**Environment**

**Construction Method Statement #3**

**Construction Site Compounds**

HEA-CMS-GL-ENV-003-00-02

<table>
<thead>
<tr>
<th>Scope</th>
<th>This Construction Method Statement describes the environmental management measures to be applied to the establishment and operation of construction site compounds.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location/s</td>
<td>Main compound site at George Booth Drive.</td>
</tr>
<tr>
<td>Timing</td>
<td>Pre-construction and construction</td>
</tr>
<tr>
<td>Minister’s COAs</td>
<td>CoA 30 &amp; 129</td>
</tr>
</tbody>
</table>
General Description: This ECMS covers the establishment and ongoing activities at the construction site compounds during the construction phase of the 13km expressway from the Newcastle Link Road interchange with the F3, through to Buchanan.

Document Path: C:\10.10.25.35\Data\HEA\01 Environment\01_09_ECMS\03_SiteCompound\HEA-CMS-GL-ENV-003-00-02_sitecompound.doc

Document REVISIONS

<table>
<thead>
<tr>
<th>Rev</th>
<th>Date</th>
<th>Prepared by</th>
<th>Reviewed by</th>
<th>Approved by</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>30.7.10</td>
<td>C. Mueller</td>
<td>A. Zambolt</td>
<td>H. Chemney</td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>04.8.10</td>
<td>C. Mueller</td>
<td>A. Zambolt</td>
<td>H. Chemney</td>
<td>Inclusion of Table 4.3</td>
</tr>
</tbody>
</table>

EMR Certification

I have reviewed this ECMS and find it to be in accordance with the relevant Conditions of Approval and all relevant undertakings made in the EIS, Representations Report and the approved CEMP.

Signed:

Environmental Management Representative

Date:
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1 Introduction

This Environmental Construction Method Statement (ECMS) documents the requirements for works associated with establishment and operation of construction compounds. This document:

- addresses the requirements of the Minister's Condition of Approval 30 and 129 of the Hunter Expressway project,
- reflects the requirements of the Hunter Expressway Alliance (HEA) environmental management system (as detailed in the Construction Environmental Management Plan),
- incorporates the management measures from the relevant sub-plans, and
- describes the environmental management measures relating specifically to the construction activities and potential environmental issues.

This ECMS has been prepared as a practical environmental management tool for use by all HEA personnel and subcontractors and incorporates the assessment of the environmental and community risks for these works. The specific environmental and community management controls developed and detailed in the ECMS, include the following key information:

- Key site and management personnel - responsibilities and contact details.
- Operating hours.
- Construction details – activities, staging and schedule.
- Objectives and targets – monitoring requirements, criteria and procedures.
- Action tables/plans – inspection and test plans with actions, responsibilities, training, timing, reporting, monitoring/auditing and checklists.
- Site Drawings - Site layout, monitoring locations, erosion controls, noise barriers, discharge points and limits of clearing.

1.1 ECMS overview

The General Construction ECMS 1 will be required for all construction sites. This activity specific ECMS provides only specific requirements for the site compounds. When undertaking this work, this ECMS will need to be used in conjunction with ECMS 1: General Construction which will apply for the non-specific requirements for the site.

The Site Supervisor in consultation with the QA Manager will determine which ECMSs are required for each work site. Refer to the overview map contained in Attachment B of ECMS 1 for an overview of all ECMSs. Specific environmental constraints are further identified in the maps contained in Attachment A.

The ECMS site-specific Environmental Control Plans (ECPs) include site-specific drawings on a cadastral and air photo base with site boundary overlain, general traffic controls and site-specific environmental management action tables. ECPs are to be read/implemented in conjunction with the ECMS document and relevant reference documents and are for day-to-day reference for managing activities on the individual sites. The ECPs have been designed as A3 drawings for attachment to site shed walls. This ECMS includes the following ECPs:

- Attachment A – Environmental Control Plan
- Attachment B – Progressive Erosion and Sediment Control Plan
- Attachment C – Checklist for Ancillary Sites
1.2 Key reference documents to ECMS

The development of this ECMS has been guided by the following detailed management plans and reports to assist in the development of mitigation of specific environmental issues for the works. This ECMS provides the required detail for day-to-day worksite activities and the management plans and reports will be referred as needed for specific information requirements:

