



Transport
Roads & Maritime
Services

COMPLIANCE TRACKING PROGRAM

Warrell Creek to Urunga

MAY 2014



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Maritime

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Glossary / Abbreviations

ASS	Acid sulfate soils
CEMP	Construction environmental management plan
Compliance audit	Verification of how implementation is proceeding with respect to a construction environmental management plan (CEMP) (which incorporates the relevant approval conditions).
CoA	Conditions of approval
CTP	Compliance Tracking Program
Director-General	Director-General of the NSW Department of Planning and Infrastructure (or delegate)
DP&I	Department of Planning and Infrastructure
EA	Environmental Assessment
Ecological sustainable development	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).
EPA	NSW Environment Protection Authority
ERG	Environmental Review Group – comprising representatives of Roads and Maritime, Environmental Representative, Project delivery team, regulatory authorities (EPA, DPI – Fisheries Conservation and Aquaculture, NOW) and councils (Nambucca Shire Council, Bellingen Shire Council). The ERG will be maintained for the duration of the Project and will meet regularly and undertake environmental inspections. The role the ERG is to provide proactive advice on environmental management issues and review the environmental performance of the Project.
EMS	Environmental management system
Environmental aspect	Defined by AS/NZS ISO 14001:2004 as an element of an organisation's activities, products or services that can interact with the environment.
Environmental impact	Defined by AS/NZS ISO 14001:2004 as any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's environmental aspects.
Environmental incident	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.
Environmental objective	Defined by AS/NZS ISO 14001:2004 as an overall environmental goal, consistent with the environmental policy, that an organisation sets itself to achieve.
Environmental policy	Statement by an organisation of its intention and principles for environmental performance.
Environmental target	Defined by AS/NZS ISO 14001:2004 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.
Environmental Representative	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.
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPL	Environment Protection Licence
Minister, the	Minister for Planning and Infrastructure
Non-compliance	Failure to comply with the requirements of the Project approval or any applicable license, permit or legal requirements.
Non-conformance	Failure to conform to the requirements of Project system documentation including this CEMP or supporting documentation.
NOW	NSW Office of Water
OEH	Office of Environment and Heritage
Project, the	The Warrell Creek to Urunga Project
Roads and Maritime	Roads and Maritime Services
SoC	Statement of commitments

1 Introduction

1.1 Background

On behalf of the Australian and NSW governments, Roads and Maritime Services (Roads and Maritime) is progressively upgrading the Pacific Highway to dual carriageway between the Hunter and NSW/Queensland border.

In December 2006 the Warrell Creek to Urunga Project was declared by the Minister for Planning to be a Project to which Part 3A of the *Environmental Planning and Assessment Act 1974* applies. An Environmental Assessment was prepared and placed on public exhibition for 60 days between January and March 2010. Following consideration of submissions made during the exhibition period, the submissions report, including changes to the proposal following consideration of submissions, was submitted to the then Minister for Planning seeking approval. Approval of the Project was granted on 19 July 2011.

1.2 Project description and staging

The Nambucca Heads to Urunga Pacific Highway upgrade Project comprises approximately 42 kilometres of dual carriageway road that would bypass the towns of Warrell Creek, Macksville, Newee Creek and Bellwood.

The general features of the Project are:

- A 22 kilometre motorway style (class M) upgrade comprising of four-lane divided carriageways (two lanes each way), with a wide median allowing for the future addition of a third lane in each direction and a 110 kilometre per hour posted speed limit.
- Controlled access to the upgrade from four new grade separated interchanges and an upgrade to the existing Waterfall Way interchange at Raleigh.
- 37 bridges including new major highway bridges across Deep Creek at Valla and the Kalang River at Urunga.
- Retention of the existing highway as a local access road between Nambucca Heads and Urunga.
- Floodplain bridges and culverts across sections of the Kalang floodplain at Urunga.
- Low noise pavements at various locations.
- At residence noise treatments to houses in locations where required.
- Permanent spill containment basins at environmentally significant watercourse crossings.
- Combined fauna underpasses/drainage structures at river and creek crossings and key habitat locations.
- Combined drainage/underpass structures and a wide vegetated median for overhead fauna movement in sections of the Newry State Forest and adjacent to private land north of the Kalang River.
- A major rest area for heavy and light vehicles at the Nambucca interchange.
- Ancillary construction facilities, including compound sites, batching plant sites and stockpile sites.
- Public utility and service relocations including power lines, telecommunications, network water and sewer mains.

As described in the Warrell Creek to Urunga Pacific Highway Upgrade Environmental

Assessment (the Project EA), the Project is proposed to be delivered in two main stages, being:

- Stage 1: Nambucca Heads to Urunga (Chainage 61,265 to Chainage 82,915), with a ramp and associated connections extending a further 0.5 kilometres north.
- Stage 2: Warrell Creek to Nambucca Heads (Chainage 41,765 to Chainage 61,265).

The split between Stage 1 and 2 is located to the north of the Nambucca interchange as shown on Figure 1-1. The extent of each of the stages is also shown on Figure 1-1. This Compliance Tracking Program provides details of compliance for Stage 1 only.

Construction of Stage 1 commenced in December 2013. Stage 2 is currently in the tender phase for the design and construct contract and as such Stage 2 compliance tracking will be submitted in future reports separate to this document.

Note, chainage references have been updated since the Project EA where the chainages now reflect the distance north from Kempsey. The number 41,765 can be added to any old chainage referenced in the Project EA and supporting documentation to provide the equivalent chainage currently being used.

1.3 Purpose

The key objective of this Compliance Tracking Program (CTP) is to track compliance with the requirements of the Minister's Conditions of Approval (CoA) during the design and construction of Stage 1 of the Project.

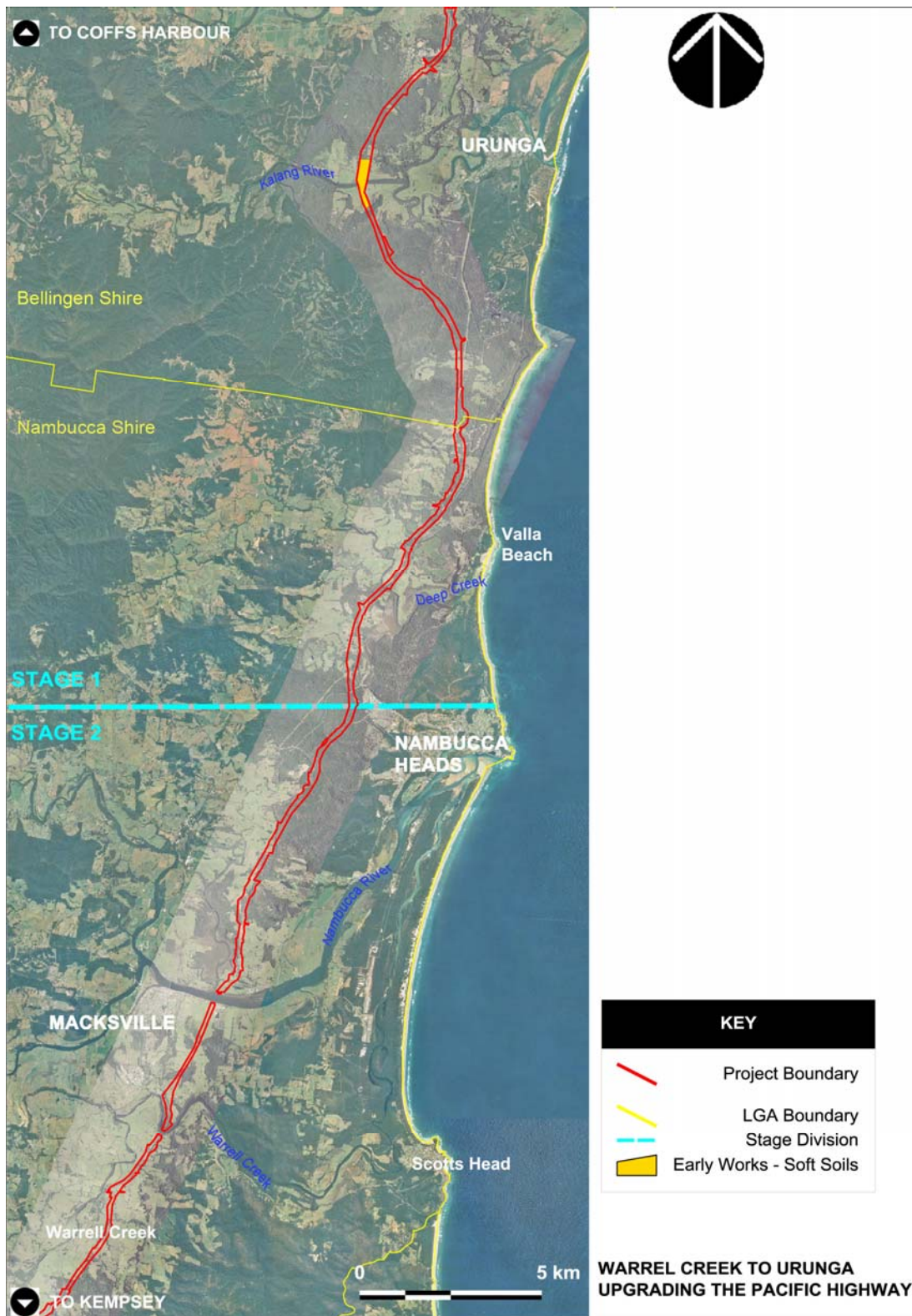
The *Contractor* and Roads and Maritime together are responsible for compliance with the requirements of the CoA. However, the *Contractor* will be responsible for maintaining the CTP for the Project and for the preparation of the periodic compliance tracking reports.

1.4 Environmental management system overview

The Construction Environmental Management Plan (CEMP) is the primary system to manage and control the environmental aspects of the Project during pre-construction and construction. It also provides the overall framework for the system and procedures to ensure environmental impacts are minimised and legislative and other requirements are fulfilled. The strategies defined in the CEMP have been developed with consideration of the Project approval requirement, safeguards and mitigation measures presented in the environmental assessment and approval documents. The CEMP establishes the system for implementation, monitoring and continuous improvement to minimise impacts from the Project on the environment.

This CTP is separate to the CEMP, but is part of a suite of environmental management documents prepared for the Project.

Figure 1-1 Location of Warrell Creek to Urunga Project



1.5 Relevant documentation

Documentation relevant to the CTP includes:

- Upgrading the Pacific Highway - Warrell Creek to Urunga - Environmental Assessment (January 2010).
- Upgrading the Pacific Highway - Warrell Creek to Urunga – Environmental Assessment Submissions and Preferred Project Report (November 2010).
- Letter from the NSW Roads and Traffic Authority titled Pacific Highway Upgrade - Warrell Creek to Urunga Upgrade Addendum to Submissions Report - Fauna Crossing Structures, and accompanying attachments (May 2011).
- Letter from the NSW Roads and Traffic Authority titled Pacific Highway Upgrade - Warrell Creek to Urunga Upgrade Addendum to Submissions Report - Fauna Crossing Structures and accompanying attachments (June 2011).
- Minister's conditions of approval (July 2011).

2 Program requirements

The CTP has been prepared as a requirement of CoA B25. The CTP requirements, as stipulated by this CoA, are detailed in Table 1.

Table 1 CoA requirements for CTP

CoA no.	Requirement	Reference
B25	The Proponent shall develop and implement a Compliance Tracking Program to track compliance with the requirements of this approval. The Program shall be submitted to the Director General for approval prior to the commencement of construction and relate to both the construction and operational phases of the project, and include, but not necessarily be limited to:	This document
	(a) Provisions for the notification of the Director General of the commencement of works prior to the commencement of construction and prior to the commencement of operation of the project (including prior to each stage, where works are being staged).	Section 2.1
	(b) Provisions for periodic review of project compliance with the requirements of this approval, Statement of Commitments and documents listed under condition A1.	Section 2.2
	(c) Provisions for periodic reporting of compliance status against the requirements of this approval, Statement of Commitments and documents listed under condition A1 to the Director General including at least one month prior to the commencement of construction and operation of the project and at other intervals during the construction and operation, as identified in the Program.	Section 2.3
	(d) A program for independent environmental auditing in accordance with ISO 19011:2003 - Guidelines for Quality and/ or Environmental Management Systems Auditing.	Section 2.4
	(e) Mechanisms for reporting and recording incidents and actions taken in response to those incidents.	Section 2.5
	(f) Provisions for reporting environmental incidents to the Director General during construction and operation.	Section 2.6
	(g) Procedures for rectifying any non-compliance identified during environmental auditing, review of compliance or incident management.	Section 2.7

2.1 Director-General notification

CoA B25 (a) requirement:

“Provisions for the notification of the Director General of the commencement of works prior to the commencement of construction and prior to the commencement of operation of the project (including prior to each stage, where works are being staged).”

Construction commenced on stage 1 of the Project on the 5th December 2013 following approval by the Director-General of the relevant CEMP, associated environmental plans and other relevant documentation required by the approval. Further information on the staging of the Project is provided in the Warrell Creek to Urunga Pacific Highway Upgrade Staging Report (*Roads and Maritime, 13 May, 2013*).

Notification for the commencement of stage 1 construction was provided to the Director General on the 18-9-2013. Roads and Maritime will advise the Director-General in writing prior to the commencement of operation.

2.2 Period compliance review

CoA B25 (b) requirement:

“Provisions for periodic review of project compliance with the requirements of this approval, Statement of Commitments and documents listed under condition A1.”

The successful contractor, on behalf of Roads and Maritime, will review the status of compliance and submit periodic construction compliance reports to the Director-General for each stage of construction at intervals including:

- Prior to the commencement of construction.
- Six months after the commencement of construction and then at six monthly intervals thereafter.
- Prior to the commencement of operation.

The compliance tracking tables (contained to Appendix A) form an integral part of this periodic review. These tables establish a format for recording compliance and include:

- Description of the environmental obligation.
- The stage of the project to which it relates.
- Status.

2.3 Period compliance reporting

CoA B25 (c) requirement:

“Provisions for periodic reporting of compliance status against the requirements of this approval, Statement of Commitments and documents listed under condition A1 to the Director General including at least one month prior to the commencement of construction and operation of the project and at other intervals during the construction and operation, as identified in the Program.”

Appendix A of this CTP documents the six month post construction review of compliance status.

In addition, at intervals prescribed in Section 2.2, the status of compliance will be reviewed and reported to the Director-General in the form of a compliance tracking report. The successful contractor for each stage of construction will have the responsibility for preparing these reports for the duration of the Project. Compliance tracking reports will typically include:

- Scope of the activities undertaken during the reporting period.
- Compliance with CoA, revised SoCs as recorded in the compliance tracking tables.
- Non-compliances during the reporting period.
- Detail of all incidents recorded and action taken during the reporting period.
- Outcomes of monitoring undertaken over the reporting period and review of compliance against relevant criteria.
- Significant outcomes of audits and ERG inspections undertaken during the reporting period.
- Detail of substantiated environmental complaints received, responses taken and current status (ie open or closed).

2.4 Independent environmental auditing

CoA B25 (d) requirement:

“A program for independent environmental auditing in accordance with ISO 19011:2003 - Guidelines for Quality and/ or Environmental Management Systems Auditing.”

The successful contractors will ensure that independent audits are undertaken in accordance with ISO 19011:2003 - *Guidelines for Quality and/or Environmental Management Systems Auditing* at six monthly intervals throughout construction. The audits will assess compliance against the CoA and SoCs.

The initial independent environmental audit was undertaken over the 20 and 21 March 2014 to audit the first three months of construction. A summary of the audit finds is provided in Section 7.

2.5 Incident reporting and response

CoA B25 (e) requirement:

“Mechanisms for reporting and recording incidents and actions taken in response to those incidents.”

Roads and Maritime’s Environmental Incident Classification and Reporting Procedure will be implemented for all environmental incidents for the Project. The full procedure is provided in Appendix A9 of CEMP.

Typically, environmental incidents will be notified verbally immediately and in writing within 1 hour of any incident occurring to the Roads and Maritime Representative and the Environmental Representative. Incident reports will be provided to Roads and Maritime Representative and the Environmental Representative within 24 hours of the incident occurring, 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 close out as quickly as possible, taking all required action to resolve each environmental incident.

The EPA will be notified of any environmental incidents or pollution incidents on or around the site 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). The circumstances where this will take place include:

- If the actual or potential harm to the health or safety of human beings or ecosystems is not trivial.

- If actual or potential loss or property damage (including clean-up costs) associated with an environmental incident exceeds \$10,000.

Roads and Maritime Environment Branch and Project team will maintain all records relating to environmental incidents.

A summary of environmental incidents is provided in Section 5.

2.6 Incident reporting to Director-General

CoA B25 (f) requirement:

“Provisions for reporting environmental incidents to the Director General during construction and operation.”

The Director-General will be notified of incidents in writing in circumstances where:

- The actual or potential harm to the health or safety of human beings or ecosystems is not trivial.
- The actual or potential loss or property damage (including clean-up costs) associated with an environmental incident exceeds \$10,000.

An initial notification to the Director-General will be made verbally within two working days. The written notification will be made within 10 working days.

Where incidents are considered to be minor, ie do not meet the criteria above, they will be reported to the Director-General in accordance with the compliance tracking program at frequencies prescribed in Section 2.2.

2.7 Addressing non-compliance

CoA B25 (g) requirement:

“Procedures for rectifying any non-compliance identified during environmental auditing, review of compliance or incident management.”

Section 8.4 and Section 8.6 of CEMP describe in detail the system for tracking compliance prior to and during construction.

Where a non-compliance has been identified, a corrective/preventative action (or actions) will be implemented.

Corrective/preventative actions 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.

The close-out of required actions will be reviewed during forums including Environmental Representative and ERG inspections, and the Environmental Representative will be actively involved in the review and resolution of non-compliances.

A summary of non-compliances for the reporting period is provided in Section 3.

3 Construction Works

The focus in the southern section of the project from Chainage 61265 to 72900 (Nambucca Interchange to north of Ballards Rd) has been:

- Works associated with Pacific Highway intersection upgrades, local road upgrades;
- establishment of long term traffic control;
- Project boundary fencing;
- Access into project facilities;
- Construction of basins and catch drains;
- Clearing required to facilitate the above works.

Completed activities include:

- Access Road D clearing between East West Road and Burkes Lane
- Clearing for Deep Creek Road Tie in
- Completed clearing between Valla Road and Deep Creek
- Cleared Cut 10 and Fill 11a
- Completed the platform for soft soil treatments north of Deep Creek and the Installation of soft soil instrumentation.

Works between chainage 72900 and 77600 (north of Ballards Road to the southern side of the Kalang River):

- Soft Soil works on the South of Kalang River have been completed. Including instrumentation installation to monitor embankments on the floodplains.
- Clearing and Grubbing ongoing through the State Forest section of the project. The clearing has focused on the main Cut (Cut 26) heading south towards Ballards Rd.
- Clearing has also commenced for the Martells Rd side track and alignment North of Martells Rd.
- Scraper fleets have commenced works doing cut to fill from Cut 27 and Cut 26.
- Scraper fleets are also doing cut to fill onto the Kalang flat from Cut 31.
- Preparation for drill and blast is well underway with the top of the rock in cut 26 exposed ready for drilling with the first trial blast undertaken prior to Easter.
- Basins and catch drain construction is also continuing following clearing operations.

Works between chainage 77750 and 82915 (North of Kalang River to Waterfall Way)

- Soft soil treatment works have progressed to the North side of the Kalang River and commenced installation works.
- South Arm Rd realignment works were completed along with installation of some of the scour protection rock for the Northern bridge abutment.
- Crane pads and laydown for the Kalang bridge construction were constructed also on the Northern floodplain.
- Clear and Grub works continued for the mainline heading North through the widened median area.
- Basins and Catch drains continue to follow the clearing crew through the project

- Preparation for drainage lines commenced with the first transverse drainage installation commencing in early April.

4 Non Compliances

Two non-compliances with the CoA have been identified and detailed below.

