern Road (Existing)

The Northern Road upgrade - Mersey Road to Glenmore Parkway
Sensitive Area Plans

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Data sources
Air Heritage - ANO: 20180030
Non Ab Heritage - EMM: 20171010

Legend (Refer to legend sheet for detailed layer list)

- Western Sydney Airport site (Commonwealth Land)
- TNR4 construction boundary
- TNR4 IFT design
- Construction compound sites

Transport Roads & Maritime Services
Jacobs

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Legend (Refer to legend sheet for detailed layer list)

- Western Sydney Airport site (Commonwealth Land)
- TNR construction boundary
- Construction compound sites
- TNR4 IFT design

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
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Data sources:
- Jacobs, Ausimage, RMS, LPI
- Ab Heritage - KNC 2018/03/03
- Non Ab Heritage - EMH 2017/01/18

The Northern Road upgrade - Mersey Road to Glenmore Parkway

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Standard construction hours: 0700 – 1800 Monday – Friday
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- Air Quality Management Plan (AQMP)

- Sustainability Management Plan (SMP)
- Ancillary Facilities Management Plan (AMFP)
- Other Management Measures Management Plans (OMMP)

Data sources
Jacobs, Ausimage, RMS, LPI
Ar Heritage - KNC 20160603
Non Ab Heritage - EMM 20171010

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Transport Roads & Maritime Services

Legend (Refer to legend sheet for detailed layer list)
- Western Sydney Airport site (Commonwealth Land)
- TNR4 construction boundary
- TNR4 IFT design

The Northern Road upgrade - Mersey Road to Glenmore Parkway

Sensitive Area Plans

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The Northern Road upgrade -
Mersey Road to Glenmore Parkway

Sensitive Area Plans

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Market garden and cattle at 350-370 Willowden Avenue, Luddenham

Business name: Triple A Christmas Tree

Legend (Refer to legend sheet for detailed layer list)

- Western Sydney Airport site (Commonwealth Land)
- TNR4 construction boundary
- Construction compound sites
- TNR4 IFT design

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Jacobs, Aussimage, RMS, LPI
Ab Heritage - KNS 20189030
Non Ab Heritage - EMH 20171018

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The Northern Road upgrade - Mersey Road to Glenmore Parkway
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Sensitive Area Plans

SECTION: TNR4

REVISION DATE: 29/06/2018

Legend (Refer to legend sheet for detailed layer list)

- Western Sydney Airport site (Commonwealth Land)
- TNR4 construction boundary
- Construction compound sites
- TNR4 IFT design

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
- Flora and Fauna Management Plan (FFMMP)
- Soil and Water Management Plan (SWMP)
- Construction Cultural Heritage Management Plan (CHMP)
- Construction Traffic Management Plan (CTMP)
- Construction Noise and Vibration Management Plan (CNVMP)
- Waste and Energy Management Plan (WEMP)
- Vegetation Management Plan (VMP)
- Contaminated Land Management Plan (CLMP)
- Air Quality Management Plan (AQMP)

- Sustainability Management Plan (SMP)
- Ancillary Facilities Management Plan (AMP)
- Other Management Measures Management Plans (OMMMP)

Note:
Design shown outside the construction boundary is subject to property adjustment plans being finalised and consistency assessment.

Data sources
Jacobs, Ausimage, RMS, LPI
Ab Heritage - KNC 20160030
Non Ab Heritage - EMR 20171018

Standard construction hours:
0700 – 1800 Monday – Friday
0800 – 1300 Saturday
No work on Sundays or public holidays
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LUDDENHAM
Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:

- Flora and Fauna Management Plan (FFMP)
- Soil and Water Management Plan (SWMP)
- Construction Cultural Heritage Management Plan (CHMP)
- Construction Traffic Management Plan (CTMP)
- Construction Noise and Vibration Management Plan (CNVMP)
- Waste and Energy Management Plan (WEMP)
- Vegetation Management Plan (VMP)
- Contaminated Land Management Plan (CLMP)
- Air Quality Management Plan (AQMP)

- Sustainability Management Plan (SMP)
- Ancillary Facilities Management Plan (AMP)
- Other Management Measures Management Plans (OMMMP)

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Standard construction hours:
- 0700 – 1800 Monday – Friday
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Sustainable Area Plans

SECTION: TNR4
REVISION DATE: 29/06/2018
These features will be subject to excavation and salvage.

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
- Flora and Fauna Management Plan (FFMP)
- Soil and Water Management Plan (SWMP)
- Construction Cultural Heritage Management Plan (CHMP)
- Construction Traffic Management Plan (CTMP)
- Construction Noise and Vibration Management Plan (CNVMP)
- Waste and Energy Management Plan (WEMP)
- Vegetation Management Plan (VMP)
- Contaminated Land Management Plan (CLMP)
- Air Quality Management Plan (AQMP)

- Sustainability Management Plan (SMP)
- Ancillary Facilities Management Plan (AMP)
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Data sources
Jacobs, Austrimage, RMS, LPI
Ab Heritage - KNC 20180030
Non Ab Heritage - EHM 20171016

Legend (Refer to legend sheet for detailed layer list)
- TNR4 construction boundary
- Construction compound sites
- TNR6 construction boundary (SPIR)
- TNR4 IFT design

Business name: Shell Service Station
Location: Luddenham Village area: Chapel and School Site and Adams Road House
Mrs Lawson’s Guesthouse Site, Luddenham

Primary production at 28 Eaton Road, Luddenham

Non-operational Service Station
Business name: Shell Service Station
Location: Luddenham Village area: Chapel and School Site and Adams Road House
Mrs Lawson’s Guesthouse Site, Luddenham

Primary production at 28 Eaton Road, Luddenham

The Northern Road upgrade - Mersey Road to Glenmore Parkway
Sensitive Area Plans
SECTION: TNR4
REVISION DATE: 2/07/2018

Page 12 of 12
Stage 5 Sensitive Area Plans
**Legend**

- Western Sydney Airport site (Commonwealth Land)
- Defence Establishment Orchard Hills (Commonwealth Land)
- Commonwealth Lands
- TNR5 construction boundary
- Construction compound sites
- Submissions design construction footprint (TNR6)
- TNR5 IPT design
- The Northern Road (Existing)
- WaterNSW supply pipelines
- Farm dams
- Key fish habitat waterways (as per EIS)
- AEI contamination sites

**Points of interest**

- Childcare centres
- Community facility
- Education facilities; Schools
- Place of Worship
- Riparian corridors (Strahler System widths)
- Affected agricultural businesses
- Affected businesses
- Primary agricultural lands

**Threatened flora records**

- Marsdenia viridiflora subsp. viridiflora
- Pultenaea parviflora

**Threatened fauna records**

- Cumberland Plain Land Snail
- Eastern Bentwing-bat, Eastern Freetail-bat, Eastern False Pipistrelle
- Latham’s Snipe

**Threatened species habitat areas**

- Regent Honeyeater habitat
- Cumberland Plain Land Snail habitat
- Marsdenia viridiflora subsp. viridiflora - endangered population

**Threatened ecological communities**

- Cumberland Plain Woodland in the Sydney Basin Bioregion
- River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions

**Non-Aboriginal heritage items**

- Canal
- Remnants of The Northern Road
- Sydney Water Pipeline
- Non-Aboriginal heritage site features
- Extent of archaeological excavation
- Non-Aboriginal Heritage sites
- Commonwealth heritage
- Artefact scatter
- Archaeological potential
- High
- Moderate
- Low

**Aboriginal Heritage items**

- Archaeological sites

**Noise sensitive receivers (by land use)**

- Residential
- Educational
- Place of Worship
- Active Recreation
- Commercial
- Not acoustically sensitive (Garage/shed etc)
- Dust sensitive receivers (nominal 100 m buffer)

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:

- Flora and Fauna Management Plan (FFMP)
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- Construction Cultural Heritage Management Plan (CHMP)
- Construction Traffic Management Plan (CTMP)
- Construction Noise and Vibration Management Plan (CN/VMP)
- Waste and Energy Management Plan (WEMP)
- Vegetation Management Plan (VMP)
- Contaminated Land Management Plan (CLMP)
- Air Quality Management Plan (AQMP)
- Sustainability Management Plan (SMP)
- Ancillary Facilities Management Plan (AMP)
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Standard construction hours:
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0800 – 1300 Saturday
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Except as approved in accordance with the NSW Conditions of Approval (CoA), an out of hours work procedure and the Environmental Protection Licence (EPL)
The Northern Road upgrade - Mersey Road to Glenmore Parkway

Sensitive Area Plans

SECTION: TNR5

REVISION DATE: 2/07/2018

Data sources
Jacobs, Austrimage, RMS, LPI
Ab Heritage - KNZC 20180030
Non Ab Heritage - EMN 20171018

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
- Flora and Fauna Management Plan (FFMP)
- Soil and Water Management Plan (SWMP)
- Construction Cultural Heritage Management Plan (CHMP)
- Construction Traffic Management Plan (CTMP)
- Construction Noise and Vibration Management Plan (CNVMP)
- Waste and Energy Management Plan (WEMP)
- Vegetation Management Plan (VMP)
- Contaminated Land Management Plan (CLMP)
- Air Quality Management Plan (AQMP)
- Sustainability Management Plan (SMP)
- Ancillary Facilities Management Plan (AMPP)
- Other Management Measures Management Plans (OMMMP)

Note:
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Legend (Refer to legend sheet for detailed layer list)
- TNR5 construction boundary
- The Northern Road (Existing)
- TNR5 IFT design

Transport Roads & Maritime Services
NSW
Jacobs

Note:
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LUTDENHAM

Data sources
Jacobs, Austrimage, RMS, LPI
Ab Heritage - KNZC 20180030
Non Ab Heritage - EMN 20171018
The Northern Road upgrade - Mersey Road to Glenmore Parkway

Sensitive Area Plans

SECTION: TNR5

REVISION DATE: 2/07/2018

Legend (Refer to legend sheet for detailed layer list)

- TNR5 construction boundary
- The Northern Road (Existing)
- TNR5 IFT design

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
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- Construction Traffic Management Plan (CTMP)
- Construction Noise and Vibration Management Plan (CNVMP)
- Waste and Energy Management Plan (WEMP)
- Vegetation Management Plan (VMP)
- Contaminated Land Management Plan (CLMP)
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- Sustainability Management Plan (SMP)
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Data sources
Jacobs, Ausimage, RMS, LPI
Ab Heritage - XNC 20180030
Non Ab Heritage - EBM 20171018

1:2,500 @ A3 GDA 1994 MGA Zone 56

Page 2 of 15
Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
- Flora and Fauna Management Plan (FFMP)
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- Construction Cultural Heritage Management Plan (CHMP)
- Construction Traffic Management Plan (CTMP)
- Construction Noise and Vibration Management Plan (CNVMP)
- Waste and Energy Management Plan (WEMP)
- Vegetation Management Plan (VMP)
- Contaminated Land Management Plan (CLMP)
- Air Quality Management Plan (AQMP)
- Sustainability Management Plan (SMP)
- Ancillary Facilities Management Plan (AMP)
- Other Management Measures Management Plans (OMMP)

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Data sources
Jacobs, Ausimage, RMS, LPI
Ab Heritage - KNC 20160303
Non Ab Heritage - EMW20171018

The Northern Road upgrade - Mersey Road to Glenmore Parkway
Sensitive Area Plans
SECTION: TNR5
REVISION DATE: 2/07/2018
Page 3 of 15
Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
- Flora and Fauna Management Plan (FFMP)
- Soil and Water Management Plan (SWMP)
- Construction Cultural Heritage Management Plan (CHMP)
- Construction Traffic Management Plan (CTMP)
- Construction Noise and Vibration Management Plan (CNVMP)
- Waste and Energy Management Plan (WEMP)
- Vegetation Management Plan (VMP)
- Contaminated Land Management Plan (CLMP)
- Air Quality Management Plan (AQMP)

- Sustainability Management Plan (SMP)
- Ancillary Facilities Management Plan (AMP)
- Other Management Measures Management Plans (OMMMP)

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Design shown outside the construction boundary is subject to property adjustment plans being finalised and consistency assessment.

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0700 – 1800 Monday – Friday
0800 – 1300 Saturday
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Except as approved in accordance with the NSW Conditions of Approval (CoA), an out of hours work procedure and the Environmental Protection Licence (EPL)

**Data sources**
Jacobs, Asemble, RMS, LPI
Ab Heritage - KNC 20160623
Non Ab Heritage - EM1 20171018

**Section:** TNR5
**Revision date:** 2/07/2018

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**Legend (Refer to legend sheet for detailed layer list):**
- Defence Establishment Orchard Hills (Commonwealth Land)
- TNR5 construction boundary
- The Northern Road (Existing)
- Water/NSW supply pipelines
- TNR5 IFT design

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An exclusion zone would be established to protect the depot building footings associated with the pipelines (item 3), which are immediately adjacent to the proposed drainage infrastructure works within Water NSW Land.
Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
- Flora and Fauna Management Plan (FFMP)
- Soil and Water Management Plan (SWMP)
- Construction Cultural Heritage Management Plan (CHMP)
- Construction Traffic Management Plan (CTMP)
- Construction Noise and Vibration Management Plan (CNVMP)
- Waste and Energy Management Plan (WEMP)
- Vegetation Management Plan (VMP)
- Contaminated Land Management Plan (CLMP)
- Air Quality Management Plan (AQMP)

- Sustainability Management Plan (SMP)
- Ancillary Facilities Management Plan (AMP)
- Other Management Measures Management Plans (OMMP)

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Standard construction hours:
0700 – 1800 Monday – Friday
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Data sources
Jacobs, Aucanima, RMS, LPI
Air Heritage - RMS 2016/003
Non Ab Heritage - EM/2017/010
Exclusion zones would be established around the four Pultenaea parviflora plants to be retained in the area of the Vineyard Road extension in accordance with Roads and Maritime procedure.

Exclusion zones would be established around Marsdenia viridiflora subsp. viridiflora plants proposed to be retained in the area of the DEO fence between Kings Hill Road and Longview Road, in accordance with standard Roads and Maritime procedure.

Legend (Refer to legend sheet for detailed layer list)

- Defence Establishment Orchard Hills (Commonwealth Land)
- TNR5 construction boundary
- The Northern Road (Existing)
- TNR5 IFT design

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:

- Flora and Fauna Management Plan (FFMP)
- Soil and Water Management Plan (SWMP)
- Construction Cultural Heritage Management Plan (CHMP)
- Construction Traffic Management Plan (CTMP)
- Construction Noise and Vibration Management Plan (CNVMP)
- Waste and Energy Management Plan (WEMP)
- Vegetation Management Plan (VMP)
- Contaminated Land Management Plan (CLMP)
- Air Quality Management Plan (AQMP)

- Sustainability Management Plan (SMP)
- Ancillary Facilities Management Plan (AMFP)
- Other Management Measures Management Plans (OMMP)

Note:
Design shown outside the construction boundary is subject to property adjustment plans being finalised and consistency assessment.

NSW Transport Roads & Maritime Services

The Northern Road upgrade - Mersey Road to Glenmore Parkway

Sensitive Area Plans

SECTION: TNR5

REVISION DATE: 2/07/2018

1:2,500 @ A3 GDA 1994 MGA Zone 56

Data sources:
Jacobs, Ausemage, RMS, LPi
Ab Heritage - KNO: 20180033
Non Ab Heritage - EMN: 20171019
The Northern Road upgrade - Mersey Road to Glenmore Parkway

Sensitive Area Plans

SECTION: TNR5

REVISION DATE: 2/07/2018

Legend (Refer to legend sheet for detailed layer list)
- Defence Establishment Orchard Hills (Commonwealth Land)
- TNR5 construction boundary
- The Northern Road (Existing)
- TNR5 IFT design

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
- Flora and Fauna Management Plan (FFMP)
- Soil and Water Management Plan (SWMP)
- Construction Cultural Heritage Management Plan (CHMP)
- Construction Traffic Management Plan (CTMP)
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- Waste and Energy Management Plan (WMP)
- Vegetation Management Plan (VMP)
- Contaminated Land Management Plan (CLMP)
- Air Quality Management Plan (AQMP)
- Sustainability Management Plan (SMP)
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Data sources
Jacobs, Ausimage, RMS, LPRI
Air Heritage - KNE 20160320
Non Ab Heritage - EMH 20171016

1:2,500 @ A3 GDA 1994 MGA Zone 56
Legend (Refer to legend sheet for detailed layer list)

- Defence Establishment Orchard Hills (Commonwealth Land)
- TNRS construction boundary
- The Northern Road (Existing)
- TNRS IFT design

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
- Flora and Fauna Management Plan (FFMP)
- Soil and Water Management Plan (SWMP)
- Construction Cultural Heritage Management Plan (CHMP)
- Construction Traffic Management Plan (CTMP)
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- Waste and Energy Management Plan (WEMP)
- Vegetation Management Plan (VMP)
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- Air Quality Management Plan (AQMP)

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0700 – 1800 Monday – Friday
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Data sources
- Jacobs, Ausimage, RMS, LPJ
- Air Heritage - EMM 201701018
- Non Ab Heritage - EMM 201701018

SECTION: TNRS
REVISION DATE: 2/07/2018

Page 8 of 15
Legend (Refer to legend sheet for detailed layer list)

- Defence Establishment Orchard Hills (Commonwealth Land)
- TNR5 construction boundary
- The Northern Road (Existing)
- TNR5 IFT design

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
- Flora and Fauna Management Plan (FFMP)
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- Construction Cultural Heritage Management Plan (CHMP)
- Construction Traffic Management Plan (CTMP)
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- Air Quality Management Plan (AQMP)

- Sustainability Management Plan (SMP)
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Data sources
Jacobs, Assembly, RMS, LPI
NSW Heritage - NSW 2016010
Non Ab Heritage - EMU 20170103

The Northern Road upgrade - Mersey Road to Glenmore Parkway
Sensitive Area Plans
SECTION: TNR5
REVISION DATE: 2/07/2018
Page 9 of 15

Legend (Refer to legend sheet for detailed layer list)

- Defence Establishment Orchard Hills (Commonwealth Land)
- TNR5 construction boundary
- The Northern Road (Existing)
- TNR5 IFT design

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
- Flora and Fauna Management Plan (FFMP)
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- Construction Cultural Heritage Management Plan (CHMP)
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Data sources
Jacobs, Assembly, RMS, LPI
NSW Heritage - NSW 2016010
Non Ab Heritage - EMU 20170103

The Northern Road upgrade - Mersey Road to Glenmore Parkway
Sensitive Area Plans
SECTION: TNR5
REVISION DATE: 2/07/2018
Page 9 of 15
Legend (Refer to legend sheet for detailed layer list)

- Defence Establishment Orchard Hills (Commonwealth Land)
- TNR5 construction boundary
- The Northern Road (Existing)
- TNR5 IFT design

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
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- Construction Traffic Management Plan (CTMP)
- Construction Noise and Vibration Management Plan (CNVMP)
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 Except as approved in accordance with the NSW Conditions of Approval (CoA), an out of hours work procedure and the Environmental Protection Licence (EPL)

Data sources
Jacobs, Ausimage, RMS, LPI
Ab Heritage - KNC, 20170303
Non Ab Heritage - EMH, 20171016
Data sources
Jacobs, Auismage, RMS, LPI
Air Heritage - NSD 20180330
Non Ab Heritage - EMN 20171018

**Legend (Refer to legend sheet for detailed layer list)**
- Defence Establishment Orchard Hills (Commonwealth Land)
- TNR5 construction boundary
- The Northern Road (Existing)
- TNR5 IFT design

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
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- Construction Cultural Heritage Management Plan (CHMP)
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**The Northern Road upgrade - Mersey Road to Glenmore Parkway**

**Sensitive Area Plans**

**SECTION: TNR5**
**REVISION DATE: 2/07/2018**
LEGEND (Refer to legend sheet for detailed layer list)

- Defence Establishment Orchard Hills (Commonwealth Land)
- TNRS construction boundary
- The Northern Road (Existing)
- TNRS IFT design

Refers to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
- Flora and Fauna Management Plan (FFMP)
- Soil and Water Management Plan (SWMP)
- Construction Cultural Heritage Management Plan (CHMP)
- Construction Traffic Management Plan (CTMP)
- Construction Noise and Vibration Management Plan (CNVMP)
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- Air Quality Management Plan (AQMP)
- Sustainability Management Plan (SMP)
- Ancillary Facilities Management Plan (AMP)
- Other Management Measures Management Plans (OMMMP)

Note: Design shown outside the construction boundary is subject to property adjustment plans being finalised and consistency assessment.