Table 1.1: Relevant sub-plans to the ECMS

<table>
<thead>
<tr>
<th>Issue</th>
<th>Relevant Plan(s)</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noise &amp; vibration</td>
<td>Construction Noise &amp; Vibration Sub Plan (incl. Blast Management Strategy &amp; Construction Noise Impact Statements) HEA-PL-GL-NVP-001-00</td>
<td>Provides a comparison of measured background noise levels at sensitive receivers vs. predicted noise impacts, duration of impacts from site works and traffic, physical and site management measures to minimise impacts and compliance monitoring program.</td>
</tr>
<tr>
<td>Flora &amp; Fauna Visual</td>
<td>Flora and Fauna Management Sub Plan (incl Landscape Master Plan) HEA-PL-GL-FFP-001-00</td>
<td>Provides details of the location of sensitive environment, including EECs and management measures to prevent construction encroachment.</td>
</tr>
<tr>
<td>Soil and water quality</td>
<td>▪ Soil &amp; Water Management Sub Plan HEA-PL-GL-SWP-00-00 ▪ Landscape Management Sub Plan ▪ Spoil Management Sub Plan HEA-PL-GL-SHP-001-00</td>
<td>Provides details of the physical and management controls for surface runoff, erosion and sedimentation control, incident response and details of the compliance monitoring program.</td>
</tr>
<tr>
<td>Land contamination</td>
<td>Hazard &amp; Risk Management Plan HEA-PL-GL-HRP-001-00</td>
<td>Provides details of the assessment of contamination.</td>
</tr>
<tr>
<td>Heritage</td>
<td>Aboriginal Cultural Heritage Management Sub Plan HEA-PL-GL-IHP-001-00</td>
<td>Provides details of the location known and potential of archaeological sites and heritage sites as well as management measures to prevent damage or destruction.</td>
</tr>
<tr>
<td>Air Quality</td>
<td>Construction Air Quality Management Plan HEA-PL-GL-AQP-001-00</td>
<td>Provides details on the location of sensitive receivers, air quality impacts from construction works and mitigation strategies and measures.</td>
</tr>
<tr>
<td>Waste</td>
<td>Waste Management &amp; Re-Use Sub Plan HEA-PL-GL-WMP-001-00</td>
<td>Provides details on the waste strategies and management measures to maximise reuse, minimise waste generation and ensure lawful disposal where required.</td>
</tr>
</tbody>
</table>
1.2.1 Additional relevant references


  o Appendix B: Ecological Assessment of the Proposed Compound Site and Batch Plant, Parsons Brinkerhoff, July 2010.
  o Appendix C: Draft Aboriginal Cultural Heritage and Archaeological Survey and Assessment of the Hunter Expressway Alliance Project Office Compound and Batch Plant, near Buchanan, New South Wales, Umwelt, July 2010.
  o Appendix D: Heritage Impact Statement Proposed HEA Project Office Compound, 1416 George Booth Drive, Umwelt, July 2010.

As in the development of the CEMP, all relevant RTA Specifications were incorporated in the development of the Environment Construction Method Statements. No specific RTA Specifications were found relevant to this ECMS that have not already been incorporated into other ECMSs.

Refer to the General Construction ECMS, Table 1.3 for specific work instructions developed for the CEMP and subplans as relevant to construction works and environmental management.
2 Scope of works

This Construction Site Compound ECMS covers the establishment and ongoing operation of all construction site compounds during the construction phase of the 13 km expressway from the Newcastle Link Road interchange with the F3, through to Buchanan.

2.1 Construction site compounds

The main site construction compound will be the Project Office as identified in Attachment A. A consistency assessment was prepared for this site which included an assessment against MCoA 129 and additional environmental assessment.

Other minor site compounds required during the construction phase will be reviewed against MCoA 129 criteria prior to being approved. The assessment will take the form of a consistency assessment, impact assessment or checklist as per Attachment C, subject to how the proposed site compound complies with MCoA 129.

If the works proposed at the minor construction compound are additional to work activities stipulated in the CEMP, an environmental risk assessment must be conducted of the potential impacts of the activity prior to commencing the new activity, as per Section 2.4 of the CEMP.

2.2 HEA Project Office

The HEA Project Office, as identified in Attachment A provides a central point along the construction corridor of the Expressway that is intended to be used as a base of operations for the duration of the construction of the Expressway. The HEA Project Office will be established on a site leased from a privately owned rural property used for cattle grazing.