1. It has been identified that the project does not currently comply with approval condition B26. The Roads and Maritime website contains dedicated pages to display relevant information for the project which can be viewed at:

http://www.rms.nsw.gov.au/roadprojects/projects/pac_hwy/port_macquarie_coefs_harbour/nambucca_hds_to_urunga/index.html.

Whilst there has been considerable effort to keep the website up to date, some documents have not been uploaded due to issues around web accessibility. It is a Roads and Maritime policy for all documents on the website, wherever possible, to be WCAG 2.0 compliant. The CEMP is currently being revised with some minor amendments before being made WCAG 2.0 compliant. The CEMP will then be uploaded to the project website. This process is expected to be completed by 6-6-2014. Other documents required to be uploaded include the latest modification to the approval (Modification 6 approved on 17 March 2014) and the latest compliance tracking program which will also be uploaded by the 6-6-2014.

2. In accordance with Ministers Condition of Approval C12, the Roads and Maritime Service and Lend Lease are required to prepare and submit for the approval of the Director General, a review of the operational noise mitigation measures proposed to be implemented for the project in consultation with EPA and within six months of commencing construction. The finalisation of the Operational Noise Mitigation Report has been impacted by the delay to the finalisation of the detailed design and is currently being finalised to address comments received including that from the EPA on 27 March 2014. A request for an extension of time has been submitted.

5 Environmental Incidents

The following environmental incidents were recorded for the period from the 5 December 2013 to 30 April 2014.

<i>Date</i>	<i>Description</i>	<i>Action</i>
19/12/2013	Minor diesel spill (approx 1L) occurred during loading of generator onto truck. Spill was minor and contained to the immediate area.	Spill response procedure was implemented. Appropriate notification to environment and safety personnel was then undertaken and spill cleaned up. Generator was removed from site for scheduled maintenance.
7/01/2014	Hydraulic hose connected to a dog trailer split during tipping. A small quantity of hydraulic oil spilled (approx 3-5L) onto the ground. The spill did not extend beyond the immediate area or enter any water bodies.	Truck was stopped immediately by the operator, the site spill response procedure was then implemented containing the spill, the Lend Lease supervisor and Environmental staff were notified and spill was cleaned up and bagged for appropriate disposal. Minor repair was undertaken to the plant off site.
8/01/2014	One hollow-bearing tree was felled prior to waiting the 48hr staged clearing timeframe as outlined in the CEMP. The tree was felled with the harvester.	Clearing ceased immediately when the error was realised. The Project Ecologist attended the site and confirmed no fauna was present in the felled tree. The ecologist informed there were no fauna observed in the clearing area during the morning survey or night spotlighting. Clearing work was suspended to allow a review of the procedure. New hollow bearing tree marking procedures were implemented. Refer to eWMS clearing.
17/01/2014	Unauthorised clearing outside of construction clearing limit but within the project boundary. Clearing limit fencing was in place however became obstructed during clearing from vines/vegetation. Clearing contractor mistook the project boundary fencing to be the clearing limit fencing as it was constructed with similar materials. No EEC/threatened veg/hollow bearing trees or fauna was impacted.	Clearing ceased in all 3 clearing areas and clearing limit fencing was checked. Any old temporary fencing/flagging was removed. Ecologist inspected area of incident and confirmed no fauna present. Full ICAM investigation occurred on 20/1/2014. Corrective action: 1) Remove all additional flagging in the area, leaving only the clearing limit flagging. 2) Do not use faded flagging. 3) During the pre-clearing walks identify any areas where clearing lines change sharply & avoid these areas if there is a risk of clearing outside of these lines. 4) Clearing fence colour changed.

Date	Description	Action
3/02/2014	A grader leaked approximately 300mL of transmission fluid. The leak was a result of a split seal. The spill did not extend beyond the immediate area or enter any water bodies.	The grader was stopped immediately by the operator, the site spill response procedure was then implemented containing the spill, the Lend Lease supervisor and Environmental staff were notified and spill was cleaned up and bagged for appropriate disposal. Minor repair was undertaken to the plant on site.
4/02/2014	A street sweeper leaked approximately 5 litres of hydraulic oil. The leak was a result of a blown hose. The spill did not extend beyond the immediate area or enter any water bodies.	The sweeper was stopped immediately by the operator, the site spill response procedure was then implemented containing the spill, the Lend Lease supervisor and Environmental staff were notified and spill was cleaned up and bagged for appropriate disposal. Minor repair was undertaken to the plant on site.
18/02/2014	Hydraulic transmission hose split on grader whilst driving on public road resulting in spill (approx 15L).	The machine was pulled over immediately by the operator, the site spill response procedure was then implemented containing the spill, the Lend Lease supervisor and Environmental staff were notified. Minor repair was undertaken to the plant to rectify the fault.
19/02/2014	During operation, a hose fault occurred on a 20t excavator resulting a minor hydraulic spill (approx 200mL). The spill did not extend beyond the immediate area or enter any water bodies.	The machine was shut down immediately by the operator, the site spill response procedure was then implemented containing the spill, the Lend Lease supervisor and Environmental staff were notified and spill was cleaned up and bagged for appropriate disposal. Minor repair was undertaken to the plant to rectify the fault.
13/03/2014	A crane leaked approximately 10 litres of hydraulic oil. The leak was a result of a blown hose. The spill did not extend beyond the immediate area or enter any water bodies.	The crane was stopped immediately by the operator, the site spill response procedure was then implemented containing the spill, the Lend Lease Supervisor and Environmental staff were notified. The spill was cleaned up on the morning (14/03/2014) and bagged for appropriate disposal. Minor repair was undertaken to the plant on site.
24/03/2014	Basin B75.37R discharged prior to receiving the design rainfall event of 55.8mm.	Diversion drain was installed to direct water from Martells and Ainsworth Road away from the basin catchment. The basin was treated and discharged once the rain event ceased in accordance with the EPL.

<i>Date</i>	<i>Description</i>	<i>Action</i>
8/04/2014	During operation, a hose separation occurred on a street sweeper truck, resulting in a minor hydraulic oil spill (Approx 10L). The spill did not extend beyond the immediate area or enter any water bodies.	The truck was shut down immediately by the operator, the site spill response procedure was then implemented containing the spill, the Lend Lease Supervisor and Environmental staff were notified and spill was cleaned up and bagged for appropriate disposal. Minor repair was undertaken to the plant to rectify the fault.
7/04/2014	During operation, a hose separation occurred on an excavator, resulting in a minor hydraulic oil spill (approx 5L). The spill did not extend beyond the immediate area or enter any water bodies.	The excavator was shut down immediately by the operator, the site spill response procedure was then implemented containing the spill, the Lend Lease Supervisor and Environmental staff were notified and spill was cleaned up and bagged for appropriate disposal. Minor repair was undertaken to the plant to rectify the fault.
11/04/2014	During operation, a hose separation occurred on a excavator, resulting in a minor hydraulic oil spill (approx 5L). The spill did not extend beyond the immediate area or enter any water bodies.	The excavator was shut down immediately by the operator, the site spill response procedure was then implemented containing the spill, the Lend Lease Supervisor and Environmental staff were notified and spill was cleaned up and bagged for appropriate disposal. Minor repair was undertaken to the plant to rectify the fault.
14/04/2014	During operation, a hose separation occurred on a water cart, resulting in a minor hydraulic oil spill (approx 20L) onto the sealed road surface. The spill did not extend beyond the immediate area or enter any water bodies.	The water cart was shut down immediately by the operator, the site spill response procedure was then implemented containing the spill, the Lend Lease Supervisor and Environmental staff were notified and spill was cleaned up and bagged for appropriate disposal. Minor repair was undertaken to the plant to rectify the fault.

6 Environmental Review Group Meetings

A summary of the ERG meetings undertaken over the reporting period is provided below:

<i>Date</i>	<i>Stakeholder Attendees</i>	<i>Summary of Items Discussed</i>
10.12.13	ERG 11 <ul style="list-style-type: none"> • David Bone (Env Rep) • Belinda Bock, Stefan E, Gerry Ryan, (Roads & Maritime) • Craig Dunk (EPA) • James Sakker (DPI) 	Site Inspection - positive comments & some minor areas for improvement
21.01.14	ERG 12 <ul style="list-style-type: none"> • Tim Mouton (Env Rep) • Belinda Bock, John O'Donnell, Gerry Ryan (Roads & Maritime), • Craig Dunk, Brett Nudd (EPA) • James Sakker (DPI) 	Approvals Update, Construction Update, Community Consultation Update, Design Consultation, Site Inspection - positive comments
18.02.14	ERG 13 <ul style="list-style-type: none"> • David Bone (Env Rep) • Belinda Bock, Stefan Everingham, Gerry Ryan (Roads & Maritime) • Craig Dunk, Rob Donohoe (EPA) • James Sakker (DPI) 	Approvals Update, 85% Urban and Landscape Design, Construction Update, Community Consultation Update, Design Consultation, Site Inspection - positive comments & some minor areas for improvement
18.03.14	ERG 14 <ul style="list-style-type: none"> • David Bone (Env Rep) • Belinda Bock, Stefan Everingham, Gerry Ryan (Roads & Maritime) • Craig Dunk, (EPA) • James Sakker (DPI). 	James Sakker presentation, Approval Update, Construction Works update, Blasting Update, Community Consultation Update, Design Consultation, Site Inspection - positive comments & some minor areas for improvement
10.04.14	ERG 15 <ul style="list-style-type: none"> • David Bone (Env Rep) • Shayne Walker, Stefan Everingham, Gerry Ryan, (Roads & Maritime) • Craig Dunk, (EPA) • James Sakker (DPI) 	Approvals Update, Construction Update, Blasting Update, Community Consultation Update, Deep Ck & Kalang River Update, Design Update, Site Inspection - positive comments & some minor areas for improvement

7 Audits

An audit was undertaken on 20 and 21 March 2014. Lend Lease were found to be compliant with the requirements of the Project Approval, EPL and Roads and Maritime QA Specifications. The site inspection indicated that the site environmental controls were well established and maintained across the site. Examples of good management practices included the diversion of clean and dirty water on the site through geofabric lined diversion channels. No corrective actions or Observations of Concern were raised for the environmental components of the audit. Three opportunities for improvement were identified and summarised as follows:

- Install sediment basin signage (red signs with basin number, capacity and discharge status) at all sediment basins across the site.
- Monitoring data collected by the Contractor and provided to RMS should be made publicly available on the RMS Nambucca Heads to Urunga project website within fourteen days of the information being available.
- The RMS website should provide clear and concise information on how to make a complaint and how complaints will be processed. The website also should state that the toll free 1800 number is a 'complaints or feedback' line and not just for project contact or general project enquiries.

8 Community Complaints

December 2013

There were no environment related complaints received during December 2013.

January 2014

There were no environment related complaints received during January 2014.

February 2014

There were three (3) environmental related complaints received in February 2014 as detailed below.

<i>Date</i>	<i>Source</i>	<i>Issue</i>	<i>Summary</i>	<i>NH2U response</i>	<i>Complaint Status</i>
3 Feb	Resident (Ridgewood Dr)	Proposed stockpile on South Arm/Short Cut Road	Enviro. line complaint about proposal. Impacts relating to dust, noise and health.	Meetings held with residents. Project team reviewing proposal.	Open – ongoing review of proposed stockpile locations.
14 Feb	Resident (Gossips Rd)	Dust suppression water	Use of water from the Kalang for dust suppression and potential damage to cars.	Alternate source of water being used for Martells/Gossip/school Hill Roads.	Closed
21 Feb	Resident (Deep Ck Rd)	Various issues	Several issues/concerns relating to operational noise, construction noise, dust, drainage etc.	Two meetings held with resident regarding concerns. Roads and Maritime/Lend Lease provided joint written response.	Closed

March 2014

There were no environmental related complaints received in March 2014.

April 2014

There were no environmental related complaints received in April 2014.

9 Environmental Monitoring

Summary tables for noise, dust and surface water monitoring are provided in Appendix B.

Noise

There were two occasions where the predicted noise levels were exceeded during the monitoring period:

- 12 February 2014 - 79 Shortcut Rd. Construction noise above the noise goal and slightly (0.6dB) above predicted noise levels, however other dominant noise sources had higher peaks. Construction (placing/moving of rock) was the dominant noise source (peak 57dB). Other background noise included insects (peak 56dB), traffic on Shortcut Road (peak 60dB) and birds (peak 58dB).
- 31 March 2014 – 354 South Arm Rd. Construction noise above the noise goal and 0.5dB above predicted noise levels. Construction audible. Dozer peak (62dB), moxie (60dB), trucks on South Arm Rd (peak 62dB). Occasional horn blast from works. Birds (peak 72dB).

The two exceedences are considered minor, however the noise monitoring at these locations will continue and be regularly checked to assess trends and determine if further action is required.

Dust

There was one occasion where the insoluble solids result exceeded the 4 g/m²/month. A result of 4.8 g/m²/month was recorded at 7643 Pacific Highway Valla during the December monitoring period (12-12-2013 to 13-1-2014). All annual insoluble solids averages remain below the 4 g/m²/month air quality criteria for deposited dust.

Surface Water

Surface water monitoring results are provided in Appendix B. No construction related impacts were recorded during the monitoring period.

Groundwater

Works with the potential to impact on groundwater quality are yet to commence on this project, therefore results obtained during the period December 2013 to April 2014 are considered consistent with background monitoring.

Appendix A

Compliance tables

Table 1 Minister for Planning conditions of approval (July 2011, Modification_1 November 2012, Modification_2 December 2012, Modification_3 February 2013, Modification_4 March 2013, Modification_5 December 2013, Modification_6 March 2014) .

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
Part A – Administrative conditions					
Terms of approval					
A1	<p>The Proponent shall carry out the project generally in accordance with the:</p> <p>a Major Projects Application 07_0112;</p> <p>b Upgrading the Pacific Highway - Warrell Creek to Urunga - Environmental Assessment (Volumes 1 and 2), prepared by Sinclair Knight Merz Pty Ltd for the NSW Roads and Traffic Authority and dated January 2010;</p> <p>c Upgrading the Pacific Highway - Warrell Creek to Urunga - Environmental Assessment Submissions and Preferred Project Report, prepared by the NSW Roads and Traffic Authority and dated November 2010;</p> <p>d Letter from the NSW Roads and Traffic Authority titled Pacific Highway Upgrade - Warrell Creek to Urunga Upgrade Addendum to Submissions Report - Fauna Crossing Structures, dated 25 May 2011 and accompanying attachments and Letter from the NSW Roads and Traffic Authority titled Pacific Highway Upgrade - Warrell Creek to Urunga Upgrade Addendum to Submissions Report - Fauna Crossing Structures, dated 1 June 2011 and accompanying attachment and</p> <p>e The Roads and Maritime Services modification request and letter dated 23 October 2012 (07_0112 MOD1);</p> <p>f The Roads and Maritime Services modification request and letter dated 23 November 2012 to correct a minor error in condition C28 (07_0112 MOD2);</p> <p>g The Roads and Maritime Services modification request and letter dated 18 January 2013 to correct minor errors in condition A1 (07_0112 MOD3);</p>	Preconstruction, construction and operation	Contractor, Roads and Maritime for retained obligations.	Open	Requirement to be undertaken throughout preconstruction, construction and construction activities with documents a – k forming part of the Project Deed.

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	<p>h The Roads and Maritime Services modification request and letter dated 13 February 2013 to amend the definition of construction in Schedule 1 (07_0112 MOD4);</p> <p>i The Roads and Maritime Services modification request and letter dated 9 September 2013 to amend the heritage management requirements in conditions C16 and C27 (07_0112 MOD5)</p> <p>j The Roads and Maritime Services modification request and letter dated 12 February 2014 to delete reference to 'vegetation group remnant forest' conservation area in condition C15 (07_0112 MOD6); and</p> <p>k The conditions of this approval..</p>				
A2	<p>In the event of an inconsistency between:</p> <p>a the conditions of this approval and any document listed from condition A1(a) to A1(d) inclusive, the conditions of this approval shall prevail to the extent of the inconsistency; and</p> <p>b any document listed from condition A1(a) to A1(d) inclusive, and any other document listed from condition A1(a) to A1(d) inclusive, the most recent document shall prevail to the extent of the inconsistency.</p>	Preconstruction, construction and operation	Contractor	Open	<p>Requirement to be undertaken throughout preconstruction, construction and operation activities.</p> <p>No inconsistencies have been reported.</p>
A3	<p>The Proponent shall comply with any reasonable requirement(s) of the Director General arising from the Department's assessment of:</p> <p>c any reports, plans or correspondence that are submitted in accordance with this approval; and</p> <p>d the implementation of any actions or measures contained within these reports, plans or correspondence.</p>	Preconstruction, construction and operation	Contractor	Open	<p>Requirement to be undertaken throughout preconstruction, construction and operation activities.</p> <p>Letters to DP&I and responses from DP&I are stored and any requirements are addressed in the compliance tracking system.</p>
A4	Subject to confidentiality, the Proponent shall make all documents required under this approval available for public inspection on request.	Preconstruction, construction and operation	Roads and Maritime	Open	B26 requires documents to be maintained on project website. All documents are available for inspection at the Lend Lease community centre.
Staging					
A5	The Proponent may elect to construct and/ or operate the project in	Preconstruction	Roads and	Closed	The project is being constructed in

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	<p>stages. Where staging of the project is proposed, these conditions of approval are only required to be complied with at the relevant time and to the extent that they are relevant to the specific stages of works. Where staging is proposed, the Proponent shall submit a Staging Report to the Director General prior to the commencement of the first proposed stage, which provide details of:</p> <p>a how the project would be staged including general details of work activities associated with each stage and the general timing of when each stage would commence; and</p> <p>b details of the relevant conditions of approval, which would apply to each stage and how these shall be complied with across and between the stages of the project.</p> <p>The Proponent shall ensure that an updated Staging Report (or advice that no changes to staging are proposed) is submitted to the Director General prior to the commencement of each stage, identifying any changes to proposed staging or applicable conditions.</p> <p>The Proponent shall ensure that relevant plans, sub-plans and other management documents required by the conditions of this approval relevant to each stage (as identified in the Staging Report) are submitted to the Director General. no later than one month prior to the commencement of the relevant stages, unless an alternative timeframe is agreed to by the Director General.</p>		Maritime		<p>stages 1 and 2. This information was forwarded to DP&I on 12-3-2013. A response from DP&I was received on 11-04-2013, and responded to on 24-05-2013 prior to construction. Staging report updated 16-1-2014 for access track from Old Coast Road. Update accepted by DP&I 19-2-2014.</p>
Statutory requirements					
A6	<p>The Proponent shall ensure that all necessary licences, permits and approvals required for the development of the project are obtained and maintained as required throughout the life of the project. No condition of this approval removes the obligation for the Proponent to obtain, renew or comply with such necessary licences, permits or approvals except as provided under Section 75U of the Act. This shall include relevant certification requirements in accordance with section 109R of the Act.</p>	Preconstruction and construction	Contractor and Roads and Maritime for early works.	Open	<p>DP&I approvals and compliance updates are stored in Table 1 Appendix A of the Compliance Tracking Program.</p> <p>Roads and Maritime Decision Report approvals, licences and compliance updates are maintained within the project compliance tracking system.</p>
Limits of approval					
A7	This approval shall lapse ten years after the date on which it is granted,	Preconstruction	Roads and	Closed	Construction commenced 5-12-2013.