Data sources
Jacobs, Ausimage, RMS, LPI
Air Heritage - KSC 20160630
Non Ab Heritage - EM/MM 20171018

The Northern Road upgrade - Mersey Road to Glenmore Parkway

Sensitive Area Plans

SECTION: TNRS

REVISION DATE: 2/07/2018
Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
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- Construction Cultural Heritage Management Plan (CHMP)
- Construction Traffic Management Plan (CTMP)
- Construction Noise and Vibration Management Plan (CNVMP)
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- Sustainability Management Plan (SMP)
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Transport Roads & Maritime Services
Jacobs, Aurecon, RMS, LPI
Air Heritage - NSW 2010030
Non Ab Heritage - EMM 20171016

THE NORTHERN ROAD
Plain Woodland
GLENMORE PARK

Note:
Design shown outside the construction boundary is subject to property adjustment plans being finalised and consistency assessment.
The Northern Road upgrade - Mersey Road to Glenmore Parkway

Sensitive Area Plans

SECTION: TNR5
REVISION DATE: 2/07/2018

Data sources
Jacobs. Austrimage, RMS, LPI
Abi Heritage - KNC 20160030
Non Abi Heritage - EM/20170105

Legend (Refer to legend sheet for detailed layer list)
- Defence Establishment Orchard Hills (Commonwealth Land)
- TNR5 construction boundary
- TNRS IFT design

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
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- Construction Traffic Management Plan (CTMP)
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GLENMORE PARK
LUDDENHAM
Windmill Park
Plain Woodland
Cumberland
Orchard Hills

ORTH AMERICA
TAIWAN
KOREA
ASIA
"L" "L" "L"

The Northern Road upgrade - Orchard Hills
TNR5 IFT design

The Northern Road (Existing)

Orchard Hills

Note:
Design shown outside the construction boundary is subject to property adjustment plans being finalised and consistency assessment.

Standard construction hours:
0700 – 1800 Monday – Friday
0800 – 1300 Saturday
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GLENMORE PARK
LUDDENHAM
Windmill Park
Plain Woodland
Cumberland
Orchard Hills

ORTH AMERICA
TAIWAN
KOREA
ASIA
"L" "L" "L"

The Northern Road upgrade - Orchard Hills
TNR5 IFT design

The Northern Road (Existing)

Orchard Hills

Note:
Design shown outside the construction boundary is subject to property adjustment plans being finalised and consistency assessment.

Standard construction hours:
0700 – 1800 Monday – Friday
0800 – 1300 Saturday
No work on Sundays or public holidays
Except as approved in accordance with the NSW Conditions of Approval (CoA), an out of hours work procedure and the Environmental Protection Licence (EPL)
Stage 6 Sensitive Area Plans
**Legend**

- Western Sydney Airport site (Commonwealth)
- Defence Establishment Orchard Hills (Commonwealth Land)
- Commonwealth Lands
- TNR6 construction boundary (SPIR)
- Construction compound sites
- TNR6 SPIR design
- Construction footprint (TNR4 / TNR5)
- The Northern Road (Existing)
- WaterNSW supply pipelines
- Farm dams
- Key fish habitat waterways (as per EIS)
- AEI contamination sites

### Points of interest

- Childcare centres
- Community facility
- Education facilities; Schools
- Place of Worship
- Riparian corridors (Strahler System widths)
- Affected agricultural businesses
- Affected businesses
- Primary agricultural lands

### Threatened flora records

- *Marsdenia viridiflora subsp. viridiflora*
- *Pultenaea parviflora*

### Threatened fauna records

- Cumberland Plain Land Snail
- Eastern Bentwing-bat, Eastern Fretail-bat, Eastern False Pipistrelle
- Latham’s Snipe

### Threatened species habitat areas

- Regent Honeyeater habitat
- *Pultenaea parviflora*
- Cumberland Plain Land Snail habitat
- *Marsdenia viridiflora subsp. viridiflora* - endangered population

### Threatened ecological communities

- Cumberland Plain Woodland in the Sydney Basin Bioregion
- River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions

### Noise sensitive receivers (by land use)

- Residential
- Educational
- Place of Worship
- Active Recreation
- Commercial
- Not acoustically sensitive (Garage/shed etc)
- Dust sensitive receivers (nominal 100 m buffer)

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:

- Flora and Fauna Management Plan (FFMP)
- Soil and Water Management Plan (SWMP)
- Construction Cultural Heritage Management Plan (CHMP)
- Construction Traffic Management Plan (CTMP)
- Construction Noise and Vibration Management Plan (CNVMP)
- Waste and Energy Management Plan (WEMP)
- Vegetation Management Plan (VMP)
- Contaminated Land Management Plan (CLMP)
- Air Quality Management Plan (AQMP)
- Sustainability Management Plan (SMP)
- Ancillary Facilities Management Plan (AMP)
- Other Management Measures Management Plans (OMMMP)

**Standard construction hours:**

0700 – 1800 Monday – Friday
0800 – 1300 Saturday
No work on Sundays or public holidays

Except as approved in accordance with the NSW Conditions of Approval (CoA), an out of hours work procedure and the Environmental Protection Licence (EPL)
Legend (Refer to legend sheet for detailed layer list)

- TNR4 construction boundary
- TNR6 construction boundary (SPIR)
- SPIR design
- Construction compound sites

**Note:** Design shown outside the construction boundary is subject to property adjustment plans being finalised and consistency assessment.

The Northern Road upgrade - Mersey Road to Glenmore Parkway

Sensitive Area Plans

SECTION: TNR6

REVISION DATE: 2/07/2018

Legend:
- TNR4 construction boundary
- TNR6 construction boundary (SPIR)
- SPIR design
- Construction compound sites

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:

- Flora and Fauna Management Plan (FFMP)
- Soil and Water Management Plan (SWMP)
- Construction Cultural Heritage Management Plan (CHMP)
- Construction Traffic Management Plan (CTMP)
- Construction Noise and Vibration Management Plan (CNVMP)
- Waste and Energy Management Plan (WMP)
- Vegetation Management Plan (VMP)
- Contaminated Land Management Plan (CLMP)
- Air Quality Management Plan (AQMP)

- Sustainability Management Plan (SMP)
- Ancillary Facilities Management Plan (AMP)
- Other Management Measures Management Plans (OMMMP)

**Data sources**
JACOBS, Ausimage, RMS, LP1
Ab Heritage - KNC 20180320
Non Ab Heritage - E9/A 20171015

**Standard construction hours:**
- 0700 – 1800 Monday – Friday
- 0800 – 1300 Saturday

No work on Sundays or public holidays

Except approved in accordance with the NSW Conditions of Approval (CoA), an out of hours work procedure and the Environmental Protection Licence (EPL)

**Note:** Design shown outside the construction boundary is subject to property adjustment plans being finalised and consistency assessment.

Luddenham Village area:
- Chapel and School Site
- Adams Road House

Mrs Lawson’s Guesthouse Site, Luddenham

**Primar product** at 28 Eaton Road, Luddenham

Non-operational Service Station

Business name: Shell
Service Station

**Note:** Design shown outside the construction boundary is subject to property adjustment plans being finalised and consistency assessment.
The Northern Road upgrade - Mersey Road to Glenmore Parkway

Sensitive Area Plans

SECTION: TNR6

REVISION DATE: 2/07/2018

Data sources
Jacobs, Ausimage, RMS, LP1
Ab Heritage - KNC 201600030
Non Ab Heritage - EMIA 20171015

Legend (Refer to legend sheet for detailed layer list)
- **TNR6 construction boundary (SPIR)**
- **TNR6 SPIR design**
- **Construction compound sites**

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
- Flora and Fauna Management Plan (FFMP)
- Soil and Water Management Plan (SWMP)
- Construction Cultural Heritage Management Plan (CHMP)
- Construction Traffic Management Plan (CTMP)
- Construction Noise and Vibration Management Plan (CNVMP)
- Waste and Energy Management Plan (WEMP)
- Vegetation Management Plan (VMP)
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- Sustainability Management Plan (SMP)
- Ancillary Facilities Management Plan (AMMP)
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Standard construction hours:
0700 – 1800 Monday – Friday
0800 – 1300 Saturday
No work on Sundays or public holidays
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Note:
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The Northern Road upgrade -
Mersey Road to Glenmore Parkway

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REVISION DATE: 2/07/2018

Primary production at
2420-2430 The Northern
Road, Luddenham

Data sources
Jacob, Austrimage, RMS, LPI
Ab Heritage - KNC 20180320
Non Ab Heritage - EMB 201717016

Legend (Refer to legend sheet for
detailed layer list)
- TNR6 construction boundary (SPIR)
- TNR6 SPIR design
- Construction compound sites

Refer to the Construction Environmental Management Plan
(CEMP) and the following CEMP sub-plans for further
information on management measures as required:
- Flora and Fauna Management Plan (FFMP)
- Soil and Water Management Plan (SWMP)
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- Construction Traffic Management Plan (CTMP)
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- Air Quality Management Plan (AQMP)

- Sustainability Management Plan (SMP)
- Ancillary Facilities Management Plan (AMP)
- Other Management Measures Management Plans (OMMMMP)

Note:
Design shown outside the construction boundary is subject to
property adjustment plans being finalised and consistency
assessment

Standard construction hours:
0700 – 1800 Monday – Friday
0800 – 1300 Saturday
No work on Sundays or public holidays
Except as approved in accordance with the NSW
Conditions of Approval (CoA), an out of hours work
procedure and the Environmental Protection Licence
(EPL)

Primary production at
2420-2430 The Northern
Road, Luddenham

LUDDENHAM

The Northern Road upgrade -
Mersey Road to Glenmore Parkway

Sensitive Area Plans

SECTION: TNR6
REVISION DATE: 2/07/2018

Page 3 of 10
The Northern Road (Existing)

TNR6 construction boundary (SPIR)

TNR6 SPIR design

Construction compound sites

Legend (Refer to legend sheet for detailed layer list)

- The Northern Road (Existing)
- TNR6 construction boundary (SPIR)
- TNR6 SPIR design
- Construction compound sites

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
- Flora and Fauna Management Plan (FFMP)
- Soil and Water Management Plan (SWMP)
- Construction Cultural Heritage Management Plan (CHMP)
- Construction Traffic Management Plan (CTMP)
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- Sustainability Management Plan (SMP)
- Ancillary Facilities Management Plan (AMPP)
- Other Management Measures Management Plans (OMMP)

Note: Design shown outside the construction boundary is subject to property adjustment plans being finalised and consistency assessment.

Standard construction hours:
- 0700 – 1830 Monday – Friday
- 0800 – 1300 Saturday
No work on Sundays or public holidays

Except as approved in accordance with the NSW Conditions of Approval (CoA), an out of hours work procedure and the Environmental Protection Licence (EPL)

Data sources
Jacobs, Ausimage, RMS, LPI
Ab Heritage - XNC 20160930
Non Ab Heritage - EMB 20171016

The Northern Road upgrade - Mersey Road to Glenmore Parkway

Sensitive Area Plans

SECTION: TNR6
REVISION DATE: 2/07/2018

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The Northern Road (Existing)
TNR6 construction boundary (SPIR)
TNR6 SPIR design
Construction compound sites

Legend (Refer to legend sheet for detailed layer list)

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
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0800 – 1300 Saturday
No work on Sundays or public holidays
Except as approved in accordance with the NSW Conditions of Approval (CoA), an out of hours work procedure and the Environmental Protection Licence (EPL)

Commonwealth of Australia Department of the Environment, Climate Change and Water National Heritage – EMA 20171015

The Northern Road upgrade - Mersey Road to Glenmore Parkway
Sensitive Area Plans
SECTION: TNR6
REVOLUTION DATE: 2/07/2018

Data sources
Jacobs, Assimago, RMS, LPI
Ab Heritage - KVC 20180930
Non Ab Heritage - EMA 20171015

LUDDENHAM

"Pleasantview" House 1,
P r i m a r y  p r o d u c t i o n  a t
2420-2430 The Northern Road, Luddenham

A L T o u r s  /  A  &  M Excavating

BUSINESS NAME:
BUSINESS NAME:
BUSINESS NAME:

LUDDENHAM

Note:
Design shown outside the construction boundary is subject to property adjustment plans being finalised and consistency assessment.

Standard construction hours:
0700 – 1800 Monday – Friday
0800 – 1300 Saturday
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Commonwealth of Australia Department of the Environment, Climate Change and Water National Heritage – EMA 20171015

The Northern Road upgrade - Mersey Road to Glenmore Parkway
Sensitive Area Plans
SECTION: TNR6
REVOLUTION DATE: 2/07/2018

Data sources
Jacobs, Assimago, RMS, LPI
Ab Heritage - KVC 20180930
Non Ab Heritage - EMA 20171015

LUDDENHAM
Legend (Refer to legend sheet for detailed layer list)

- TNR6 construction boundary (SPIR)
- TNR6 SPIR design
- Construction compound sites

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
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- Construction Cultural Heritage Management Plan (CHMP)
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Note:
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Data sources
Jacobs, Ausiimage, RMS, LPI
Ab Heritage - KNC 20160930
Non Ab Heritage - EMMA 20171016

SECTION: TNR6
REVISION DATE: 2/07/2018
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The Northern Road upgrade - Mersey Road to Glenmore Parkway

Sensitivity Area Plans

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REVISION DATE: 2/07/2018

Legend (Refer to legend sheet for detailed layer list)
- The Northern Road (Existing)
- TNR6 construction boundary (SPIR)
- TNR6 SPIR design
- Construction compound sites

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- Other Management Measures Management Plans (OMMMP)

Note:
Design shown outside the construction boundary is subject to property adjustment plans being finalised and consistency assessment.

Data sources
Jacobs, Ausimage, RMS, LPI
Ab Heritage - KMC 20160303
Non Ab Heritage - EMBA 20171010

Standard construction hours:
0700 – 1800 Monday – Friday
0800 – 1300 Saturday
No work on Sundays or public holidays
Except as approved in accordance with the NSW Conditions of Approval (CoA), an out of hours work procedure and the Environmental Protection Licence (EPL)

Note:
Design shown outside the construction boundary is subject to property adjustment plans being finalised and consistency assessment.
The Northern Road upgrade - Mersey Road to Glenmore Parkway

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
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- Other Management Measures Management Plans (OMMP)

Note:
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Data sources
Jacobs, Aurecon, RMS, LP1
Ab Heritage - KNC 20180930
Non Ab Heritage - EBA 20171016

Standard construction hours:
0700 – 1800 Monday – Friday
0800 – 1300 Saturday
No work on Sundays or public holidays
Except as approved in accordance with the NSW Conditions of Approval (CoA), an out of hours work procedure and the Environmental Protection Licence (EPL)
Legend (Refer to legend sheet for detailed layer list)
- The Northern Road (Existing)
- TNR6 construction boundary (SPIR)
- TNR6 SPIR design

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
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- Construction Cultural Heritage Management Plan (CHMP)
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- Construction Noise and Vibration Management Plan (CNVMP)
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Note: Design shown outside the construction boundary is subject to property adjustment plans being finalised and consistency assessment.

Standard construction hours:
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0800 – 1300 Saturday
No work on Sundays or public holidays
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Data sources
Jacobs, Ausimage, RMS, LPI
Ab Heritage - XRC 20180003
Non Ab Heritage - EMSA 20170105

The Northern Road upgrade - Mersey Road to Glenmore Parkway
Sensitive Area Plans
SECTION: TNR6
REVISION DATE: 2/07/2018

Page 9 of 10
TNR5 construction boundary
- The Northern Road (Existing)
- TNR6 construction boundary (SPIR)
- TNR6 SPIR design
- Construction compound sites

Legend (Refer to legend sheet for detailed layer list)

Refer to the Construction Environmental Management Plan (CEMP) and the following CEMP sub-plans for further information on management measures as required:
- Flora and Fauna Management Plan (FFMP)
- Soils and Water Management Plan (SWMP)
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- 0700 – 1800 Monday – Friday
- 0800 – 1300 Saturday
No work on Sundays or public holidays

Except as approved in accordance with the NSW Conditions of Approval (CoA), an out of hours work procedure and the Environmental Protection Licence (EPL)

Data sources
ен Jacobs, Austrimage, RMS, LPI
Non-Ab Heritage - EMA 201701736

The Northern Road upgrade - Mersey Road to Glenmore Parkway
Sensitive Area Plans

SECTION: TNR6
REVISION DATE: 2/07/2018
Appendix A7
Environmental Incident Classification and Reporting Procedure

The Northern Road Upgrade – Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park
September 2018
# About this release

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<thead>
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<th><strong>Title</strong></th>
<th>Environmental Incident Classification and Reporting Procedure</th>
</tr>
</thead>
</table>

## Approval

<table>
<thead>
<tr>
<th><strong>Prepared by</strong></th>
<th>Environment Manager Performance Improvement</th>
<th>Scott Machar</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reviewed by</strong></td>
<td>Director Environment Operations</td>
<td>Sally Durham</td>
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<tr>
<td><strong>Approved by</strong></td>
<td>Director Environment</td>
<td>Michael Crowley</td>
</tr>
</tbody>
</table>

## Document Control

<table>
<thead>
<tr>
<th><strong>Version</strong></th>
<th>5.0</th>
<th><strong>Release date</strong></th>
<th>September 2017</th>
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<tbody>
<tr>
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<td>RMS 17.374</td>
<td><strong>ISBN</strong></td>
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<thead>
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<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>DE</td>
<td>(Roads and Maritime Services) Director Environment</td>
</tr>
<tr>
<td>DEO</td>
<td>(Roads and Maritime Services) Director Environment Operations</td>
</tr>
<tr>
<td>DPE</td>
<td>Department of Planning and Environment</td>
</tr>
<tr>
<td>Environmental harm</td>
<td>Any act that degrades or pollutes the environment</td>
</tr>
<tr>
<td>EPA</td>
<td>NSW Environment Protection Authority</td>
</tr>
<tr>
<td>EP&amp;A Act</td>
<td>Environmental Planning and Assessment Act 1997</td>
</tr>
<tr>
<td>EPBC Act</td>
<td>Environment Protection and Biodiversity Conservation Act 1999</td>
</tr>
<tr>
<td>EPL</td>
<td>Environment Protection Licence</td>
</tr>
<tr>
<td>REF</td>
<td>Review of Environmental Factors</td>
</tr>
<tr>
<td>Roads and Maritime</td>
<td>NSW Roads and Maritime Services</td>
</tr>
<tr>
<td>SEQC</td>
<td>(Roads and Maritime Services) Safety Environment and Quality Co-ordinator</td>
</tr>
<tr>
<td>SEQO</td>
<td>(Roads and Maritime Services) Safety Environment and Quality Officer</td>
</tr>
</tbody>
</table>
1. Introduction

1.1 Aim
The Environmental Incident Classification and Reporting Procedure (the Procedure) aims to ensure Roads and Maritime Services workers and contractors understand how to classify, respond to and report environmental incidents that occur as a result of Roads and Maritime managed activities.