The following table provides a general description of the construction activities and indicative schedule relevant to the establishment of the Project Office site in the Buchanan area, as per Attachment C.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-construction</td>
<td>Survey and fencing off sensitive environment and cattle fencing</td>
</tr>
<tr>
<td></td>
<td>Site induction</td>
</tr>
<tr>
<td>Site establishment</td>
<td>Installation of site environmental controls</td>
</tr>
<tr>
<td></td>
<td>Installation of site fencing and screening around compound area</td>
</tr>
<tr>
<td></td>
<td>Vegetation clearing</td>
</tr>
<tr>
<td>Earthworks</td>
<td>Strip topsoil, levelling and grading of site</td>
</tr>
<tr>
<td></td>
<td>Create hardstand to build foundations</td>
</tr>
<tr>
<td></td>
<td>Placement of fill and hardstand materials for hardstand areas</td>
</tr>
<tr>
<td>Construction of site facilities</td>
<td>Assembly of site sheds, offices and establishment of staff car park</td>
</tr>
<tr>
<td></td>
<td>Install sewer lines</td>
</tr>
<tr>
<td></td>
<td>Install sewerage treatment system</td>
</tr>
<tr>
<td></td>
<td>Install Water Main</td>
</tr>
</tbody>
</table>
### Activity

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical fitout</td>
<td></td>
</tr>
<tr>
<td>Access roads</td>
<td>Construct access roads, spray and seal</td>
</tr>
<tr>
<td>River crossing</td>
<td>Gain environmental approval following completion of detailed design of culvert crossing</td>
</tr>
<tr>
<td></td>
<td>Construct culvert over Surveyor Creek</td>
</tr>
</tbody>
</table>

### 2.3 Project Office layout

The construction compound would have an approximate size of 6.7 hectares and would accommodate the following facilities:

- Demountable site compound office.
- Project workshop, including a storage yard, maintenance workshop and office.
- Lunch room and amenities building to accommodate approximately 200 workers.
- A precast yard, including shed for construction of precast units and storage laydown area.
- A waste water treatment facility, likely to consist of septic tanks, sand filtration system and sediment basin.
- On-site parking for approximately 340 vehicles (280 spaces would be provided at the HEA project office and 60 spaces would be provided at the precast facility).
- A 10 m high communications tower to support a 600 mm radar dish pointed at the Telstra Sugarloaf Tower and the installation of approximately 250 metres of fibre optic cable between the communications tower and the site compound office. See Attachment A.

### 2.4 Project Office access

**From George Booth Drive**

Access to the compound site will be off George Booth Drive via the main access road which will be approximately 10 m wide. The main access road will service both the HEA Project Office and the Batch Plant, refer to Attachment A. This road crosses the former Richmond Vale Railway corridor and crosses a 33 kV line and an 11 kV line with a clearance of 8 m, before dividing to service the Batch Plant site to the east and continuing around the edge of an area of vegetated EEC to the Project Office. Minor temporary filling works may be required at the Richmond Vale Railway to bridge over the historic cutting prior to the establishment of the sealed access road. Fill material for this work will be sourced from spoil generated during the leveling/grading of the batch plant site. Excavation of the former railway cutting will not be required to facilitate the establishment of the access road. The access point on George Booth Drive, at the top of the crest, would be gated to restrict unauthorised access to the site.

Road works will be required on George Booth Drive to provide safe access to the site. These works will comprise road widening to facilitate the establishment of a new seagull intersection on George Booth Drive. The configuration of this intersection will accommodate turning and acceleration lanes for both eastbound and westbound construction vehicles.
From Hunter Expressway corridor

Access from the east on the HEA construction road corridor to the Project Office will require minor clearing for the construction of a new 10 m wide access track.

The existing 900 mm pipe culvert at Surveyors Creek will be replaced with a larger box culvert structure to allow two lanes of traffic over the creek. The upgraded culvert crossing would be approximately 5 m wide and is likely to comprise a single culvert cell (where possible without disrupting the flow of Surveyors Creek). The final design of the culvert crossing will be determined in consultation with Industry and Investment NSW (NSW Fisheries). Scour protection (in the form of large rocks) will be installed on either side of the culvert to protect the creek bed. The access track crossing over the culvert will be sealed to minimise soil erosion and subsequent sedimentation within Surveyors Creek.

Construction of the culvert crossing will involve excavation of the creek bed to facilitate the installation of rock bedding and concrete binding to the underside of the culvert base. Water in the immediate vicinity of the culvert will be pumped to the downstream side of the crossing to enable these construction works. Once installed, the creek banks will be backfilled to allow for the establishment of the access road.

2.5 Minor construction site compounds

Following assessment of minor construction site compounds as described above, the construction activities will be similar to those of the main construction site compound. At this stage of planning, it is anticipated that all minor sites will require the following, subject to site constraints at each location.