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	unless construction works the subject of this project approval are physically commenced on or before that date.		Maritime		Early works commenced in 2012.
A8	The Proponent shall implement the bridge crossing option (Option 2 in the Environmental Assessment) to traverse the floodplain from the northern bank of the Nambucca River to the existing Pacific Highway.	NA	NA	NA	Requirement applicable to Stage 2.
A9	The proposed trailer exchange facility located in the vicinity of the Nambucca Heads rest area does not form part of this approval.	NA	NA	NA	Requirement applicable to Stage 2.
Part B – Prior to Construction					
Biodiversity – Mitigation measures – Fauna and Waterway Crossings					
B1	The Proponent shall implement the fauna and waterway crossings identified in the documents listed under condition A1(d) at the locations and in accordance with the minimum design dimensions identified in the documents listed under condition A1(d), unless otherwise agreed to by the Director General.	Construction	Contractor	Open	Design Refinements made as a result of consultation with DPI & EPA. Report submitted and approved by DP&I in accordance with B3 30-1-2014.
B2	As part of detailed design, the Proponent shall further investigate design refinements to improve fauna connectivity between Chainages 19150 and 19820.	Preconstruction	Roads and Maritime	Closed	Design Refinements made as a result of consultation with DPI & EPA. Report submitted and approved by DP&I in accordance with B3 30-1-2014.
B3	All investigations into fauna crossings design undertaken during detailed design (with respect to the crossing design and locations identified in conditions B1 and B2 shall be undertaken with the input of a qualified and experienced ecologist and in consultation with EPA and DPI (Fisheries) through a process of workshops and on-site ground verification. Where detailed design refinements are made, the Proponent shall prior to the commencement of construction of the relevant crossings, submit a report to the Director General identifying the final design of the fauna crossings and demonstrating consistency with the locations and minimum design parameters identified in the documents listed under condition A1(d) or where there have been changes, how the new location and/ or design would result in a better biodiversity outcome. The report shall also clearly identify how the fauna crossings structures will work in conjunction with complementary fauna exclusion fencing measures to be implemented for the project. The	Preconstruction and construction	Contractor	Closed	Design Refinements made as a result of consultation with DPI & EPA. Report submitted and approved by DP&I in accordance with B3 30-1-2014.

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	report must be accompanied by evidence of consultation with EPA and DPI (Fisheries) in relation to the suitability of any changes to the crossings design.				
B4	The Proponent shall in consultation with EPA, ensure that the design of the project as far as feasible and reasonable, incorporates provision for glider crossings (such as widened medians and maintenance or enhancement of habitat within the medians and corresponding carriageway boundaries) where the alignment crosses areas of recognised glider habitat.	Preconstruction and construction	Contractor	Open	2 widened medians provided as part of the detailed design at Ch.72500-74000 & Ch.78900-80700. Design of specific glider crossings ongoing during and after clearing. Consultation with EPA ongoing.
B5	The Proponent shall in consultation with DPI (Fisheries) ensure that all waterway crossings are designed and constructed consistent with the principles of the <i>Guidelines for Controlled Activities Watercourse Crossings (DWE)</i> , <i>Fish Note: Policy and Guidelines for Fish Friendly Waterway Crossings (NSW Fisheries)</i> and <i>Policy and Guidelines for Design and Construction of Bridges, Roads, Causeways, Culverts and Similar Structures (NSI4/ Fisheries)</i> . As far as feasible and reasonable, culvert replacements as part of the project shall incorporate naturalised bases and where multiple cell culverts are proposed for creek crossings, shall include at least one cell for fish passage, with an invert or bed level that mimics creek flows.	Preconstruction and construction.	Contractor	Open	Waterway crossing design refinements undertaken in consultation with DPI (Fisheries) – meetings held 8-5-2013 and 12-4-2013 to ensure design is addressing guideline requirements. Ongoing fish design issues are discussed at ERG meetings and agency site visits to finalise design and construction issues. Note - only culvert requiring fish passage is Oyster Ck.
Biodiversity – Mitigation measures – Nest Boxes					
B6	Prior to the commencement of any construction work that would result in the disturbance of any native vegetation (or as otherwise agreed to by the Director General), the Proponent shall in consultation with EPA prepare and submit for the approval of the Director General a Nest Box Plan to provide replacement hollows for displaced fauna consistent with the requirements of SoC F7. The plan shall detail the number and type of nest boxes to be installed which must be justified based on the number and type of hollows removed (based on detailed pre-construction surveys), the density of hollows in the area to be cleared and adjacent forest, and the availability of adjacent food resources. The plan shall also provide details of maintenance protocols for the nest boxes installed including responsibilities, timing and duration.	Preconstruction	Roads and Maritime	Closed	Nest Box MP approved by DP&I on 20/3/13.
Biodiversity – Mitigation measures – <i>Amorpha permium whitei</i> and <i>Marsdenia longiloba</i>					
B7	Prior to the commencement of any construction work that would result in	Preconstruction	Roads and	Closed	Warrell Creek to Urunga Upgrade

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	<p>the disturbance of <i>Amorpha sp.</i> <i>whitei</i> and <i>Marsdenia longiloba</i>, the Proponent shall in consultation with the EPA develop a management plan for these species which:</p> <ul style="list-style-type: none"> a investigates the potential for the translocation of plants impacted by the project; b if investigation under Condition B7(a) reveals translocation of impacted plants is feasible, includes details of a translocation plan for the plants consistent with the Australian Network for Plant Conservation 2nd Ed 2004: Guidelines for the Translocation of Threatened Species in Australia, including details of ongoing maintenance such as responsibilities, timing and duration; c identifies a process for incorporating appropriate compensatory habitat for the impacted plants in the Biodiversity Offset Strategy referred to in Condition B8 should the information obtained during the investigation referred to in Condition B7(a) find that translocation is not feasible or where the monitoring undertaken as part of condition B10 finds that translocation measures have not been successful (as identified through performance criteria); and d includes detail of mitigation measures to be implemented during construction to avoid and minimise impacts to areas identified to contain these species, including excluding construction plant, equipment, materials and unauthorised personnel. <p>Unless otherwise agreed to by the Director General, the Plan shall be submitted for the Director General's approval prior to the commencement of any construction work that would result in the disturbance of <i>Amorpha sp.</i> <i>whitei</i> and <i>Marsdenia longiloba</i>.</p>		Maritime		<p>Threatened Flora Management Plan (6-3-2013) submitted to DP&I 7-3-2013 and approved 31-5-2013.</p> <p>Biodiversity offset strategy (required under B8) is to address the threatened flora identified within the Threatened Flora Management Plan.</p>
Biodiversity offsets					
B8	<p>The Proponent shall, in consultation with the EPA and DPI (Fisheries), develop a Biodiversity Offset Strategy that identifies available options for offsetting the biodiversity impacts of the project in perpetuity, with consideration to EPA's <i>Principles for the Use of Biodiversity Offsets in NSW</i> (EPA Website, June 2011). Unless otherwise agreed to by EPA, offsets shall be provided on a like-for-like basis and at a minimum ratio of 4:1 'for areas of high conservation value (including EEC and</p>	Preconstruction	Roads and Maritime	Open	<p>Request for extension of time submitted 13-5-2013. Extension until 28-2-2014 approved 28-6-2013.</p> <p>Draft Biodiversity Offset Strategy provided to DP&I 1-7-2013 with requirement being 6 weeks prior to</p>

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	<p>threatened species or their habitat identified in the Environmental Assessment to be impacted by the project and poorly conserved vegetation communities identified as being more than 75% cleared in the catchment management area) and 2:1 for the remainder of native vegetation areas (including mangroves, seagrass, salt marsh and riparian vegetation). The Strategy shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> a confirmation of the vegetation communities/ habitat (in hectares) to be offset and the size of offsets required (in hectares); b details of the available offset measures that have been identified to compensate for the biodiversity impacts of the project, such as (but not necessarily limited to): suitable compensatory land options and/ or contributions towards biodiversity programs for high conservation value areas on nearby lands (including research programs). Where the use of State Forest land managed in accordance with an Integrated Forestry Operations Approval is proposed to offset biodiversity impacts, the Proponent shall clearly demonstrate how this would provide the biodiversity outcomes required under this condition including any additional offset requirements to cover residual impacts; c the decision-making framework that would be used to select the final suite of offset measures to achieve the aims and objectives of the Strategy, including the ranking of offset measures; d a process for addressing and incorporating offset measures for changes to impact (where these changes are generally consistent with the biodiversity impacts identified for the project in the documents listed under condition A1, including: <ul style="list-style-type: none"> i. changes to footprint due to design changes; ii. changes to predicted impacts resulting from changes to mitigation measures; iii. identification of additional species/habitat through pre-clearance surveys; and iv. additional impacts associated with ancillary facilities; and e options for the securing of biodiversity options in perpetuity. 				<p>commencement of construction.</p> <p>Final strategy submitted 1-4-2014, awaiting DP&I approval.</p>

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	<p>The Biodiversity Offset Strategy shall be submitted to, and approved by, the Director General prior to the commencement of any construction work that would result in the disturbance of any native vegetation, unless otherwise agreed by the Director General. Unless otherwise agreed, the Biodiversity Offset Strategy shall be submitted to the Director General for approval no later than 6 weeks prior to the commencement of any construction that would result in the disturbance of any native vegetation.</p> <p>The Proponent may elect to satisfy the requirements of this condition by implementing a suitable offset package which addresses impacts from multiple Pacific Highway Upgrade projects (including the Warrell Creek to Urunga Project) within the North Coast Bio-region. Any such agreement made with the EPA must be made in consultation with the Department and approved by the Director General within a timeframe agreed to by the Director General.</p>				
B9	<p>Within two years of the approval of the Biodiversity Offset Strategy, unless otherwise agreed by the Director General, the Proponent shall prepare and submit a Biodiversity Offset Package which identifies the final suite of offset measures to be implemented for the project for the approval of the Director General. The Package shall be developed in consultation with EPA, and shall provide details of:</p> <ul style="list-style-type: none"> a the final suite of the biodiversity offset measures selected for the project demonstrating how it achieves the requirements and aims of the Biodiversity Offset Strategy (including specified offset ratios); b the final selected means of securing the biodiversity values of the offset package in perpetuity including ongoing management, monitoring and maintenance requirements; and c timing and responsibilities for the implementation of the provisions of the package over time. <p>The requirements of the Package shall be implemented by the responsible parties according to the timeframes set out in the Package.</p>	Construction	Roads and Maritime	Open	To be progressed once the Biodiversity Offset Strategy is approved.
Ecological Monitoring					
B10	Prior to the commencement of any construction work that would result in the disturbance of any native vegetation, the Proponent shall develop an	Preconstruction and construction	Roads and Maritime.	Open	Ecological Monitoring Program approved 30-5-2013.

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	<p>Ecological Monitoring Program to monitor the effectiveness of the mitigation measures implemented as part of the project. The program shall be developed in consultation with EPA and prepared by a suitably qualified ecologist and shall include but not necessarily be limited to:</p> <ul style="list-style-type: none"> a an adaptive monitoring program to assess the effectiveness of the mitigation measures identified in condition B1 to B6, B7(b), B7(d), B21(c) and B31(b) and allow amendment to the measures if necessary. The monitoring program shall nominate appropriate and justified monitoring periods and performance targets against which effectiveness will be measured. The monitoring shall include operational road kill surveys to assess the effectiveness of fauna crossing and exclusion fencing implemented as part of the project; b mechanism for developing additional monitoring protocols to assess the effectiveness of any additional mitigation measures implemented to address additional impacts in the case of design amendments or unexpected threatened species finds during construction (where these additional impacts are generally consistent with the biodiversity impacts identified for the project in the documents listed under condition A1); c monitoring shall be undertaken during construction (for construction-related impacts) and from opening of the project to traffic (for operation/ongoing impacts) until such time as the effectiveness of mitigation measures can be demonstrated to have been achieved over a minimum of five successive monitoring periods (i.e. 5 years) after opening of the project to traffic, unless otherwise agreed to by the Director General. The monitoring period may be reduced with the agreement of the Director General in consultation with EPA, depending on the outcomes of the monitoring; d provision for the assessment of the data to identify changes to habitat usage and if this can be attributed to the project; e details of contingency measures that would be implemented in the event of changes to habitat usage patterns directly attributable to the construction or operation of the project; and f provision for annual reporting of monitoring results to the Director General and EPA, or as otherwise agreed by those agencies. 				<p>Requirement to close out consultation with EPA on micro bat roost box monitoring if in the first year of operation there is no uptake of roost boxes.</p> <p>Annual reporting to be undertaken – next report due 5-12-2014.</p>

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	The Program shall be submitted for the Director General's approval prior to the commencement of any construction work that would result in the disturbance of any native vegetation. Unless otherwise agreed, the Program shall be submitted to the Director General for approval no later than 6 weeks prior to the commencement of any construction that would result in the disturbance of any native vegetation.				
Hydrology and flooding					
B11	The Proponent shall undertake further flood modelling during detailed design to ensure that the Nambucca River crossing is designed and constructed with the aim of not exceeding the afflux and other flood characteristics predicted in the Environmental Assessment and Response to Submissions.	NA	NA	NA	Requirement applicable to Stage 2.
B12	<p>Prior to the commencement of construction within areas affected by an increased afflux from the project, the Proponent shall in consultation with the EPA, DPI (Fisheries) and Nambucca Shire Council undertake flood modelling of the Nambucca River and floodplain based on the detailed design of the project, and submit the flood modelling report for the approval of the Director General. The flood modelling shall:</p> <ul style="list-style-type: none"> a assess the impacts of the project on flood behaviour (in relation to Nambucca River and floodplain; b confirm the location and size of structures for the crossing the Nambucca River and floodplain which meet the performance criteria outlined in Condition B11; c examine flood behaviours through the full range of flood events including but not limited to the 10%, 5%, 2%, 1% 0.5% and 0.2% Annual Exceedence Probability; d examine any changes in the flood behaviour under climate change conditions; and e examine any changes to existing conditions for flood timing, afflux, inundation, flood velocity, scour and siltation flood warning and flood evacuation strategies including stock. 	NA	NA	NA	Requirement applicable to Stage 2.
B13	Prior to commencement of construction within areas affected by an increased afflux from the Nambucca River and Kalang River crossings,	Preconstruction	Roads and Maritime	Closed	Hydrological Mitigation Report approved by DP&I on 26-6-2013.

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	<p>the Proponent shall submit a hydrological mitigation report for the approval of the Director General detailing all feasible and reasonable flood mitigation measures for all properties where flood impacts are predicted to increase as a result of the project. The Report shall be based on detailed floor level survey and associated assessment of potentially flood affected properties. The report shall:</p> <ul style="list-style-type: none"> a identify all properties likely to have an increased flooding impact and detail the predicted increased flooding impact; b identify mitigation measures to be implemented where increased flooding is predicted to adversely affect access, property or infrastructure; c identify measures to be implemented to minimise scour and dissipate energy at locations where flood velocities are predicted to increase as a result of the project and cause localised soil erosion and/or pasture damage; d be developed in consultation with EPA, the relevant Council, NSW State Emergency Service and directly-affected property owners; and e identify operational and maintenance responsibilities for items (a) to (e) inclusive. <p>The Proponent shall not commence construction of the project on or within areas likely to alter flood conditions until such time as works identified in the hydrological mitigation report have been completed, unless otherwise agreed by the Director General.</p>				
B14	<p>Based on the mitigation measures identified in condition B13, the Proponent shall prepare a final schedule of feasible and reasonable flood mitigation measures proposed at each directly affected property in consultation with the property owner. The schedule shall be provided to the relevant property owner(s) no later than two months prior to the implementation of the mitigation works, unless otherwise agreed by the Director General. A copy of each schedule of flood mitigation measures shall be provided to the relevant Council and the Department prior to the implementation / construction of the mitigation measures on the property.</p>	Preconstruction and construction	Roads and Maritime	Closed	The B13 report recommended mitigation works that were refused by the landowner. No schedule to be submitted for Stage 1.

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
B15	In the event that the Proponent and the relevant property owner cannot agree on feasible and reasonable flood mitigation measures to be applied to a property within one month of the first consultation on the measures (as required under Condition B14), the Proponent shall employ a suitably qualified and experienced independent hydrological engineer (who has been approved by the Director General for the purposes of this condition prior to the commencement of construction) to advise and assist affected property owners in negotiating feasible and reasonable mitigation measures.	Preconstruction and construction	Roads and Maritime	Closed	The B13 report recommended mitigation works that were refused by the landowner. No schedule to be submitted for Stage 1.
B16	The Proponent shall provide assistance to the relevant Council's and/ or NSW State Emergency Service to prepare any new or necessary update(s) to the relevant plans and documents in relation to flooding, to reflect changes in flooding levels, flows and characteristics as a result of the project, as identified in the documents listed under condition A1 and the modelling undertaken as part of condition B12.	Preconstruction and construction	Contractor	Open	To be provided if requested.
Water Quality					
B17	<p>The Proponent shall prepare and implement a Water Quality Monitoring Program to monitor the impacts of the project on SEPP 14 wetlands, surface water quality and groundwater resources during construction and operation. The Program shall be developed in consultation with EPA and DPI and shall include but not necessarily be limited to:</p> <ul style="list-style-type: none"> a identification of surface water and groundwater quality monitoring locations which are representative of the potential extent of impacts from the project; b identification of works and activities during construction and operation of the project, including emergencies and spill events, that have the potential to impact on surface water quality and risks to oyster farming in the Nambucca, Bellinger, and Kalang rivers; c representative background monitoring of surface water and groundwater quality parameters for a minimum of six (6) months (considering seasonality) prior to the commencement of construction to establish baseline water conditions; d development and presentation of indicators or standards against which any changes to surface water quality will be assessed, having 	Preconstruction, construction and operation.	Roads and Maritime to prepare plan and implement the pre and post construction requirements. Contractor to implement requirements during construction.	Open	<p>DP&I approval of surface and ground water monitoring programs obtained 4-3-2013.</p> <p>Background water quality monitoring commenced September 2012, min 6 months background monitoring achieved following February 2013 monitoring event.</p> <p>The 6month Pre-Construction Monitoring reports have been submitted to the Department, EPA, DPI(Fisheries) and the Office of Water for information.</p> <p>Surface and ground water monitoring programs to be implemented through</p>

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	<p>regard to the Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000 (ANZECC, 2000);</p> <p>e contingency and ameliorative measures in the event that adverse impacts to surface water quality are identified;</p> <p>f a minimum monitoring period of three years following the completion of construction or until any disturbed waterways/ groundwater resources are certified by an independent expert as being rehabilitated to an acceptable condition. The monitoring shall also confirm the establishment of operational water control measures (such as sedimentation basins and vegetation swales); and</p> <p>g reporting of the monitoring results to the Department, EPA and DPI.</p> <p>The Program shall be submitted to the Director General for approval six (6) months prior to the commencement of construction of the project, or as otherwise agreed by the Director General. A copy of the Program shall be submitted to EPA and DPI prior to its implementation.</p>				<p>construction period and continuing 3 years post construction or until effective stabilisation has been demonstrated and verified.</p>
Heritage impacts					
B18	<p>As part of detailed design, the Proponent shall ensure that the final design of the alignment is aligned to minimise project impacts on the Cow Creek Aboriginal Reserve (21-6-0228) as far as practicable and detail these design considerations in the Heritage Management Plan required to be prepared under condition B31(e).</p>	Preconstruction	Contractor	Closed	<p>The project corridor was modified during the EA to avoid the Cow Creek Reserve. By keeping the final design alignment within the approved corridor the intent of B18 will have been satisfied.</p> <p>The B18 design requirements have been included as Appendix A of the HMP submitted to DP&I 1-7-2013.</p>
B19	<p>Prior to the commencement of pre-construction and construction activities affecting the following Aboriginal sites the Proponent shall undertake the relevant salvage mitigation measures outlined in the Environmental Assessment for these sites:</p> <p>a Butchers Creek 1 (previously PAD 1);</p> <p>b Stoney Creek 1 (previously PAD 24);</p>	Preconstruction	Roads and Maritime	Closed	<p>This has been completed pre construction.</p> <p>Results of the salvage for these sites have been provided to DP&I, OEH and the registered Aboriginal stakeholders as required, in August 2012.</p>