1.2 Objectives
The objectives of the Procedure are to:

- Ensure all relevant Roads and Maritime workers, managers and contractors are made aware of environmental incidents promptly and can respond accordingly
- Ensure site workers understand the immediate environmental incident reporting requirements
- Ensure all workers understand reporting timeframes, including statutory requirements
- Ensure incidents are reported to enable monitoring, sharing of lessons learnt and response to emerging environmental incident trends
- Comply with statutory obligations to report certain environmental incidents to regulators and other relevant government agencies (see section 5.1).

1.3 Scope and coverage
This Procedure is applicable to all Roads and Maritime activities where environmental incidents may occur. This includes (but is not limited to):

- Temporary activities, such as preliminary investigations (e.g. geotechnical and environmental surveys) and the construction and maintenance of Roads and Maritime assets
- Activities at Roads and Maritime properties and facilities
- Vessels operated by Maritime division
- Activities undertaken by contractors on behalf of Roads and Maritime.

The requirements of this Procedure must be communicated to all Roads and Maritime workers and contractors (e.g. during inductions) who are undertaking activities where incidents may occur.

The Procedure is for internal reporting processes, except where incidents are identified that need to be notified to regulators, and other relevant authorities (see section 5.1).

The procedure does NOT cover environmental incidents caused by:

- Operational road and traffic activities of the general public (e.g. vehicle accidents, fires caused by discarded cigarette butts)
- Boating accidents (except those involving Roads and Maritime vessels)
- Dumping of materials by members of the public on Roads and Maritime roadsides or land (except where hazardous materials are unexpectedly found during road construction or maintenance activities). Illegal dumping should be reported to the NSW Environment Protection Authority (EPA)
2. Environmental incident classification

There are three categories of environmental incidents, as detailed in Table 2.

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1</td>
<td>Potential breaches of legislation or failures of process that result in actual off-site environmental harm, or residual on-site environmental harm or Works undertaken outside approved areas, without required approval or without environmental assessment or Any Material Harm pollution incident as defined by Part 5.7 of the Protection of the Environment Operations Act 1997 (POEO Act).</td>
<td>Pollution Incidents Discharge of waters from site not in accordance with any approval requirements (e.g. discharge criteria in an Review of Environmental Factors (REF) safeguard or Environment Protection Licence (EPL) condition) Pollution, or potential pollution, of waters Unmanaged vehicle tracking of materials or emissions of dust, offensive odours or noise beyond the site boundary that are not managed in accordance with approval requirements and/or might impact on nearby land users Pollution incidents that threaten harm to the health or safety of people (e.g. odours) Unauthorised or illegal disposal or transport of waste A spill or other incident that causes pollution to land</td>
</tr>
<tr>
<td></td>
<td>Conservation Breaches Unauthorised harm or damage to native flora and fauna (terrestrial or aquatic/marine) Unauthorised dredging or reclamation works within a watercourse A fire caused by Roads and Maritime activities that travels beyond the boundary causing or potentially causing harm to the environment or community</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Heritage Breaches Unauthorised harm to Aboriginal objects and Aboriginal places Unauthorised damage to any State or locally significant relic or Heritage item, or item listed on the Roads and Maritime Section 170 register</td>
<td></td>
</tr>
</tbody>
</table>
### Table 2: Environmental incident classification

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
</table>
| Planning and compliance breaches | Failure to comply with the requirements of:  
- The *Environmental Planning and Assessment Act 1997* (EP&A Act), including exempt activities, Part 5 determinations and Part 5.1 approvals  
- An *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) approval  
- An EPL  
- A CEMP or environmental work method statement  
- A permit from a regulator (e.g. under the *Fisheries Management Act 1994*) | |
| Category 2 | Failures of process or events that do not result in off-site environmental harm, or residual on-site environmental harm. These incidents may result in temporary on-site environmental harm that can be rectified to pre-existing conditions. | A procedural, administrative or technical breach of environmental requirements, including:  
- Failure to prepare or submit required documents, reports or other correspondence  
- Failure to comply with the requirements of:  
  - The *Environmental Planning and Assessment Act 1997* (EP&A Act), including exempt activities, Part 5 determinations and Part 5.1 approvals  
  - An *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) approval  
  - An EPL  
  - A CEMP or environmental work method statement  
  - A permit from a regulator (e.g. under the *Fisheries Management Act 1994*). | Spills and discharges that do not leave a site boundary and are cleaned up without residual on-site environmental harm, and the area of temporary impact can be restored to pre-existing conditions  
A fire that is contained on site and does not cause or potentially cause adverse impact to the environment or community |
| Reportable Event | An event or unexpected find that occurs outside the scope of reasonable environmental controls and mitigation measures | Sediment or site water travelling beyond a site boundary, and where it can be demonstrated that:  
- Erosion and sediment controls were installed and maintained in accordance with an erosion and sediment control plan, and  
- The cause of the incident was reasonably unforeseen or the weather (rain, wind etc) event exceeded the design capacity of controls. Note these events are considered to have occurred (and the response should commence in accordance with [Section 3](#)) when sediment or site water first travels beyond the site boundary (e.g. when an appropriately sized and maintained sediment basin commences overtopping). | An unexpected archaeological find that is being managed in accordance with the "Roads and Maritime
### Table 2: Environmental incident classification

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard Management Procedure</strong></td>
<td></td>
<td><strong>Standard Management Procedure - Unexpected Archaeological Finds</strong>&lt;sup&gt;”&lt;/sup&gt; An unexpected threatened species find that is being managed in accordance with the “Roads and Maritime Biodiversity Guidelines – unexpected threatened species finds procedure” An unexpected find of contaminated soils, asbestos or other potentially hazardous substances during construction or maintenance works. Note that once a particular contaminant is identified or found for the first time (either during project planning or construction phases) it is then reasonably expected to be found, so additional finds need not be reported in this category.</td>
</tr>
</tbody>
</table>
| **Regulatory Action**  | Formal regulatory action from an environmental regulator (that has not already been reported in conjunction with another incident) | Formal regulatory action from an environmental regulator includes, but is not limited to:  
  - Penalty infringement notices (PINs)  
  - Clean up notices  
  - Prevention notices  
  - Official cautions / warnings  
  - EPA show cause notifications. |

**Note:** For any incident where there is associated formal regulatory action from an environmental regulator, copies of this correspondence must be forwarded to envops@rms.nsw.gov.au in addition to the Environmental Incident Report (see section 4).
3. Environmental incident response

3.1 Considerations and steps for environmental incident response

The step-by-step response for Category 1 incidents, Category 2 incidents and Reportable Events is detailed in Table 3.1a (activities undertaken by contractors) and Table 3.1b (activities undertaken by Roads and Maritime Regional Maintenance). However, some key points apply throughout all stages of the response to any environmental incident:

- If in doubt, treat all incidents as Category 1 to ensure reporting timeframes can be met
- Strong consideration should be given to notifying:
  - Roads and Maritime Corporate Communications for any incidents that have potential for community or media attention (see section 4.4)
  - Roads and Maritime Work Health and Safety Branch for any incidents that involve actual or potential risks to worker health and safety (see section 4.4).
- The person responsible for operational management of the site/activity shall assume responsibility for the response to the incident and direct actions as necessary and in accordance with this Procedure
- A Roads and Maritime Environment Manager can consult with the Director Environment Operations (DEO) to reclassify the category of an incident where appropriate.

Any Regulatory Action received (that has not already been reported in conjunction with another incident) should be immediately forwarded to the envops@rms.nsw.gov.au mailbox, and followed by an immediate phone call to the relevant Roads and Maritime Environment Manager, who will immediately advise the DEO. Consideration should then be given as to whether an environmental incident has occurred (see section 2) that should be reported in accordance with this section.
<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Responsibility for completing action</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Table 3.1a: Environmental incident response activities undertaken by contractors</strong></td>
<td>Category 1 Incidents</td>
<td>Category 2 Incidents / Reportable Events</td>
</tr>
<tr>
<td>1</td>
<td>Stop work in relevant area (if necessary) and take actions to prevent adverse impact to human health or the environment. Note human health and safety is the primary concern, and no action should be taken if it is not safe to do so.</td>
<td>Person who identifies incident</td>
<td>Immediate</td>
</tr>
<tr>
<td>2</td>
<td>Advise the contractor site management team.</td>
<td>Person who identifies incident</td>
<td>Immediate</td>
</tr>
<tr>
<td>3</td>
<td>Advise the Roads and Maritime project management team and the relevant Roads and Maritime Environment Manager.</td>
<td>Contractor</td>
<td>Immediate</td>
</tr>
<tr>
<td>4</td>
<td>Consider if the incident is a pollution incident that constitutes Material Harm in accordance with Part 5.7 of the POEO Act. For Material Harm pollution incidents, notify relevant agencies (see section 5.2). Sites with an EPL should implement their Pollution Incident Response Management Plan.</td>
<td>Contractor</td>
<td>Immediate</td>
</tr>
</tbody>
</table>
| 5    | Advise DEO by phone. The DEO may request photographs and a brief summary of known information via email. The following Roads and Maritime managers should also be notified by phone as relevant:  
  • Director Environment (Major Projects)  
  • Director Environment (Motorways).                                                                                                       | Roads and Maritime Environment Manager                    | Immediately following advice of the incident                             | N/A                                                                     |
| 6    | Where relevant, notify incident to appropriate regulatory agency (see section 5.1). Note this does not refer to the requirement to notify Material Harm pollution incidents (see Step 4).                               | Contractor                                                | As required by legislation                                              | As required by legislation                                              |
| 7    | Complete the incident report form (see section 4.2), including sign-off from Roads and Maritime Project Manager, and submit to Roads and Maritime Environment Manager* (see sections 4.3 and 4.4).                                 | Contractor                                                | Within 3 business days of the incident                                  | Within 3 business days of the incident                                  |
| 8    | Sign and submit incident report form to envops@rms.nsw.gov.au.                                                                                                                                              | Roads and Maritime Environment Manager                    | On the day of receipt of the form                                        | On the day of receipt of the form                                        |
| 9    | For Material Harm pollution incidents, provide a written report to each relevant authority (see section 5.2).                                                                                                 | Contractor                                                | Within 7 days of the incident                                           | N/A                                                                     |
| 10   | Undertake incident investigation (level of investigation to be appropriate to the severity of the incident) to determine root cause and any necessary corrective actions. Summarise findings in 'Incident Lessons Learnt' template and submit to Environment Manager for review. | Contractor                                                | Within 1 month of incident                                              | N/A                                                                     |
| 11   | Submit final Incident Lessons Learnt to envops@rms.nsw.gov.au.                                                                                                                                              | Roads and Maritime Environment Manager                    | Within 1 week of receipt                                               | N/A                                                                     |
| 12   | Consider the need for any required corrective actions to be addressed through a management system (e.g. corrective action request).                                                                          | Roads and Maritime Environment Manager and project team    | As appropriate                                                          | As appropriate                                                          |
*Alternate workflow / signatory arrangements may be required for projects where a third party is involved (e.g. a delivery authority). These arrangements can be confirmed with the relevant Roads and Maritime Environment Manager.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Responsibility for completing action</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Stop work in relevant area (if necessary) and take actions to prevent adverse impact to human health or the environment. Note human health and safety is the primary concern, and no action should be taken if it is not safe to do so.</td>
<td>Person who identifies incident</td>
<td>Immediate</td>
</tr>
<tr>
<td>2</td>
<td>Advise the Roads and Maritime site management team and the relevant Roads and Maritime Environment Manager and Safety Environment Quality Officer (SEQO) / Safety Environment Quality Coordinator (SEQC).</td>
<td>Person who identifies incident</td>
<td>Immediate</td>
</tr>
<tr>
<td>3</td>
<td>Advise DEO by phone. The DEO may request photographs and a brief summary of known information via email. The relevant Regional Maintenance Manager must also be notified.</td>
<td>Environment Manager</td>
<td>Immediate</td>
</tr>
<tr>
<td>4</td>
<td>Consider if the incident is a pollution incident that constitutes Material Harm in accordance with Part 5.7 of the POEO Act. For Material Harm pollution incidents, notify relevant agencies (see section 5.2). Sites with an EPL should implement their Pollution Incident Response Management Plan.</td>
<td>DEO</td>
<td>Immediately following advice of the incident</td>
</tr>
<tr>
<td>5</td>
<td>Where relevant, notify incident to appropriate regulatory agency (see section 5.1). Note this does not refer to the requirement to notify Material Harm pollution incidents (see Step 4).</td>
<td>Environment Manager</td>
<td>As required by legislation</td>
</tr>
<tr>
<td>6</td>
<td>Complete the incident report form (see section 4.2), including sign-off from Roads and Maritime Project Manager, and submit to SEQC (see section 4.3).</td>
<td>Relevant Roads and Maritime site representative</td>
<td>Within 3 business days of the incident</td>
</tr>
<tr>
<td>7</td>
<td>SEQC to sign and submit incident report form to relevant Environment Manager (see section 4.4).</td>
<td>SEQC</td>
<td>On the day of receipt of the form</td>
</tr>
<tr>
<td>8</td>
<td>Sign and submit incident report form to <a href="mailto:envops@rms.nsw.gov.au">envops@rms.nsw.gov.au</a>.</td>
<td>Environment Manager</td>
<td>On the day of receipt of the form</td>
</tr>
<tr>
<td>9</td>
<td>For Material Harm pollution incidents, provide a written report to each relevant authority (see section 5.2).</td>
<td>DEO</td>
<td>Within 7 days of the incident</td>
</tr>
<tr>
<td>10</td>
<td>Undertake incident investigation (level of investigation to be appropriate to the severity of the incident) to determine root cause and any necessary corrective actions. Summarise findings in ‘Incident Lessons Learnt’ template and submit both to Environment Manager for review. Consider the need for any required corrective actions to be addressed through a management system (e.g. corrective action request).</td>
<td>SEQC</td>
<td>Within 1 month of incident</td>
</tr>
<tr>
<td>11</td>
<td>Submit final Incident Lessons Learnt to <a href="mailto:envops@rms.nsw.gov.au">envops@rms.nsw.gov.au</a>.</td>
<td>Roads and Maritime Environment Manager</td>
<td>Within 1 week of receipt</td>
</tr>
</tbody>
</table>
Copies of formal regulatory action from an environmental regulator (that has not already been reported in conjunction with another incident) must be forwarded to the relevant Roads and Maritime Environment Manager (and SEQC/SEQO for Regional Maintenance projects) and envops@rms.nsw.gov.au immediately upon receipt.

3.2 Critical incidents

Some Category 1 incidents require escalation so relevant members of the Roads and Maritime Executive are aware of the incident and ready to respond as necessary. Category 1 incidents will be deemed ‘Critical Incidents’ for escalation to the Executive when they have the potential for:

- Regulatory action (e.g. EPA Penalty Infringement Notice) and/or
- Reputational damage (e.g. media coverage) and/or
- Significant environmental harm.

Guiding factors that will be considered when determining whether there has been ‘significant’ environmental harm include:

- When there has been actual or potential harm to the health or safety of people or to the environment that is not trivial
- Actions required to prevent, mitigate or make good the actual or potential environmental harm are likely to exceed $10,000

When a potential ‘Critical Incident’ is reported, the DEO will immediately brief the Director Environment (DE) who will make a determination on whether it will be considered a ‘Critical Incident’. The DE will then brief the Roads and Maritime Chief Executive and relevant Executive Director, as well as any other members of the Executive as appropriate. When the DE cannot be contacted, the DEO will make the determination and make the relevant Executive briefings.
4. Environmental incident reporting

4.1 Environmental incident report form

The Environmental Incident Report Form should be completed for Category 1 incidents, Category 2 incidents and Reportable Events, and is available on the Roads and Maritime website.

4.2 Completing the incident report form

All parts of the Incident Report Form must be completed in accordance with this procedure and following the instructions within the form. The Form (and any subsequent reports) must only include factual information. Speculation about the causes and outcomes of incidents are not to be included.

The Form must be signed by the following:

<table>
<thead>
<tr>
<th>Signatory</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>The person making the report</td>
<td>The person witnessed the incident or has the most knowledge of the incident, and can provide sufficient factual information.</td>
</tr>
<tr>
<td>The Roads and Maritime Project Manager</td>
<td>To ensure all relevant Roads and Maritime parties can be made aware of the incident, and appropriate resources can be allocated and/or approved to respond to the incident. This also ensures the project management team are aware of any environmental performance trends if multiple incidents occur.</td>
</tr>
<tr>
<td>Safety Environment and Quality Co-ordinator</td>
<td>To ensure Regional Maintenance management system staff are aware of the incident, and any necessary management system changes can be made once corrective actions and lessons learnt are finalised.</td>
</tr>
<tr>
<td>(Roads and Maritime Regional Maintenance only)</td>
<td></td>
</tr>
<tr>
<td>The relevant Roads and Maritime Environment Manager</td>
<td>Concurrence that the incident is adequately described, and the immediate actions and corrective actions are appropriate.</td>
</tr>
</tbody>
</table>

As noted in Table 3.1a, alternate signatory arrangements may be required for projects where a third party is involved (e.g. a delivery authority). These arrangements can be confirmed with the relevant Roads and Maritime Environment Manager.

4.3 Submitting the incident report form

All Incident Report Forms must be populated, signed and submitted electronically (never printed / signed / scanned etc.) to enable Roads and Maritime to electronically capture the information entered in the form.

Completed Incident Report Forms should be submitted by the Roads and Maritime Environment Manager to the Environment Operations mailbox:

- envops@rms.nsw.gov.au

It is essential that a clear and consistent subject line convention is used to allow tracking of correspondence about each incident. All emails about an incident between all parties should structure the subject line as follows:

- Category X - project name / incident location - date
- For example, Category 1 – Main Road Upgrade – dd/mm/yy.