Table 2.2: Indicative requirements for minor construction site compounds

<table>
<thead>
<tr>
<th>Description</th>
<th>No.</th>
<th>Dimensions</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lunch Sheds</td>
<td>2</td>
<td>12 m x 3 m</td>
<td>Movable - skid type</td>
</tr>
<tr>
<td>Change Shed</td>
<td>1</td>
<td>12 m x 3 m</td>
<td>Movable - skid type</td>
</tr>
<tr>
<td>Ablution Block - Raised Type with Stand</td>
<td>1</td>
<td>7.2 m x 3 m</td>
<td>Install with crane</td>
</tr>
<tr>
<td>Septic Tank</td>
<td>2</td>
<td>4000 L</td>
<td>Step down - pump out type</td>
</tr>
<tr>
<td>20 kVA Generator</td>
<td>1</td>
<td></td>
<td>Silenced - diesel type in boxed housing</td>
</tr>
<tr>
<td>Water Tank</td>
<td>1</td>
<td>10 000 L</td>
<td>Capture off roof + tanker supplied</td>
</tr>
<tr>
<td>Car Park hardstand</td>
<td>1</td>
<td>750 m²</td>
<td>25 Car spaces – gravel surface</td>
</tr>
<tr>
<td>Covered Walkway</td>
<td>1</td>
<td>90 m²</td>
<td></td>
</tr>
<tr>
<td>Concrete Footpath</td>
<td>1</td>
<td>90 m²</td>
<td>match covered footpath</td>
</tr>
<tr>
<td>Security Lighting</td>
<td>1</td>
<td>4 x floodlights</td>
<td>If mains power available</td>
</tr>
<tr>
<td>Perimeter Fencing</td>
<td>1</td>
<td>300 linear metres</td>
<td>Temp type acceptable - permanent for duration of works</td>
</tr>
<tr>
<td>Plumbing</td>
<td>1</td>
<td></td>
<td>Connect sheds to holding tank</td>
</tr>
<tr>
<td>Shipping Containers</td>
<td>3</td>
<td>12 m x 3 m</td>
<td>Standard</td>
</tr>
<tr>
<td>Forman Office</td>
<td>1</td>
<td>12 m x 3 m</td>
<td>Standard</td>
</tr>
</tbody>
</table>
2.6 Hours of operation

Normal construction hours apply to the activities included in this ECMS. These hours are:

- Monday to Friday 7:00 am – 6:00 pm
- Saturdays: 8:00 am – 1:00 pm
- Sundays & Public Holidays – no work

Where work is required outside these hours, an application will be made to DECCW in accordance with the out of hours protocol in the Noise and Vibration Management Plan.

2.7 Site rehabilitation and restoration

At the completion of construction, construction site compounds and facilities will be demobilised. Appropriate replanting with local native species will be undertaken in accordance with the Landscape Management Plan, prepared in consultation with Councils, affected landowners and the Community Liaison Group.
3 Key roles and responsibilities

Refer to the General Construction ECMS #1 for roles and responsibilities of key project personnel. Refer to Attachment A, for key contact details for the Project Office construction and operation.
4 Statutory requirements and approvals

A summary of the key statutory requirements and approvals for the works are detailed below.

Table 4.1: Legislation and statutory obligations

<table>
<thead>
<tr>
<th>Regulator</th>
<th>Licence/Approval etc</th>
<th>Relevant works</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSW Dept of Industry and Investment</td>
<td>MCoA -Consultation</td>
<td>Construction of temporary platforms for piles and pier construction in creeks</td>
</tr>
<tr>
<td>NSW Dept of Industry and Investment</td>
<td>MCoA -Consultation</td>
<td>Design and timing of bridge construction</td>
</tr>
<tr>
<td>NSW Dept of Industry and Investment, Director-General (DG)</td>
<td>MCoA -Approval</td>
<td>Earthen platforms or placing of fill in creeks. Approval for the proposed culvert crossing of Surveyors Creek prior to construction.</td>
</tr>
<tr>
<td>DG Dept of Planning</td>
<td>MCoA -Comply with Blue Book: Managing Urban Stormwater: Soil and Construction</td>
<td>Design and construction of waterway crossing and erosion sediment control structures</td>
</tr>
<tr>
<td>DECCW</td>
<td>Environmental Protection Licence - POEO Act 1997</td>
<td></td>
</tr>
<tr>
<td>DECCW</td>
<td>Approval as per MCoA -60</td>
<td>To clear areas that exceeds project limits</td>
</tr>
<tr>
<td>DG Dept of Planning</td>
<td>Licence to harm or pick threatened species, populations or ecological communities or damage habitat</td>
<td>Clearing or disturb areas threatened species, populations, or EEC Seed and cutting collection</td>
</tr>
<tr>
<td>NSW Heritage Council</td>
<td>NSW Heritage Act 1977: s139 excavation permit</td>
<td>Excavation near a heritage item</td>
</tr>
</tbody>
</table>
Regulator | Licence/Approval etc | Relevant works
--- | --- | ---
DECCW | National Parks and Wildlife Act 1974  
s87 / s90 Aboriginal Heritage Impact Permit | Construction works near an aboriginal sites

4.1 Revision of ECMS to reflect licence conditions

Up-to-date copies of each licence are kept on site for reference as required.