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	<p>c Bald Hill Road 1 (previously PAD 7); d Old Coast Road Stone Artefact (previously PAD 2); e Boggy Creek Artefact 1 & resource gathering area (previously PAD 16); f Cow Creek Artefact Scatter (previously PAD 8); g Kalang Spur Artefact Scatter (previously PAD 12); h Kalang Flat 1 9(a) (previously PAD 9); i Kalang Flat 2 9(b) (previously PAD 9); j South Arm Road 1; k Tyson's Flat Ridge Artefact Scatter (previously PAD 29); l Tyson's Flat 1 (previously PAD 28); and m Tyson's Flat 2 (previously PAD 27).</p> <p>The results of the salvage program shall be provided to the Department, OEH and Aboriginal stakeholders within six months of the completion of the salvage program, unless otherwise agreed by the Director General.</p>				
B20	<p>Prior to the commencement of pre-construction and construction activities affecting the possible house site identified as Site 12 in Table 19-3 of the Environmental Assessment, the Proponent shall prepare an archaeological assessment in consultation with the OEH (Heritage Branch), and generally in accordance with the Departments Archaeological Assessments Guideline (1996), and submit the assessment for the Director General's approval.</p> <p>Any further archaeological work recommended on this site by the assessment shall be undertaken by the Proponent in consultation with the OEH (Heritage Branch) and reported to the Director General within six months of the completion of the work, unless otherwise agreed by the Director General.</p>	Preconstruction and construction	Roads and Maritime	Closed	<p>SKM were engaged to prepare reports titled <i>Warrell Creek to Urunga Pacific Highway Upgrade, Tysons Flat House Site, Urunga, NSW – Archaeological Assessment</i> and <i>Warrell Creek to Urunga Pacific Highway Upgrade, Tysons Flat House Site, Urunga, NSW – Archaeological Research Design Report</i>. These reports are contained in Appendix B and C of the HMP submitted to DP&I 1-7-2013.</p> <p>The archaeological assessment of Site 12 (possible House Site) was submitted to DP&I 23 May, 2012 and approved 7 June, 2012 subject to</p>

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
					implementation of the measures to protect the house site from accidental damage during pre-construction and construction of the project. No changes to project boundary proposed.
Urban design and landscaping					
B21	<p>Prior to the commencement of construction (unless otherwise agreed to by the Director General), the Proponent shall prepare and implement an Urban Design and Landscape Plan for the project. The plan shall be prepared in consultation with the relevant Council and shall present an integrated urban design for the project. The plan shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> a a principle goal of achieving the urban design objectives outlined in Section 13.4 of Volume 1 of the Environmental Assessment; b sections and perspective sketches; c locations along the project corridor directly or indirectly impacted by the construction of the project (e.g. temporary ancillary facilities, access tracks, watercourse crossings, etc.) which are proposed to be actively rehabilitated, regenerated and/ or revegetated to promote biodiversity outcomes and visual integration. Details of species to be replanted/ revegetated shall be provided,, including their appropriateness to the area and considering existing vegetation and habitat for threatened species; d location of existing vegetation and proposed landscaping, including use of indigenous and endemic species where possible. The plan shall assess the visual screening affects of existing vegetation and the proposed landscaping at residences and businesses, which have been identified as likely to experience high visual impact as a result of the project. Where high residual impacts are identified to remain, the plan shall in consultation with affected receptors, identify opportunities for providing at-receptor landscaping to further screen views of the project. Where agreed to with the landowner, these measures shall be implemented during the construction of the project; 	Preconstruction and construction	Contractor	Open	<p>Extension request submitted to DP&I 7-3-2013 and approved 19-3-2013. Draft UDLP submitted to DP&I with CEMP 1-7-2013. Extension request submitted to DP&I 16-1-2014 and approved 22-1-2014. Final UDLP to be submitted to DP&I by 30-5-2014.</p>

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	<p>e strategies for progressive landscaping incorporating other environmental controls such as erosion and sedimentation controls, drainage, noise mitigation;</p> <p>f location and design treatments for built elements including retaining walls, cuttings, bridges, and noise barriers;</p> <p>g location and design treatments for any associated footpaths and cyclist elements, and other features such as seating, lighting (in accordance with AS 4282-1997 Control of the Obtrusive Effect of Outdoor Lighting), fencing, and signs;</p> <p>h evidence of consultation with the community on the proposed urban design and landscape measures prior to its finalisation; and</p> <p>i monitoring and maintenance procedures for the built elements and landscaping (including weed control) including responsibilities, timing and duration and contingencies where landscaping measures fail.</p> <p>The Plan shall be submitted for the approval of the Director General prior to commencement of construction of the project. The Plan may be submitted in stages to suit the staged construction program of the project.</p>				
Traffic and access					
B22	The Proponent shall ensure that the project is designed in consultation with DPI (Forests NSW) to ensure that access of a standard that is at least equivalent to that currently existing and which meets relevant road safety standards is maintained within the State forests to enable continued forestry operations, fire management and recreation during construction and operation.	Preconstruction and construction	Contractor	Open	General principals of DPI (Forest NSW) access requirements have been agreed with Roads and Maritime. Final design pending Lend Lease finalising property access agreements.
B23	The Proponent shall ensure that the project is designed to incorporate appropriate signage for townships along the project alignment, in consultation with the relevant Council and businesses policy, and provide information on the range of services available within the towns including advice that the route through the towns may be taken as an alternative route to the bypass.	Construction	Roads and Maritime	Open	Further consultation required to finalise.
Property and landuse					

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B24	<p>The Proponent shall ensure that the project is designed to minimise land take impacts to surrounding properties (including agricultural properties) as far as feasible and reasonable, in consultation with the affected landowners. Where the viability of existing agricultural operations are identified to be highly affected by the land requirements of the project, the Proponent shall as part of detailed design employ a suitably qualified and experienced independent agricultural specialist (that is approved by the Director General for the purpose of this condition), to assist in the following (where agreed to by the relevant landowner):</p> <ul style="list-style-type: none"> a identifying alternative farming opportunities for the relevant properties including purchase of other residual land to enable existing/new agricultural activities to continue; and/or b negotiating appropriate compensation and/or arrangements for the purchase of the property under the Land Acquisition (Just Terms Compensation) Act 1991. 	Preconstruction	Roads and Maritime	Closed	All property purchase undertaken in accordance with Land Acquisition (Just Terms Compensation) Act 1991
Compliance tracking					
B25	<p>The Proponent shall develop and implement a Compliance Tracking Program to track compliance with the requirements of this approval. The Program shall be submitted to the Director General for approval prior to the commencement of construction and relate to both the construction and operational phases of the project, and include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> a provisions for the notification of the Director General of the commencement of works prior to the commencement of construction and prior to the commencement of operation of the project (including prior to each stage, where works are being staged); b provisions for periodic review of project compliance with the requirements of this approval, Statement of Commitments and documents listed under condition A1; c provisions for periodic reporting of compliance status against the requirements of this approval, Statement of Commitments and documents listed under condition A1 to the Director General including at least one month prior to the commencement of 	Preconstruction, construction and operation	Roads and Maritime to prepare and submit the Program for approval and implement the program during the operational phase. Contractor to implement the Program during construction.	Open	<p>Compliance Tracking Program submitted to DP&I 7-3-2013 and approved 20-3-2013.</p> <p>Notification of commencement of works provided 18-9-2013.</p> <p>Preconstruction CTP submitted to DP&I 15-6-2013.</p> <p>Compliance status reviews to be provided to DP&I every 6 months.</p>

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	<p>construction and operation of the project and at other intervals during the construction and operation, as identified in the Program;</p> <p>d a program for independent environmental auditing in accordance with ISO 19011:2003 - Guidelines for Quality and/ or Environmental Management Systems Auditing;</p> <p>e mechanisms for reporting and recording incidents and actions taken in response to those incidents;</p> <p>f provisions for reporting environmental incidents to the Director General during construction and operation; and</p> <p>g procedures for rectifying any non-compliance identified during environmental auditing, review of compliance or incident management.</p>				
Community information and involvement – provision of electronic information					
B26	<p>Prior to the commencement of construction, the Proponent shall establish and maintain a new website, or dedicated pages within an existing website, for the provision of electronic information associated with the project. The Proponent shall, subject to confidentiality, publish and maintain up-to-date information on the website or dedicated pages including, but not necessarily limited to:</p> <p>a information on the current implementation status of the project;</p> <p>b a copy of the documents referred to under condition A1 of this approval, and any documentation supporting modifications to this approval that may be granted from time to time;</p> <p>c a copy of this approval and any future modification to this approval;</p> <p>d a copy of each relevant environmental approval, licence or permit required and obtained in relation to the project;</p> <p>e a copy of each current strategy, plan, program or other document required under this approval; and</p> <p>f the outcomes of compliance tracking in accordance with the requirements of Condition B25.</p>	Preconstruction and construction	Roads and Maritime	Open	<p>Website functioning - http://www.rta.nsw.gov.au/roadprojects/projects/pac_hwy/port_macquarie_cofs_harbour/nambucca_hds_to_urunga/index.html</p> <p>There has been considerable effort to keep the website up to date, some documents have not been uploaded due to issues around web accessibility.</p>
Complaints and enquiries procedure					
B27	Prior to the commencement of construction, the Proponent shall ensure	Preconstruction	Contractor	Open	Toll free number active – 1800 800

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	<p>that the following are available for community complaints and enquiries during the construction period:</p> <p>a a telephone number on which complaints and enquiries about construction and operation activities may be registered;</p> <p>b a postal address to which written complaints and enquiries may be sent; and</p> <p>c an email address to which electronic complaints and enquiries may be transmitted. The telephone number, the postal address and the email address shall be published in a newspaper circulating in the local area prior to the commencement of construction and prior to the commencement of project operation. The above details shall also be provided on the website (or dedicated pages) required by this approval.</p> <p>The Proponent must prepare and implement a Construction Complaints Management System consistent with <i>AS 4269 Complaints Handling</i> prior to the commencement of construction activities and must maintain the System for the duration of construction activities.</p> <p>Information on all complaints received, including the means by which they were addressed and whether resolution was reached and whether mediation was required or used, must be maintained by the Proponent and included in a complaints register. The information contained within the System must be made available to the Director General on request.</p>	and construction			<p>612.</p> <p>Written or e-mail complaints directed to: Nambucca Heads to Urunga upgrade Pacific Highway office</p> <ul style="list-style-type: none"> • PO Box 546 • Grafton NSW 2460 • Email: pacific.highway@rms.nsw.gov.au <p>Complaint handling by Lend Lease for construction is addressed in the Community Involvement Plan – submitted to DP&I with CEMP 1-7-2013</p>
Community involvement					
B28	<p>The Proponent shall prepare and implement a Community Communication Strategy for the project. This Strategy shall be designed to provide mechanisms to facilitate communication between the Proponent, the Contractor, the Environmental Representative, the relevant Council and the local community (broader and local stakeholders) on the construction and environmental management of the project. The Strategy shall include, but not necessarily be limited to:</p> <p>a identification of stakeholders to be consulted as part of the Strategy, including affected and adjoining landowners;</p> <p>b procedures and mechanisms for the regular distribution of information to stakeholders on the progress of the project and</p>	Preconstruction and construction	Contractor	Open	<p>Community Involvement Plan submitted to DP&I with CEMP documentation on 1-7-2013 Approved 25-9-2013.</p>

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	<p>matters associated with environmental management;</p> <p>c procedures and mechanisms through which stakeholders can discuss or provide feedback to the Proponent and/or Environmental Representative in relation to the environmental management and delivery of the project;</p> <p>d procedures and mechanisms through which the Proponent can respond to any enquires or feedback from stakeholders in relation to the environmental management and delivery of the project; and</p> <p>e procedures and mechanisms that would be implemented to resolve any issues/disputes that may arise between parties on the matters relating to environmental management and the delivery of the project. This may include the use of an appropriately qualified and experienced independent mediator.</p> <p>The Proponent shall maintain and implement the Strategy throughout construction of the project. The Strategy shall be approved by the Director General prior to the commencement of construction, or as otherwise agreed by the Director General.</p>				
Environmental management – Environmental Representative					
B29	<p>Prior to the commencement of construction of the project, or as otherwise agreed by the Director General, the Proponent shall nominate for the approval of the Director General a suitably qualified and experienced Environment Representative(s) that is independent of the design (including preparation of documentation referred to condition A1), and construction personnel. The Proponent shall employ the Environmental Representative(s) for the duration of construction, or as otherwise agreed by the Director General. The Environment Representative(s) shall:</p> <p>a be the principal point of advice in relation to the environmental performance of the project;</p> <p>b be consulted in responding to the community concerning the environmental performance of the project;</p> <p>c monitor the implementation of all environmental management plans and monitoring programs required under this approval;</p>	Preconstruction and construction	Contractor	Open	<p>David Bone – Onsite Environmental Management – approved as ER. by DP&I on 08/02/2013 Contact details - 02 4696 1066 or 0407 461 092 or david.bone@osem.com.au</p> <p>An Environmental Representative will be employed for the duration of construction.</p>

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	<ul style="list-style-type: none"> d monitor the outcome of all environmental management plans and advise the Proponent upon the achievement of all project environmental outcomes; e have responsibility for considering and advising the Proponent on matters specified in the conditions of this approval, and all other licences and approvals related to the environmental performance and impacts of the project; f ensure that environmental auditing is undertaken in accordance with the requirements of condition B25 and the project Environmental Management System(s); g be given the authority to approve/ reject minor amendments to the Construction Environment Management Plan. What constitutes a "minor" amendment shall be clearly explained in the Construction Environment Management Plan required under condition B30; and h be given the authority and independence to require reasonable steps be taken to avoid or minimise unintended or adverse environmental impacts, and failing the effectiveness of such steps, to direct that relevant actions be ceased immediately should an adverse impact on the environment be likely to occur. 				
Construction Environmental Management Plan					
B30	<p>Prior to the commencement of construction, the Proponent shall prepare and (following approval) implement a Construction Environmental Management Plan for the project. The Plan shall outline the environmental management practices and procedures that are to be followed during construction, and shall be prepared in consultation with the EPA, DPI and relevant Council and include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> a a description of all relevant activities to be undertaken during construction of the project or stages of construction, as relevant; b statutory and other obligations that the Proponent is required to fulfil during construction including all approvals, consultations and agreements required from authorities and other stakeholders, and key legislation and policies. Evidence of consultation with relevant public authorities, shall be included identifying how issues raised by 	Preconstruction and construction	Contractor	Open	CEMP submitted to DP&I 1-7-2013, approved 25-9-2013. Ongoing implementation.

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	<p>these public authorities have been addressed in the plan;</p> <p>c a description of the roles and responsibilities for all relevant employees involved in the construction of the project including relevant training and induction provisions for ensuring that all employees, including contractors and sub-contractors are aware of their environmental and compliance obligations under these conditions of approval;</p> <p>d identification of ancillary facility site locations, including an assessment against the location criteria outlined in condition C27;</p> <p>e an environmental risk analysis to identify the key environmental performance issues associated with the construction phase and details of how environmental performance would be monitored and managed to meet acceptable outcomes including what actions will be taken to address identified potential adverse environmental impacts (including any impacts arising from concurrent construction works with adjacent Pacific Highway Upgrade projects, as relevant). In particular, the following environmental performance issues shall be addressed in the Plan:</p> <ul style="list-style-type: none"> i. measures to monitor and manage dust emissions including dust generated by haulage trucks, traffic on unsealed public roads and stockpile management; ii. measures to monitor and manage waste generated during construction including but not necessarily limited to: general procedures for waste classification, handling, reuse, and disposal; how contaminated materials would be handled and disposed; use of secondary waste material in construction wherever feasible and reasonable; procedures for dealing with green waste including timber and much from clearing activities; and measures for reducing demand on water resources (including the potential for reuse of treated water from sediment control basins); iii. measures to monitor and manage spoil and fill including details of how excavated material would be handled, stockpiled, reused and disposed and a stockpile management protocol detailing location criteria that would guide the placement of 				

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	<p>stockpiles and minimum management measures (including rehabilitation) that would be implemented to avoid/ minimise amenity impacts to surrounding residents and environmental risks (including to surrounding watercourses);</p> <p>iv. measures to monitor and manage hazard and risks including emergency management; and</p> <p>v. the issues identified in condition B31;</p> <p>f details of community involvement and complaints handling procedures during construction, consistent with the requirements of conditions B26 to B28;</p> <p>g details of compliance and incident management consistent with the requirements of condition B25; and</p> <p>h procedures for the periodic review and update of the Construction Environmental Management Plan as necessary (including where minor changes can be approved by the Environmental Representative).</p> <p>The Plan shall be submitted for the approval of the Director General no later than one month prior to the commencement of construction, or within such period otherwise agreed by the Director General. Construction works shall not commence until written approval has been received from the Director General.</p>				
B31	<p>As part of the Construction Environment Management Plan for the project required under condition B30 of this approval, the Proponent shall prepare and implement the following sub plan(s):</p> <p>a a Construction Traffic Management Plan, prepared in accordance with the RTA's <i>QA Specification G10 - Control of Traffic and Traffic Control at Work Sites Manual (2003)</i> to manage disruptions to highway and local traffic movements as a result of construction traffic associated with the project. The Plan shall be developed in consultation with Council and shall include, but not necessarily be limited to:</p> <p>i. identification of construction traffic routes and quantification of construction traffic volumes (including heavy vehicle/spoil haulage) on these routes;</p>	Preconstruction	Contractor	Open	<p>Required B31 plans submitted to DP&I with CEMP 1-7-2013 approved 25-9-2013.</p> <p>Ongoing implementation.</p>

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	<ul style="list-style-type: none"> ii. details of vehicle movements for construction sites and site compounds including parking, dedicated vehicle turning areas, and ingress and egress points; iii. potential impacts to traffic on the existing highway and associated local roads including intersection level of service and potential disruptions to arrangements for pedestrians, property access, public transport, parking and/ or cyclist; iv. details of temporary and interim traffic arrangements including intersections, property access and alternative traffic routes; v. traffic and other arrangements to minimise impacts including safe pedestrian access at all times, and the provision of alternative facilities and locations for pedestrians and/or cyclist access; vi. a response procedure for dealing with traffic incidents; and vii. mechanism for the monitoring, review and amendment of this plan; <p>b a Construction Flora and Fauna Management Plan to detail how construction impacts on ecology will be minimised and managed. The Plan shall be developed in consultation with the EPA and shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> i. details of pre-construction surveys undertaken to verify the construction boundaries/ footprint of the project based on detailed design and to confirm the vegetation to be cleared as part of the project (including tree hollows, threatened flora and fauna species, mangroves and riparian vegetation). The surveys shall be undertaken by a qualified ecologist and include surveys of existing bridges and culverts for the presence of micro-bat roosting at least 6 months prior to the planned disturbance of such structures and targeted surveys for the Giant Barred Frog within and in the vicinity of the project corridor undertaken during suitable conditions; ii. updated sensitive area vegetation maps based on B31(b)(i) above and previous survey work; 				

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	<ul style="list-style-type: none"> iii. a Giant Barred Frog management plan, in the case that this species or its habitat is identified to occur in the project corridor or its vicinity, based on surveys undertaken as part of B31(b)(i); iv. a micro-bat management strategy, in the case that micro bats or evidence of roosting are identified during pre-construction surveys. The strategy shall detail measures to avoid, minimise and mitigate impacts to these species and identified roost sites, including short and long term management measures; v. details of general work practices to minimise the potential for damage to native vegetation (particularly EECs) not proposed to be cleared as part of the project and native fauna during construction, including (but not necessary limited to): fencing of sensitive areas, a protocol for the removal and relocation of fauna during clearing, presence of an experienced ecologist to oversee clearing activities and facilitate fauna rescues and re-location, clearing timing with consideration to breeding periods, measures for maintaining existing habitat features (such as bush rock and tree branches etc), seed harvesting and appropriate topsoil management, construction worker education, weed management, erosion and sediment control and progressive re-vegetation; vi. specific procedures to deal with EEC/ threatened species anticipated to be encountered within the project corridor including re-location, translocation and/or management and protection measures; vii. a procedure for dealing with unexpected EEC/ threatened species identified during construction including stopping works and notification of EPA, determination of appropriate mitigation measures in consultation with EPA (including relevant relocation measures) and update of ecological monitoring and/ or biodiversity offset requirements consistent with conditions B8 and B10; and viii. mechanism for the monitoring, review and amendment of this plan; 				

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	<p>c a Construction Noise and Vibration Management Plan to detail how construction noise and vibration impacts will be minimised and managed. The Plan shall be developed in consultation with the EPA and include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> i. identification of nearest sensitive receptors and relevant construction noise and vibration goals applicable; ii. identification of key noise and/or vibration generating construction activities (based on representative construction scenarios) that have the potential to impact on surrounding sensitive receivers including expected noise/ vibration levels; iii. identification of all feasible and reasonable measures proposed to be implemented to minimise construction noise and vibration impacts (including construction traffic noise impacts); iv. procedure for dealing with out-of-hour works in accordance with condition C4, including procedures for notifying the Director General concerning complaints received in relation to the extended hours approved under condition C4(d); v. procedures and mitigation measures to ensure relevant vibration and blasting criteria are achieved, including a suitable blast program supported by test blast results, applicable buffer distances for vibration intensive works, use of low vibration generating equipment vibration dampeners or alternative construction methodology, and pre- and post- construction dilapidation surveys of sensitive structures where blasting and/or vibration is likely to result in building damage; vi. procedures for notifying sensitive receivers of construction activities that are likely to affect their noise and vibration amenity, as well as procedures for dealing with and responding to noise complaints; and vii. a program for construction noise and vibration monitoring clearly indicating monitoring frequency, location, how the results of this monitoring would be recorded and, procedures to be followed where significant exceedences of relevant noise and vibration goals are detected; 				

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	<p>d a Construction Water Quality Management Plan to manage surface water quality and groundwater impacts during construction of the project. The Plan shall be developed in consultation with EPA, DPI (Fisheries and NOW) and include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> i. a contingency plan, consistent with the <i>Acid Sulfate Soils Manual</i>, to deal with the unexpected discovery of actual or potential acid sulfate soils; ii. a tannin leachate management protocol to manage the stockpiling of mulch and use of cleared vegetation and mulch filters for erosion and sediment control; iii. details of how construction activities would be managed and mitigated to minimise erosion and sedimentation consistent with condition C17; iv. where construction activities have the potential to impact on waterways or wetlands (through direct disturbance such as construction of waterway crossings or works in close proximity to waterways or wetlands), site specific mitigation measures to be implemented to minimise water quality, riparian and stream hydrology impacts as far as practicable, including measures to stabilise bank structure and rehabilitate affected riparian vegetation to existing or better condition (including relevant performance indicators and monitoring requirements). The timing of rehabilitation of the waterways shall be as agreed to with DPI (Fisheries and NOW) shall be identified in the plan; v. construction water quality monitoring requirements consistent with condition B17; and vi. a groundwater management strategy, including (but not necessarily limited to): <ul style="list-style-type: none"> i. description and identification of groundwater resources (including depths of the water table and groundwater quality) potentially affected by the proposal based on baseline groundwater monitoring undertaken in accordance with condition B17(c); 				

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	<ul style="list-style-type: none"> ii. identification of surrounding licensed bores, dams or other water supplies and groundwater dependant ecosystems and potential groundwater risks associated with the construction of the project on these groundwater users and ecosystems; iii. measures to manage identified impacts on water table, flow regimes and quality and to groundwater users and ecosystems; iv. groundwater inflow control, handling, treatment and disposal methods; and v. a detailed monitoring plan to identify monitoring methods, locations, frequency, duration and analysis requirements; and <p>e a Construction Heritage Management Plan to detail how construction impacts on Aboriginal and non-Aboriginal heritage will be minimised and managed. The Plan shall be developed in consultation with the OEH (Heritage Branch) (for non-Aboriginal heritage) and OEH and Registered Aboriginal Stakeholders (for Aboriginal heritage), and include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> ii. In relation to Aboriginal Heritage: <ul style="list-style-type: none"> i. details of management measures to be carried out in relation to already recorded sites and potential Aboriginal deposits (including further archaeological investigations, salvage measures and/ or measures to protect unaffected sites during construction works in the vicinity); ii. procedures for dealing with previously unidentified Aboriginal objects excluding human remains (including halting of works in the vicinity, assessment of the significance of the item(s) and determination of appropriate mitigation measures including when works can recommence by a qualified archaeologist in consultation with registered Aboriginal stakeholders, assessment of the consistency of any new Aboriginal heritage impacts against the approved impacts of the project, and registering of the 				

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	<p>new site in the OEH AHIMS register);</p> <p>iii. procedures for dealing with human remains (including halting of works in the vicinity and notification of the NSW Police, OEH and registered Aboriginal stakeholders and not-recommending any works in the area unless authorised by OEH and/ or the NSW Police); and</p> <p>iv. Aboriginal cultural heritage induction processes for construction personnel (including procedures for keeping records of inductions undertaken for the duration of the project) and procedures for ongoing Aboriginal consultation and involvement; and</p> <p>(iii) In relation to non-Aboriginal Heritage:</p> <p>i. details of management measures to be carried out in relation to already recorded sites (including further heritage investigations, archival recordings and/ or measures to protect unaffected sites during construction works in the vicinity), consistent with the measures listed in Environmental Assessment Table 19-4;</p> <p>ii. procedures for dealing with previously unidentified non-Aboriginal objects, (including halting of works in the vicinity, assessment of the significance of the item(s) and determination of appropriate mitigation measures including when works can re-commence by a qualified archaeologist and assessment of the consistency of any new non-Aboriginal heritage impacts against the approved impacts of the project; and</p> <p>iii. non-Aboriginal cultural heritage induction processes for construction personnel.</p>				
Part C – During construction					
Biodiversity					
C1	The Proponent shall employ all feasible and reasonable measures to minimise the clearing of native vegetation to the greatest extent practicable during the construction of the project.	Construction	Contractor	Open	Detailed design being undertaken with consideration to minimising clearing. To be addressed through

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					environmental design report and finalised during construction.
Air quality impacts					
C2	The Proponent shall employ all feasible and reasonable measures (including temporary cessation of relevant works, as appropriate) to ensure that the project is constructed in a manner that minimises dust emissions from the site, including wind-blown, traffic-generated dust, stockpiles and material tracking from construction sites onto public roads.	Construction	Contractor	Open	Addressed in AQMP submitted to DP&I on 1-7-2013, approved 25-9-2013.
Noise and vibration impacts – construction hours					
C3	The Proponent shall only undertake construction activities associated with the project during the following standard construction hours: a 7:00am to 6:00pm Mondays to Fridays, inclusive; and b 8:00am to 1:00pm Saturdays; and c at no time on Sundays or public holidays.	Construction	Contractor	Open	Addressed in NVMP submitted to DP&I on 1-7-2013, approved 25-9-2013.
C4	Works outside of the construction hours identified in conditions C3 may be undertaken in the following circumstances: a works that generate noise that is not audible at any sensitive receptor; b for delivery of materials required outside these hours by the Police or other authorities for safety reasons; or c where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm; or d construction works undertaken through sparsely populated areas in which sensitive receptors are located greater than 300 metres away from the project boundary. In this case construction is permissible during the following hours: 6.00am to 6.00pm Monday to Friday and 7.00am to 4.00pm Saturdays and at no time on Sundays or public holidays. These works hours may be reviewed and/ or revoked by the Director General in consultation with the EPA in the case of excessive or unresolved noise complaints; or e where an EPL applies to the construction of the project, construction	Construction	Contractor	Open	Addressed in NVMP submitted to DP&I on 1-7-2013, approved 25-9-2013.

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	<p>hours which are approved in accordance with the conditions of an EPL for the project; or</p> <p>f where an EPL does not apply to the construction of the project, Out of Hours Works as agreed to by the Director general in accordance with condition C5.</p>				
C5	<p>For the purposes of condition C4 (f), certain construction activities (Out of Hours Works) may be allowed to occur outside the construction hours specified in conditions C3 with the prior written approval of the Director General. Requests for out of hours approval will be considered for construction activities which cannot be undertaken during the construction hours specified in conditions C3 for technical or other justifiable reasons and will be considered on a case by case or activity-specific basis. Any request for Out of Hours Works must be accompanied by:</p> <p>a details of the nature and need for activities to be conducted during the varied construction hours;</p> <p>b written evidence to the EPA and the Director General that activities undertaken during the varied construction hours are justified, appropriate consultation with potentially affected receivers and notification of Council has been undertaken, issues raised have been addressed, and all feasible and reasonable mitigation measures have been put in place; and</p> <p>c evidence of consultation with the EPA on the proposed variation in standard construction hours. Despite the above, Out of Hours Works may also occur in accordance with an approved Construction Environment Management Plan or Construction Noise and Vibration Management Plan for this project, where that plan provides a process for considering the above on a case by case or activity specific basis by the Proponent, including factors a) to c) above.</p>	Construction	Contractor	Open	<p>Requirements incorporated into the NVMP submitted to DP&I 1-7-2013, approved 25-9-2013.</p> <p>EPL applicable to construction works C4 measures apply.</p>
C6	<p>Blasting associated with the project shall only be undertaken during the following hours</p> <p>a 9:00 am to 5:00 pm, Mondays to Fridays, inclusive;</p> <p>b 9:00 am to 1:00 pm on Saturdays; and</p>	Construction	Contractor	Open	Requirements incorporated into the NVMP submitted to DP&I 1-7-2013, approved 25-9-2013.

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	<p>c at no time on Sundays or public holidays.</p> <p>This condition does not apply in the event of a direction from police or other relevant authority for safety or emergency reasons to avoid loss of life, property loss and/or to prevent environmental harm.</p>				
Noise and vibration impacts – construction noise and vibration goals					
C7	The Proponent shall implement all feasible and reasonable noise mitigation measures with the aim of achieving the construction noise management levels detailed in the <i>Interim Construction Noise Guideline</i> (DECC, 2009) during construction activities, Any activities that could exceed the construction noise management levels shall be identified and managed in accordance with the Construction Noise and Vibration Management Plan required under condition B31(c) of this approval.	Construction	Contractor	Open	Requirements incorporated into the NVMP submitted to DP&I 1-7-2013, approved 25-9-2013. 94 houses requiring operational noise treatment have been treated to provide a benefit with construction noise management. Refer to SoC N1.
C8	<p>The Proponent shall implement all feasible and reasonable mitigation measures with the aim of achieving the following construction vibration goals and ground-borne noise levels:</p> <p>a for structural damage vibration, the vibration limits set out in the German Standard D/N 4150 Part 3-1999 Structural Vibration in Buildings - Effects on Structures;</p> <p>b for works in the vicinity of the heritage structures, the vibration limits set out in the German Standard DIN 4150-3: 1999 Structural Vibration - part 3: Effects of vibration on structures; and</p> <p>c for human exposure, the acceptable vibration values set out in the Environmental Noise Management Assessing Vibration: A Technical Guideline (DEC 2006); and</p> <p>d the ground-borne noise levels set out in the Interim Construction Noise Guidelines (DECC, 2009).</p>	Construction	Contractor	Open	Requirements incorporated into the NVMP submitted to DP&I 1-7-2013, approved 25-9-2013.
C9	The Proponent shall ensure that airblast overpressure generated by blasting associated with the project does not exceed the criteria specified in Table 1 when measured at the most affected residence or other sensitive receiver. To ensure that criteria are satisfied at the most affected residence or other sensitive receiver, blasting trials shall be undertaken prior to the commencement of the project blasting program,	Construction	Contractor	Open	Requirements incorporated into the NVMP submitted to DP&I 1-7-2013, 25-9-2013.

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment															
	<p>satisfy the criteria specified in Table 1.</p> <p>Table 1 Airblast overpressure criteria</p> <table border="1"> <thead> <tr> <th>Airblast overpressure (dB(Lin Peak))</th> <th></th> <th>Allowable exceedance</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>115</td> <td>5% of total number of blasts over a 12 month period</td> <td></td> <td></td> <td></td> </tr> <tr> <td>120</td> <td></td> <td>0%</td> <td></td> <td></td> </tr> </tbody> </table>	Airblast overpressure (dB(Lin Peak))		Allowable exceedance			115	5% of total number of blasts over a 12 month period				120		0%						
Airblast overpressure (dB(Lin Peak))		Allowable exceedance																		
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120		0%																		
C10	<p>The Proponent shall ensure that ground vibration generated by blasting associated with the project does not exceed the criteria specified in Table 2 when measured at the most affected residence or other sensitive receiver. To ensure that criteria are satisfied at the most affected residence or other sensitive receiver, blasting trials shall be undertaken prior to the commencement of the project blasting program, with results from the trials used to determine site specific blast design to satisfy the criteria specified in Table 2.</p> <p>Table 2 Peak particle velocity criteria</p> <table border="1"> <thead> <tr> <th>Peak particle velocity (mms-1)</th> <th></th> <th>Allowable exceedance</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>5</td> <td>5% of total number of blasts over a 12 month period</td> <td></td> <td></td> <td></td> </tr> <tr> <td>10</td> <td></td> <td>0%</td> <td></td> <td></td> </tr> </tbody> </table>	Peak particle velocity (mms-1)		Allowable exceedance			5	5% of total number of blasts over a 12 month period				10		0%			Construction	Contractor	Open	Requirements incorporated into the NVMP submitted to DP&I 1-7-2013, 25-9-2013.
Peak particle velocity (mms-1)		Allowable exceedance																		
5	5% of total number of blasts over a 12 month period																			
10		0%																		
C11	<p>The blasting criteria identified in condition C9 and/ or C10 do not apply where the Proponent has a written agreement with the relevant landowner to exceed the criteria identified in condition C9 and/ or C10 and the Director General has approved the terms of the written agreement. In obtaining the Director General approval for any such agreement, the Proponent shall submit to the Director General:</p> <p>a details of the proposed blasting program and justification for the</p>	Construction	Contractor	Open	Requirements incorporated into the NVMP submitted to DP&I 1-7-2013, approved 25-9-2013.															

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	<p>proposed increase to blasting criteria including alternatives considered (where relevant);</p> <p>b an assessment of the environmental impacts of the increased blast limits on the surrounding environment and most affected residences or other sensitive receivers including, but not limited to noise, vibration and air quality and any risk to surrounding utilities, services or other structures;</p> <p>c details of the blast management, mitigation and monitoring procedures to be implemented; and</p> <p>d details of consultation undertaken and agreement reached with the relevant landowners (including a copy of the agreement in relation to increased blasting limits).</p> <p>The following exclusions apply to the application of this condition:</p> <p>a any agreements reached may be terminated by the landowner at any time should concerns about the increased blasting limits be unresolved;</p> <p>b the blasting limit agreed to under any agreement can at no time exceed a maximum Peak Particle Velocity vibration level of 25 mm/s or maximum Airblast Overpressure level of 125 dBL; and</p> <p>c the provisions under condition C'11 (to increase applicable blast criteria in agreement with the relevant landowners) do not apply where the property is a heritage property.</p>				
Operational noise mitigation review					
C12	<p>Unless otherwise agreed to by the Director General, within six months of commencing construction, the Proponent shall in consultation with EPA prepare and submit for the approval of the Director General, a review of the operational noise mitigation measures proposed to be implemented for the project. The review shall:</p> <p>a confirm the operational noise predictions of the project based on detailed design. This operational noise assessment shall be based on an appropriately calibrated noise model (which has incorporated additional noise monitoring, where necessary for calibration purposes). The assessment shall specifically include verification of</p>	Construction	Contractor	Open	<p>EPA comments received 27-3-2014.</p> <p>Extension of time submitted requesting extension of time to 30-6-2014 to address comments and finalise report.</p>

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	<p>noise levels at Nambucca Heads Rest Area, based on additional noise monitoring undertaken at this location;</p> <p>b review the suitability of the operational noise mitigation measures identified in the documents listed under condition A1 to achieve the criteria outlined in the Environmental Criteria for Road Traffic Noise (EPA, 1999) and the Industrial Noise Policy (EPA, 2000) in relation to the Nambucca Heads Rest Area, based on the operational noise performance of the project predicted under (a) above; and</p> <p>c where necessary, investigate additional feasible and reasonable noise mitigation measures to achieve the criteria outlined in the Environmental Criteria for Road Traffic Noise (EPA, 1999) and the Industrial Noise Policy (EPA, 2000) in relation to the Nambucca Heads Rest Area including the applicability of noise walls in the vicinity of River Road in Macksville.</p>				
Heritage impacts					
C13	This approval does not allow the Proponent to destroy, modify or otherwise physically affect human remains.	Construction	Contractor	Open	Requirements incorporated into the HMP submitted to DP&I 1-7-2013, approved 25-9-2013.
C14	The Proponent shall not destroy, modify or otherwise physically affect the Aboriginal cultural sites identified in Table 15-3 of the Environmental Assessment (including AHIMS site numbers 21-6-36, 21-6-0287, 21-6-0016, 21-6-0163, 21-6-0039, 21-6-0090, 21-6-0102, 21-6-0141, 21-6-0164, 21-6-0064, and 21-6-0044), Boggy Creek spiritual area, Buchanan Conflict Site at Cow Creek (21-6-00286), burial site, Cabbage tree palm resource site, Aboriginal mirrah (21-3-0034), Rosewood Scarred Tree or potential archaeological deposits (PAD) 31.	Construction	Contractor	Open	Requirements incorporated into the HMP submitted to DP&I 1-7-2013, approved 25-9-2013.
C15	The Proponent shall not destroy, modify or otherwise physically affect the following historic sites: the ferry/ punt crossing at Boulton Hill; old municipal tip; Valla Gold Mine; former stock route; tramway and quarry, Martells Road and the native swamp conservation area.	Construction	Contractor	Open	Requirements incorporated into the HMP submitted to DP&I 1-7-2013, approved 25-9-2013.
C16	The measures to protect any Aboriginal or historic heritage sites near or adjacent to the project during construction shall be detailed in the Heritage Management Plan required under condition B31(e).	Construction	Contractor	Open	Requirements incorporated into the HMP submitted to DP&I 1-7-2013, approved 25-9-2013.

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
C16A	<p>(a) i) Where permanent works (including utilities, services and permanent access and service roads, or similar works required for the project) located outside the approved project footprint and described in the documents listed in condition A1 are required, and those works have the potential to impact upon previously unidentified non-Aboriginal and Aboriginal archaeology, the proponent shall undertake archaeological investigations to determine the impacts of those works.</p> <p>ii) The proponent shall undertake the investigations required in accordance with condition C16A(a)(i) consistent with the Construction Heritage Management Plan required under Condition B31(e), or using a methodology prepared in consultation with OEH and approved by the Director General.</p> <p>iii) The proponent shall report on the results of the archaeological investigations prior to commencement of permanent works, and:</p> <ul style="list-style-type: none"> • where the potential heritage impacts identified in the report are less than those described in the documents listed in condition A1, the report shall be provided to the Director General; • where the potential heritage impacts identified in the report are the same as those described in the documents listed in condition A1, the report shall be prepared in consultation with OEH and submitted to the Director General; • where the potential heritage impacts identified in the report are greater than those described in the documents listed in condition A1, the report shall be prepared in consultation with OEH and submitted to the satisfaction of the Director General. <p>iv) The report on the results of the archaeological investigation is to include recommendations (such as for further archaeological work) and shall include, but not necessarily be limited to, consideration of measures to avoid or minimise disturbance to Aboriginal objects where objects of moderate to high significance are found to be present.</p> <p>(b) i) The proponent shall undertake salvage work with the approval of the Director General, when recommended by the results of the archaeological investigation required under condition C16A.</p> <p>ii) In determining whether to approve salvage work, the Director</p>	Construction	Contractor	Open	Requirements incorporated into Appendix H of the HMP. HMP update approved 10-3-2014.

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	General is to have reference to the results of all relevant archaeological investigations undertaken under condition C16A(a) and the views of OEH.				
Sedimentation, erosion and water					
C17	Soil and water management measures consistent with <i>Managing Urban Stormwater – Soils and Construction Vols 1 and 2, 4th Edition</i> (Landcom, 2004) and <i>Managing Urban Stormwater Soils And Construction Vols 2A and 2D Main Road Construction</i> (DECC 2008) shall be employed during the construction of the project for erosion and sediment control.	Construction	Contractor	Open	Requirements incorporated into the SWMP submitted to DP&I 1-7-2013, approved 25-9-2013.
C18	Where available, and of appropriate chemical and biological quality, the Proponent shall use stormwater, recycled water or other water sources in preference to potable water for construction activities, including concrete mixing and dust control.	Construction	Contractor	Open	Requirements incorporated into the SWMP submitted to DP&I 1-7-2013, approved 25-9-2013.
Property and landuse – property impacts					
C19	The Proponent shall construct the project in a manner that minimises impacts to private properties and other public or private structures (such as dams, fences, utilities, services etc) along the project corridor. In the event that construction of the project results in direct or indirect damage to any such property or structure, the Proponent shall arrange and fund repair of the damage to a standard comparable to the in existence prior to the damage.	Construction	Contractor	Open	This is being considered and implemented through the finalisation of design.
C20	The Proponent shall ensure that access to all properties is maintained during construction unless agreed with the property owner in advance and that any access physically affected by the Project is reinstated to at least an equivalent standard, in consultation with the landowner.	Construction	Contractor	Open	Requirement included in TMP submitted to DP&I 1-7-2013, approved 25-9-2013.
C21	The Proponent shall in consultation with relevant landowners construct, the project in a manner that minimises intrusion and disruption to agricultural operations/activities in surrounding properties (e.g. stock access, access to farm dams etc).	Construction	Contractor	Open	Requirement included in TMP submitted to DP&I 1-7-2013, approved 25-9-2013.
Property and landuse – forestry impacts					
C22	Where the project traverses Nambucca, Newry and Little Newry State Forests, the Proponent shall in consultation with DPI (Forestry) ensure	Construction	Contractor	Open	Requirement included in TMP submitted to DP&I 1-7-2013, approved

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	that construction activities do not unduly disrupt existing forestry activities, access for fire fighting and recreation activities during construction.				25-9-2013.
Traffic impacts					
C23	Road dilapidation reports shall be prepared for all local roads likely to be used by construction traffic prior to use by construction heavy vehicles. A copy of the relevant report shall be provided to the relevant Council. Any damage resulting from the construction of the project, aside from that resulting from normal wear and tear, shall be repaired at the cost of the Proponent. The roads likely to be used by heavy construction vehicles should be identified in the Traffic Management Plan required under condition B31(a).	Preconstruction and construction	Contractor	Open	Requirements incorporated into the TMP submitted to DP&I 1-7-2013, approved 25-9-2013.
Waste management					
C24	The Proponent shall not cause, permit or allow any waste generated outside the site to be received at the site for storage, treatment, processing, reprocessing, or disposal on the site, except as expressly permitted by a licence under the <i>Protection of the Environment Operations Act 1997</i> , if such a licence is required in relation to that waste.	Construction	Contractor	Open	Requirements incorporated into the WEMP submitted to DP&I 1-7-2013, approved 25-9-2013..
C25	The Proponent shall maximise the reuse and/or recycling of waste materials generated on site as far as practicable, to minimise the need for treatment or disposal of those materials off site.	Construction	Contractor	Open	Requirements incorporated into the WEMP submitted to DP&I 1-7-2013, approved 25-9-2013..
C26	The Proponent shall ensure that all liquid and/or non-liquid waste generated on the site is assessed and classified in accordance with <i>Waste Classification Guidelines</i> (DECC, 2008), or any future guideline that may supersede that document and where removed from the site is only directed to a waste management facility lawfully permitted to accept the materials.	Construction	Contractor	Open	Requirements incorporated into the WEMP submitted to DP&I 1-7-2013, approved 25-9-2013..
Ancillary facilities					
C27	Unless otherwise approved by the Director General in accordance with this condition, the sites for ancillary facilities associated with the construction of the project shall: a be located more than 50 metres from a waterway;	Preconstruction and construction	Contractor. Roads and Maritime to submit documentation	Open	Addressed in CEMP and associated Appendices. Ongoing Environmental Assessment / consistency review will be required to

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	<p>b have ready access to the road network or direct access to the construction corridor;</p> <p>c be located in areas of low ecological significance and require minimal clearing of native vegetation (not beyond that already required by the project);</p> <p>d be located on relatively level land;</p> <p>e be separated from the nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant);</p> <p>f be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented;</p> <p>g not unreasonably affect the land use of adjacent properties;</p> <p>h provide sufficient area for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours; and</p> <p>i be located in areas of low heritage conservation significance (including identified Aboriginal cultural value) and not impact on heritage sites beyond those already impacted by the project.</p> <p>Ancillary sites identified that do not meet the above criteria shall be assessed against this criteria to demonstrate how any impacts can be mitigated and managed to acceptable standards (including demonstrating consistency with project impacts identified in the documents listed under condition 41, to the satisfaction of the Director General. Such assessment(s) can be submitted separately or as part of the Construction Environmental Management Plan required under condition B30.</p>		for approval.		assess areas as they are nominated.
C27A	<p>(a) The Proponent may undertake archaeological investigations at ancillary sites that do not meet the criterion set out in condition C27(i) of this approval, where this is required to assess the potential non-Aboriginal and Aboriginal archaeological impacts of the ancillary facility on previously unidentified heritage sites.</p> <p>(b) Any archaeological investigations undertaken under this condition must be undertaken consistent with the Construction Heritage Management Plan required under Condition B31(e) or a methodology</p>	Construction	Contractor	Open	Requirements incorporated into Appendix H of the HMP. HMP update approved 10-3-2014.

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	<p>prepared in consultation with OEH and approved by the Director General.</p> <p>(c) The results of any relevant archaeological investigations undertaken under this condition must be described in the assessment of the ancillary facility required under Condition C27.</p>				
C28	<p>The Director General's approval is not required for minor ancillary facilities (e.g. lunch sheds, office sheds, and portable toilet facilities) that do not comply with the criteria set out in condition C27 of this approval and which:</p> <p>(a) are located within an active construction zone within the approved project footprint; and</p> <p>(b) have been assessed by the Environmental Representative to have:</p> <p>(i) minimal amenity impacts to surrounding residences, with consideration to matters such as noise and vibration impacts, traffic and access impacts, dust and odour impacts, and visual (including light spill) impacts, and</p> <p>(ii) minimal environmental impact in respect to waste management, and no impacts on flora and fauna, soil and water, and heritage beyond those approved for the project; and</p> <p>(c) have environmental and amenity impacts that can be managed through the implementation of environmental measures detailed in a Construction Environment Management Plan for the project.</p>	Preconstruction and construction	Contractor. Roads and Maritime to submit documentation for approval.	Open	Addressed in CEMP and associated Appendices.
Part D – Prior to Operations					
Operational Environment Management System					
D1	Prior to the commencement of operation, the Proponent shall incorporate the project into its existing environmental management system.	Construction	Roads and Maritime	Open	NA at this stage.
Part E – During Operations					
Operational noise					

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
E1	<p>Within 12 months of the commencement of operation of the project, or as otherwise agreed by the Director General, the Proponent shall undertake operational noise monitoring to compare actual noise performance of the project against noise performance predicted in the review of noise mitigation measures required by condition C12 and prepare an Operational Noise Report to document this monitoring. The Report shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> a noise monitoring to assess compliance with the operational noise levels predicted in the review of operational noise mitigation measures required under condition C12 and documents specified under condition A1 of this approval; b a review of the operational noise levels in terms of criteria and noise goals established in the Environmental Criteria for Road Traffic Noise (EPA, 1999); c methodology, location and frequency of noise monitoring undertaken, including monitoring sites at which project noise levels are ascertained, with specific reference to locations indicative of impacts on sensitive receivers; d details of any complaints and enquiries received in relation to operational noise generated by the project between the date of commencement of operation and the date the report was prepared; e any required recalibrations of the noise model taking into consideration factors such as actual traffic numbers and proportions; f an assessment of the performance and effectiveness of applied noise mitigation measures together with a review and if necessary, reassessment of all feasible and reasonable mitigation measures; and g identification of any additional feasible and reasonable measures to those identified in the review of noise mitigation measures required by condition C12, that would be implemented with the objective of meeting the criteria outlined in the <i>Environmental Criteria for Road Traffic Noise</i> (EPA, 1999), when these measures would be implemented and how their effectiveness would be measured and 	Operation	Roads and Maritime	Open	NA at this stage.

CoA No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	<p>reported to the Director General and the EPA.</p> <p>The Proponent shall provide the Director General and the EPA with a copy of the Operational Noise Report within 60 days of completing the operational noise monitoring referred to a) above and no later than 12 months after the date of the commencement of operation, or as otherwise agreed by the Director General.</p>				

Table 2 Revised statement of commitments (November 2010)

SoC No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	Environmental management				
M1	The head contractor for the project will have an environmental management system.	Preconstruction	Contractor	Open	Refer to CoA B30 and B31 for status update.
M2	Suitably qualified and experienced personnel will develop and implement project specific environmental management plans and procedures, incorporating as a minimum the mitigation and management measures in the environmental assessment.	Preconstruction and construction	Contractor	Open	Refer to CoA B30 and B31 for status update.
M3	RTA and the contractor will implement a performance and compliance program.	Preconstruction and construction	Contractor	Open	Refer to CoA B25 for status update
	Community consultation				
CC1	<p>Keeping the community informed will include:</p> <ul style="list-style-type: none"> • regular project updates. • prior notice of project activities. • changes to traffic and access and works outside standard working hours. • contact details for enquiries. <p>Targeted consultation with affected individuals or groups will occur as necessary (e.g. waterway users, farmers, noise affected residents, etc.).</p>	Preconstruction and construction	Contractor	Open	Requirements incorporated into the CIP submitted to DP&I 1-7-2013, approved 25-9-2013.
CC2	<p>Complaint management will include:</p> <ul style="list-style-type: none"> • A published 24 hour toll free complaints number. • Directions on how to register a complaint. • Acknowledgment of complaints within eight working hours. • Complaint recording. • Tracking of complaints until resolution. 	Preconstruction and construction	Contractor	Open	Requirements incorporated into the CIP submitted to DP&I 1-7-2013, approved 25-9-2013.
	Traffic and transport				
T1	Construction vehicle movements and work programs will incorporate	Preconstruction and	Contractor	Open	Requirements incorporated into the TMP submitted to DP&I 1-7-2013,

SoC No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	traffic control measures to minimise traffic and transport impacts on local roads and the existing Pacific Highway.	Construction			approved 25-9-2013.
T2	Any use of non-arterial roads by construction traffic will require the preparation of pre-construction and post construction dilapidation reports, with copies to go to the relevant roads authority. Repair of any damage resulting from construction (normal wear and tear), will occur, unless there are alternative arrangements with the relevant roads authority.	Preconstruction and construction	Contractor	Open	Refer to CoA C23 for status update.
T3	Construction vehicle movement arrangements will limit impacts on other road users (including pedestrians, vehicles, cyclists and disabled persons), having regard to other road works in the area, local traffic movement requirements, and peak traffic volumes, including those during long weekends and holiday periods.	Construction	Contractor	Open	Requirements incorporated into the TMP submitted to DP&I 1-7-2013, approved 25-9-2013.
T4	Where the Proposal temporarily or permanently affects any legal property access, the provision of feasible and reasonable alternative access to an equivalent standard will be necessary, unless a property owner agrees to alternative arrangements.	Preconstruction and construction	Contractor. Roads and Maritime will consult with property owners to determine the locations and arrangements for Property Works and Local Road Works.	Open	Requirements incorporated into the TMP submitted to DP&I 1-7-2013, approved 25-9-2013.
T5	Construction vehicle movements and work programs will incorporate traffic control measures to maintain access to state forests.	Construction	Contractor	Open	Requirements incorporated into the TMP submitted to DP&I 1-7-2013, approved 25-9-2013.
	Noise and vibration				
N1	Further investigation of all feasible and reasonable mitigation and management measures to minimise construction noise at sensitive receivers will occur as part of detailed design (including consideration of early implementation of operational noise mitigation measures). Noise and vibration monitoring will measure against predicted levels and assess effectiveness. Implementation of further feasible and reasonable mitigation measures will occur where necessary.	Preconstruction and construction	Contractor. Roads and Maritime will undertake at residence noise mitigation treatments.	Open	Requirements incorporated into the NVMP submitted to DP&I 1-7-2013, approved 25-9-2013. Roads and Maritime have completed the at residence noise treatments for those residents that have agreed to have the houses treated. Some Utility

SoC No.	Requirement	Timing	Responsibility	Status	Reference / Comment
					upgrades required for air conditioning units to be operational, these upgrades have commenced.
N2	Consultation with affected education institutions during construction works in their vicinity will attempt to limit audible construction works during important events, such as examination periods.	Construction	Contractor	Open	Requirements incorporated into the NVMP submitted to DP&I 1-7-2013, approved 25-9-2013.
N3	Best practice mitigation and management measures will be used to minimise construction noise and vibration at sensitive receivers.	Construction	Contractor	Open	Requirements incorporated into the NVMP submitted to DP&I 1-7-2013, approved 25-9-2013. This is addressed in MCoAs C3 to C11 in regards to construction noise.
N4	<p>Construction would normally be limited to the following hours:</p> <ul style="list-style-type: none"> • Between 6am and 6pm Monday to Friday. • Between 7am and 4pm Saturday. <p>There would be no works outside these hours or on Sundays or public holidays except:</p> <p>a) Works that do not cause construction noise to be audible at any sensitive receivers.</p> <p>b) For the delivery of materials required outside these hours by the Police or other authorities for safety reasons.</p> <p>c) Where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm.</p> <p>d) Any other work as agreed through negotiations between the RTA and potentially affected sensitive receivers. Any such agreement must be recorded in writing and a copy kept on site for the duration of the works.</p> <p>e) Where the work is identified in the CNVMP and approved as part of the Construction Environmental Management Plan.</p> <p>f) As agreed by Department of Planning and or Department of Environment, Climate Change and Water in an EPL for the construction of the Proposal Local residents and the Department of Environment, Climate Change and Water must be informed of the timing and duration of work approved under items (d) and (e) at least 48 hours before that</p>	Construction	Contractor	Open	Requirements incorporated into the NVMP submitted to DP&I 1-7-2013, approved 25-9-2013.

SoC No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	work commences.				
N5	All reasonable attempts will be made to contact sensitive receivers located within 500 metres of a blast location. The contact will be at least 48 hours before a blast and will include a schedule of blast time(s), and a telephone contact name and number.	Construction	Contractor	Open	Requirements incorporated into the NVMP submitted to DP&I 1-7-2013, approved 25-9-2013.
N6	Where complaints relating to noise or vibration impacts as a result of extended workings cannot be satisfactorily resolved with the affected residents then works hours will revert back to standard working hours at that particular location for that particular activity. Resident(s) will be consulted before recommencing any works outside standard working hours. Any complaints received in relation to working hours will be made available to DoP and DECCW.	Construction	Contractor	Open	Requirements incorporated into the NVMP submitted to DP&I 1-7-2013, approved 25-9-2013.
N7	Confirmation of all feasible and reasonable mitigation and management measures to minimise operational noise at sensitive receivers will occur as part of detailed design. Implementation of the measures would occur as construction proceeds.	Preconstruction and construction	Contractor. Roads and Maritime will undertake at residence noise mitigation treatments.	Open	Roads and Maritime included extensive requirements in regards to operational noise in the Deed, including operational noise requirements under SWTC App 4.24 and an Operational Noise Report under SWTC App 4.25. Refer MCoA E 1 and MCOA C 12.
N8	Monitoring of operational noise will be undertaken within one year after completion of construction. If monitoring indicates a clear trend that traffic noise levels exceed those predicted, investigation of all further feasible and reasonable management measures will occur. Consultation with a suitably qualified and experienced acoustic specialist and the affected property owner will be necessary during the development of any additional mitigation measures.	Operation	Roads and Maritime	Open	Refer MCoA E 1.
	Flora and Fauna				
F1	Clearing of native vegetation (including endangered ecological communities (EECs)) will be restricted to the minimum area necessary for construction.	Preconstruction and construction	Contractor	Open	This forms an important part of the project and is an EA/ SWTC requirement. Proposed design refinements consider this issue.

SoC No.	Requirement	Timing	Responsibility	Status	Reference / Comment
					Any increased clearing will be addressed in the biodiversity offsets strategy/ package.
F2	A qualified ecologist will identify any vegetation (including <i>Marsdenia longiloba</i>) to be retained and to be clearly delineated on work plans within the construction corridor. Erection of flagging/fencing on-site prior to any construction works, which is to remain in place for the full construction period, will clearly delineate this vegetation.	Preconstruction and construction	Contractor	Open	Requirements incorporated into the FFMP submitted to DP&I 1-7-2013, approved 25-9-2013.
F3	A threatened flora survey will be undertaken prior to clearing to identify individuals to be translocated and to confirm the extent of clearing. Erection of exclusion fencing to prevent any further encroachment into Newry State Forest to the east of the construction footprint. Threatened species directly impacted by the Proposal will be translocated to a suitable location outside the impact zone. A further visual inspection will be conducted post clearance to identify threatened species which may be indirectly impacted outside the cleared zone. Landscape planting to commence along the road boundary as soon as possible during construction.	Preconstruction and construction	Contractor. Roads and Maritime will develop a management plan for threatened flora to be implemented by the Contractor.	Open	Threatened Flora Management Plan approved by DP&I 31-5-2013, approved 25-9-2013. Plan to be implemented through preconstruction and construction phases.
F4	Plantings of rusty plum (<i>Amorphospermum whitei</i>) in areas of suitable habitat adjacent to the Proposal will follow from seed collection and propagation.	Preconstruction and construction	Contractor	Open	Threatened Flora Management Plan approved by DP&I 31-5-2013, approved 25-9-2013. Plan to be implemented through preconstruction and construction phases.
F5	Site induction of construction workers will inform and instruct them of vegetation to be retained and on the identification of threatened species	Preconstruction and construction	Contractor	Open	Induction is being prepared by Lend Lease.
F6	A suitably qualified ecologist will undertake pre-clearance surveys for threatened species including frogs. Searches will include nests and hollow bearing trees. Re-location of fauna species at risk of injury found in pre-clearance surveys or during construction will be in suitable habitat as close as possible to the area in which they were found. Immediately prior to clearing an inspection will confirm that the sites subject to pre-clearance surveys remain free of fauna.	Construction	Contractor	Open	Requirements incorporated into the FFMP submitted to DP&I 1-7-2013, approved 25-9-2013.

SoC No.	Requirement	Timing	Responsibility	Status	Reference / Comment
F7	Where feasible and reasonable the identification and distribution of natural and artificial habitat features and resources (such as hollow-bearing trees, hollow logs, nest boxes and bush rocks) will occur along the Proposal. This relocation will limit injury to fauna and damage to existing vegetation. A nest box plan will be developed for the Proposal.	Preconstruction and construction.	Contractor. Roads and Maritime will develop a Nest Box Plan to be implemented by the contractor.	Open	Nest Box Plan of Management approved by DP&I 20-3-2013. Plan to be implemented through preconstruction and construction phases.
F8	Retention of mature trees in the median at locations identified in the environmental assessment will provide a stepping stone for gliders. Protection of these trees will occur (F2), and lopping and pruning is not to occur without expert advice.	Preconstruction and construction	Contractor	Open	Refer to MCoA B4.
F9	Provision of fauna crossings will be as identified in the environmental assessment. All fauna crossings will be confirmed with the DECCW and I&I (Fisheries) during the detailed design phase.	Preconstruction and construction	Contractor	Open	Refer to MCoA B1, B2 and B3.
F10	Design and construction of waterway crossings will be in accordance with the fish habitat classification of each waterway and in consultation with the Department of Industry and Investment. All fauna crossings will be confirmed with the DECCW and I&I (Fisheries) during the detailed design phase.	Preconstruction and construction	Contractor	Open	Refer to MCoA B1, B2 and B3. This matter is being progressed in detailed design and discussed with DPI(Fisheries) at ERGs.
F11	Erection of fauna exclusion fencing (e.g. floppy-top fencing) along the Proposal at appropriate locations will direct fauna movement towards fauna-crossing structures.	Preconstruction and construction	Contractor.	Open	Refer to MCoA B1, B2 and B3. This matter is being progressed in consultation with EPA Biodiversity Specialist to determine most appropriate locations for fauna fence.
F12	Development of an offset strategy will occur in consultation with the Department of Environment, Climate Change and Water.	Preconstruction and construction	Roads and Maritime	Open	Draft Biodiversity Offset Strategy submitted to DP&I 1-7-2013. Final submitted 1-4-2014.
F13	A targeted, adaptive monitoring program will be undertaken for a minimum of 12 months to assess the effectiveness of fauna and flora impact mitigation measures. After 12 months a report will be completed to assess the need for additional measures and/or further targeted monitoring.	Operation	Roads and Maritime	Open	Not applicable at this time.
F14	The RTA will set bed levels for culverts and ledges for combined fauna passage in consultation with the Department of Environment, Climate	Preconstruction and construction	Contractor	Open	Fauna passage is being progressed in detailed design in consultation with

SoC No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	Change and Water.				EPA Biodiversity Specialist.
	Aboriginal heritage				
AH1	The protection of items and areas of archaeological significance not directly affected by construction will occur.	Preconstruction and construction	Contractor	Open	Requirements incorporated into the HMP submitted to DP&I 1-7-2013, approved 25-9-2013.
AH2	There will be protocols will be established and implemented to manage any previously unidentified Aboriginal objects or skeletal remains encountered during construction. All works in the vicinity of the find will cease to obtain Aboriginal heritage specialist advice and inform the Department of Environment, Climate Change and Water.	Preconstruction and construction	Contractor	Open	Requirements incorporated into the HMP submitted to DP&I 1-7-2013, approved 25-9-2013.
AH3	The management of any Aboriginal heritage items directly affected will be in consultation with Aboriginal stakeholders and the Department of Environment, Climate Change and Water.	Preconstruction and construction	Contractor	Open	Requirements incorporated into the HMP submitted to DP&I 1-7-2013, approved 25-9-2013.
AH4	All construction personnel will receive training on their obligations for protection of Aboriginal cultural materials, including information on site locations, conservation management and legal obligations in regard to Aboriginal cultural materials.	Preconstruction and construction	Contractor	Open	Requirements incorporated into the HMP submitted to DP&I 1-7-2013, approved 25-9-2013.
AH5	The RTA will comply with the NSW Government's <i>Aboriginal Participation in Construction Guidelines</i> .	Preconstruction and construction	Contractor	Open	Requirements incorporated into the HMP submitted to DP&I 1-7-2013, approved 25-9-2013.
	Non-Aboriginal heritage				
NH1	The detailed design will minimise impacts to identified non-Aboriginal heritage items where feasible and reasonable.	Preconstruction and construction	Contractor	Open	Requirements incorporated into the HMP submitted to DP&I 1-7-2013, approved 25-9-2013.
NH2	If any material of potential archaeological significance is unearthed, work will cease to obtain specialist heritage advice.	Preconstruction and construction	Contractor	Open	Requirements incorporated into the HMP submitted to DP&I 1-7-2013, approved 25-9-2013.
NH3	Preparation of archival and photographic records for impacted heritage items would be in accordance with relevant guidelines.	Preconstruction and construction	Contractor	Open	Requirements incorporated into the HMP submitted to DP&I 1-7-2013, approved 25-9-2013.

SoC No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	Water quality and hydrology				
W1	Minimisation of the area of soil exposure during construction.	Construction	Contractor	Open	Requirement incorporated into SWMP submitted to DP&I 1-7-2013, approved 25-9-2013.
W2	Detailed design will further investigate any additional feasible and reasonable mitigation and management measures to minimise construction erosion and sedimentation.	Preconstruction and construction	Contractor	Open	Sediment basin design and the effective design of drains to minimise scouring risk undertaken through design and SWTC requirements.
W3	Monitoring of groundwater impacts and surface water quality upstream and downstream of the site during construction will determine the effectiveness of mitigation strategies. Implementation of additional feasible and reasonable management measures will occur if necessary.	Preconstruction and construction	Roads and Maritime will prepare the monitoring program and implement the pre and post construction requirements. Contractor to implement construction monitoring requirements.	Open	Groundwater and surface water monitoring programs approved by DP&I 4-3-2013.
W4	Development and implementation of specific construction measures for in-stream works to limit water quality impacts will occur in consultation with relevant government agencies.	Preconstruction and construction	Contractor	Open	Requirements incorporated into the SWMP submitted to DP&I 1-7-2013, approved 25-9-2013.
W5	Managing operational water quality will occur by applying RTA's <i>Code of Practice for Water Management – Road Development and Management (1999)</i> .	Preconstruction, construction and operation	Contractor. Roads and Maritime will manage operational water quality during the operational phase.	Open	Requirements incorporated into the SWMP submitted to DP&I 1-7-2013, approved 25-9-2013.
W6	Investigation of the potential for changes in the groundwater table will	Preconstruction	Roads and	Open	Groundwater monitoring program

SoC No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	take place before starting any major earthworks. Where a potential for change is identified, the significance of the change and any resultant impacts will be determined and measures to manage the changes will be designed and implemented as necessary.	and construction	Maritime will prepare the monitoring program and implement the pre and post construction requirements. Contractor to implement construction monitoring requirements.		approved by DP&I 4-3-2013. Background monitoring of water quality and levels commenced September 2012.
W7	Baseline monitoring of groundwater levels and chemical levels at cutting sites near springs, creeks or endangered ecological communities prior to construction commencing.	Preconstruction and construction	Contractor. Roads and Maritime will undertake baseline monitoring up to the date of the Deed.	Open	Groundwater monitoring program approved by DP&I 4-3-2013. Background monitoring of water quality and levels commenced September 2012.
	Soils and fill				
S1	Identification and management of Acid Sulphate Soils will be in accordance with the <i>Guidelines for the Management of Acid Sulphate materials: Acid Sulphate Soils, Acid Sulphate Rock and Monosulphidic Black Ooze (RTA 2005)</i> .	Preconstruction and construction	Contractor	Open	Requirements incorporated into the SWMP submitted to DP&I 1-7-2013, approved 25-9-2013.
S2	There will be identification, investigation and appropriate management of areas of potential soil contamination (including works in the vicinity of the old municipal tip site in Nambucca State Forest).	Preconstruction and construction	Contractor	Open	Requirements incorporated into the SWMP submitted to DP&I 1-7-2013, approved 25-9-2013.
	Air quality				
AQ1	To minimise windblown, traffic generated or equipment generated dust emissions, there will be feasible and reasonable mitigation and management measures.	Construction	Contractor	Open	Requirements incorporated into the AQMP submitted to DP&I 1-7-2013, approved 25-9-2013.
AQ2	Dust generating activities will stop where visible dust is being emitted	Construction	Contractor	Open	Requirements incorporated into the

SoC No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	outside the construction corridor and dust suppression measures are ineffective.				AQMP submitted to DP&I 1-7-2013, approved 25-9-2013.
	Greenhouse gases and energy				
G1	Wherever feasible and reasonable detailed design will consider whole of life reductions in greenhouse gas emissions and energy consumption.	Preconstruction	Contractor	Open	Requirements incorporated into the WEMP submitted to DP&I 1-7-2013, approved 25-9-2013.
G2	Energy efficient work practices will be adopted to limit energy use. Where reasonable and feasible, equipment and management measures will be adopted to minimise energy use and greenhouse gas production.	Preconstruction and construction	Contractor	Open	Requirements incorporated into the WEMP submitted to DP&I 1-7-2013, approved 25-9-2013.
	Visual amenity and design				
UD1	The preparation of detailed urban and landscape design will be in consultation with Nambucca and Bellingen Shire councils and the community. The detailed design and implementation of built elements and landscapes and the mitigation of residual impacts will be in accordance with the visual and urban design objectives and principles of the Proposal.	Preconstruction	Contractor	Open	Refer to MCoA B21
UD2	The species to be used in the landscaping treatments will include native and locally indigenous plants.	Preconstruction and construction	Contractor	Open	Included in SWTC App 15, R176, R178 and R179 in regards to urban design and landscape treatments.
UD3	Landscape and rehabilitation works will be subject to monitoring and maintenance where necessary for a minimum of two years after construction.	Operation	Contractor.	Open	Included in Section 8 of R178 and section 4 of R179 in regards to urban design and landscape treatments. Deed schedule 1 item 8 requires 36 month landscape maintenance period.
	Hazards and risks				
HR1	Hazardous materials used during construction will be stored in bunded areas within construction sites. Hazardous materials will not be stored on the floodplain below the 20 year ARI flood level. Use of hazardous materials in floodplain areas will be limited to a daily or weekly	Construction	Contractor	Open	Requirements incorporated into the SWMP submitted to DP&I 1-7-2013, approved 25-9-2013.

SoC No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	threshold. Containers, workshops, plant, material stores and storage tanks will not be sited on the floodplain of watercourses where avoidable.				
HR2	Potentially hazardous and contaminating activities (such as washing construction plant and handling hazardous chemicals) and activities with the potential for spillage such as refuelling, maintenance of equipment, mixing of cutting oil and bitumen will be in bunded areas or in other areas where suitable containment measures are in place to prevent discharge into watercourses.	Construction	Contractor	Open	Requirements incorporated into the SWMP submitted to DP&I 1-7-2013, approved 25-9-2013.
	Waste and resource management				
WR1	The waste minimisation hierarchy principles of avoid / reduce / re-use / recycle / dispose will apply to all aspects of the Proposal, including work programs, purchase strategies and site inductions. Quarterly assessments will identify opportunities for improvement.	Construction	Contractor	Open	Requirements incorporated into the WEMP submitted to DP&I 1-7-2013, approved 25-9-2013:
WR2	Where reuse or recycling of water is not possible, it will be sent to an appropriately licensed facility.	Construction	Contractor	Open	Requirements incorporated into the WEMP submitted to DP&I 1-7-2013, approved 25-9-2013:
	Landuse and property				
P1	Negotiation of all property acquisitions will be in accordance with the RTA <i>Land Acquisition Policy Statement</i> . Compensation assessment will be in accordance with the <i>Land Acquisition (Just Terms Compensation) Act 1991</i> .	Preconstruction	Roads and Maritime	Open	All property purchase undertaken in accordance with. Land Acquisition (Just Terms Compensation) Act 1991.
P2	The Department of Industry and Investment will have access to state forest land identified for acquisition by RTA to remove any harvestable timber within the footprint of the Proposal prior to commencement of construction. Access to state forest land adjacent to the Proposal will provide for forestry operations, fire management activities and recreation purposes.	Preconstruction	Roads and Maritime	Open	Requirement included within State Forest Deed of Agreement as part of land purchase. State Forest are currently exercising this agreement.
P3	Where the Proposal adversely affects a licensed bore, dam or other property water supply, RTA will investigate an alternate source or negotiate compensation for the loss with the landowner.	Preconstruction and construction	Contractor	Open	Groundwater monitoring program approved by DP&I 4-3-2013. Program did not identify any licensed bores that would be adversely affected.

SoC No.	Requirement	Timing	Responsibility	Status	Reference / Comment
	Socio economic impacts				
S1	There will be ongoing consultation with affected businesses, agricultural and aquaculture landowners.	Preconstruction and construction	Contractor	Open	Requirements incorporated into the CIP submitted to DP&I 1-7-2013, approved 25-9-2013.
S2	The identification of utilities and services potentially affected by construction, including requirements for diversion, protection and / or support will occur prior to the start of construction. Consultation with the service providers will determine alterations to services, the limitation of disruptions and requirements for advice to customers.	Preconstruction and construction	Roads and Maritime for some pre construction activities and Contractor for construction.	Open	Utility relocations ongoing in consultation with the relevant service provider.
S3	Sites chosen for ancillary facilities will satisfy criteria outlined in Chapter 7 of the EA. Occupation and use of compound and work sites will seek to minimise disturbance to adjacent residents.	Preconstruction and construction	Contractor	Open	Included in CEMP and SWMP. Further EA/ Consistency required as sites are proposed by the Contractor/ where required.
S4	Fencing will be erected around construction activities to prevent livestock from adjacent properties entering construction areas. Inclusion of water quality protection measures during the installation of in-stream structures to protect aquaculture.	Preconstruction and construction	Contractor	Open	Fencing works ongoing

Appendix B

Environmental Monitoring Results

NH2U - Noise Monitoring Summary December 2013 to April 2014

Monitoring Location No. (NVMP)	Location								Monitoring Comments	Compliance Check
		Date	Time	Activity	Noise Goal Laeq	Predicted LAeq Noise Level	Measured Noise Level Laeq	Construction Noise Within Predicted Noise Level?		
Dec-13 (no noise monitoring undertaken due to limited construction works)										
Jan-14										
CP_1 (1A)	70 Foxes Rd							n/a	Construction work is yet to commence in this area, no monitoring required.	
CP_2 (2A)	47 Boggy Creek Rd							n/a	Construction work is yet to commence in this area, no monitoring required.	
CP_3 (2)	21 Auld Cl	31-Jan-14	11:15 AM	Earthworks and clearing	57	60	50.2	Y	No construction noise is audible, dominant source is traffic on Pacific Hwy. Background noise consists of bugs and cicadas.	Construction noise inaudible
CP_4 (3)	19 Valla Rd	29-Jan-14	10:49 AM	Earthworks and clearing	57	65	63.6	Y	Dominant noise is background noise from traffic on Pacific Hwy and cicada's.	Construction noise inaudible
CP_5 (5)	7119B Pacific Hwy	31-Jan-14	11:55 AM	Earthworks	55	53	50	Y	Traffic on Pacific Hwy is the dominant noise source. Other background noise sources includes bugs, rustling leaves.	Construction noise inaudible
CP_6 (6A)	7 Valla Beach Rd	13-Jan-14	9:40 AM	Earthworks and clearing	52	43	54.2	Y	Construction work is not audible. Background noise includes kids playing, local traffic on Valla Beach Road, traffic on Pacific Hwy, bugs and birds	Construction noise inaudible
CP_7 (7)	6 East West Rd							n/a	No monitoring undertaken in this location as no works taking place.	
CP_8 (8A)	7440 Pacific Hwy							n/a	Construction work is yet to commence in this area, no monitoring required.	

Monitoring Location No. (NVMP)	Location	Date	Time	Activity	Noise Goal Laeq	Predicted LAeq Noise Level	Measured Noise Level Laeq	Construction Noise Within Predicted Noise Level?	Monitoring Comments	Compliance Check
CP_9 (9A)	7443 Pacific Hwy							n/a	Construction work is yet to commence in this area, no monitoring required.	
CP_10 (11)	7643 Pacific Hwy	31-Jan-14	9:07 AM	Earthworks and clearing	59	49	60.9	Y	Dominant noise source is traffic on Pacific Hwy, roosters and cicada's.	Construction noise inaudible
CP_11 (11A)	1316 Martells Rd	31-Jan-14	3:21 PM	Earthworks and clearing	52	23	62.7	Y	Cicada noise / birds dominant noise source. Other background noise includes exhaust brakes from trucks on Pacific Hwy. No construction noise audible.	Construction noise inaudible
CP_12 (13A)	354 South Arm Rd	31-Jan-14	4:32 PM	Earthworks and clearing	40	59	48.3	Y	Dominant noise source was cicadas. Construction audible but peaks not registering above background	Construction noise above the noise goal but below the predicted noise levels
CP_13 (12A)	358 South Arm Rd	31-Jan-14	4:32 PM	Earthworks and clearing	40	59	56.9	Y	Construction audible, tracking roller on vibrate, reversing alarms, clearing in distance, chainsaw from clearers (peak 67dB) and excavator/harvester (65dB)	Construction noise above the noise goal but below the predicted noise levels
CP_14 (14A)	17 Ridgewood Dr	31-Jan-14	5:23 PM	Earthworks	45	51	48	Y	Dominant noise source was traffic on Shortcut and South Arm Road (peak 49dB). Other background noises include birds (peak 46dB), wind gusts (peak 51dB).	Construction noise above the noise goal but below the predicted noise levels
CP_15 (15A)	79 Short Cut Rd							n/a	No monitoring undertaken in this location as no works taking place.	
CP_16 (16A)	63 Waterfall Way							n/a	Construction work is yet to commence in this area, no monitoring required.	
CP_17 (17A)	100 Old Pacific Hwy							n/a	Construction work is yet to commence in this area, no monitoring required.	

Monitoring Location No. (NVMP)	Location								Monitoring Comments	Compliance Check
		Date	Time	Activity	Noise Goal Laeq	Predicted LAeq Noise Level	Measured Noise Level Laeq	Construction Noise Within Predicted Noise Level?		
Feb-14										
CP_1 (1A)	70 Foxes Rd	10-Feb-14	3:30 PM	Earthworks	45	44	48.7	Y	Dominant noise source is traffic on Pacific Hwy (with peaks to 46dB). Birds noise peaks (50-53dB). Construction noise peaks (44dB).	Construction noise below noise goals
CP_2 (2A)	47 Boggy Creek Rd	10-Feb-14	4:10 PM	Earthworks	48	59	52.1	Y	Dominant noise source was traffic along Pacific Hwy (with peaks to 60dB). Construction noise peaks (52dB). Other background noise was insects, birds and wind in grass.	Construction noise above the noise goal but below the predicted noise levels
CP_3 (2)	21 Auld Cl	10-Feb-14	2:57 PM	Geotech	57	59	58.1	Y	No construction audible, dominant noise source is traffic on Pacific Hwy (with peaks to 64dB). Other background noise was cicadas (constant), birds calling (peak 59dB) and wind in trees (constant)	Construction noise inaudible
CP_4 (3)	19 Valla Rd	10-Feb-14	4:40 PM	Geotech	57	57	53	Y	Dominant noise source is traffic on Pacific Hwy (with peaks to 58dB). Other background noise was insects (crickets) and wind in trees. No construction in area just use of Valla compound which had generator running (peak 44dB)	Construction noise below noise goals
CP_5 (5)	7119B Pacific Hwy	11-Feb-14	4:36 PM	Clearing and mulching	55	38	55.1	Y	No construction audible. Dominant noise source is traffic on Pacific Hwy	Construction noise inaudible
CP_6 (6A)	7 Valla Beach Rd	11-Feb-14	3:18 PM	Earthworks, drainage	52	44	50.9	Y	No construction audible. Dominant noise source is traffic on Pacific Hwy (peak at 46 dB) and Valla Road traffic (peak at 60dB). Other background noise include cicadas (peak 48dB), birds (peak 48dB) and wind in grass (constant)	Construction noise inaudible

Monitoring Location No. (NVMP)	Location	Date	Time	Activity	Noise Goal Laeq	Predicted LAeq Noise Level	Measured Noise Level Laeq	Construction Noise Within Predicted Noise Level?	Monitoring Comments	Compliance Check
CP_7 (7)	6 East West Rd	11-Feb-14	3:56 PM	Earthworks, drainage	57	64	52.2	Y	No construction audible, dominant noise source is traffic on Pacific Hwy and East West Road (peak at 55dB). Other background sources include birds (peak 41dB), wind in trees (peak 45dB)	Construction noise inaudible
CP_8 (8A)	7440 Pacific Hwy							n/a	Construction work is yet to commence in this area, no monitoring required.	
CP_9 (9A)	7443 Pacific Hwy							n/a	Construction work is yet to commence in this area, no monitoring required.	
CP_10 (11)	7643 Pacific Hwy	10-Feb-14	5:19 PM	Clearing and mulching	59	42	56.1	n/a	Mulching was dominant noise source (Peak at 62dB). Note that the mulching was occurring along the Pacific Highway adjacent to the property as part of the Ballards Road intersection, NOT within main alignment. Other background noise includes traffic on Pacific Highway, rooster (peak 62dB), chickens, insects and birds.	Construction noise below noise goals
CP_11 (11A)	1316 Martells Rd	12-Feb-14	3:33 PM	Earthworks and clearing	52	23	48.8	Y	No construction audible, dominant noise source is traffic on Pacific Hwy (peak 49dB). Other background noise was wind in trees (constant) and birds calling (peak 46dB)	Construction noise inaudible
CP_12 (13A)	354 South Arm Rd	12-Feb-14	11:49 AM	Earthworks and clearing	40	61	53.8	Y	Construction (placing/loading of rock) was the dominant noise source (peak 66dB). Other background noise includes insects, wind in grass	Construction noise above the noise goal but below the predicted noise levels
CP_13 (12A)	358 South Arm Rd	18-Feb-14	4:40 PM	Earthworks and clearing	40	59	52	Y	Construction noise – dozer peaked at 58dB. Mulcher &	Construction noise above the noise goal but below the predicted

Monitoring Location No. (NVMP)	Location	Date	Time	Activity	Noise Goal Laeq	Predicted LAeq Noise Level	Measured Noise Level Laeq	Construction Noise Within Predicted Noise Level?	Monitoring Comments	Compliance Check
									excavator reversing alarms heard.	noise levels
CP_14 (14A)	17 Ridgewood Dr	12-Feb-14	8:50 AM	Earthworks	45	51	52.3	Y	Construction dominant noise source 50% of the time, birds dominant noise source the other 50% of the time. Excavator peak (43dB), water cart peak (47dB), birds peak (55-60dB)	Construction noise above the noise goal and but below the predicted noise levels.
CP_15 (15A)	79 Short Cut Rd	12-Feb-14	12:22 PM	Earthworks	46	56	56.6	N	Construction (placing/moving of rock) was the dominant noise source (peak 57dB). Other background noise included insects (peak 56dB), traffic on Shortcut Road (peak 60dB) and birds (peak 58dB).	Construction noise above the noise goal and slightly (0.6dB) above predicted noise levels, however other dominant noise sources had higher peaks
CP_16 (16A)	63 Waterfall Way							n/a	Construction work is yet to commence in this area, no monitoring required.	
CP_17 (17A)	100 Old Pacific Hwy							n/a	Construction work is yet to commence in this area, no monitoring required.	
Mar-14										
CP_1 (1A)	70 Foxes Rd	31-Mar-14	3:00 PM	Drainage	45	27	43.7	Y	Construction noise inaudible. Dominant noise from Pac Hwy (45dB) and wind gusts (42dB). Other sources include birds (47dB) and crickets (40dB)	Construction noise inaudible
CP_2 (2A)	47 Boggy Creek Rd	31-Mar-14	11:29 AM	Drainage	48	38	48	Y	Construction noise inaudible. Water cart operating. Background noise sources include Pac Hwy (48dB), crickets (51dB).	Construction noise inaudible
CP_3 (2)	21 Auld Cl	31-Mar-14	12:45 PM	Earthworks	57	60	53.1	Y	Construction noise audible, but background noise dominant. Pac Hwy (59dB), wind in trees (54dB). Construction noise	Construction noise below noise goals

Monitoring Location No. (NVMP)	Location	Date	Time	Activity	Noise Goal Laeq	Predicted LAeq Noise Level	Measured Noise Level Laeq	Construction Noise Within Predicted Noise Level?	Monitoring Comments	Compliance Check
									includes earthworks and truck and dog loading (53dB).	
CP_4 (3)	19 Valla Rd	31-Mar-14	1:07 PM	Earthworks	57	65	55.9	Y	Construction noise audible, but background noise dominant (Pac Hwy). Earthworks and loading of trucks occurring. Truck and dogs accelerating (56dB), excavator (53dB). Pac Hwy (57dB).	Construction noise below noise goals
CP_5 (5)	7119B Pacific Hwy	27-Mar-14	11:23 AM	Clearing (discrete)	55	38	55.8	Y	Construction noise audible and equal to background noise levels. Construction noise included intermittent reversing alarms (peak 55dB), clearing excavators 52dB. Background noise included Pacific Highway noise (peak 58dB)	Construction noise equal to noise goals.
CP_6 (6A)	7 Valla Beach Rd	31-Mar-14	3:20 PM	Earthworks	52	53	56	Y	Construction noise inaudible, Pacific Highway traffic dominant noise source (58dB). Other noise sources include wind in trees (56dB) and birds (55dB).	Construction noise inaudible
CP_7 (7)	6 East West Rd							n/a	Construction work was not undertaken in this area during the monitoring period, no monitoring required.	
CP_8 (8A)	7440 Pacific Hwy	31-Mar-14	1:33 PM	Earthworks	50	52	57.9	Y	Construction noise audible, but background noise dominant. Pac Hwy (peak 70dB), birds (54dB). Construction includes earthworks (1 x excavator 48dB), (1 x dozer 42dB), intermittent reversing beepers (47dB).	Construction noise below noise goals
CP_9 (9A)	7443 Pacific Hwy	27-Mar-14	10:54 AM	Earthworks	55	53	54.2	Y	Construction noise inaudible, Pacific Highway traffic dominant noise source.	Construction noise inaudible

Monitoring Location No. (NVMP)	Location	Date	Time	Activity	Noise Goal Laeq	Predicted LAeq Noise Level	Measured Noise Level Laeq	Construction Noise Within Predicted Noise Level?	Monitoring Comments	Compliance Check
CP_10 (11)	7643 Pacific Hwy	31-Mar-14	4:48 PM	Earthworks	59	54	53.7	Y	Construction noise audible but background noise dominant. Pac Hwy (54dB), birds (peak 60dB), property owner leaving property by car (59dB), roosters (peak 60dB). Construction noise includes very faint, intermittent reversing beepers (20dB).	Construction noise below noise goals
CP_11 (11A)	1316 Martells Rd	31-Mar-14	2:07 PM	Earthworks and clearing	52	23	49.2	Y	Construction noise inaudible. Dominant noise source is traffic on Pacific Hwy (peak 53dB). Other background noise was wind in trees (constant) and birds calling (peak 46dB)	Construction noise inaudible
CP_12 (13A)	354 South Arm Rd	31-Mar-14	3:47 PM	Earthworks	40	56	56.5	N	Construction audible. Dozer peak (62dB), moxie (60dB), trucks on South Arm Rd (peak 62dB). Occasional horn blast from works. Birds (peak 72dB).	Construction noise above the noise goal and 0.5dB above predicted noise levels.
CP_13 (12A)	358 South Arm Rd	31-Mar-14	2:30 PM	Earthworks	40	59	58	Y	Construction audible. General earthworks and reverse squawker.	Construction noise above noise goals, but below predicted noise level.
CP_14 (14A)	17 Ridgewood Dr	31-Mar-14	4:22 PM	Clearing (discrete)	45	43	51.8	Y	Construction inaudible, birds dominant noise. Traffic audible from Short Cut rd (peak 50dB).	Construction noise inaudible
CP_15 (15A)	79 Short Cut Rd	31-Mar-14	12:07 PM	Earthworks	46	56	54.4	Y	Construction noise inaudible. Traffic including trucks, cars and buses and wind is the dominant noise source.	Construction noise inaudible
CP_16 (16A)	63 Waterfall Way							n/a	Construction work is yet to commence in this area, no monitoring required.	
CP_17 (17A)	100 Old Pacific Hwy							n/a	Construction work is yet to commence in this area, no	

Monitoring Location No. (NVMP)	Location	Date	Time	Activity	Noise Goal Laeq	Predicted LAeq Noise Level	Measured Noise Level Laeq	Construction Noise Within Predicted Noise Level?	Monitoring Comments	Compliance Check
									monitoring required.	
Apr-14										
CP_1 (1A)	70 Foxes Rd	7-Apr-14	10:08 AM	Earthworks	45	40	48.6	Y	Construction noise inaudible. Dominant sounds include Pac Hwy traffic (50dB) and wind in trees (45dB).	Construction noise inaudible.
CP_2 (2A)	47 Boggy Creek Rd	7-Apr-14	10:32 AM	Earthworks	48	52	47.2	Y	Construction audible but background noise dominant. Pac Hwy (peak 49dB), birds (peak 55dB), wind in trees (48dB). Construction includes general earthworks (loading of trucks) - (38dB). Water cart operating (inaudible).	Construction noise below noise goals.
CP_3 (2)	21 Auld Cl	7-Apr-14	9:45 AM	Earthworks	57	60	55.2	Y	Construction noise inaudible. Dominant noise source is traffic on Pacific Hwy (58dB) and wind rustling in trees (56dB). Works include earthworks (1 x excavator). Other background noises include crickets (50dB) and birds (62dB peak).	Construction noise inaudible.
CP_4 (3)	19 Valla Rd	7-Apr-14	10:55 AM	Earthworks	57	65	60.2	Y	Construction audible. Earthworks (2 x excavators) with excavator 1 refuelling (58dB), workers talking onsite (30dB), truck and dog accelerating on Valla road (60dB peak). Backhoe loading skip bin (56dB). Pac Hwy background noise (56dB).	Construction noise above noise goals, but below predicted noise level.
CP_5 (5)	7119B Pacific Hwy	7-Apr-14	11:27 AM	Earthworks	55	59	57	Y	Construction audible. Earthworks (1 x excavator (58dB) loading trucks). Intermittent horn (57dB). Pac Hwy background noise (60dB), wind in trees (50dB).	Construction noise above noise goals, but below predicted noise level.

Monitoring Location No. (NVMP)	Location	Date	Time	Activity	Noise Goal Laeq	Predicted LAeq Noise Level	Measured Noise Level Laeq	Construction Noise Within Predicted Noise Level?	Monitoring Comments	Compliance Check
CP_6 (6A)	7 Valla Beach Rd	7-Apr-14	9:21 AM	Earthworks	52	53	55.9	Y	Construction inaudible. Traffic on Pac Hwy dominant noise source (62dB). Works include signage works on Pac Hwy and earthworks on main alignment (inaudible). Wind in trees (52dB).	Construction noise inaudible.
CP_7 (7)	6 East West Rd							n/a	Construction work was not undertaken in this area during the monitoring period, no monitoring required.	
CP_8 (8A)	7440 Pacific Hwy	7-Apr-14	8:56 AM	Earthworks	50	52	57.9	Y	Construction audible but Pac Hwy traffic dominant noise source (65dB). Works include general earthworks (2 x excavators 48dB). Intermittent reversing beepers (50dB). Wind in trees (50dB) and birds (peak 65dB).	Construction noise equal to noise goals.
CP_9 (9A)	7443 Pacific Hwy	7-Apr-14	11:54 AM	Earthworks	55	53	52.6	Y	Construction noise inaudible. Background noise sources include Pac Hwy (53dB), wind in trees (50dB), birds (50dB peak). General earthworks ongoing (inaudible)	Construction noise inaudible.
CP_10 (11)	7643 Pacific Hwy	7-Apr-14	12:15 PM	Earthworks	59	54	51.8	Y	Construction inaudible. Dominant noise source from Pac Hwy (53dB) and wind in trees. Birds squawking (54dB peak). Construction activities include truck movements (inaudible).	Construction noise inaudible.
CP_11 (11A)	1316 Martells Rd	10-Apr-14	12:33 PM	Earthworks	52	23	54.2	Y	Construction inaudible. Background noise includes Pac Hwy (58db peak), birds and wind in trees (35dB).	Construction noise inaudible.

Monitoring Location No. (NVMP)	Location	Date	Time	Activity	Noise Goal Laeq	Predicted LAeq Noise Level	Measured Noise Level Laeq	Construction Noise Within Predicted Noise Level?	Monitoring Comments	Compliance Check
CP_12 (13A)	354 South Arm Rd	8-Apr-14	3:12 PM	Earthworks	40	61	59.5	Y	Construction audible. Works include earthworks and truck movements along South Arm Road. Plant in vicinity includes 1 x excavator (30dB), 2 x moxy's (35dB), 1 x roller (38dB), 1 x dozer (52dB). Background noise includes local traffic on Sth Arm Road (49dB peak) and wind in trees (37dB).	Construction noise above noise goals, but below predicted noise level.
CP_13 (12A)	358 South Arm Rd	8-Apr-14	2:46 PM	Earthworks	40	59	61.3	Y	Construction audible. Activities include general earthworks (trucks (48dB), 1 x excavator (46dB), 1 x dozer (56dB). Dozer is operating 30m from property. Reversing squawker (51dB). Background noise includes wind gusts in trees (50dB) and local traffic (65dB).	Construction noise above noise goals, but below predicted noise level.
CP_14 (14A)	17 Ridgewood Dr	8-Apr-14	3:41 PM	Earthworks and clearing	45	56	51	Y	Construction audible. Works include clearing and earthworks. 2 x excavators (50dB peak), 1 x dozer (52dB peak). Background noise includes birds (53dB), wind (42dB). Intermittent construction noise includes reverse beepers (51dB) and clearing saw (52dB). Property owner working in shed (50dB).	Construction noise above noise goals, but below predicted noise level.
CP_15 (15A)	79 Short Cut Rd	10-Apr-14	1:49 PM	Earthworks	46	56	53.6	Y	Construction noise audible. Works include 1 x franna operating (53dB peak) moving equipment and site personnel moving tools (44dB). Background noise includes medium traffic on both Short Cut and South Arm Roads (57dB peak).	Construction noise above noise goals, but below predicted noise level.
CP_16 (16A)	63 Waterfall Way							n/a	Construction work is yet to commence in this area, no monitoring required.	

									Monitoring Comments	Compliance Check
Monitoring Location No. (NVMP)	Location	Date	Time	Activity	Noise Goal Laeq	Predicted LAeq Noise Level	Measured Noise Level Laeq	Construction Noise Within Predicted Noise Level?		
CP_17 (17A)	100 Old Pacific Hwy							n/a	Construction work is yet to commence in this area, no monitoring required.	

NH2U - Dust Monitoring Summary December 2013 to April 2014

Dust Deposition Gauge (DDG) Number	Location
1	70 Foxs Road, Nambucca
2	47 Boggy Creek Road, Valla
3	2 Auld Close, Valla
4	7119 Pacific Highway, Valla
5	23 East West Road, Valla
6	7 Valla Beach Road, Valla
7	7443 Pacific Highway, Valla
8	7643 Pacific Highway, Valla
9	Powerline Easement
10	Tower Rd via Martells Road
11	1053 Martells Road, Urunga
12	6 Ridgewood Drive, Urunga
13	28 South Arm Road, Urunga
14	79 Short Cut Road, Urunga
15	100 Old Pacific Highway, Raleigh
16	63 Waterfall Way, Raleigh
17	Valla Beach -Control
18	School Hill Road, Urunga
19	South of Short Cut Road, Off South Arm Road

Table 5-1 Air quality monitoring criteria for deposited dust^a

Pollutant	Annual concentration		Source
Deposited dust ^b	2 g/m ² /month ^c	4 g/m ² /month ^d	NERDDC (1998)

Note:

- Adapted from DECCW guideline; Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (DECCW 2005).
- Dust is assessed as insoluble solids as defined by AS 3580.10.1-2003 (AM-19).
- Maximum increase in deposited dust level.
- Maximum total deposited dust level.

	Month	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
	Period	12/11/2013 - 12/12/2014	12/12/2013 - 13/01/2014	13/01/2014 - 12/02/2014	12/02/2014 - 10/03/2014	10/03/2014 - 11/04/2014
DDG01	Total Insoluble Matter (g/m ² /month)	0.5	0.7	0.2	0.2	0.4
	Annual Insoluble Average (g/m ² /month)	0.6	0.6	0.6	0.5	0.5
DDG02	Total Insoluble Matter (g/m ² /month)	2	2.3	2.3	0	2.3
	Annual Insoluble Average (g/m ² /month)	1.1	1.2	1.3	1.2	1.3
DDG03	Total Insoluble Matter (g/m ² /month)	2	1	0.3	0.3	0.5
	Annual Insoluble Average (g/m ² /month)	0.6	0.6	0.8	0.7	0.7

	Month	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
	Period	12/11/2013 - 12/12/2014	12/12/2013 - 13/01/2014	13/01/2014 - 12/02/2014	12/02/2014 - 10/03/2014	10/03/2014 - 11/04/2014
DDG04	Total Insoluble Matter (g/m ² /month)	0.8	0.8	0.2	0.1	0.1
	Annual Insoluble Average (g/m ² /month)	0.9	0.9	0.8	0.7	0.7
DDG05	Total Insoluble Matter (g/m ² /month)	0.6	1.6	0	0.4	0.6
	Annual Insoluble Average (g/m ² /month)	0.6	0.7	0.7	0.6	0.6
DDG06	Total Insoluble Matter (g/m ² /month)	0.8	1.5	0.5	1.4	0.1
	Annual Insoluble Average (g/m ² /month)	1.0	1.0	1.0	1.0	0.9

	Month	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
	Period	12/11/2013 - 12/12/2014	12/12/2013 - 13/01/2014	13/01/2014 - 12/02/2014	12/02/2014 - 10/03/2014	10/03/2014 - 11/04/2014
DDG07	Total Insoluble Matter (g/m ² /month)	0.7	0.9	0.2	0.1	0.4
	Annual Insoluble Average (g/m ² /month)	0.6	0.7	0.6	0.6	0.6
DDG08	Total Insoluble Matter (g/m ² /month)	1.3	4.8	0.5	0.8	1.1
	Annual Insoluble Average (g/m ² /month)	1.8	2.1	2.0	1.9	1.8
DDG09	Total Insoluble Matter (g/m ² /month)	1	1	0.2	0.2	0.6
	Annual Insoluble Average (g/m ² /month)	0.7	0.8	0.7	0.7	0.7

	Month	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
	Period	12/11/2013 - 12/12/2014	12/12/2013 - 13/01/2014	13/01/2014 - 12/02/2014	12/02/2014 - 10/03/2014	10/03/2014 - 11/04/2014
DDG10	Total Insoluble Matter (g/m ² /month)	1	1.6	-	0.5	gauge removed as impacted by construction
	Annual Insoluble Average (g/m ² /month)	1.0	1.0	-	1.0	
	Comments			Sample Compromised		
DDG11	Total Insoluble Matter (g/m ² /month)	1	1.3	0.4	0.3	1.3
	Annual Insoluble Average (g/m ² /month)	0.8	0.8	0.8	0.8	0.8
DDG12	Total Insoluble Matter (g/m ² /month)	-	-	-	-	2.2
	Annual Insoluble Average (g/m ² /month)	-	-	-	-	2.2

	Month	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
	Period	12/11/2013 - 12/12/2014	12/12/2013 - 13/01/2014	13/01/2014 - 12/02/2014	12/02/2014 - 10/03/2014	10/03/2014 - 11/04/2014
DDG13	Total Insoluble Matter (g/m ² /month)	0	0.5	1	0.2	1.1
	Annual Insoluble Average (g/m ² /month)	0.7	0.7	0.7	0.7	0.7
DDG14	Total Insoluble Matter (g/m ² /month)	0.8	0.5	0.3	0.2	0.9
	Annual Insoluble Average (g/m ² /month)	0.7	0.6	0.6	0.6	0.6
DDG15	Total Insoluble Matter (g/m ² /month)	0.7	0.4	0.4	0.3	0.3
	Annual Insoluble Average (g/m ² /month)	0.3	0.4	0.4	0.4	0.3

	Month	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
	Period	12/11/2013 - 12/12/2014	12/12/2013 - 13/01/2014	13/01/2014 - 12/02/2014	12/02/2014 - 10/03/2014	10/03/2014 - 11/04/2014
DDG16	Total Insoluble Matter (g/m ² /month)	0.7	1.1	0.3	0.1	0.4
	Annual Insoluble Average (g/m ² /month)	0.3	0.4	0.4	0.4	0.4
DDG17	Total Insoluble Matter (g/m ² /month)	1	1.3	0.8	0.5	0.6
	Annual Insoluble Average (g/m ² /month)	0.8	0.9	0.9	0.8	0.8
DDG18	Total Insoluble Matter (g/m ² /month)	-	-	-	0.3	1.3
	Annual Insoluble Average (g/m ² /month)	-	-	-	0.3	0.8

	Month	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
	Period	12/11/2013 - 12/12/2014	12/12/2013 - 13/01/2014	13/01/2014 - 12/02/2014	12/02/2014 - 10/03/2014	10/03/2014 - 11/04/2014
DDG19	Total Insoluble Matter (g/m ² /month)	-	0.5	0.3	1.7	0.5
	Annual Insoluble Average (g/m ² /month)	-	0.5	0.4	0.8	0.8