Where information cannot be gathered within the timeframes set out in this Procedure, the incident form should be submitted to the mailbox as a ‘draft’, whether or not the information contained is fully completed.

- For example, Category 1 – Main Road Upgrade – dd/mm/yy (DRAFT).

The Environment Manager should then request further information from the person making the report, and the final report should be submitted within the next 24 hours.
4.4 Roads and Maritime contacts

The relevant Environment Manager for each region and Project Office is the first point of contact for enquiries relating to environmental incidents. Current contacts for all Roads and Maritime Environment Managers can be found on the Roads and Maritime website.

Environment Managers can also provide contact details for other relevant contacts during an incident, such as Communications or Work, Health and Safety.

The DEO oversees the application of this Procedure, and can be contacted in the absence of the relevant Environment Manager for Category 1 incidents:

- Phone - (02) 8843 3048

5. Regulatory agency notification

5.1 Notification of Material Harm pollution incidents

5.1.1 Definition of Material Harm pollution incidents

Under Part 5.7 of the POEO Act, there is a duty to immediately notify (i.e. promptly and without delay) each relevant authority (see section 5.1.3) of a pollution incident where material harm to the environment is caused or threatened.

The POEO Act states that a pollution incident should be considered Material Harm if:

“(i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or
(ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000”

Material Harm only relates to pollution incidents. Other environmental incidents, such as conservation, heritage and planning breaches, are not included in the definition of a pollution incident.

5.1.2 Determining if an incident should be considered Material Harm

As soon as a person becomes aware of a pollution incident that has the potential to cause Material Harm, the Category 1 incident response should be followed (see Table 3.1a and Table 3.1b above). The determination on whether a pollution incident should be considered Material Harm should be made in accordance with Table 5.1.2.

<table>
<thead>
<tr>
<th>Project delivery</th>
<th>Material Harm determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activities undertaken by Regional Maintenance</td>
<td>The DEO should make the determination (and any associated notifications) on whether a pollution incident should be considered Material Harm.</td>
</tr>
<tr>
<td></td>
<td>If the DEO is not available, the relevant Environment Manager should seek advice from other Roads and Maritime Environment Branch Directors, or make the material harm determination themselves.</td>
</tr>
<tr>
<td></td>
<td>If no assistance can be obtained and it is suspected that a pollution incident should be considered Material Harm, the project should notify the relevant authorities in accordance with Table 5.1.3a or Table 5.1.3b (as relevant).</td>
</tr>
<tr>
<td>Activities undertaken by contractors</td>
<td>The contractor project team should make the determination (and any associated notifications) on whether a pollution incident should be considered Material Harm.</td>
</tr>
<tr>
<td></td>
<td>The relevant Roads and Maritime Environment Manager or Environment Branch Director may contact the DEO to assist in making an assessment of the incident, to aid the contractor in determining if the pollution incident should be considered Material Harm.</td>
</tr>
<tr>
<td></td>
<td>Where Roads and Maritime believes a pollution incident should be considered Material Harm but the contractor disagrees, Roads and Maritime is required by law to notify EPA and other relevant authorities. In this instance the DEO or DE would make a determination on whether the incident should be notified by Roads and Maritime as Material Harm. Roads and Maritime would provide details of any notifications made to the contractor.</td>
</tr>
</tbody>
</table>
Even if only limited information is available for a pollution incident being considered Material Harm, each relevant authority must be immediately notified with the information available and updates provided as soon as further relevant information becomes available.

In circumstances where there is doubt about the need to notify a pollution incident as Material Harm, Roads and Maritime and its contractors should always err on the side of notification.

**When in doubt, communicate!**

Note: Roads and Maritime is not responsible for notifying a Material Harm pollution incident caused by a traffic or vehicle accident where notification has already occurred by someone at the scene. However, if it is believed notification has not been undertaken, Roads and Maritime should undertake notification in accordance with section 5.1.3. Environment Branch can provide advice in this instance (see section 4.4).

### 5.1.3 Relevant authorities to notify

The relevant authorities that must be notified for a Material Harm pollution incident are listed in tables 5.1.3a and 5.1.3b below. It is important to note the order of notification and phone numbers to use can vary depending on the nature of the pollution incident, as detailed in the two tables.

All of the authorities listed (whether considered relevant or not) must be contacted for each Material Harm pollution incident to satisfy POEO Act requirements. Serious penalties apply to both individuals and corporations for failing to notify Material Harm pollution incidents:

- Maximum penalty for individuals - $500,000
- Maximum penalty for corporations - $2,000,000.

#### Table 5.1.3a: Authorities to notify for Material Harm pollution incidents that present an immediate threat to human health or property

<table>
<thead>
<tr>
<th>Order</th>
<th>Authority</th>
<th>Contact Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fire and Rescue NSW</td>
<td>000</td>
</tr>
<tr>
<td>2</td>
<td>NSW EPA environment line</td>
<td>131 555</td>
</tr>
<tr>
<td>3</td>
<td>Ministry of Health (via the local Public Health Unit)*</td>
<td>Contact 1300 066 055 to be directed to the local Public Health Unit, or visit the <a href="#">NSW Health Website</a></td>
</tr>
<tr>
<td>4</td>
<td>SafeWork NSW</td>
<td>131 050</td>
</tr>
<tr>
<td>5</td>
<td>The Appropriate Regulatory Authority*, being either:</td>
<td>Local council - contact Office of Local Government on 4428 4100, or visit the <a href="#">Office of Local Government website</a> Western Lands Commissioner – phone 6883 5400</td>
</tr>
<tr>
<td></td>
<td>• Local council</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Western Lands Commissioner for the Western Division (except any part of the Western Division within the area of a local council).</td>
<td></td>
</tr>
</tbody>
</table>

#### Table 5.1.3b: Authorities to notify for Material Harm pollution incidents that do NOT present an immediate threat to human health or property

<table>
<thead>
<tr>
<th>Order</th>
<th>Authority</th>
<th>Contact Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NSW EPA environment line</td>
<td>131 555</td>
</tr>
<tr>
<td>2</td>
<td>The Appropriate Regulatory Authority*, being either:</td>
<td>Local council - contact Office of Local Government on 4428 4100, or visit the <a href="#">Office of Local Government website</a> Western Lands Commissioner – phone 6883 5400</td>
</tr>
<tr>
<td></td>
<td>• Local council</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Western Lands Commissioner for the Western Division (except any part of the Western Division within the area of a local council).</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Ministry of Health (via the local Public Health Unit)*</td>
<td>Contact 1300 066 055 to be directed to the local Public Health Unit, or visit the <a href="#">NSW Health Website</a></td>
</tr>
</tbody>
</table>
5.1.4 The relevant information to provide

It is important to avoid speculation on origin, causes or outcomes of a pollution incident in discussions with the authorities. Section 150 of the POEO Act provides the information that needs to be notified, being:

a) The time, date, nature, duration and location of the incident
b) The location of the place where pollution is occurring or is likely to occur, the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known
c) The circumstances in which the incident occurred (including the cause of the incident, if known)
d) The action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known
e) Other information prescribed by the regulations.

Only known information should be provided when notifying of a Material Harm pollution incident. If further information becomes known after the initial notification, that information must immediately be notified to all authorities in accordance with Section 150 (see above). The immediate verbal notification is to be followed by written notification to each relevant authority within seven days of the date on which the incident occurred.

Complying with these notification requirements does not remove the need to comply with any other legislative requirements for incident notification (e.g. requirements under EPL conditions or the Work Health and Safety Act 2011).

5.2 Summary of other regulatory agency notification requirements

Specific statutory requirements relating to the notification of environmental incidents to relevant regulatory agencies are summarised in Table 5.2. Additional requirements adopted by Roads and Maritime are indicated in italics. Any notification to regulatory agencies should be indicated in the Environmental Incident Report Form to confirm that any required notifications have been initiated.

<table>
<thead>
<tr>
<th>Legislation / issue</th>
<th>Regulating authority</th>
<th>Section / requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commonwealth Aboriginal and Torres Strait Islanders Heritage Protection Act 1984</td>
<td>Department of the Environment and Energy</td>
<td>Section 20 – requirement to notify the Minister of the discovery of Aboriginal remains.</td>
</tr>
<tr>
<td>Contaminated Land Management Act 1997</td>
<td>EPA</td>
<td>Section 60 – requirement to notify if Roads and Maritime activities have contaminated land or if Roads and Maritime owns land that has been contaminated.</td>
</tr>
<tr>
<td>Heritage Act 1977</td>
<td>Office of Environment and Heritage</td>
<td>Section 146 – requirement to notify the Heritage Council of the location of the relic once a relic has been discovered or located.</td>
</tr>
<tr>
<td>National Parks and Wildlife Act 1974</td>
<td>Office of Environment and Heritage</td>
<td>Section 89A – requirement to notify the location of an Aboriginal object that is the property of the Crown.</td>
</tr>
<tr>
<td>Protection of the Environment Operations Act 1997</td>
<td>EPA and other relevant authorities</td>
<td>Section 148 – requirement to immediately notify pollution incidents that cause or threaten Material Harm to the environment (see Section 5.1).</td>
</tr>
<tr>
<td>Environmental Incident Classification and Reporting Procedure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**EPA**

Pro-active reporting to the local EPA officer of offsite pollution incidents that occur as a result of Roads and Maritime activities is encouraged as soon as practicable after the pollution incident occurs.

<table>
<thead>
<tr>
<th>Rural Fires Act 1997</th>
<th>NSW Rural Fire Service</th>
<th>Section 64 – requirement to notify an appropriate fire officer of the inability to extinguish any fire burning during a bush fire danger period applicable to the land.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breach of Conditions of Approval (projects approved under Part 5.1 of the EP&amp;A Act)</td>
<td>Department of Planning and Environment (DPE)</td>
<td>DPE should be notified by the project proponent when there has been a breach of a Condition of Approval (CoA). There may also be other notification requirements included in the CoA.</td>
</tr>
<tr>
<td>Water supply catchment areas</td>
<td>Local water supply authority</td>
<td>If an environmental incident has the potential for unapproved impacts on a drinking water supply, the relevant water supply authority must be advised.</td>
</tr>
</tbody>
</table>

### 5.3 Requests for written reports from regulatory authorities (activities delivered internally by Roads and Maritime)

Should Roads and Maritime directly receive a request from a regulatory authority for a written report regarding an environmental incident, Environment Branch and Legal Branch must be immediately contacted for advice. No further correspondence (including email) about the incident should be distributed either internally or externally until advice is received. Environment Branch will coordinate with Legal Branch to:

- Assist in the investigation of the incident
- Provide legal advice to the project
- Co-ordinate the preparation of the written response to the regulatory authority.
Appendix A8
OACEMP Consultation

The Northern Road Upgrade –
Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park
September 2018
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3 Summary of issues raised and responses .........................................................................7
4 Outstanding issues .............................................................................................................17

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1 Consultation for the preparation of the OACEMP

Consultation with relevant stakeholders and Government agencies was undertaken as part of the development of this OACEMP and sub plans in accordance with the requirements of the Infrastructure Approval. The agencies required to be consulted under the Infrastructure approval are listed in Table 1-1.

Table 1-1: Consultation requirements under the Infrastructure Approval

<table>
<thead>
<tr>
<th>NSW CoA</th>
<th>Relevant OACEMP Sub-plan / procedure</th>
<th>Agency to be consulted</th>
<th>OACEMP reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>C4 (a)</td>
<td>Traffic and transport CEMP Sub-plan</td>
<td>Penrith City Council, Liverpool City Council</td>
<td>Appendix B1</td>
</tr>
<tr>
<td>C4 (b)</td>
<td>Noise and vibration CEMP Sub-plan</td>
<td>Penrith City Council, Liverpool City Council</td>
<td>Appendix B3</td>
</tr>
<tr>
<td>C4 (c)</td>
<td>Biodiversity CEMP Sub-plan</td>
<td>OEH and DPI Fisheries</td>
<td>Appendix B2</td>
</tr>
<tr>
<td>C4 (d)</td>
<td>Water, soil and contamination CEMP Sub-plan</td>
<td>DoI Water (NRAR), DPI Fisheries, Penrith City Council, Liverpool City Council</td>
<td>Appendix B4 Appendix B8</td>
</tr>
<tr>
<td>C4 (e)</td>
<td>Heritage CEMP Sub-plan</td>
<td>OEH, Penrith City Council, Liverpool City Council, RAPs</td>
<td>Appendix B5</td>
</tr>
<tr>
<td>C9 (c)</td>
<td>Water, soil and contamination Construction Monitoring Program</td>
<td>DPI, DoI Water (NRAR), Penrith City Council, Liverpool City Council</td>
<td>Appendix B4</td>
</tr>
<tr>
<td>E16</td>
<td>Unexpected Heritage Finds Procedure</td>
<td>Heritage Council of NSW</td>
<td>Appendix B5</td>
</tr>
<tr>
<td>E21</td>
<td>Unexpected Human Remains Procedure</td>
<td>OEH</td>
<td>Appendix B5</td>
</tr>
</tbody>
</table>

The consolidated evidence of the consultation undertaken for the preparation of the OACEMP as required by NSW CoA-A6 is provided in this Appendix A8 and the relevant comments are also appended to the applicable sub-plan. This appendix includes:

- documentation of the engagement with the parties identified in Table 1-1 that occurred prior to submitting the document to the Secretary for approval (Section 2)
- a log of the points of engagement or attempted engagement with the identified parties and a summary of the issues raised by them (Section 2)
- documentation of the follow-up with the identified parties where feedback has not been provided to confirm that they have no feedback or have failed to provide feedback after repeated requests (Section 3)
- an outline of the issues raised by the identified parties, a summary of how they have been addressed and a cross reference to the section or sub-plan of the OACEMP where the issue has been addressed (Section 2)
- a description of the outstanding issues raised by the identified parties and the reasons why they have not been addressed (Section 4)
- copies of all consultation correspondence relevant to this CNVMP (Attachment 1).
## 2 Documentation and log of the engagement and follow up