4.2 Minister’s Conditions of Approval

Each CEMP subplan addresses the relevant Minister’s Conditions of Approval (MCoA) for this project. The MCoA 30 and 129 are both relevant to the development of this Construction Compound Construction ECMS. Table 4.2 includes MCoA 30 requirements with cross reference to where the condition is addressed in this or other project management documents.

Table 4.3 includes MCoA 129 and how the requirements have been met for the main compound site located off George Booth Drive as identified in the Construction Compound and Batch Plant Consistency Review Report, Hunter Expressway Alliance, July 2010.

Where future compound sites are identified they must meet the requirements of MCoA 129. The conditions required in CoA 129 have been included in a checklist at Attachment C which must be completed prior to any work commencing on an ancillary site for the project.

Table 4.2: Matrix of Minister’s Condition of Approval 30

<table>
<thead>
<tr>
<th>Reference</th>
<th>CoA 30 Requirement</th>
<th>ECMS Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The Proponent shall prepare Construction Method Statements (CMS) identified in the CEMP required by Condition 24. CMSs must be certified by the EMR as being in accordance with the Conditions of Approval and all undertakings made in the EIS, Representations Report and the Approved CEMP.</td>
<td>Page 2</td>
</tr>
<tr>
<td></td>
<td>Each CMS shall include, but not be limited to:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>construction activities and processes associated with the relevant construction site(s), including staging and timing of the proposed works;</td>
<td>ECMS#1 &amp; this ECMS 3 Scope of Works.</td>
</tr>
</tbody>
</table>
| | specific hours of operation for all key elements including off-site movements; | 2. Scope of Works  
2.2 Hours of operation |
<p>| | cover specific environmental management objectives and strategies for the environmental system elements and include, but not be limited to: | Attachment A –ECP, Checklist for Ancillary Sites - Attachment C &amp; ECMS #1 |</p>
<table>
<thead>
<tr>
<th>Reference</th>
<th>CoA 30 Requirement</th>
<th>ECMS Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>noise and vibration;</td>
<td></td>
<td>ECMS #1, ECMS#3-ECP</td>
</tr>
<tr>
<td>air quality;</td>
<td></td>
<td>ECMS #1</td>
</tr>
<tr>
<td>water quality;</td>
<td></td>
<td>ECMS #1, ECMS#3-ECP</td>
</tr>
<tr>
<td>erosion and sedimentation;</td>
<td></td>
<td>ECMS #1, ECMS#3-ECP</td>
</tr>
<tr>
<td>access and traffic;</td>
<td></td>
<td>ECMS #1</td>
</tr>
<tr>
<td>property acquisition and/or adjustments</td>
<td></td>
<td>ECMS #1, ECMS#3-ECP</td>
</tr>
<tr>
<td>heritage and archaeology</td>
<td></td>
<td>ECMS #1, ECMS#3-ECP</td>
</tr>
<tr>
<td>flora and fauna</td>
<td></td>
<td>ECMS #1, ECMS#3-ECP</td>
</tr>
<tr>
<td>groundwater</td>
<td></td>
<td>ECMS #1</td>
</tr>
<tr>
<td>acid sulfate soils</td>
<td></td>
<td>ECMS #1</td>
</tr>
<tr>
<td>spoil stockpiling and disposal</td>
<td></td>
<td>ECMS #1, ECMS#3-ECP</td>
</tr>
<tr>
<td>waste/resource management</td>
<td></td>
<td>ECMS #1, ECMS#3-ECP</td>
</tr>
<tr>
<td>weed management</td>
<td></td>
<td>ECMS #1, ECMS#3-ECP</td>
</tr>
<tr>
<td>flooding and stormwater control</td>
<td></td>
<td>ECMS #1</td>
</tr>
<tr>
<td>geotechnical issues</td>
<td></td>
<td>Soil and Water subplan</td>
</tr>
<tr>
<td>visual screening</td>
<td></td>
<td>Landscape Management subplan, ECMS#3-ECP</td>
</tr>
<tr>
<td>landscaping and rehabilitation</td>
<td></td>
<td>Landscape Management subplan</td>