### Table 2-1: Requests for comment from Roads and Maritime

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Contact</th>
<th>Date</th>
<th>Correspondence Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPI Fisheries</td>
<td>Carla Ganassin</td>
<td>26/06/2018</td>
<td>Letter (via email)</td>
<td>Request from Roads and Maritime for comment on:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- CFFMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- CSWMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- CCLMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Water, Soil and Contamination Monitoring Program</td>
</tr>
<tr>
<td>Dol Water (NRAR)</td>
<td>Irene Zinger</td>
<td>26/06/2018</td>
<td>Letter (via email)</td>
<td>Request from Roads and Maritime for comment on:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- CSWMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- CCLMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Water, Soil and Contamination Monitoring Program</td>
</tr>
<tr>
<td>Dol Water (NRAR)</td>
<td>Irene Zinger</td>
<td>13/07/2018</td>
<td>Email</td>
<td>Request from Roads and Maritime for comment on:</td>
</tr>
<tr>
<td></td>
<td>Annika Lawrence</td>
<td>19/07/2018</td>
<td>Phone call to discuss request for information</td>
<td>- VMP</td>
</tr>
<tr>
<td></td>
<td>Lawrence</td>
<td>20/07/2018</td>
<td>Additional information on landscape plans sent</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Regulation Officer</td>
<td>03/08/2018</td>
<td>Follow up phone call and voicemail</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Newcastle)</td>
<td>13/08/2018</td>
<td>Follow up phone call and email to two separate contacts</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16/07/2018 Follow up email and phone call to discuss issues</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>31/07/2018 Follow up email</td>
</tr>
<tr>
<td>OEH (Aboriginal Heritage)</td>
<td>Samantha Gibbins</td>
<td>26/06/2018</td>
<td>Letter (via email)</td>
<td>Request from Roads and Maritime for comment on:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11/07/2018</td>
<td>Follow up email</td>
<td>- CCHMP (Aboriginal Heritage)</td>
</tr>
<tr>
<td>OEH (as delegate of Heritage Council)</td>
<td>Felicity Barry Garry Estcourt</td>
<td>26/06/2018</td>
<td>Letter (via email)</td>
<td>Request from Roads and Maritime for comment on:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13/07/2018</td>
<td>Follow up phone call, voicemail, email</td>
<td>- CCHMP (Non-Aboriginal Heritage)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16/07/2018</td>
<td>Follow up email</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>31/07/2018</td>
<td>Follow up email</td>
<td></td>
</tr>
<tr>
<td>Organisation</td>
<td>Contact</td>
<td>Date</td>
<td>Correspondence Type</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------</td>
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<td>---------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>OEH (Biodiversity)</td>
<td>Susan Harrison</td>
<td>26/06/2018</td>
<td>Letter (via email)</td>
<td>Request from Roads and Maritime for comment on:</td>
</tr>
<tr>
<td></td>
<td>Richard Bonner</td>
<td></td>
<td></td>
<td>- CFFMP</td>
</tr>
<tr>
<td>Liverpool City Council</td>
<td>Charles Wiafe</td>
<td>26/06/2018</td>
<td>Letter (via email)</td>
<td>Request from Roads and Maritime for comment on:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- CTMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- CNVMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- CSWMP</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- CCLMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Soil, Water and Contamination Monitoring Program</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11/07/2018</td>
<td>Follow up phone call, voicemail and email</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>26/07/2018</td>
<td>Follow up phone call and voicemail</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>27/07/2018</td>
<td>Follow up email</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>02/08/2018</td>
<td>Follow up phone call in which LCC agreed to respond by 09/08/2018</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>14/08/2018</td>
<td>Follow up phone call and voicemail</td>
<td></td>
</tr>
<tr>
<td>Penrith City Council</td>
<td>Kristy Johnson</td>
<td>26/06/2018</td>
<td>Letter (via email)</td>
<td>Request from Roads and Maritime for comment on:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12/07/2018</td>
<td>Follow up phone call</td>
<td></td>
</tr>
<tr>
<td>Registered Aboriginal stakeholders</td>
<td>Refer Table 1-2 in CCHMP for complete list of RAPs contacted</td>
<td>26/06/2018</td>
<td>Letter (via email)</td>
<td>Request from Roads and Maritime for comment on:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3/7/2018</td>
<td></td>
<td>- CCHMP (Aboriginal Heritage)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>27/6/2018 – 257/2018</td>
<td>Various follow up emails and phone calls</td>
<td></td>
</tr>
<tr>
<td>Organisation</td>
<td>Contact</td>
<td>Date</td>
<td>Correspondence Type</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>----------------------------------------------</td>
<td>------------</td>
<td>---------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>DPI Fisheries</td>
<td>Carla Ganassin Fisheries Manager Aquatic Ecosystems Unit</td>
<td>3/07/2018</td>
<td>Email</td>
<td>Comment on: CFFMP, CSWMP, CCLMP, Water, Soil and Contamination Monitoring Program</td>
</tr>
<tr>
<td>NRAR</td>
<td>Irene Zinger Manager, Water Regulation Branch (East)</td>
<td>08/07/2018</td>
<td>Letter (via email)</td>
<td>Comment on: CSWMP, CCLMP, Water, Soil and Contamination Monitoring Program</td>
</tr>
<tr>
<td>NRAR</td>
<td>Irene Zinger Manager, Water Regulation Branch (East)</td>
<td>22/08/2018</td>
<td>Letter (via email)</td>
<td>Comment on: VMP</td>
</tr>
<tr>
<td>OEH (as delegate of Heritage Council)</td>
<td>Sarah Jane Brazil Senior Team Leader, Major Projects Heritage Division</td>
<td>10/07/2018</td>
<td>Letter (via email)</td>
<td>Comment on: CCHMP (Non-Aboriginal Heritage)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24/08/2018</td>
<td>Letter (via email)</td>
<td>Approval of proposed Excavation Director</td>
</tr>
<tr>
<td>OEH (Aboriginal Heritage)</td>
<td>Fran Scully Archaeologist Regional Operations Division</td>
<td>11/7/2018</td>
<td>Email</td>
<td>Comment on: CCHMP (Aboriginal Heritage)</td>
</tr>
<tr>
<td>OEH (Biodiversity)</td>
<td>Richard Bonner Senior Conservation Planning Officer Greater Sydney Branch</td>
<td>3/08/2018</td>
<td>Email</td>
<td>Comment on: FFMP</td>
</tr>
<tr>
<td>Liverpool City Council</td>
<td>Charles Wiafe</td>
<td>-</td>
<td>-</td>
<td>No response provided</td>
</tr>
<tr>
<td>Penrith City Council</td>
<td>Ari Fernando Major Projects &amp; Design Coordinator</td>
<td>20/7/2018</td>
<td>Email</td>
<td>Comment on: CTMP, CNVMP, CSWMP, CCLMP, Soil, Water and Contamination Monitoring Program</td>
</tr>
<tr>
<td>RAPS</td>
<td>Carolyn Hickey</td>
<td>5/7/2018</td>
<td>Email</td>
<td>Comment on the CCHMP (Aboriginal Heritage)</td>
</tr>
<tr>
<td>Organisation</td>
<td>Contact</td>
<td>Date</td>
<td>Correspondence Type</td>
<td>Description</td>
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<tr>
<td>------------------------------------------------</td>
<td>--------------------------</td>
<td>----------</td>
<td>----------------------</td>
<td>------------------------------------------------------------------</td>
</tr>
<tr>
<td>Aboriginal Archaeology Services</td>
<td>Andrew Williams</td>
<td>19/7/2018</td>
<td>Email</td>
<td>Comment on the CCHMP (Aboriginal Heritage)</td>
</tr>
<tr>
<td>Amanda Hickey Cultural Services</td>
<td>Amanda Hickey</td>
<td>5/7/2018</td>
<td>Email</td>
<td>Comment on the CCHMP (Aboriginal Heritage)</td>
</tr>
<tr>
<td>Biamanga</td>
<td>Janaya Smith</td>
<td>11/7/2018</td>
<td>Email</td>
<td>Comment on the CCHMP (Aboriginal Heritage)</td>
</tr>
<tr>
<td>Cullendullas</td>
<td>Corey Smith</td>
<td>11/7/18</td>
<td>Email</td>
<td>Comment on the CCHMP (Aboriginal Heritage)</td>
</tr>
<tr>
<td>Darug Aboriginal Landcare</td>
<td>Uncle Des Dyer</td>
<td>5/7/2018</td>
<td>Letter (via email)</td>
<td>Comment on the CCHMP (Aboriginal Heritage)</td>
</tr>
<tr>
<td>Darug Custodian Aboriginal Corporation</td>
<td>Justine Coplin</td>
<td>30/7/18</td>
<td>Letter</td>
<td>Comment on the CCHMP (Aboriginal Heritage)</td>
</tr>
<tr>
<td>Darug Land Observations Pty Ltd</td>
<td>Jamie Workman</td>
<td>11/7/2018</td>
<td>Letter</td>
<td>Comment on the CCHMP (Aboriginal Heritage)</td>
</tr>
<tr>
<td>Gandangara LALC</td>
<td>Barry Gunther</td>
<td>19/7/2018</td>
<td>Email and copy of CCHMP with comments</td>
<td>Comment on the CCHMP (Aboriginal Heritage)</td>
</tr>
<tr>
<td>Goobah Developments</td>
<td>Basil Smith</td>
<td>11/7/2018</td>
<td>Email</td>
<td>Comment on the CCHMP (Aboriginal Heritage)</td>
</tr>
<tr>
<td>Gulaga</td>
<td>Wendy Smith</td>
<td>11/7/18</td>
<td>Email</td>
<td>Comment on the CCHMP (Aboriginal Heritage)</td>
</tr>
<tr>
<td>Kamilaroi-Yankuntjatjara Working Group</td>
<td>Phillip Khan</td>
<td>4/7/2018</td>
<td>Letter</td>
<td>Comment on the CCHMP (Aboriginal Heritage)</td>
</tr>
<tr>
<td>Liverpool City Council’s Aboriginal Consultative Committee</td>
<td>Norma Burrows</td>
<td>11/7/2018</td>
<td>Email</td>
<td>Comment on the CCHMP (Aboriginal Heritage)</td>
</tr>
<tr>
<td>Murri Bidgee Mullangari Aboriginal Corporation</td>
<td>Ryan Johnson</td>
<td>11/7/18</td>
<td>Email</td>
<td>Comment on the CCHMP (Aboriginal Heritage)</td>
</tr>
<tr>
<td>Ngunawal Aboriginal Heritage Corporation</td>
<td>Graeme Dobson</td>
<td>16/7/2018</td>
<td>Email</td>
<td>Comment on the CCHMP (Aboriginal Heritage)</td>
</tr>
<tr>
<td>Murrarang</td>
<td>Roxanne Smith</td>
<td>11/7/2018</td>
<td>Email</td>
<td>Comment on the CCHMP (Aboriginal Heritage)</td>
</tr>
<tr>
<td>Ngunawal hac</td>
<td></td>
<td>3/7/2018</td>
<td>Email</td>
<td>Comment on the CCHMP (Aboriginal Heritage)</td>
</tr>
<tr>
<td>Organisation</td>
<td>Contact</td>
<td>Date</td>
<td>Correspondence Type</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
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<td>--------------------------------------------------</td>
</tr>
<tr>
<td>Walbunja</td>
<td>Hika Te-kowhai</td>
<td>27/6/2018</td>
<td>Phone call</td>
<td>Response to request for comment on CCHMP</td>
</tr>
<tr>
<td>Widescope</td>
<td>Steven Hickey</td>
<td>29/6/2018</td>
<td>Email</td>
<td>Comment on the CCHMP (Aboriginal Heritage)</td>
</tr>
</tbody>
</table>

No response was received from the following RAPS:

- Bidawal
- Bilinga
- Corroboree Aboriginal Corporation
- Cubbit Barta Native Title Claimants Aboriginal Corporation
- Darug Aboriginal Cultural Heritage Assessments
- Darug Tribal Aboriginal Corporation
- Deerubbin LALC
- Djiringanji
- Duncan Falk Consultancy
- Gangangarra
- Gundungurra Tribal Technical Services
- Gunjewong Cultural Heritage Aboriginal Corporation
- Gunyuu
- Kullila Site Management
- Munyungu
- Muragadi Heritage Indigenous Corporation
- Murrin
- Murrumbal
- National Koori Management
- Ngarigo
- Nundagurri
- Rane
- Tharawal LALC
- Thauaira
- Tocomwall
- Walgalu
- Wandandian
- Warragil
- Warragil Cultural Services
- Wingikara
## 3 Summary of issues raised and responses

**Table 3-1: Summary of issues by raised Agencies and Councils and Roads and Maritime responses**

<table>
<thead>
<tr>
<th>Summary of comment</th>
<th>Roads and Maritime response</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPI Fisheries</td>
<td>Noted</td>
</tr>
<tr>
<td>CFFMP</td>
<td>Noted</td>
</tr>
<tr>
<td>DPI Fisheries has no objections to the draft Flora and Fauna Management Plan.</td>
<td>Text in section 4.3.2 has been amended to refer to the key fish habitat mapped on the DPI Fisheries key fish habitat maps.</td>
</tr>
<tr>
<td>Regarding section 4.3.2 and Table 4-5, please be aware that the presence of</td>
<td>New Figure 4 10 included to show the locations of the aquatic survey and key fish habitat.</td>
</tr>
<tr>
<td>key fish habitat in the first instance should be determined from the key fish</td>
<td></td>
</tr>
<tr>
<td>habitat maps on DPI Fisheries website. Looking at these maps, the only key fish</td>
<td></td>
</tr>
<tr>
<td>fish habitat within the footprint of these works is situated at Cosgrove Creek</td>
<td></td>
</tr>
<tr>
<td>and Badgerys Creek.</td>
<td></td>
</tr>
<tr>
<td>CSWMP</td>
<td>Noted</td>
</tr>
<tr>
<td>DPI Fisheries has no objections to the draft Soil and Water Management Plan.</td>
<td>Text in Sections 4.2.1 and 4.2.4 has been amended to refer to the key fish habitat mapped on the DPI Fisheries key fish habitat maps.</td>
</tr>
<tr>
<td>Page 24 and 28: Note that key fish habitat within the development footprint is</td>
<td></td>
</tr>
<tr>
<td>only situated in Cosgrove Creek and Badgerys Creek (see comment on FFMP).</td>
<td></td>
</tr>
<tr>
<td>CCLMP</td>
<td>Noted</td>
</tr>
<tr>
<td>DPI Fisheries has no objections to the draft Construction Contaminated Land</td>
<td></td>
</tr>
<tr>
<td>Management Plan.</td>
<td></td>
</tr>
<tr>
<td>Water, Soil and Contamination Monitoring Program</td>
<td>Noted</td>
</tr>
<tr>
<td>DPI Fisheries has no objections to the draft Water, Soil and Contamination</td>
<td></td>
</tr>
<tr>
<td>Monitoring Program.</td>
<td></td>
</tr>
<tr>
<td>Summary of comment</td>
<td>Roads and Maritime response</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td><strong>DoI Water (NRAR)</strong></td>
<td></td>
</tr>
<tr>
<td>CSWMP/CCLMP/ Water, Soil and Contamination Monitoring Program</td>
<td>Information on River Styles has been included in background information (Section 4.2.2). Additional monitoring sites have been included in the Surface Water Monitoring Program. Refer Section 3.1.3 of the Water, Soil and Contamination Monitoring Program (Attachment B to the SWMP).</td>
</tr>
<tr>
<td>Badgerys Creek, Thompsons Creek and Cosgroves Creek require additional surface monitoring points. The catchments have highly fragile river styles that need to be preserved. Each point will require preconstruction monitoring to ensure adequate data is acquired.</td>
<td></td>
</tr>
<tr>
<td>Clarity and confirmation of the Trigger Action Values for Groundwater monitoring will be required prior to commencement of construction, as stated in Appendix B4 of the CEMP.</td>
<td>Section 2.2 of the Water, Soil and Contamination Monitoring Program has been updated to reference default groundwater trigger values from the NEPM criteria.</td>
</tr>
<tr>
<td>Any reference to either “Department of Primary Industries” / “DPI Water” or “Department of Industry – Water” / “DoI Water” should be amended to “Natural Resources Access Regulator” or “NRAR”.</td>
<td>OACEMP and sub-plans has been updated to reference “Natural Resources Access Regulator” or “NRAR”.</td>
</tr>
<tr>
<td><strong>Vegetation Management Plan (VMP) (Annexure E of the FFMP)</strong></td>
<td>The Landscape Documentation will be updated with this information and a link provided within the VMP to the internet location where the approved documents can be viewed. It is noted that the Landscape Documentation is yet to be finalised as it is subject to further community consultation.</td>
</tr>
<tr>
<td>The current VMP is a concept document only and does not provide the level of detail required to implement the planting and restoration activities. It is noted on p.13 there is a reference to approved Landscape Documentation (not included within the VMP), which will provide further information. The following additional information (as specified in the DoI Water Guidelines for vegetation management plans on waterfront land) should be provided within the VMP:</td>
<td></td>
</tr>
<tr>
<td>• Maps or diagrams that clearly identify the proposed riparian corridors, existing vegetation to be retained, the vegetation to be cleared, the footprint of construction activities and areas of proposed revegetation.</td>
<td></td>
</tr>
<tr>
<td>• The location of the bed or banks or foreshore of waterfront land and the footprint of the proposed riparian corridor (indicating the proposed vegetated riparian zones).</td>
<td></td>
</tr>
<tr>
<td>• Offset areas, if required.</td>
<td></td>
</tr>
<tr>
<td>Summary of comment</td>
<td>Roads and Maritime response</td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Photographs of the site (including identification of photo points).</td>
<td>The Roads and Maritime landscape guideline is consistent with these densities. Landscape documentation for the Project will be updated to include these planting densities prior to community consultation and finalisation.</td>
</tr>
<tr>
<td>Details of the vegetation species composition, planting layout, densities</td>
<td>The final VMP and Landscape Documentation will be updated to address these requirements. It is noted that the Landscape Documentation is yet to be finalised as it is subject to further community consultation.</td>
</tr>
<tr>
<td>The proposed planting densities (p.20 – 6.3 Plant spacing) should be clarified. Recommended general planting densities are in the order of:</td>
<td></td>
</tr>
<tr>
<td>• Ground covers – 4 per m²</td>
<td></td>
</tr>
<tr>
<td>• Shrubs – 1 per 1-2 m²</td>
<td></td>
</tr>
<tr>
<td>• Trees – 1 per 2-4 m².</td>
<td></td>
</tr>
<tr>
<td>The final VMP document must address the above information and update the final landscape drawings and documentation referred to in section 4.4 on p16).</td>
<td></td>
</tr>
<tr>
<td>OEH</td>
<td></td>
</tr>
<tr>
<td>CCHMP (Aboriginal Heritage)</td>
<td></td>
</tr>
<tr>
<td>OEH did not request a review role for this project and currently do not have the capacity to review the CHMP, therefore will not be providing any comments on it.</td>
<td>Noted</td>
</tr>
<tr>
<td>CCHMP (Non-Aboriginal Heritage) (Heritage Council)</td>
<td></td>
</tr>
<tr>
<td>10/07/2018: It is recommended that the draft CCHMP be modified to include the following commitments:</td>
<td></td>
</tr>
<tr>
<td>• The Salvage Strategy will be developed in consultation with the Heritage Council of NSW prior to submission to the Secretary.</td>
<td>The Salvage Strategy was provided to the Heritage Council for consultation as part of the EIS consultation process. The Salvage Strategy is attached as Annexure C.1 to the CCHMP.</td>
</tr>
</tbody>
</table>
### Summary of comment

- The Applicant will nominate an archaeological excavation director for the project who can demonstrate they are able to satisfy the Heritage Council of NSW Excavation Director Criteria 2011 for state significant archaeological sites. The name of the preferred excavation director will be submitted to Heritage Council for comment prior to being submitted to the Secretary for approval with the detailed Salvage Strategy.

- Item NAH-9 in Table 6.1 should be modified to include the following sentence: Under s146 of the Heritage Act 1977 there is a requirement that if any unexpected relics are discovered the Heritage Council must be notified.

### Roads and Maritime response

Roads and Maritime has nominated Jenny Winnett from Artefact as archaeological excavation director for the project. Jenny has previously worked as an Excavation Director on sites of state significance. Roads and Maritime provide a response addressing the Heritage Council of NSW Excavation Director Criteria 2011 to OEH on 14/8/2018

- Item NAH-9 in Table 6-1 updated to include that the Heritage Council will be notified if any unexpected relics are discovered in accordance with the requirements of s146 of the Heritage Act 1977.

- It is noted that Section 3.2 of the RMS Unexpected Heritage Finds Procedure includes the requirement to notify the NSW Heritage Council when a person discovers a relic.

- Step 5.4 of Section 7 pf the RMS Procedure outlines the required approach for notifying the Heritage Council should any relics be found.

The Heritage Council considers that the RMS Unexpected Heritage Finds Procedure is an appropriate guide and process to use to manage any unexpected Historical Archaeological ‘relics’ during the project.

### Noted

- 24/08/2018: Ms Jenny Winnett is supported for the following activities:
  - salvage excavation at the Miss Lawson’s Guesthouse site
  - test excavation on the periphery of Lawson’s Thistle Inn and store archaeological site
  - testing/archival recording of the Chaffey Brothers Irrigation Scheme Canal

Adequate information has not been provided to consider Ms Winnett’s experience for archaeological open area salvage excavation for the Thistle Inn archaeological site.

Roads and Maritime does not propose to undertake open area salvage excavation for the Thistle Inn archaeological site.
<table>
<thead>
<tr>
<th>Summary of comment</th>
<th>Roads and Maritime response</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CFFMP</strong></td>
<td></td>
</tr>
<tr>
<td>OEH has reviewed the draft Construction Flora and Fauna Management Sub-plan and have no comments to make. It is noted the required Vegetation Management Plan (Annexure E) to address vegetation management within riparian corridors is under preparation and will be completed and approved prior to the commencement of construction.</td>
<td>Noted. The VMP was provided to NRAR (DoI Water) for consultation</td>
</tr>
<tr>
<td><strong>Liverpool City Council</strong></td>
<td>No comments provided</td>
</tr>
<tr>
<td><strong>Penrith City Council</strong></td>
<td></td>
</tr>
<tr>
<td><strong>CTMP</strong></td>
<td></td>
</tr>
<tr>
<td>Construction Traffic Management Sub Plan did not recognise Grover Cr as a local road accessed by both construction and light vehicles and should be included.</td>
<td>Section 5.3.3 updated to include Grover Crescent as a local road that will be accessed by both construction and light vehicles.</td>
</tr>
<tr>
<td>Whether programmed night works are undertaken for utility installation is not noted. Our experience is some work will be required.</td>
<td>Section 5.3.1 updated to include utility works in the list of works which may be required to be undertaken outside of standard working hours.</td>
</tr>
<tr>
<td>Where bus stops are relocated for construction, safe crossing points for bus commuters will need to be provided with sufficient lighting for changed locations.</td>
<td>Section 5.4 updated to include the requirement for safe crossing points for bus commuters to be provided with sufficient lighting for the changed locations</td>
</tr>
<tr>
<td>A dilapidation report will be required for the local roads to be accessed/ upgraded.</td>
<td>Section 6.14 updated to include a cross reference to Section 5.3.3 which identifies the local roads to be accessed and for which dilapidation reports are to be prepared and provided to LCC and PCC.</td>
</tr>
<tr>
<td>Section 6.11 (Emergency Services notification – minor comment should be Nepean Local Area Command (as Penrith/St Marys have amalgamated).</td>
<td>Section 6.11 amended to refer to Nepean Local Area Command.</td>
</tr>
<tr>
<td>Summary of comment</td>
<td>Roads and Maritime response</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>There should be notations included that Local Roads not be included in any TMP’s for State Road traffic detours.</td>
<td>Sections 5.3.3 and 6.3.2 updated to include a statement that Local Roads not be included in any TMP’s for State Road traffic detours.</td>
</tr>
</tbody>
</table>

**CNVMP**

Council’s Environmental Health Section has noted that the Draft Noise Mgt Plan is comprehensive. However, in Section 8 it should be noted that any variation of hours of work or Out of hours work should have Penrith City Council agreement.  

Section 8.1.4 of the CTMP and Section 5 of the OOHW Procedure requires the Contractor to consult with local Councils prior to undertaking any OOHW. The Contractor will evidence of the consultation undertaken for the OOHW to Roads and Maritime.

A copy of the final CNVMP should be provided to Council.  

Section 1.3.1 amended to state that copies of the final CNVMP will be provided to PCC and LCC. Section 10.2 amended to state that updates to the CNVMP will be provided to PCC and LCC.

**CSWMP**

The draft CSWMP is considered to be comprehensive and no further comments.  

Noted

**CCLMP**

No further comments on Construction Contamination Land Management Plan.  

Noted

**Water, Soil and Contamination Monitoring Program**

The draft WSCMP is considered to be comprehensive and no further comments.  

Noted

**CCHMP**

No comments provided  

Noted
Table 3-2: Summary of issues raised by Registered Aboriginal Stakeholders and Roads and Maritime responses

<table>
<thead>
<tr>
<th>Organisation/Contact</th>
<th>Summary of comment</th>
<th>Roads and Maritime Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1 Indigenous Services Carolyn Hickey</td>
<td>A1 and AHCS support the Northern Road Upgrade, Construction Environmental Management Plan and Sub Plans for Consultation</td>
<td>Noted</td>
</tr>
<tr>
<td>Aboriginal Archaeology Services Andrew Williams</td>
<td>The AAS agrees with the methodology in the CCHMP. ASS would like to see that any artefacts collected be displayed in the museum, local library or local government building of be reburied in close proximity of the area.</td>
<td>Salavage strategy states that any recovered artefacts will be provided to the Australian museum for storage. However what happens to the artefacts will depend on what is found at the site and its significance. The final repository will be outlined in the Aboriginal Cultural Heritage Report required under E19. This report is required to be sent to the RAPs for endorsement.</td>
</tr>
<tr>
<td>Amanda Hickey Cultural Services Amanda Hickey</td>
<td>A1 and AHCS support the Northern Road Upgrade, Construction Environmental Management Plan and Sub Plans for Consultation</td>
<td>Noted</td>
</tr>
<tr>
<td>Biamanga Janaya Smith</td>
<td>Biamanga support the CCHMP and wish to be kept informed of any further developments.</td>
<td>Ongoing consultation during construction will be carried out in accordance with the CCS (refer Section 1.4.3). RAPS are listed as a key stakeholder in Table 5.1 of the CCS.</td>
</tr>
<tr>
<td>Cullendulla Corey Smith</td>
<td>Cullendulla support the CCHMP and wish to be kept informed of any further developments.</td>
<td>Ongoing consultation during construction will be carried out in accordance with the CCS (refer Section 1.4.3). RAPS are listed as a key stakeholder in Table 5.1 of the CCS.</td>
</tr>
</tbody>
</table>
| Darug Aboriginal Land Care Uncle Des Dyer | The Darug Aboriginal Land care/ Uncle Des Dyer, has no objections to the planned development and agree with the recommendations, survey, Methodology, test excavation in the CCHMP. Requests that: • if any artefacts are uncovered that work stops until the artefacts can be salvaged and moved • all artefacts be reburied on site in suitable location, • any rock cravens and scarred trees be preserved if possible and recorded. • if reburial is not possible then artefacts to be put in local museum or displayed in the foyer of a new building with signage indicating where they were found | Annexure B Unexpected Heritage Items Procedure requires that all work stop if any unexpected heritage items are found. Annexure C contains the proposed salvage strategy. The salvage strategy states that any recovered artefacts will be provided to the Australian museum for storage. However what happens to the artefacts will depend on what is found at the site and its significance. The final repository will be
<table>
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<th>Roads and Maritime Response</th>
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<tbody>
<tr>
<td>Darug Custodian Aboriginal Corporation</td>
<td>The Darug Custodian Aboriginal Corporation support the recommendations set out in the CCHMP, but note that many of the Aboriginal organisations contacted for consultation do not hold local cultural knowledge or contribute to the Aboriginal community of western Sydney.</td>
<td>Roads and Maritime is required to consult with all registered Aboriginal parties (Section 1.4). Section 7.1 states that, as per the RMS PACHCI process, Roads and Maritime will engage the ASOs for the Project based on a selection process, with a preference given to those with local knowledge. Roads and Maritime collected site officer application forms during consultation with RAPs in the development phase of the Project.</td>
</tr>
<tr>
<td>Justine Coplin</td>
<td></td>
<td>Annexure C contains the proposed salvage strategy. The salvage strategy states that any recovered artefacts will be provided to the Australian museum for storage. However what happens to the artefacts will depend on what is found at the site and its significance. The final repository will be outlined in the Aboriginal Cultural Heritage Report required under E19. This report is required to be sent to the RAPs for endorsement.</td>
</tr>
<tr>
<td>Darug Land Observations Pty Ltd</td>
<td>Darug Land Observations support the methodology for test excavations, but strongly believe that recovered artefacts (if any) should be re-buried on Country (the study area). Furthermore, the DLO want to be involved in the test excavations, monitoring of topsoil removal and/or any form of works to be carried out on the site.</td>
<td>Section 7.1 states that, as per the RMS PACHCI process, Roads and Maritime will engage the ASOs for the Project based on a selection process, with a preference given to those with local knowledge. Roads and Maritime collected site officer application forms during consultation with RAPs in the development phase of the Project.</td>
</tr>
<tr>
<td>Uncle Gordon Workman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jamie Workman</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Northern Road Upgrade – Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park OACEMP
Appendix A8 - OACEMP Consultation
September 2018  Version 2.0
UNCONTROLLED WHEN PRINTED
<table>
<thead>
<tr>
<th>Organisation/Contact</th>
<th>Summary of comment</th>
<th>Roads and Maritime Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Galaga</td>
<td>Gulaga supports the CCHMP and wish to be kept informed of any further progress.</td>
<td>Ongoing consultation during construction will be carried out in accordance with the CCS (refer Section 1.4.3). RAPS are listed as a key stakeholder in Table 5.1 of the CCS.</td>
</tr>
<tr>
<td>Wendysmith</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gundangara LALC</strong></td>
<td>Two suggested changes to Gundungurra references, to be replaced with Gandangara.</td>
<td>Suggested amendments have been made.</td>
</tr>
<tr>
<td>Barry Gunther</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goobah Developments</td>
<td>Goobah Developments supports the CCHMP and asks to be kept informed of any further developments.</td>
<td>Ongoing consultation during construction will be carried out in accordance with the CCS (refer Section 1.4.3). RAPS are listed as a key stakeholder in Table 5.1 of the CCS.</td>
</tr>
<tr>
<td>Basil Smith</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kamilaroi-Yankuntjatjara Working Group</td>
<td>Kamilaroi-Yankuntjatjara Working Group is supportive of the CCHMP. Phillip Khan would like to apply for the Site Officer position and requests forms are sent to him.</td>
<td>Section 7.1 states that, as per the RMS PACHCI process, Roads and Maritime will engage the ASOs for the Project based on a selection process, with a preference given to those with local knowledge. Roads and Maritime collected site officer application forms during consultation with RAPs in the development phase of the Project.</td>
</tr>
<tr>
<td>Phillip Khan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liverpool City Councils Aboriginal Consultative Committee</td>
<td>Liverpool City Council’s Aboriginal Consultative Committee requests that they are notified of any Aboriginal artefact found so that it can be tabled at the next available ACC meeting.</td>
<td>Ongoing consultation during construction will be carried out in accordance with the CCS (refer Section 1.4.3). RAPS are listed as a key stakeholder in Table 5.1 of the CCS.</td>
</tr>
<tr>
<td>Norma Burrows</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Murramarang</td>
<td>Murrmararang support the CCHMP, and wish to be kept informed of any further developments.</td>
<td>Ongoing consultation during construction will be carried out in accordance with the CCS (refer Section 1.4.3). RAPS are listed as a key stakeholder in Table 5.1 of the CCS.</td>
</tr>
<tr>
<td>Roxanne Smith</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Murri Bidgee Mullangari Aboriginal Corporation</td>
<td>The Murra Bidgee Mullangari Aboriginal Corporation endorses the CCHMP.</td>
<td>Noted</td>
</tr>
<tr>
<td>Organisation/Contact</td>
<td>Summary of comment</td>
<td>Roads and Maritime Response</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Ngunawal Heritage Aboriginal Corporation</td>
<td>Ngunawal Heritage Aboriginal Corporation supports the CCHMP.</td>
<td>Noted</td>
</tr>
<tr>
<td>Graham Dobson</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Walbunja                                 | • Unable to provide accurate input into the document about the cultural heritage as he had not been given the opportunity to attend site  
• Until he was afforded the opportunity to attend site to know what is in the ground and know the country, then he could not provide input and objects to the project  
• feels that Roads and Maritime hasn’t provided that opportunity to him  
• feels that the same RAPs are given work  
• feels that cultural heritage is always put at the back of the line | Roads and Maritime provided a formal response to Hika Te-kowhai on 24 August 2018 addressing these concerns.                                         |
| Hika Te-kowhai                           |                                                                                                                                                                                                                   |                                                   |
| Widescope Indigenous Group               | Widescope supports the CCHMP                                                                                                                                                                                     | Noted                                             |
| Steven Hickey                            |                                                                                                                                                                                                                   |                                                   |
4 Outstanding issues

At the time of submission of the OACEMP v2.0 to DP&E for approval, the following issues were still being addressed:

- VMP: the landscape documentation which is referred to in the VMP is undergoing further community consultation prior finalisation. The final VMP will be provided to DP&E once its preparation is complete.

This issue will not impact on the finalisation of the FFMP.
Attachment 1: Copies of consultation correspondence
Dear Suzette,

Thanks you for referring the following draft construction environmental management plans for The Northern Road Upgrade (between Mersey Road, Bringelly to Glenmore Parkway, Glenmore park) to DPI Fisheries for comment in accordance with the pending Conditions of Approval for this project.

DPI Fisheries wishes to provide the following comments on the referred plans. Please use this response to satisfy the approval consultation requirements for these plans.

**The Northern Road Upgrade – Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park – June 2018 – Construction Flora and Fauna Management Plan – Version 0**

DPI Fisheries has no objections to the draft Flora and Fauna Management Plan.

Regarding section 4.3.2 and Table 4-5, please be aware that the presence of key fish habitat in the first instance should be determined from the key fish habitat maps on DPI Fisheries website. Looking at these maps, the only key fish habitat within the footprint of these works is situated at Cosgrove Creek and Badgerys Creek.

**The Northern Road Upgrade – Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park – June 2018 – Construction Soil and Water Management Plan – Version 0**

DPI Fisheries has no objections to this draft Soil and Water Management Plan.

Page 24 and 28: Note that key fish habitat within the development footprint is only situated in Cosgrove Creek and Badgerys Creek (see comment above).

**Annexure B – Construction Water, Soil and Contamination Monitoring Program**

DPI Fisheries has no objections to this draft Water, Soil and Contamination Monitoring Program.

**The Northern Road Upgrade – Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park – June 2018 – Construction Contaminated Land Management Plan – Version 0**

DPI Fisheries has no objections to this draft Construction Contaminated Land Management Plan.

If you have any questions regarding this response, please call.

Regards,

Carla Ganassin | Fisheries Manager | Aquatic Ecosystems Unit
NSW Department of Primary Industries | Fisheries NSW
Block E, Level 3, 84 Crown Street, Wollongong NSW 2500
SEND MAIL TO: Locked Bag 1 | Nelson Bay NSW 2315
T: 02 4222 8342 | F: 02 4225 9056 | E: carla.ganassin@dpi.nsw.gov.au
W: www.dpi.nsw.gov.au
Dear Ms Graham


The Natural Resources Access Regulator (NRAR), previously DoI-Water, has had the opportunity to review Draft for Consultation Construction Environmental Management Plan (CEMP) Northern Road Upgrade, dated June 2018.

The project proposes to upgrade 16 km of the Northern Road as part of the Western Sydney Infrastructure Plan. The project aims to increase travel flow and access to the Western Sydney Airport; the project will be conducted in three separate stages stretching from Mersey Road, Bringely to Glenmore Parkway, Glenmore Park.

NRAR recommends that the CEMP for the Northern Road be modified to address the following.

- Badgery Creek, Thompsons Creek and Cosgroves Creek require additional surface monitoring points. The catchments have highly fragile river styles that need to be preserved. Each point will require preconstruction monitoring to ensure adequate data is acquired.
- Clarity and confirmation of the Trigger Action Values for Groundwater monitoring will be required prior to commencement of construction, as stated in Appendix B4 of the CEMP.
- Any reference to either “Department of Primary Industries” / “DPI Water” or “Department of Industry – Water” / “Dol Water” should be amended to “Natural Resources Access Regulator” or “NRAR”.

Please contact Annika Lawrence, Water Regulation Officer (Newcastle) on (02) 4904 2516 or annika.lawrence@nrar.nsw.gov.au if you have further enquirers regarding this matter.

Yours sincerely

Irene Zinger
Manager, Water Regulation Branch (East)

08/07/2018
Suzette Graham  
Senior Environment Officer  
Western Sydney Project Office  
Roads and Maritime Services

Via email: suzette.graham@rms.nsw.gov.au

Dear Suzette,

RE: The Northern Road Upgrade – Vegetation Management Plan for Consultation

Thank you for your email of 13 July 2018 requesting that the Department of Industry - Water (DoI Water) reviews the document titled Vegetation Management Plan (Annexure E – Vegetation Management Plan) (VMP).

DoI Water makes the following comments and recommendations.

- The current VMP is a concept document only and does not provide the level of detail required to implement the planting and restoration activities. It is noted on p.13 there is a reference to approved Landscape Documentation (not included within the VMP), which will provide further information.

  The following additional information (as specified in the DoI Water Guidelines for vegetation management plans on waterfront land) should be provided within the VMP:

  o Maps or diagrams that clearly identify the proposed riparian corridors, existing vegetation to be retained, the vegetation to be cleared, the footprint of construction activities and areas of proposed revegetation.

  o The location of the bed or banks or foreshore of waterfront land and the footprint of the proposed riparian corridor (indicating the proposed vegetated riparian zones).

  o Offset areas, if required.

  o Photographs of the site (including identification of photo points).

  o Details of the vegetation species composition, planting layout, densities,

- The proposed planting densities (p.20 – 6.3 Plant spacing) should be clarified. Recommended general planting densities are in the order of:

  o Ground covers – 4 per m².
- Shrubs – 1 per 1-2 m$^2$.
- Trees – 1 per 2-4 m$^2$.

- The final VMP document must address the above information and update the final landscape drawings and documentation referred to in section 4.4 on p16).

Please contact Algis Sutas, Water Regulation Officer on (02) 43481942 or algis.sutas@nrar.nsw.gov.au if you have further enquiries regarding this matter.

Yours sincerely

Irene Zinger
Manager, Regional Water Regulation (East)
Natural Resource Access Regulator
22/08/2018
Hi Suzette,

Thank you for your email. OEH did not request a review role for this project and we currently do not have the capacity to review the CHMP, therefore we will not be providing any comments on it.

Many thanks
Fran

---

Hi Samantha and Sam,

Roads and Maritime Services provided a Construction Cultural Heritage Management Plan for SSI7127 The Northern Road Upgrade on 26/06/2018 for OEH’s review. This is in accordance with the NSW Infrastructure Approval for the project.

Just following up on OEH’s comments on the plan and an expected timeframe if available.

Please feel free to give me a call to discuss.

Thanks,

Kind regards,

Suzette Graham
Senior Environment Officer, WSPO
Environment | Stakeholder and Community Engagement
M 0476 828 524 PH: (02) 8849 2618
www.rms.nsw.gov.au

Every journey matters
Roads and Maritime Services
27 Argyle Street, Parramatta NSW 2150
Suzette Graham
Senior Environment Officer, WSPO
Roads and Maritime Services
27 Argyle Street
PARRAMATTA NSW 2150

Sent by email to: suzette.graham@rms.nsw.gov.au

Dear Ms Graham

Re: The Northern Road Upgrade – Construction Cultural Heritage Management Plan

On 27 June 2018, we received the draft Construction Cultural Heritage Management Plan (CCHMP) for comment. The CCHMP was required to be submitted for comment under Condition C4 of Infrastructure Approval SSI 7127 (approved on 30 May 2018).

The draft CCHMP assesses the potential impacts on the archaeological resource in the project area (both Aboriginal and European). Specifically, in relation to non-Aboriginal archaeology it states that excavations will be undertaken in accordance with documentation submitted in Appendix D of The Northern Road Upgrade Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park. NSW environment Impact Statement/Commonwealth Draft Environment Impact Statement. Volume 1 Main Report, June 2017.

The draft CCHMP also includes an Unexpected Heritage Items Procedure for managing unexpected heritage items (both Aboriginal and non-Aboriginal) that are discovered during works.

Compliance with Conditions

The draft CCHMP it states that in accordance with NSW-CoA E12, no further consultation is required for the research designs and excavation methodologies for the heritage items. Roads and Maritime will submit the salvage strategy to the Secretary prior to Salvage Excavation commencing (page 6).

I make the following comments based on our review of the information provided.

Archaeological Salvage Strategy
The CCHMP does not provide a Salvage Strategy for those areas to be impacted by the project, Lawsons Inn Site and Miss Lawsons Guesthouse. Providing a copy of the Salvage Strategy directly to the Department of Planning and Environment (DPE) without any further consultation with the Heritage Council of NSW is consistent with the conditions of approval.

Previous advice from the Heritage Council to DPE was that the Salvage Strategy be developed in consultation with the Heritage Council of NSW.

**Excavation Director**

The EIS' Appendix D of states that Pamela Kottaras (EMM) will be the primary excavation director with Ryan Desic (EMM) the secondary excavation director. Pamela Kottaras has not previously been accepted by the Heritage Council as primary excavation director to undertake excavation for a site of State Significance involving open area excavation and salvage.

**Unexpected Finds Procedures**

The draft CCHMP includes the RMS *Unexpected Heritage Items Heritage Procedure 02, November 2015*. This procedure has been developed to provide a consistent method for managing unexpected heritage items (both Aboriginal and non-Aboriginal) that are discovered during Roads and Maritime activities including major projects.

It includes Roads and Maritime’s (RMS) heritage notification obligations under the *Heritage Act 1977* (NSW), *National Parks and Wildlife Act 1974* (NSW), *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth) and the *Coroner’s Act 2009* (NSW).

We consider that the RMS Unexpected Heritage Finds Procedure is an appropriate guide and process to use to manage any unexpected Historical Archaeological ‘relics’ during the project.

The CCHMP states that in the event of ‘unexpected finds’ the management response would vary depending on the *nature of the find, its significance and likely impacts* (Item NAH-9 in Table 6.1. However, under s146 of the *Heritage Act 1977* there is a requirement that if any unexpected relics are discovered the Heritage Council must be notified, this requirement still applies regardless of this project being classified as State Significant Infrastructure.

**Recommendations**

It is recommended that the draft CCHMP be modified to include the following commitments.

- The Salvage Strategy will be developed in consultation with the Heritage Council of NSW prior to submission to the Secretary.

- The Applicant will nominate an archaeological excavation director for the project who can demonstrate they are able to satisfy the Heritage Council of NSW Excavation Director Criteria 2011 for state significant archaeological sites. The name of the preferred excavation director will be submitted to Heritage Council for comment prior to being submitted to the Secretary for approval with the detailed Salvage Strategy.
Additionally, it is recommended that Item NAH-9 in Table 6.1 be modified to include the following sentence: *Under s146 of the Heritage Act 1977 there is a requirement that if any unexpected relics are discovered the Heritage Council must be notified.*

If you have any questions regarding the above advice, please contact Gary Estcourt, Senior Heritage Officer at the Heritage Division on (02) 9895 6409, or at gary.estcourt@environment.nsw.gov.au.

Yours sincerely

Sarah Jane Brazil  
Senior Team Leader, Major Projects  
Heritage Division  
Office of Environment and Heritage  
**As Delegate of the Heritage Council of NSW**

10 July 2018
Ms Suzette Graham  
Senior Environment Officer, WSPO  
Roads and Maritime Services  
27 Argyle Street  
PARRAMATTA NSW 2150

Sent by email to: suzette.graham@rms.nsw.gov.au

Dear Ms Graham

Re: The Northern Road Upgrade – Proposed Excavation Director

On 14 August 2018, we received a request for advice on the suitability of Ms Jenny Winnett as Excavation Director for works associated with the Northern Road Upgrade SSI project.

I make the following comments based on our review of the information provided. Ms Winnett is supported for the following activities.

- Salvage excavation at the Miss Lawson’s Guesthouse site considered to be of local heritage significance (c.1896 – 1920)
- Test excavation on the periphery of Lawson’s Thistle Inn and store archaeological site (c.1830), considered to be of local heritage significance as it is not likely to contain the main archaeological site for the Thistle Inn.
- Testing/archival recording of the Chaffey Brothers Irrigation Scheme Canal.

However, it is noted that the submission has not identified that archaeological open area salvage excavation is proposed for the Thistle Inn State significant archaeological site and consequently it does not provide adequate information to consider Ms Winnett’s experience in this capacity. The current response provided has not indicated her experience as a Primary Excavation Director on open area salvage sites for State significant archaeological sites.

Based on the current submission additional correspondence or project personnel may be required should archaeological salvage be required for this State significant archaeological site as a result of the project impacts. We support the continued avoidance of impact to heritage items and archaeological sites. Also, should any
archaeological salvage be required, this will require continued consultation with the Heritage Council of NSW as noted in the Conditions of Consent E12.

E12: A detailed Historical Archaeological Salvage Strategy must be prepared before any Historical archaeological salvage is undertaken within the CSSI boundary, if not already included within the EIS or SPIR. Any Salvage Strategy not included in the EIS or SPIR, must be prepared in consultation with the Heritage Council of NSW and submitted to the Secretary for information at least one month prior to the commencement of excavation and salvage works.

If you have any questions regarding the above advice, please contact Gary Estcourt, Senior Heritage Officer at the Heritage Division on (02) 9895 6409, or at gary.estcourt@environment.nsw.gov.au.

Yours sincerely

Sarah Jane Brazil
Senior Team Leader, Major Projects
Heritage Division
Office of Environment and Heritage
As Delegate of the Heritage Council of NSW

24 August 2018
Subject: FW: HPE CM: The Northern Road Upgrade – Review of Construction Environmental Management Plan (CEMP)

From: Richard Bonner [mailto:Richard.Bonner@environment.nsw.gov.au]
Sent: Friday, 3 August 2018 2:50 PM
To: GRAHAM Suzette E
Subject: RE: HPE CM: The Northern Road Upgrade – Review of Construction Environmental Management Plan (CEMP)

Hi Suzette,

OEH has reviewed the draft Construction Flora and Fauna Management Sub-plan and have no comments to make. It is noted the required Vegetation Management Plan (Annexure E) to address vegetation management within riparian corridors is under preparation and will be completed and approved prior to the commencement of construction.

Regards

Richard Bonner
Senior Conservation Planning Officer
Greater Sydney Branch
Communities and Greater Sydney Delivery Division
10 Valentine Avenue, Parramatta 2150
PO Box 644, Parramatta 2124
T 02 9995 6917

---

From: suzette.graham@rms.nsw.gov.au [mailto:MyIT@transport.nsw.gov.au]
Sent: Tuesday, 26 June 2018 5:39 PM
To: Susan Harrison <Susan.Harrison@environment.nsw.gov.au>; Richard Bonner <Richard.Bonner@environment.nsw.gov.au>
Cc: tnr4@rms.nsw.gov.au
Subject: HPE CM: The Northern Road Upgrade – Review of Construction Environmental Management Plan (CEMP)

You have received 6 secure files from suzette.graham@rms.nsw.gov.au. Use the secure links below to download.

Dear Susan,

Re: The Northern Road Upgrade – Review of Construction Environmental Management Plan (CEMP)

In accordance with the NSW Infrastructure Approval SSI -7127 please see attached the following CEMP documents for OEH’s review. RMS is seeking comment by 10/07/2018.

- Flora and Fauna Management Plan

The main CEMP document and Appendices A1 to A8 are also provided for reference. No comment is required on these documents.

If OEH does not wish to make comment on the above mentioned plan, please provide RMS a written notification of this.

Please note the NSW Approval is not yet publically available. It will be made publically available after an
announcement. Copies of the NSW and Federal approvals are attached for your reference.

Please contact me if you have any questions.

Thanks,

Suzette Graham
Senior Environment Officer, WSPO
Environment | Stakeholder and Community Engagement

M 0476 828 524 PH: (02) 8849 2618

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Roads and Maritime Services
27 Argyle Street, Parramatta NSW 2150

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Hi Suzette

I have now collated comments received for the sub plans attached and is noted as below.

1. **Construction Traffic Management Plan**
   
   Section 5 - Construction Traffic Management Sub Plan did not recognise Grover’s Cr as a local road accessed by both construction and light vehicles and should be included.
   
   Whether programmed night works are undertaken for utility installation is not noted. Our experience is some work will be required.
   
   Where bus stops are relocated for construction, safe crossing points for bus commuters will need to be provided with sufficient lighting for changed locations.
   
   A dilapidation report will be required for the local roads to be accessed/ upgraded.
   
   Minor comment – Section 6.11 (Emergency Services notification – should be Nepean Local Area Command (As Penrith/St Marys have amalgamated).
   
   There should be notations included that Local Roads not be included in any TMP’s for State Road traffic detours.

2. **Construction Noise & Vibration Management Plan**
   
   Council’s Environmental Health Section has noted that the Draft Noise Mgt Plan is comprehensive.
   
   However, in Section 8 it should be noted that any variation of hours of work or Out of hours work or should have Penrith City Council agreement be noted.
   
   A copy of the final CNVMP should be provided to Council.

3. **Construction Soil & Water Management Plan**
   
   The draft CSWMP is considered to be comprehensive and no further comments.

4. **Water & Soil Contamination Management Plan**
   
   The draft WSCMP is considered to be comprehensive and no further comments.

5. **No further comments on Construction Contamination Land Management Plan.**

6. **I am awaiting some further comments from Aboriginal Liaison Officer with respect to Aboriginal Heritage component of the Construction Heritage Management Plan.**

Regards
Hi Ari,

Here are the NSW and Federal Approvals for The Northern Road Project to assist with the CEMP Sub-plan reviews.

Thanks,

Kind regards,

Suzette Graham
Senior Environment Officer, WSPO
Environment | Stakeholder and Community Engagement
M 0476 828 524 PH: (02) 8849 2618
www.rms.nsw.gov.au

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Registered Aboriginal Stakeholders
Hi

A1 and AHCS support the Northern Road Upgrade, Construction Environmental Management Plan and Sub Plans for Consultation.

Thank you

Carolyn Hickey
Amanda Hickey DeZwart

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Re: The Northern Road Upgrade – Review of Cultural Heritage Management Plan
Under the NSW Infrastructure Approval (SSI -7127) for the Northern Road Upgrade project, Roads and Maritime must provide the Cultural Heritage Management Plan to registered Aboriginal parties for review. RMS is seeking comment by 11/07/2018.

The main CEMP document and Appendices A1 to A8 are also provided for reference. No comment is required on these documents.

If you do not wish to make comment on the Cultural Heritage Management Plan, please let RMS know via an email, letter or phone call.

Please note the NSW Approval is not yet publically available. It will be made publically available after an announcement. Copies of the NSW and Federal approvals are attached for your reference.

Please feel free to contact me if you have any questions.

Thanks,
Suzette Graham
Senior Environment Officer, WSPO
Environment | Stakeholder and Community Engagement
M 0476 828 524 PH: (02) 8849 2618
www.rms.nsw.gov.au

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Roads and Maritime Services
27 Argyle Street, Parramatta NSW 2150
From: REEFMAN Michelle M
to: GRAHAM Suzette E
Subject: FW: The Northern Road between Jamison Road, Penrith and Mersey Rd, Bringelly Construction Environmental Management Plan comments
Date: Monday, 23 July 2018 8:35:32 AM

FYI

From: Andrew Williams [mailto:aas.info@bigpond.com]
Sent: Thursday, 19 July 2018 9:08 PM
To: REEFMAN Michelle M
Subject: Re: The Northern Road between Jamison Road, Penrith and Mersey Rd, Bringelly Construction Environmental Management Plan comments

A.A.S agrees with the methodology.

AAS would like to see any artefacts collected displayed for all to see in the museum, local library or local government building or reburied in close proximity of the area.

Regards

Andrew Williams
AAS
aas.info@bigpond.com

On 11 Jul 2018, at 11:56 am, REEFMAN Michelle M <Michelle.REEFMAN@rms.nsw.gov.au> wrote:

Dear Andrew Williams,

In accordance with the Conditions of Approval for SSI 7127 The Northern Road Upgrade, Roads and Maritime provided the Construction Cultural Heritage Management Plan (CCHMP) to Registered Aboriginal Parties for review and comment on 27/06/2018. Roads and Maritime requested any comments on the Plan to be received by 11/07/2018.

We are now following up with anybody we have not received a response from to remind them of the opportunity to provide comment on the Plan.
If you intend to provide comment, please let us know when we are likely to receive your comments.

If you don't wish to provide comment, please let us know via email or phone.

Please don't hesitate to call Suzette Graham 0476 828 524 should you wish to discuss.

Kind regards,

Michelle
Hi Suzette

This is Biamangas support for the Cultural Heritage Management Plan. We wish to be kept informed of any further developments.

On Wed, 27 Jun 2018 at 5:30 pm, suzette.graham@rms.nsw.gov.au <MyIT@transport.nsw.gov.au> wrote:

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Re: The Northern Road Upgrade – Review of Cultural Heritage Management Plan

Under the NSW Infrastructure Approval (SSI -7127) for the Northern Road Upgrade project, Roads and Maritime must provide the Cultural Heritage Management Plan to registered Aboriginal parties for review. RMS is seeking comment by 11/07/2018.

The main CEMP document and Appendices A1 to A8 are also provided for reference. No comment is required on these documents.

If you do not wish to make comment on the Cultural Heritage Management Plan, please let RMS know via an email, letter or phone call.

Please note the NSW Approval is not yet publicly available. It will be made publicly available after an announcement. Copies of the NSW and Federal approvals are attached for your reference.

Please feel free to contact me if you have any questions.

Thanks,

Suzette Graham
Senior Environment Officer, WSPO
Environment | Stakeholder and Community Engagement
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Kind Regards
Janaya Smith
Chief Executive Officer
Bianganga

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Hi Suzette

This is Cullendullas support for the Cultural Heritage Management Plan. We wish to be kept informed of any further developments.

On Wed, 27 Jun 2018 at 5:24 pm, suzette.graham@rms.nsw.gov.au wrote:

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Re: The Northern Road Upgrade – Review of Cultural Heritage Management Plan

Under the NSW Infrastructure Approval (SSI-7127) for the Northern Road Upgrade project, Roads and Maritime must provide the Cultural Heritage Management Plan to registered Aboriginal parties for review. RMS is seeking comment by 11/07/2018.

The main CEMP document and Appendices A1 to A8 are also provided for reference. No comment is required on these documents.

If you do not wish to make comment on the Cultural Heritage Management Plan, please let RMS know via an email, letter or phone call.

Please note the NSW Approval is not yet publicly available. It will be made publicly available after an announcement. Copies of the NSW and Federal approvals are attached for your reference.

Please feel free to contact me if you have any questions.

Thanks,
Suzette Graham
Senior Environment Officer, WSPO
Environment | Stakeholder and Community Engagement
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Kind Regards
Corey Smith
Cultural Heritage Officer
Cullendulla

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Dear Suzette,

The Darug Aboriginal Land care/ Uncle Des Dyer, has no objections to the planned development.

We have read your report and agree with the recommendations, survey, Methodology, test excavation in your report.

We ask that while the development is in progress if any Artefacts are uncovered that work stops until the Artefacts can be salvaged and moved.

We ask that Artefacts can be Salvaged. !!!!!!!!!!
We make Recommendation that this is strongly heard to for projects !!!!!

we ask that all artefacts be reburied on site out of harm's way, that any rock cravens, and scared tree be preserved, were possible, and be recorded.

Or Artefacts are put in the local museum, or displayed in the foyer of new building with signage on where they came from.

The Darug Aboriginal Land care have and always will hold all land specific social, spiritual and have a responsibility to look after the plants, animals creeks rivers on Darug land has cultural values to our organisation.

We are Traditional Owner, our members have lived on Darug land for most of their lives and worked in the area. We have been doing Cultural Heritage Assessments for over 20 years and still do today.

Respectfully yours,
Uncle Des Dyer
Darug Elder
Subject: Construction Cultural Heritage Management Plan for The Northern Road

Dear Suzette Graham,

Our group is a non-profit organisation that has been active for over forty years in Western Sydney, we are a Darug community group with over three hundred members. The main aim in our constitution is the care of Darug sites, places, wildlife and to promote our culture and provide education on the Darug history.

Our group promotes Darug Culture and works on numerous projects that are culturally based as a proud and diverse group. It has been discussed by our group and with many consultants and researches that our history is generic and is usually from an early colonists perspective or solely based on archaeology and sites. These histories are adequate but they lack the people’s stories and parts of important events and connections of the Darug people and also other Aboriginal people that now call this area home and have done so for numerous generations.

This area is significant to the Darug people due to the evidence of continued occupation, within close proximity to this project site there is a complex of significant sites.

Landscapes and landforms are significant to us for the information that they hold and the connection to Darug people. Aboriginal people (Darug) had a complex lifestyle that was based on respect and belonging to the land, all aspects of life and survival did not impact on the land but helped to care for and conserve land and the sustenance that the land provided. As Darug people moved through the land there were no impacts left, although there was evidence of movement and lifestyle, the people moved through areas with knowledge of their areas.
and followed signs that were left in the landscape. Darug people knew which areas were not to be entered and respected the areas that were sacred.

Knowledge of culture, lifestyle and lore have been part of Darug people’s lives for thousands of years, this was passed down to the next generations and this started with birth and continued for a lifetime. Darug people spent a lifetime learning and as people grew older they passed through stages of knowledge, elders became elders with the learning of stages of knowledge not by their age, being an elder is part of the kinship system this was a very complicated system based on respect.

Darug sites are all connected, our country has a complex of sites that hold our heritage and past history, evidence of the Darug lifestyle and occupation are all across our country, due to the rapid development of Sydney many of our sites have been destroyed, our sites are thousands of years old and within the short period of time that Australia has been developed pre contact our sites have disappeared.

The *Aboriginal cultural heritage consultation requirements for proponents* Section 4.1.8 refers to “Aboriginal organisations representing Aboriginal people who hold cultural knowledge”. Recent consultation meetings have revealed that many of these Aboriginal organisations and individuals do not hold cultural knowledge of the Western Sydney area. The increasing involvement of such parties in cultural heritage management means that genuine local Aboriginal organisations are unable to properly care for our cultural heritage.

Many Aboriginal organisations listed in the OEH response letter do not contribute to the Aboriginal community of Western Sydney. Individuals listed in the OEH response letter do not represent the community and while they may be consulted with, should not be employed for their own personal financial benefit.

Our organisation is committed to providing benefits back to our local Aboriginal community through such measures as funding the local Aboriginal juniors’ touch football team, painting classes for the local children and donating money to various charities. Employment in cultural heritage activities is source of income that organisations such as ours can use to contribute to beneficial activities and support within the community.

Darug custodian Aboriginal Corporation’s site officers have knowledge of Darug land, Darug Culture, Oral histories, landforms, sites, Darug history, wildlife, flora and legislative requirements. We have worked with consultants and developers for many years in Western Sydney (Darug Land) for conservation, site works, developments and interpretation/education strategies.

Darug Custodian Aboriginal Corporation have received and reviewed the report for Construction Cultural Heritage Management Plan for The Northern Road.
We support the recommendations set out in this report.

Please contact us with all further enquiries on the above contacts.

Regards

[Signature]

Justine Coplin
11th July 2018

Suzette Graham
Senior Environmental Officer, WSPO
Roads and Maritime Services
Level 3, 27-31 Argyle Street
PARRAMATTA NSW 2150

Email: Suzette.graham@rms.nsw.gov.au

Dear Suzette,

**RE: THE NORTHERN ROAD UPGRADE – MERSEY RD, BRINGELLY TO GLENMORE PARKWAY, GLENMORE PARK PROJECT**

Cultural Heritage Management Plan

Darug Land Observations Pty Ltd (DLO) has reviewed the Methodology for Test Excavations, and supports the methodology for the proposed Upgrade of The Northern Road – Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park Project, which comprises the upgrade of 16 km of The Northern Road as part of the broader Western Sydney Infrastructure Plan.

In relation to the long-term storage of recovered artefacts, if any, we strongly believe that the recovered artefacts should be re-buried on Country (the study area).

Furthermore, we would be involved in the archaeological test excavations, monitoring of the topsoil removal and/or any other form of works to be carried out on the site.

Look forward to working with you on this project.

Yours sincerely,

Jamie Workman
Darug Land Observations Pty Ltd

Uncle Gordon Workman
Darug Elder
Hi Suzette

Gulaga support the Cultural Heritage Plan for the above project. We wish to be kept informed of any further progress.

Kind Regards
Wendy Smith
Cultural Heritage Officer
Gulaga
0401 808 988

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On Wed, Jun 27, 2018 at 5:27 PM, suzette.graham@rms.nsw.gov.au > MyIT@transport.nsw.gov.au wrote:

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Re: The Northern Road Upgrade – Review of Cultural Heritage Management Plan

Under the NSW Infrastructure Approval (SSI -7127) for the Northern Road Upgrade project, Roads and Maritime must provide the Cultural Heritage Management Plan to registered Aboriginal parties for review. RMS is seeking comment by 11/07/2018.

The main CEMP document and Appendices A1 to A8 are also provided for reference. No comment is required on these documents.

If you do not wish to make comment on the Cultural Heritage Management Plan, please let RMS know via an email, letter or phone call.

Please note the NSW Approval is not yet publically available. It will be made publically available after an announcement. Copies of the NSW and Federal approvals are attached for your reference.

Please feel free to contact me if you have any questions.

Thanks,

Suzette Graham
Senior Environment Officer, WSPO
Environment | Stakeholder and Community Engagement

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Hi Suzette,

Thank you for your time today.

I have reviewed the information you sent regarding the Aboriginal Consultation and Heritage Assessments for the Northern Road upgrade.

Please find attached the CCHMP with suggested changes highlighted in yellow. The suggested changes relate to two entries with the wording Gundungurra where it should be Gandangara (LALC).

Gundungurra appears on page 5 on the printed page however the page counter has it as page 13 and again on page 38 on the printed page however the page counter says page 46.

Regards

Barry Gunther

GLALC Cultural Heritage and Land Management Officer
103 Moore Street Liverpool NSW 2150
Ph: 9602 5280
Fax: 9602 2741
Email: BGunther@GLALC.org.au

---

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Hi Barry

Re: The Northern Road Upgrade – Review of Cultural Heritage Management Plan

Under the NSW Infrastructure Approval (SSI -7127) for the Northern Road Upgrade project, Roads and Maritime must provide the Cultural Heritage Management Plan to registered Aboriginal parties for review.

Following on from your conversation with Fahad last week, I understand that the report for Gandangara LALC was sent to bmaybury@east.org.au instead of your email address. I have now updated the details in our stakeholder list.

Please see CHMP attached for review.

The main CEMP document and Appendices A1 to A8 are also provided for reference. No comment is required on these documents.

If you do not wish to make comment on the Cultural Heritage Management Plan, please let RMS know via an email, letter or phone call.

Copies of the NSW and Federal approvals are attached for your reference.

Please feel free to contact me if you have any questions.

Thanks,

Suzette Graham
Senior Environment Officer, WSPO
Environment | Stakeholder and Community Engagement
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Hi Suzette

This is Goobahs support for the Cultural Heritage Management Plan. We wish to be kept informed of any further developments.

On Wed, 27 Jun 2018 at 1:27 pm, suzette.graham@rms.nsw.gov.au <MyIT@transport.nsw.gov.au> wrote:

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Please feel free to contact me if you have any questions.

Thanks,

Suzette Graham
Senior Environment Officer, WSPO
Environment | Stakeholder and Community Engagement

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--
Regards Basil Smith
Chief Executive Officer
Goobah PH 0405995725

This email may contain privileged information. Privilege is not waived if it has been sent to you in error, or if you are not the intended recipient. Please immediately notify me and delete the email if you have received this in error.
Dear Suzette,

I have received 6 secure files for Northern Rd upgrade and Review of Cultural Heritage Plan between Mersey Rd, Bringelly to Glenmore Parkway, Glenmore Park. I have read your Report (files) and am happy with them and would like to say that all sites are highly significant to us Koori People and that the areas surrounding them have a spiritual feeling that was left by the Old Aboriginal People of the past. It is noted that there is about 28 identified sites within the Project area also noted all precautions will be applied by RMS.

I would like to put in an application for Site Officer positions so if you could send out forms for me I would really appreciate it regards Philip Khan.

As Senior Aboriginal person who has for the past forty of so years (40) actively participated in the Protection Aboriginal Cultural Heritage throughout the Sydney Basin, and particularly throughout Western Sydney, I, on behalf of the Kamilaroi Yankuntjatjara Working Group, wish to provide to you my organisations’ registration of interest.

Information in my registration of Interest:

1. I am a Senior Aboriginal and Principal of the Kamilaroi -Yankuntjatjara Working Group, and all Aboriginal entity (ABN33979702507).

2. I prefer communicating by, Mail, Telephone, and; and I am, the Principal, person to contact, and;
   
   My contact details are:
   
   Phillip Khan
   78 Forbes Street, Emu Plains NSW 2750
   Mobile 043 4545 982

3. I wish to be involved and participate in all levels of consultation/project involvement. I wish to attend all meetings, and, participate in available field work; and would receive a copy of the report.

4. I attach to this letter a copy of Kamilaroi- Yankuntjatjara Working Group’s; GIO Public Liability Insurance; GIO Workers Compensation Certificate.

Should you wish me to provide further information, please do not hesitate to contact me on 0434545982.

Yours Sincerely,

Pollowan Phillip Khan
Hi Michelle,

My apologies we have been busy planning and hosting NAIDOC events all week. On behalf on of Council’s Aboriginal Consultative Committee (ACC); please ensure that due diligence is enhanced to and if there is any Aboriginal Artefacts found on site that you could

Jacqueline Newsome via P: 8711 7781 | M: 0439 836 978 | E: newsomej@liverpool.nsw.gov.au to ensure the report is tabled at the next available ACC meeting.

Regards,
Norma Burrows | Community Development Worker (Aboriginal and Torres Strait Islander)

I acknowledge the Traditional Owners of the land where we live and work and their continuing connection to land, water, sea and community.

We pay respects to Australia’s First Peoples, to their unique and diverse cultures, and to Elders past, present and future.

PLEASE NOTE: My direct line has changed. Please update your records accordingly.

Dear Norma Burrows,

In accordance with the Conditions of Approval for SSI 7127 The Northern Road Upgrade, Roads and Maritime provided the Construction Cultural Heritage Management Plan (CCHMP) to Registered Aboriginal Parties for review and comment on 27/06/2018. Roads and Maritime requested any comments on the Plan to be received by 11/07/2018.

We are now following up with anybody we have not received a response from to remind them of the opportunity to provide comment on the Plan.

If you intend to provide comment, please let us know when we are likely to receive your comments.
If you don't wish to provide comment, please let us know via email or phone.

Please don't hesitate to call Suzette Graham 0476 828 524 should you wish to discuss.

Kind regards,

Michelle

Michelle Reefman
Project & Contract Officer
Western Sydney Program Office | Technical & Project Services
T 02 8849 2692 M 0401 756 610
www.rms.nsw.gov.au
Every journey matters

Roads and Maritime Services
Level 7 Argyle Street Parramatta NSW 2150
Hi Suzette

This is Murramarang’s support for the Cultural Heritage Management Plan. We wish to be kept informed of any further developments.

On Wed, 27 Jun 2018 at 5:32 pm, suzette.graham@rms.nsw.gov.au <MyIT@transport.nsw.gov.au> wrote:

You have received 6 secure files from suzette.graham@rms.nsw.gov.au.
Use the secure links below to download.

---

Re: The Northern Road Upgrade – Review of Cultural Heritage Management Plan

Under the NSW Infrastructure Approval (SSI-7127) for the Northern Road Upgrade project, Roads and Maritime must provide the Cultural Heritage Management Plan to registered Aboriginal parties for review. RMS is seeking comment by 11/07/2018.

The main CEMP document and Appendices A1 to A8 are also provided for reference. No comment is required on these documents.

If you do not wish to make comment on the Cultural Heritage Management Plan, please let RMS know via an email, letter or phone call.

Please note the NSW Approval is not yet publicly available. It will be made publically available after an announcement. Copies of the NSW and Federal approvals are attached for your reference.

Please feel free to contact me if you have any questions.

Thanks,

Suzette Graham
Senior Environment Officer, WSPO
Environment | Stakeholder and Community Engagement
M 0476 828 524 PH: (02) 8849 2618
www.rms.nsw.gov.au
Every journey matters
Roads and Maritime Services
27 Argyle Street, Parramatta NSW 2150

---

Secure File Downloads:
Available until: 25 July 2018

Click links to download:

1. 1806 RAP CEMP Letters 61.pdf
54.81 KB
2. 2016-7696 Approval-Final Approval Decision Notice SIGNED 15.06.2018.pdf
681.88 KB
3. NSW Infrastructure Approval SSI7127.pdf
1.12 MB
4. TNR Upgrade OACEMP Appendix A1 - A8 v0.pdf
19.66 MB
5. TNR Upgrade OACEMP Appendix B5 - CCHMP v0.pdf
3.48 MB
6. TNR Upgrade OACEMP v0.pdf
1.85 MB

You have received secure links within this email sent via Transport for NSW Secure File Sharing. To retrieve the files, please click on the links above.
Kind Regards
Roxanne Smith
Cultural Heritage Officer
Murrarang

This email may contain privileged information. Privilege is not waived if it has been sent to you in error, or if you are not the intended recipient. Please immediately notify me and delete the email if you have received this in error.
Dear Suzette,

I have read the review of cultural heritage management plan for The Northern Road upgrade and endorse the recommendations for this project, I feel that all avenues of concerns are being attended to by the RMS, if you require further details please do not hesitate in contacting me further.

Kind regards

Ryan Johnson  
Murra Bidgee Mullangari  
MBL: 0475565517

Aboriginal Corporation Cultural Heritage

A: PO Box 246, Seven Hills, NSW, 2147  
E: murrabidgeemullangari@yahoo.com.au  
ICN: 8112

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FYI

From: Ngunawal Heritage Aboriginal Corporation [mailto:ngunawalhac@gmail.com]
Sent: Friday, 13 July 2018 9:34 AM
To: REEFMAN Michelle M
Subject: Re: The Northern Road between Jamison Road, Penrith and Mersey Rd, Bringelly Construction Environmental Management Plan comments

Hi Michelle

The Ngunawal Aboriginal Heritage Corporation has reviewed the CCHMP for the Northern Rd Upgrade, between Jamison Rd Penrith and Mersey Rd Bringelly and support the Plan.

Kind Regards

Graeme Dobson

On Wed, Jul 11, 2018 at 9:29 AM, REEFMAN Michelle M <Michelle.REEFMAN@rms.nsw.gov.au> wrote:

Dear Graham Dobson,

In accordance with the Conditions of Approval for SSI 7127 The Northern Road Upgrade, Roads and Maritime provided the Construction Cultural Heritage Management Plan (CCHMP) to Registered Aboriginal Parties for review and comment on 27/06/2018. Roads and Maritime requested any comments on the Plan to be received by 11/07/2018.

We are now following up with anybody we have not received a response from to remind them of the opportunity to provide comment on the Plan.

If you intend to provide comment, please let us know when we are likely to receive your comments.

If you don't wish to provide comment, please let us know via email or phone.

Please don't hesitate to call Suzette Graham 0476 828 524 should you wish to discuss.

Kind regards,

Michelle
To Suzette Graham

Thank you, I have been sent documents Re: The Northern Road Upgrade – Construction Environmental Management Plan (CEMP) – Sub Plans for Consultation Cultural Heritage Management.
I have reviewed and support the documents
Thank you
Steven Hickey
Appendix A9
Environmental Work Method Statements

The Northern Road Upgrade –
Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park
September 2018
Contents

Environmental Work Method Statements

Annexures

Annexure A  Template EWMS
Annexure B  EWMS register
Annexure C  EWMS training / induction attendance register
Environmental Work Method Statements

During construction of the Project, the Contractors will be required to develop Environmental Work Method Statements (EWMS) for stage-specific activities. The following table provides a list of activities which will require an EWMS.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Stage 4</th>
<th>Stage 5</th>
<th>Stage 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activities with high environmental risk</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Activities that impact on or are in proximity to environmentally sensitive areas such as ecological communities and threatened species</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Activities that impact on or are in proximity to waterways including:</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>• Surveyors Creek</td>
<td>✔</td>
<td></td>
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<tr>
<td>• Badgerys Creek</td>
<td>✔</td>
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<td></td>
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<tr>
<td>• Cosgroves Creek</td>
<td></td>
<td>✔</td>
<td></td>
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<tr>
<td>Activities that impact on or are in proximity to heritage sites including:</td>
<td></td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>• Miss Lawson’s Guesthouse</td>
<td></td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>• Lawson’s Inn</td>
<td></td>
<td>✔</td>
<td></td>
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<tr>
<td>• DEOH and the Mulgoa Irrigation Canal</td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Pre-Construction activities including (as relevant):</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>• delineation of sensitive areas</td>
<td></td>
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<tr>
<td>• installation of erosion and sedimentation controls</td>
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<tr>
<td>• heritage excavation and salvage</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>• treatment of contaminated sites</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Topsoil stripping and earthworks including temporary stockpiling and disposal of excavated material and protocols for the management of materials containing asbestos</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Utilities relocation</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Compound and ancillary facility establishment and use</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Piling</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Contaminated land</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Activities that involve work in waterways or that pose a risk to receiving water quality including:</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>• Construction and operation of sediment basins and/ or buffer swales and connecting drainage for the associated catchment area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Construction of culverts, including associated staging, flow diversions, any dewatering, short and long term stabilisation and removal of existing structures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity</td>
<td>Stage 4</td>
<td>Stage 5</td>
<td>Stage 6</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
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<tr>
<td>• vegetation clearing and grubbing</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>• dewatering activities including activities where Construction water may be discharged into natural waterways</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Construction and operation of concrete wash out areas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• managing runoff from curing processes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activities that generate high levels of noise and/or vibration (where there are nearby receptors)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>All works associated with rehabilitation of farm dams including but not limited to dewatering and filling</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Low impact work (under the CoA) started prior to Construction</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

EWMS will be prepared to manage and control high risk activities that have the potential to negatively impact on the environment. EWMS incorporate appropriate mitigation measures and controls, including those identified in relevant sub-plans. They also identify key procedures to be used concurrently with the EWMS. EWMS will also be prepared to manage low impact work prior to commencement of Construction.

A template EWMS format consistent with the requirements of Roads and Maritime Specification G36 is provided below. The Contractors will adopt the EWMS format provided, or where relevant, the Contractors may submit for approval to Roads and Maritime an existing equivalent EWMS document that is consistent with the requirements outlined in this Appendix A9 and Roads and Maritime Specification G36. Roads and Maritime will review the Contractors’ EWMS document for compliance with the requirements of this Appendix A9 and Roads and Maritime Specification G36.

EWMS for low impact works will be prepared in consultation with OEH and DPI Fisheries where required.

EWMS will be prepared by the Contractor Environmental Site Representatives and any Contractors engaged to carry out low impact work. Where required, the Contractors will forward the completed EWMS to the appropriate regulatory authority/ies and stakeholders (for high risk activities), the Environmental Representative (ER) and the Roads and Maritime Environmental Manager for review at least 21 working days prior to commencement of the Works and any Temporary Work referred to in the EWMS. Changes to EWMS must be advised to the appropriate regulatory authority/ies and stakeholders (for high risk activities), the ER and the Roads and Maritime Environmental Manager prior to the change being adopted.

The Contractors will confirm with the Roads and Maritime Environmental Manager which EWMS are high risk and require consultation with regulatory authority/ies and stakeholders prior to approval.
All construction personnel and sub-contractors undertaking a task governed by an EWMS must participate in training on the EWMS and acknowledge that they have read and understood their obligations by signing an attendance record prior to commencing work. A sample training attendance register is included in this sample EWMS. The Contractors will maintain up-to-date records of training and induction of personnel with responsibilities relevant to EWMS.

The Contractors will develop and maintain a register of all EWMS prepared, approved and implemented during construction of the Project. The EWMS register will be included in the Contractors’ CEMPs at Appendix A9.
## Annexure A: Template EWMS

<table>
<thead>
<tr>
<th>EWMS name / number:</th>
<th>[Insert the name and number of the EWMS]</th>
<th>EWMS revision number:</th>
<th>[Insert revision number of the EWMS]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity:</td>
<td>[Briefly describe in one sentence the activity for which this EWMS covers]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project:</td>
<td>The Northern Road Upgrade – Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity to be undertaken by:</td>
<td>[Outline personnel, including subcontractors who would be undertaking works on this activity]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stage and site address:</td>
<td>[Project stage number and site address where the EWMS applies]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contractor:</td>
<td>[Insert contractor name]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date of review:</td>
<td>[Insert date this EWMS will be reviewed, outline frequency and date of next review]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EWMS compliance monitoring timeframe:</td>
<td>[Outline how regularly compliance with this EWMS will be monitored]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To be reviewed by:</td>
<td>[Outline who reviews the EWMS]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personnel responsible for monitoring compliance:</td>
<td>[Outline who is responsible for monitoring compliance with this EWMS]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approvals required:</td>
<td>[Outline any regulatory or internal approvals required as part of this activity and the status of the approvals]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Agencies / personnel consulted during the development of this EWMS

<table>
<thead>
<tr>
<th>Agency / position</th>
<th>Name</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>[DPI]</td>
<td>[Insert name]</td>
<td></td>
<td>[Insert date of signature]</td>
</tr>
<tr>
<td>[Contractor Site Engineer]</td>
<td>[Insert name]</td>
<td></td>
<td>[Insert date of signature]</td>
</tr>
<tr>
<td>[Contractor Superintendent/ Foreman]</td>
<td>[Insert name]</td>
<td></td>
<td>[Insert date of signature]</td>
</tr>
</tbody>
</table>
Record safeguards resulting from consultation with agencies, site personnel and other stakeholders, where appropriate:
[Outline environmental safeguards and management measures to be incorporated with the EWMS]

**General scope of activity:**
[Insert a broad description of the activity covered by this EWMS, including the plant and equipment to be used.]
[Detail is to include when the activity would commence, the duration of the activity, how the activity interfaces with other activities, any staging required and a brief outline of the construction steps for the activity]

<table>
<thead>
<tr>
<th>Activity step</th>
<th>Potential impacts</th>
<th>Environmental controls</th>
<th>Personnel responsible for control implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Activity is to be broken down into components to ensure the potential impacts and management actions of each step is appropriately addressed. Include how the activity step interfaces with other construction activities]</td>
<td>[Outline the potential environmental and/or community impacts of the activity step]</td>
<td>[Outline in detail how the potential impacts of the particular activity step will be managed and minimised]</td>
<td>[Outline who is responsible for the implementation of the environmental controls]</td>
</tr>
</tbody>
</table>
Annexure B: EWMS register

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Revision no</th>
<th>Reviewed by</th>
<th>Date</th>
</tr>
</thead>
<tbody>
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</table>
Annexure C: EWMS training / induction attendance register

[We, the undersigned, confirm that we have been trained and inducted on this EWMS and the details have been explained and clearly understood. We clearly understand that the environmental controls in this EWMS must be applied as documented, otherwise work is to cease immediately.]

<table>
<thead>
<tr>
<th>Name</th>
<th>Company</th>
<th>Position</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>
Annexure A – Additional information required

In addition to the information provided in the sample EWMS form and training attendance register, the Contractors’ EWMS will include at least the following elements in accordance with the requirements of Roads and Maritime Specification G36:

- maps (including an aerial background) identifying work areas and any environmental and/or socially sensitive areas, sites or places (such as threatened species or heritage items), likely potential environmental impacts including exclusion zones
- process for assessing the performance of the implemented mitigation and management measures including progressive review
- identification of practical cost-effective measures to reduce environmental risks/impacts (consistent with the outcomes from the Environmental Risk Assessment Workshops undertaken by the Contractors during preparation of the Contractors’ CEMPs)
- a process for resolving environmental issues or conflicts
- methods for ensuring all personnel are aware of their commitments and responsibilities in regard to the EWMS
- a review process to ensure the effectiveness and proper implementation of the EWMS
- a continuous improvement and revision process