</tr>
<tr>
<td>safety, hazards and risk</td>
<td></td>
<td>Hazard &amp; Risk subplan</td>
</tr>
<tr>
<td>energy use</td>
<td></td>
<td>CEMP</td>
</tr>
<tr>
<td>resource use and recycling</td>
<td></td>
<td>ECMS #1, ECMS#3-ECP</td>
</tr>
<tr>
<td>utilities</td>
<td></td>
<td>ECMS #1, ECMS#3-ECP</td>
</tr>
<tr>
<td>iv address, but not be limited to:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>identification of the statutory and other obligations which the Proponent is required to fulfil during project construction, including all approvals and consultations/agreements required from other authorities and stakeholders, and key legislation and policies which control the Proponent's construction of the project;</td>
<td></td>
<td>4. Statutory requirements and approvals</td>
</tr>
<tr>
<td>Reference</td>
<td>CoA 30 Requirement</td>
<td>ECMS Reference</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>measures to avoid and/or control the occurrence of environmental impacts;</td>
<td>ECMS#3-ECP</td>
</tr>
<tr>
<td></td>
<td>measures (where practicable and cost effective) to provide positive environmental offsets to unavoidable environmental impacts;</td>
<td>The key environmental offsets related to the worksite will be realised during the post construction rehabilitation.</td>
</tr>
<tr>
<td></td>
<td>definition of the role, responsibility, authority, accountability and reporting of personnel relevant to compliance with the CMS;</td>
<td>3.ECMS#1</td>
</tr>
<tr>
<td></td>
<td>site specific environmental management techniques and processes for all construction processes which are important for the quality of the environment in respect of permanent and/or temporary works;</td>
<td>Refer to each specific ECMS –Environmental Control Plan (ECP)</td>
</tr>
<tr>
<td></td>
<td>site specific monitoring, inspection and test plans for all activities and environmental qualities which are important to the environmental management of the project, including performance criteria, tests, and protocols (eg. frequency and location);</td>
<td>ECMS #1, ECMS#3-ECP</td>
</tr>
<tr>
<td></td>
<td>locational details of important elements such as temporary noise barriers; portable offices and amenities; truck, plant and materials storage; access locations; provision of site hoardings etc;</td>
<td>ECMS #1, ECMS#3-ECP</td>
</tr>
<tr>
<td></td>
<td>environmental management instructions for all complex environmental control processes which do not follow common practice or where the absence of such instructions could be potentially detrimental to the environment;</td>
<td>ECMS #1, ECMS#3-ECP</td>
</tr>
<tr>
<td></td>
<td>steps the Proponent intends to take to ensure that all Plans and Sub Plans are being complied with;</td>
<td>CEMP</td>
</tr>
<tr>
<td></td>
<td>consultation requirements with relevant government agencies and utility/service providers; and,</td>
<td>ECMS #1, ECMS#3-ECP</td>
</tr>
<tr>
<td></td>
<td>community consultation and notification strategy (including local community, businesses, relevant government agencies, and all relevant Councils), and complaint handling procedures.</td>
<td>ECMS #1, ECMS#3-ECP</td>
</tr>
<tr>
<td></td>
<td>Specific requirements of the main environmental system elements referred to in (iii) shall be as required under the conditions of this approval and/or as required under any licence or approval. All CMS shall be made publicly available</td>
<td>ECMS #1 - Section 4.3</td>
</tr>
</tbody>
</table>
### Table 4.3: Matrix of Minister’s Condition of Approval 129 as applied to the main construction site

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Compliance with the criteria</th>
<th>Compliant</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Be located more than 100 metres from a waterway.</td>
<td>The site compound office is located approximately 230 metres to the west of Surveyors Creek; however, the car park at the construction compound is located approximately 40 metres to the west of Surveyors Creek. The compound is also located approximately 100 metres to the south of a large dam. While the overall construction compound boundary is located within 100 metres of a waterway, the location of the construction compound was identified in the Construction Environmental Management Plan which, when approved, would permit the proposed location for the construction compound by virtue of the Director-General’s approval, as required under CoA No. 129. The erosion and sediment controls documented in the Soil and Water Management Sub Plan (HEA 2010h) and in the PESCP in Attachment B would adequately manage potential water quality impacts to Surveyors Creek and the dam.</td>
<td>Yes</td>
</tr>
<tr>
<td>b) Have ready access to the road network.</td>
<td>The site is readily accessible from George Booth Drive via an existing unsealed access track and a cleared electricity easement. Minor works would be required to be undertaken on George Booth Drive to improve the safety of the proposed access road.</td>
<td>Yes</td>
</tr>
<tr>
<td>c) Do not cause exceedance of the maximum native vegetation clearing limit specified under condition 60 of the Conditions of Approval.</td>
<td>The proposal could result in 0.13 hectares of native vegetation to be cleared from the subject site (i.e. total clearing for the construction compound, batching plant and associated access roads). The clearing of this vegetation would not result in more than 182 hectares of native vegetation to be cleared for the Hunter Expressway project, in its entirety.</td>
<td>Yes</td>
</tr>
<tr>
<td>d) Be located on relatively level land.</td>
<td>The site is located on relatively level land that has an average slope of less than 5%.</td>
<td>Yes</td>
</tr>
<tr>
<td>e) Be separated from the nearest residences by at least 200 metres (or at least 250 metres for a temporary batching plant and stockpiling sites).</td>
<td>The site would be located approximately 550 metres from the nearest residential receiver.</td>
<td>Yes</td>
</tr>
</tbody>
</table>
4.3 ECMS consultation process

Consultation for the project has been undertaken with agencies and stakeholders including:

- Department of Planning
- DECCW
- Lake Macquarie City Council
- Maitland City Council
- Cessnock City Council
- Industries and Investment NSW
- Local Aboriginal Land Councils
- Utility providers

Ongoing consultation during the works covered under this ECMS will be undertaken with relevant stakeholders where changes to works occur under this ECMS. Specifically DoP and DECCW will be notified where necessary.

Any further updates to the ECMS requires EMR endorsement and a summary of changes and updates will be provided to the public for their information, and a full copy of the ECMS be made available on the internet, following EMR endorsement.
**Project Office**

Prior to construction, consent will be obtained for access road construction from Coal and Allied Pty Ltd and Energy Australia. The property owner will also be consulted regarding the location of the cattle proof fencing and cattle crossing. Further requirements resulting from the consultation process are contained in the Attachment A, under ‘Landuse and Property’.
5 Site induction and training
Refer to the ‘General Construction ECMS #1 for site induction and training.

6 Monitoring and inspection
Refer to the ‘General Construction ECMS #1 for monitoring and inspection. Any specific monitoring and inspection requirements relevant to the Project Office are included in the Environmental Control Plan, Attachment A.

7 Revisions
Revisions to the ECMS will be made as required and changes will be endorsed by the Environmental Management Representative (EMR) as required.

The current copy of this ECMS is kept at the worksite and at the HEA Project Display Office following EMR endorsement (where they may be viewed on request) and a summary of the update provided to community members for their information.

8 Document control
Project document control is detailed in the PMP and project filing and numbering is defined in procedure HEA-MP-GL-OPS-002-00. When the document is reviewed a new revision number is assigned by the Environmental Manager.

The current revision of the ECMS and specifically Attachment A will be available and displayed in site offices for ongoing implementation and amendment as conditions or approval change.

9 Attachments
Attachment A – Environmental Control Plan
Attachment B – Progressive Erosion and Sediment Control Plan
Attachment C – Checklist for Ancillary Sites
Attachment A

Environmental Control Plan
Responsibility

Environmental Management Project Manager
Community Relation
HEA Community Response
PEM

Topsoil Management

Performance Criteria:

- Topsoil management avoids harming any fauna encountered during construction works.
- Performance criteria:

Topsoil Management Sub Plan (HEA-PL-GL-SWP-001-00-02)

Construction Traffic Noise:

Ensure noise exceedances are avoided by monitoring at sensitive receivers and where such works are required.

Mitigation Measures

- To manage vegetation clearance and control weed infestation in worksite disturbed areas, and manage the "Why do fish need to cross the road? Passage Requirements for Waterway Crossings" - Buchanan interchange

Sub Plan

- History Management Plan (HEA-GL-PL-HHP-001)
- Historical Heritage Management Plan (HEA-PL-GL-IHP-001)
- Indigenous Heritage Management Sub Plan (HEA-PL-GL-IHP-001-00)

Licences/Approvals

Section 87/90 Permit – National Parks and Wildlife Act 1974

Wildlife Rescue Service

Wildlife Aid Rescue – Hunter Valley

Rest area

Yard

Store/Workshop

Abultions X 4

Septic Tanks

Gate

DRIVE

NEWCASTLE

MINMI ROAD

BATCHING PLANT

DRIVE

COAL AND ALLIED LAND

Expressway project boundary
Road design (DES HEA (DET))
Construction compound design
New construction compound access road
Construction compound and batching plant
Power pole

Proposed powerhouse
- Hollow bearing tree
- Hollow bearing tree to be removed
- Exotic Grassland with Scattered Trees
- Waterland Spotted Gum – Red Ironbark Forest
- Cabbage Gum Floodplain Woodland
- Grey Gum Redgum Paperbark Forest
- Exotic Aquatic Herbfield

European heritage location
Indigenous heritage location
Existing boundary
Existing easement
Existing access

Existing Roads

Type
Primary road
Arterial road
Sub-arterial road
Richmond Valley Railway

RESIDENTIAL

Summerhill

Garden Subdivision

McDonald Subdivision

Buchanan Subdivision

Buchanan Subdivision

Buchanan Subdivision

Buchanan Subdivision

Buchanan Subdivision

Buchanan Subdivision

Buchanan Subdivision

Buchanan Subdivision

Buchanan Subdivision

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Buchanan Subdivision
Attachment B

Progressive Erosion and Sediment Control Plan
Notes:

The potential exists for additional controls to be installed or for nominated controls to be modified to better suit site conditions, with approval from Environmental Manager and Soil Conservationist.

Existing land contours will be generally maintained.

Dirty runoff into sediment basins to be maximised through diversion drains and bunds.

Car park and office area will be paved. Potential for all access roads and batch plant floor to be paved will be investigated.

All roads to be constructed to slope away from adjacent clean water drains.

If unpaved, off-shoots (mitre drains) from roads into adjacent grassed area will be constructed in addition to sediment fence adjacent to sensitive areas, to control road run-off.

At the Batch Plant, an overflow channel will be constructed between the contamination capture ponds and adjacent sediment basin. All water collected in both will be re-used in concrete batching.

All shown basins will be sized as per Blue Book for inclusion on the Environmental Protection License.

All controls will be installed and maintained as per the Blue Book.

Legend:

Access Road
Sediment Basin
Clean Water Drain
Visual Mound
Contamination Capture Pond
Off-shoots
Dirty water diversion drain
Pipe
Attachment C

Checklist for Ancillary Sites
Hunter Expressway Alliance
Checklist for Ancillary Sites

The following checklist must be completed for any Ancillary Sites on the HEA Project prior to commencement of any establishment works. You must ensure that you have the correct approvals prior to commencement of works.

Please append a map clearly showing the extent of the Ancillary Site and provide any details regarding the location of buildings, stockpiles and other features.

Site name: ____________________________________________

Site location: ________________________________________

Contact person: _______________________________________

The following criteria from the Minister’s Condition of Approval #129 have been checked for the site:

<table>
<thead>
<tr>
<th>MCoA 129 Reference</th>
<th>Criteria</th>
<th>Yes/No?</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>Is the site located less than 100 metres from a waterway?</td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td>Does the site require access of more than 10 metres to the road network?</td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td>Will any clearing need to be undertaken for this site?</td>
<td></td>
</tr>
<tr>
<td>d)</td>
<td>Is the site located on steep land?</td>
<td></td>
</tr>
<tr>
<td>e)</td>
<td>Will the site be within 200 metres of a residence (250 metres if this checklist is for a batch plant or stockpile site)?</td>
<td></td>
</tr>
<tr>
<td>f)</td>
<td>Will the site be within the 20 ARI flood level?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(If a contingency plan to manage flooding has been prepared, you must note this below)</td>
<td></td>
</tr>
<tr>
<td>g)</td>
<td>Will the site unreasonably affect the land use of adjacent properties?</td>
<td></td>
</tr>
<tr>
<td>h)</td>
<td>Will the site be unable to store enough raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours?</td>
<td></td>
</tr>
<tr>
<td>i)</td>
<td>Will the site impact on any heritage sites beyond those already impacted by the project?</td>
<td></td>
</tr>
</tbody>
</table>
Hunter Expressway Alliance

Checklist for Ancillary Sites

If you have answered **Yes** to any of the above criteria, provide details as to how the environmental impacts will be satisfactorily managed.

___________________________________________________________________________

___________________________________________________________________________

___________________________________________________________________________

___________________________________________________________________________

___________________________________________________________________________

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___________________________________________________________________________

___________________________________________________________________________

___________________________________________________________________________

___________________________________________________________________________

___________________________________________________________________________

(If you need further space, please append)


This checklist has been reviewed by the Environment Manager and the EMR and works may begin on the ancillary site labelled above.

___________________________________________________________________________

Signed: 

Date: 

Signed: 

Date: