ENVIRONMENTAL COMPLIANCE REPORT 3

Frederickton to Eungai
Pacific Highway Project

MARCH 2015

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Glossary

CEMP	Construction Environmental Management Plan
CIP	Community Involvement Plan
Compliance audit	Verification of how implementation is proceeding with respect to a construction environmental management plan (CEMP), the conditions of approval and all other relevant licences and approvals.
Condition	A condition in the NSW Minister for Planning's planning approval
Construction	Includes all work in respect of the project other than survey; acquisitions; fencing; investigative drilling or excavation; building/road dilapidation surveys; minor clearing (except where threatened species, populations or ecological communities would be affected), establishing site compounds (in locations meeting the criteria of ancillary facilities in the Conditions), or other activities determined by the Environmental Representative to have minimal environmental impact (e.g. minor access roads, minor adjustments to services/ utilities, etc.).
COUR	Commitment, obligations, undertaking or requirement from the environmental assessment or approval documents.
Director-General	Director-General of the NSW Department of Planning and Environment (or delegate)
DPI - NOW	NSW Department of Primary Industries – NSW Office of Water
DP&I	NSW Department of Planning and Infrastructure (now DP&E)
DP&E	NSW Department of Planning and Environment
DWE	NSW Department of Water and Energy[1]
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).
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 Policy	Statement by an organisation of its intention and principles for environmental performance.
EPL	Environmental Protection Licence

[1] In July 2009 the NSW government issued Administrative Orders abolishing the Department of Water and Energy (DWE) and establishing two new agencies to manage the functions of the former Department.

Environmental Representative (ER)	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. Their specific functions are defined in Condition 6.1 of the Minsters Conditions of Approval.
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.
EPA	Environmental Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979*
ERG	Environmental Review Group. Includes representatives from Roads and Maritime, the construction contractor, public authorities and other stakeholders. Meetings are generally held monthly. The ERG is chaired by the ER.
EWMS	Environmental Work Method Statement
Fisheries, NSW	NSW Fisheries (now Primary Industries – Fisheries and Aquaculture)
OEH	NSW Office of Environment and Heritage Throughout this report, OEH means any references to: • DECCW • DEC. • DECC. • NPWS. • The Manager CPPD Central Directorate. • Director-General of National Parks and Wildlife.
Non-conformance	Failure to conform to the requirements of project system documentation including a CEMP or supporting documentation
Pollution incident	"Pollution incident" as defined in Protection of the Environment Operations Act 1997 (NSW) means an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise.
RTA/ Roads and Maritime	Roads and Traffic Authority of NSW (now known as Roads and Maritime Services).

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1 Introduction

1.1 Background

On behalf of the Australian and NSW governments, Roads and Maritime Services of NSW (Roads and Maritime), formally known as the Roads and Traffic Authority of NSW, is upgrading the Pacific Highway. The Pacific Highway ('the highway') between Hexham in New South Wales (NSW) and the Queensland border has sections with inadequate traffic capacity, and has a poor record for road accidents and fatalities. The nature and condition of the highway varies considerably, from high quality dual carriageways to stretches of two-lane single carriageway. At a number of locations there are extensive delays during peak periods, especially during the summer holidays.

The Frederickton to Eungai project (the F2E Project) forms the northern section of the Kempsey to Eungai Pacific Highway Upgrade project. The upgrade of the Pacific Highway between Kempsey and Eungai involves the construction and operation of approximately 40.8 kilometres of four-lane divided carriageway highway from south of Kempsey to Eungai.

The F2E Project lies mainly within the Kempsey local government area, with a short length located within the neighbouring Nambucca local government area. The F2E Project will provide 26.5 kilometres of new dual carriageway. Construction commenced during September 2013. **Figure 1-1** shows the location of the Project.

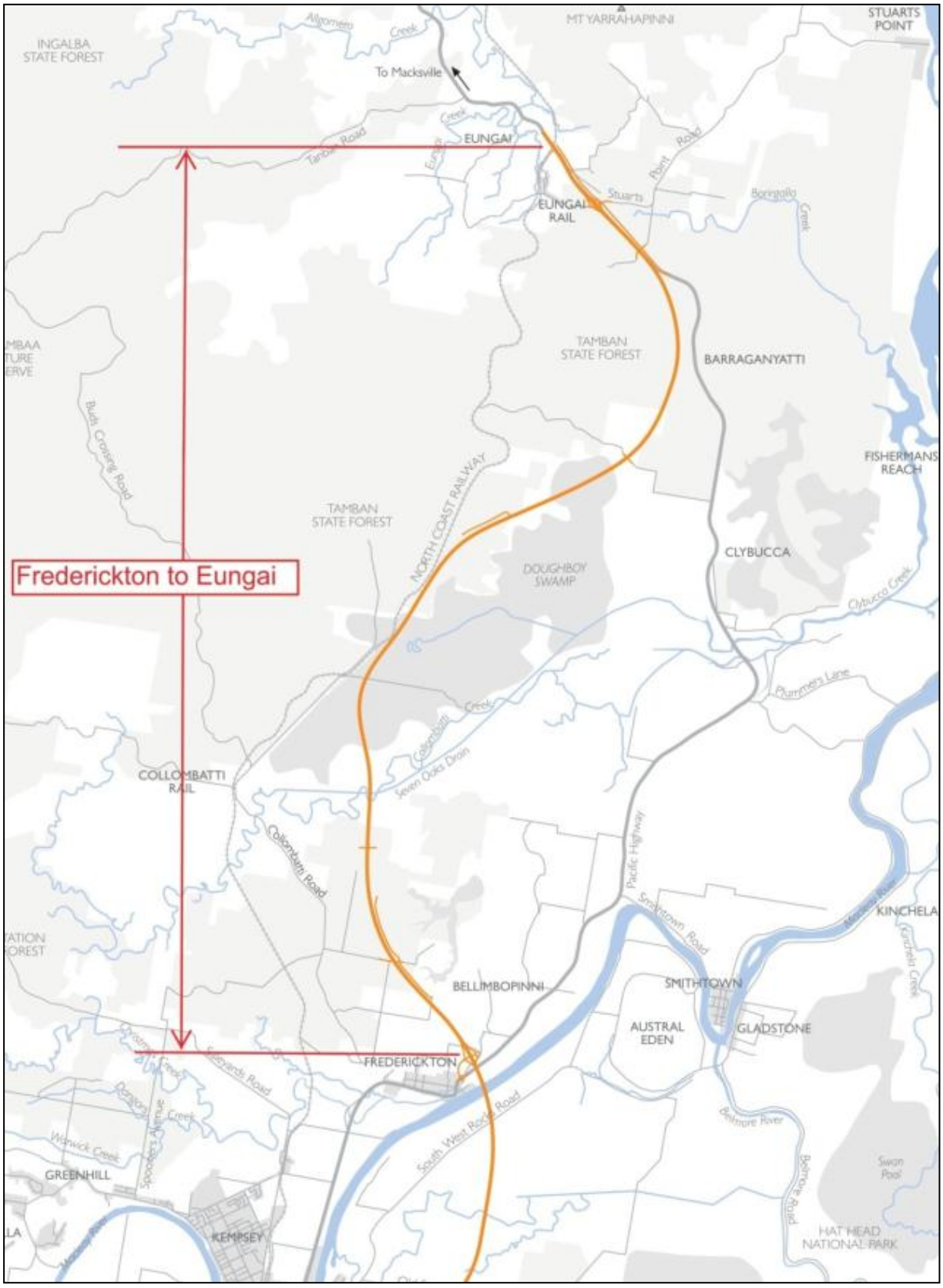

Figure 1-1 Frederickton to Eungai Project Area

1.2 Project approval

On the 5 December 2006 the Kempsey to Eungai Pacific Highway Upgrade project was declared by the Minister for Planning to be a project to which Part 3A of the Environmental Planning and Assessment Act 1979 applies. An Environmental Assessment was prepared and placed on public exhibition from the 1 August 2007 to 31 August 2007. 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 10 July 2008.

The Frederickton to Eungai project (the Project) forms the northern section and second stage of the Kempsey to Eungai Pacific Highway Upgrade project. The upgrade of the Pacific Highway between Kempsey and Eungai involves the construction and operation of approximately 40.8 kilometres of four-lane divided carriageway highway from south of Kempsey to Eungai.

The Kempsey to Eungai - Upgrading the Pacific Highway: Environmental Assessment (2007), Section 7.3.2, proposed that the project would be constructed either in its entirety or in stages. The Environmental Assessment identified that the most probable initial stage to be constructed was the southern section, which would start south of Kempsey and join the existing highway north east of Frederickton, as this section has higher priority in terms of traffic safety, travel efficiency and amenity to residents. In May 2009 the Federal Government provided $618 million under the Building Australia Fund to construct the southern section of the approved Kempsey to Eungai upgrade project, (the Kempsey Bypass), starting south of Kempsey and joining the existing Pacific Highway north-east of Frederickton. The length of this section of works is approximately 14.5 kilometres (or approximately 35%) of the total length of the Kempsey to Eungai upgrade project. This section of the Kempsey to Eungai project was opened to traffic during March 2013.

1.3 Commencement of construction

Construction of the project (Frederickton to Eungai) commenced on the 4 September 2013, following approval of the F2E Construction Environmental Management Plan (CEMP). The CEMP included the proposed construction commencement program and was approved by Department of Planning and Infrastructure on the 19 August 2013.

1.4 Purpose of this report

In accordance with Condition 4.1 of the Minister for Planning's approval, Roads and Maritime shall submit reports to the Director-General that consider construction environmental performance and compliance with the project approval. The Compliance Tracking Program specifies that the compliance reporting shall be undertaken at six monthly intervals throughout construction. This Construction Compliance Report covers the third six month construction period from the 4 September 2014 - 3 March 2015.

Table 1-1 outlines the information required by the Compliance Tracking Program as outlined Condition 4-1, and the relevant location in this report where the requirements have been addressed.

Table 1-1 Requirements for six monthly compliance report

Cond. 4-1	Requirement	Where presented in this report
a)	Provisions for periodic review of the compliance status of the project against the requirements of this approval (specified under condition 1.1c);	This report
b)	Provisions for the notification of the Director General prior to the commencement of construction and prior to the commencement of operation of the project;	Section 1.2
c)	Provisions for periodic reporting of compliance status to the Director General during construction;	This Report
d)	A program for independent environmental auditing in accordance with ISO 19011:2003 - Guidelines for Quality and/ or Environmental Management Systems Auditing;	Section 6.3
e)	Mechanisms for recording incidents during construction and actions taken in response to those incidents;	Section 6.4
f)	Provisions for reporting environmental incidents to the Director General during construction; and	Section 6.4
g)	Mechanisms for rectifying any non-compliance identified during environmental auditing or review of compliance.	Section 6.3

Roads and Maritime shall make these reports publically available on the project website and provide copies to the NSW Department of Planning and Environment.

1.5 Construction activities and progress during reporting period

Table 1-2 outlines the key construction activities either commenced or completed within the reporting period.

Table 1-2 Summary of construction activities

Activity	Progress
Environmental Controls	• Clean water diversion drains complete. • Sediment basins and swale drains 85% complete • Cut and fill batters being progressively topsoiled and hydro-mulched. Good germination of cover crop and frangible native seed mix on batters prepared in 2014.
Clearing	• Vegetation clearing completed with the completion of Stage II on the western side of the existing highway following traffic switch from the existing Pacific Highway to constructed Macleay Valley Way / Access Road C. • Mulching of timber complete. • All surplus timber and mulch has been removed from site.

Fencing	• Property fencing 85% complete. • Fauna fence (general floppy top and phascogale fencing) 85% complete. Remaining areas to be completed generally around incomplete culverts and bridges.
Soft Soil Fill Areas (Floodplains)	• Settlement complete in all soft soil fill areas. Surplus surcharge material being removed allowing completion of remaining cross drains prior to final earthworks and paving. • D7 and D9 longitudinal drains have been constructed across of the floodplain areas.
Bulk Earthworks	• Bulk earthworks approximately 90% complete. • Bulk earthworks complete in Stage I. • Placement of upper zone and select material ongoing. • Bitumen seal completed following placement of select material. • Bulk earthworks approximately 50% complete in Stage II following the traffic switch. • Surplus excavated materials being incorporated into integrated earthworks mounds within project corridor and stock flood refuge mounds outside of project area.
Fauna underpasses and culverts	• Construction complete with the exception of Borirgalla Creek in Stage II. • Fauna furniture complete within underpasses. • Linking fauna furniture to existing vegetation to be completed in conjunction with other finishing and landscaping works.
Other cross drainage	• Cross drainage in Stage I complete with the exception of pipe culverts in the soft soil settlement fills. • Construction of remaining cross drainage lines in soft soil settlement fills commenced following completion of the settlement period.
Long drainage	• Long drainage installation ongoing ahead of paving activities.
Bridges	• Bridge 1 at Mill Lane complete and open to traffic. • Bridge 2 at Kemps Access has pavement laid and will be open to traffic in in March 2015. • Bridge 3, 4 and 6 at Collombatti Creek and Seven Oaks Drain and the Collombatti floodplain have commenced plank installation. • Bridge 7 over Seven Hills Road has completed RE wall panel erection and commenced plank installation. • Bridge 12 over Johnsons Creek has completed piling and girders have been installed. • Bridge 13 at Cooks Lane complete and open to traffic. • Bridge 16 at Stuarts Point Interchange awaiting piling. • Bridge 17 over the northern railway line complete and ready for paving. • Bridge 18 over Borirgalla Creek preparing for piling and demolition of the old culvert.
Property Adjustments	• Property adjustment works are ongoing including construction of access tracks, new property access points and cattle yards.
Paving	• Paving has commenced in two areas. • At the southern end of the project, paving was commenced on the northbound and southbound from CH 14.5 - 18.3. Base and sub base paving complete and shoulder and SO gutter paving ongoing. • At the northern end of the project, paving was commenced from CH 30.7-33.0 southbound. Both sub base and base has been laid.
Batch Plants	• Both the Cooks Lane and Southern Frederickton batch plants were operational throughout the reporting period.

Finishing works	• Finishing works commenced in the southern paving run areas involving placement of verge material.
Landscaping	• Landscaping works commenced in January 2015 with preparation of planting beds.

2

Consents, licenses and approval

2.1 Statutory approvals

Table 2-1 lists the statutory approvals in effect during the reporting period.

The EPL was updated on the 10 November 2014 following a variation to update the premises area. Two new groundwater bore licenses were also obtained for drilling of additional groundwater bores. The surface water license for extraction of water from the Macleay River was also renewed for a second year, however no water has been taken under this license to date.

Table 2-1 Statutory approvals

Approvals	Authority	Holder	Date of issue	Expiration date
Part 3A Project Approval, as modified twice in 2010 and once 2012.	DP&E	Roads and Maritime	10/07/08	18/07/18
Environment Protection Licence 20318. Scheduled activities – Crushing and grinding, road construction and extractive industries.	EPA	TPL	28/08/13 Licence Version 3, Date 10-Nov-2014	Annual renewal until surrendered
Surface Water Extraction License – Macleay River (30PE002474)	DPI - NOW	TPL	29/11/13	29/11/2015
Groundwater Water Use Permit No 30BL207084 (Cooks Lane x 2, Raymonds Lane, Seashore Lane, Stuarts Point Road, Mango Farm, Seven Hills Road)	DPI - NOW	TPL	8/11/13	8/10/2018
Groundwater Bore License Certificate No 30BL207212 (License for drilling of additional bores at five locations Cut 13 (Basin 23800W), Cut 15 (basin 27550E), Borirgalla Basin 36750E, Stuart Point Interchange (Basin 37600W) and CML 316 (Basin 35750E)).	DPI - NOW	TPL	14/11/2014	13/11/2015
Groundwater Bore License Certificate No 30BL207229 (License for drilling of additional bores at Cooks Compound).	DPI - NOW	TPL	8/12/2015	7/12/2015
s37 capture and relocate native fish species and other aquatic organisms (Permit No P13/0054-1.0)	DPI - Fisheries	TPL (P. Monsted)	30/07/13	30/07/2018
Animal Research Authority - Ecological survey, salvage and monitoring program (TRIM132/1593)	OEH	TPL (P. Monsted)	6/05/13	6/05/2016

2.2 Key documents and outcomes required by statutory approvals

The statutory approvals require Roads and Maritime to prepare documents and facilitate outcomes. Key documents and outcomes are summarised below.

Table 2-2 NSW Minister for Planning Part 3A project approval

Reference	Requirement	Status	Comment
Condition 2.5	Complete further flood modelling during detailed design and submit a hydrological mitigation report.	Complete	The Hydrological Mitigation Report was approved by the Department of Planning and Environment on the 21 February 2014.
Condition 2.8	Construct reasonable and feasible fauna management measures to facilitate safe passage and encourage fauna movements across the project at key locations.	Ongoing	Design completed in consultation with EPA. Construction of fauna underpasses complete with the exception of Borirgalla Creek bridge.
Condition 2.9	Investigate the option of translocation of the threatened species *Maundia triglochinoides*.	Complete	A translocation investigation report for *Maundia triglochinoides* was prepared by Lewis Ecological Surveys (dated March 2013). This report was prepared in consultation with EPA and found that translocation was not reasonable or feasible. This report was submitted to the Department of Planning and Environment on 13 May 2013.
Condition 2.10	Develop a Biodiversity Offset Strategy.	Complete	The Biodiversity Offset Strategy (April 2010) was conditionally approved by DP&E on the 14 May 2010.
Condition 2.11	Develop a Biodiversity Offset Package	Ongoing	Development of the Biodiversity Offset Package is ongoing.
Condition 2.20	Prepare and obtain approval for a review of the operational noise mitigation measures.	Complete	The Operational Noise Management Plan was approved by the Department of Planning and Environment on the 2 May 2014.
Condition 2.29	Criteria for determining suitable locations for ancillary facilities	Ongoing	No new ancillary facilities were established during this period.
Condition 5.2	Develop a Community Communication Strategy.	Complete	The Director-General approved the Strategy on 19 August 2013.
Condition 6.1	Obtain approval for the Environmental Representative (ER).	Complete	The Director General approved Mr Murray Curtis as the ER on the 16 December 2009 for the Kempsey to Eungai Project.
Condition 6.3	Prepare and obtain approval for a Landscape Management Plan.	Complete	The Urban Design and Landscape Management Plan was approved by the Department of Planning and Environment on the 2 June 2014.
Condition 6.5	Development and submission of a Construction Environmental Management Plan and associated sub plans.	Complete	The Director-General approved the F2E CEMP on the 19 August 2013.

2.3 Consistency Review

Under section 115ZI (2) of the EP&A Act, Roads and Maritime may request the Minister to modify the Minister's approval of a State significant infrastructure project. Roads and Maritime is not required however to obtain the Minister's approval for a modification if the project, as modified, will be consistent with the Minister's approval.

Three questions are used to assist Roads and Maritime in determining whether the proposed activity can be considered consistent with the Minister's approval:

- Are the proposed works being carried out as part of an approved project? E.g. Are works "generally in accordance with" project documents and plans, where relevant?
- Is the modification such a radical transformation of the project as a whole, as to be, in reality, an entirely new project?
- Are the proposed works a modification that is considered "consistent with" the project as approved? This will require the work in question to have environmental impacts contemplated by the approval (such as EA / EIS, CEMP, spoil management plan, heritage management plan or the like), including documents forming part of the approval, or as a minimum, very few additional impacts.

Depending on the nature of the proposed change will determine the level of environmental assessment and justification and whether the Environmental Representative will be required to review and approve the works in addition to Roads and Maritime.

Table 2-4 provides a summary of design changes and activities were approved under the consistency review framework.

Table 2-3 Consistency reviews approved during the reporting period

Title	Description	Date approved
Nelson Driveway (PA065) property adjustment design change	A minor change to the property access arrangement to the Nelson property's driveway.	28/11/2014
Extraction of water from RMS Property	Extraction from a dam on Roads and Maritime Property Lot 21 DP 829401.	08/12/2014
Detailed Design Refinements - Integrated Earthworks Mounds Package III	A design change to accommodate surplus excavated materials within additional earthworks mounds within the project corridor.	16/02/2014

2.4 Construction environmental management plan

Condition 6.5 requires the development of a Construction Environmental Management Plan (CEMP) and associated sub plans. The CEMP and sub plans must be reviewed by relevant public authorities and approved by the Director-General of the NSW Department of Planning and Environment. The Director-General approved the F2E CEMP on the 19 August 2013. Records detailing relevant consultation with public authorities are provided in Appendix A2 of the F2E CEMP.

In accordance with Section 9 of the CEMP – Review and Improvement, the executive review of the CEMP was completed in September 2014. Following the review, all documents within the CEMP were revised and were issued in February the ERG for review and comment. The CEMP will be reissued to incorporate review comments in March 2015.

2.5 Compliance management system

Roads and Maritime and TPL have identified relevant Commitments, Obligations, Undertakings and Requirements (COURs) in the environmental assessment and approval documents for the project. The COURs are held in a database and assist Roads and Maritime and TPL to manage compliance and contractual risks.

Reporting templates in accordance with the compliance tracking program have been created for COURs from the project approval and Environmental Protection Licence. The compliance status of these COURs is updated by Roads and Maritime and TPL every three months and is linked to regular audits carried out for the project. Depending on each COUR's requirement, some were marked as closed (i.e. addressed) during the detailed design or pre-construction periods; others will remain open until the operation phase.

2.6 Compliance with approvals

Appendix 1 and 2 of this report present the conditions of the NSW Minister for Planning project approval and the Environmental Protection Licence (EPL) and show the status of compliance with these approvals.

3

Implementation and effectiveness of environmental controls

The environmental assessment, subsequent environmental assessments and approved construction management documentation outlined a comprehensive suite of environmental controls and management practices to minimise the project's impacts on the environment. Table 3-1 provides a summary of the key environmental controls implemented during this reporting period and their effectiveness.

Table 3-1 Key environmental controls and their ongoing effectiveness

Environmental issue	Environmental control	Effectiveness of environmental control
Landform, geology and soils	• Avoidance and management of Acid Sulfate Soils.	• There was no excavation of Acid Sulfate Soils required during this reporting period. • Settlement of soft soil fills finished during this reporting period allowing the removal of surcharge. • The placement of surcharge and settlement construction technique in soft soil areas avoided the excavation of Acid Sulfate Soils.
	• Preparation and implementation of Progressive Erosion and Sedimentation Control Plans (PESCP). • Engagement of a project Soil Conservationist to review the planning and implementation of PESCPs Progressive stabilisation of disturbed areas	• The G38 hold point ensures that a PESCP is prepared for all areas prior to the commencement of ground breaking activities was ongoing during this reporting period. • PESCPs are updated throughout construction, reviewed by the soil conservationist and issued with ground disturbance permits for all works. • The soil conservationist continues to complete weekly site inspections to provide technical advice to the project on matters relating to erosion and sediment control.
	• Progressive reinstatement including topsoiling and hydromulching of cut and fill batters.	• Following rainfall in December to February there has been good germination of cover crop and growth of natives on many of the batters. • There are also a number of batters with poor germination. The factors contributing to this is being investigated.

Hydrology and flooding	• Flood modelling to be implemented including modelling for temporary work activities. • Flood contingency measures were implemented to reduce flooding impacts during construction. • Construction of permanent cross drainage.	• All temporary works including temporary bridge construction platforms and haulage routes constructed in accordance with temporary design. • During high rainfall events during January and February, localised flooding was experienced on the Collombatti Floodplain. Contingency measures were implemented to provide additional drainage slots in the temporary haul road to minimise afflux upstream of the project. • Construction of cross drainage has been completed in all low settlement areas. Works have commenced on the remaining cross drainage culverts in high settlement areas now that settlement is complete.
Flora and fauna	• Delineating sensitive areas and vegetation to be protected with highly visible barriers prior to and during clearing operations. • Early installation of fauna exclusion fencing. • Installation of nest boxes prior to clearing.	• Temporary limit of clearing fencing has been replaced by the early installation of permanent fauna exclusion fencing on the limit of clearing boundary in many areas. • Threatened flora monitoring completed to identify maintenance actions (replacement signage and fencing). • Summer nest box monitoring identified 20% evidence of occupancy in nest boxes.
Water quality	• Water treatment and management in sediment basins. Discharge in accordance with EPL. • Utilisation of long drainage to direct water from formation to sediment basins. • Maximise reuse of captured water for construction activities.	• Maximising diversion of site water to sediment basins. With completion of bulk earthworks, the long drainage is being installed and utilised to direct runoff from site to sediment basins. • Following failure to treat all basins with 5 days of rainfall (in accordance with the EPL), liquid gypsum has been trialled for flocculation in sediment basins. This has proved to be a more efficient means to treat the basins prior to dewatering.

Air quality	• Primary dust suppression of earthworks is use of water carts. • Progressive reinstatement including topsoiling and hydromulching of cut and fill batters. • Reduced speed limits for light vehicles during dry conditions in high dust areas. • Bitumen spray-seal of earthworks prior to paving.	• Dust deposition monitoring has consistently achieved the target criteria indicating that the dust suppression measures implemented have been effective. • Following rainfall in December to February there has been good germination of cover crop and growth of natives on many of the batters. • There are also a number of batters with poor germination. The factors contributing to this is being investigated.
Visual amenity	• Implement urban design principles established in the Environmental Assessment • Disturbed areas to be progressively revegetated. • Preparation of planting beds in accordance with the Urban Design and Landscape Plan commenced during this reporting period.	• Following rainfall in December to February there has been good germination of cover crop and growth of natives on many of the batters.
Noise and vibration	• Assessment and consultation procedures for works outside of the standard working hours. • Noise and vibration monitoring completed in accordance with the Noise and Vibration Management Plan.	• Out of hours construction activities have been carried out in accordance with the noise and vibration management plan, Environmental Protection Licence and any associated approvals. • Acoustic assessments including modelling of predicted impacts has been completed for proposed out of hours works. Community notification has also been completed for agreed and critical out of hour's works. • Monitoring of out of hours works complied with specified noise limits.
Heritage	• Implementation of the Heritage Management Plan • Training and awareness program. • Preconstruction identification, temporary or permanent fencing	• Heritage management training has been incorporated into the Project Induction training delivered for all site personnel. • To minimise risk to unknown Aboriginal cultural material/heritage, additional archaeological assessments for any new work areas have been completed – refer to Section 2.3 for a list of activities and/or new work locations. This incorporated additional site archaeological surveys where necessary.

Traffic	• Traffic control plans, including safety zones, diversions, access control, maximum queue lengths during road occupancy. • Community notification (advertisements, letter drops, road signage, radio announcements).	• Traffic control plans have been prepared and are in place. Community notification and weekly traffic alerts occurred throughout the reporting period.

4

Environmental monitoring

Monitoring of rainfall, flora and fauna, background air (dust) and surface water quality commenced in 2013 and has continued since the commencement of construction. This section details key monitoring results and provides an analysis of the findings for the reporting period.

4.1 Rainfall

Rainfall is measured via automatic weather station at the main compound, as well as the two automatic rain gauges for the northern and southern compounds. Data from the weather station and rain gauges is available in real time via a public site webpage (http://new.mhl.nsw.gov.au/users/ThiessAWS/) with full details available via a secure online site.

Rainfall data is important in responding to rain events in terms of sediment basin management, surface water monitoring and to trigger wet weather environmental inspections. A rainfall event of 10 mm triggers wet weather surface water monitoring.

Total monthly rainfall for the period generally followed the average monthly rainfall trends. Rainfall was generally low from September and October. November had an increase in rainfall and December, January and February were all high rainfall months above the historic monthly averages by comparison to the Bureau of Meteorology's Collombatti (Benbullen) weather station (number 59068) (refer to **Table 4-1** and **Figure 4-1**). Daily rainfall records for the reporting period are presented in **Appendix 4**.

Table 4-1 Monthly Rainfall Summary (mm)

Month	Northern Eungai compound	Cooks Lane Collombatti (central) compound	Southern Frederickton Compound	BoM Collombatti weather station (number 59068)
September	17.0	15.6	15.0	49.5
October	4.2	5.2	4.0	80.2
November	62.2	73.2	74.4	98.8
December	192.4	200.0	172.0	95.0
January	225.0	187.2	240.4	108.4
February	335.2	287.2	200.4	205.4
TOTAL	836.0	768.4	706.2	637.3

Figure 4-1 Monthly Rainfall at Cooks Lane (central) compound

4.2 Air quality

Thiess undertake dust monitoring in accordance with the Deposited Matter - Gravimetric method. This method has been widely used in Australia for over 40 years. The method involves collection of particles that settle from the ambient air in a vessel which are retained with any rainwater which are measured in g/m^2/month.

Ambient dust deposition rates have been monitored since April 2013 at six (6) general locations along the alignment. Two deposition gauges were installed at each location to provide a test (impact) sample and a control (background) sample. Test gauges are located close to the alignment near sensitive receivers to measure the construction impacts. Control sites are located greater distance from the site to measure seasonal changes in the background air quality.

Ash and combustible matter content are determined by incinerating the insoluble solids. The combustible matter generally corresponds to organics (e.g. pollen, insects). The ash content includes the mineral particles which include the dust component that is attributable to construction impacts.

The goals adopted for the project for acceptable dust levels are:

- **+ 2 g/m^2/month - max. increase above background** (total insoluble and ash content) which was calculated to be 2.8 g/m^2/month for ash and 3.2 g/m^2/month for total insoluble for the March 2014 – March 2015 period based on an average of all control samples during the 12 month period.
- **4 g/m^2/month - max. total deposited dust level** (total insoluble and ash content).

Goals are based on annual averages.

Despite the dry conditions experienced throughout the reporting period, dust levels were maintained below the 2.8 g/m^2/month target for ash level at all test sites with the exception of DDG1A in December 2014 (refer to **Figure 2**). This exceedance was minor and below the maximum ash content target of 4 g/m^2/month.

Refer to Appendix 4 for full air quality monitoring results including both ash and insoluble solids.

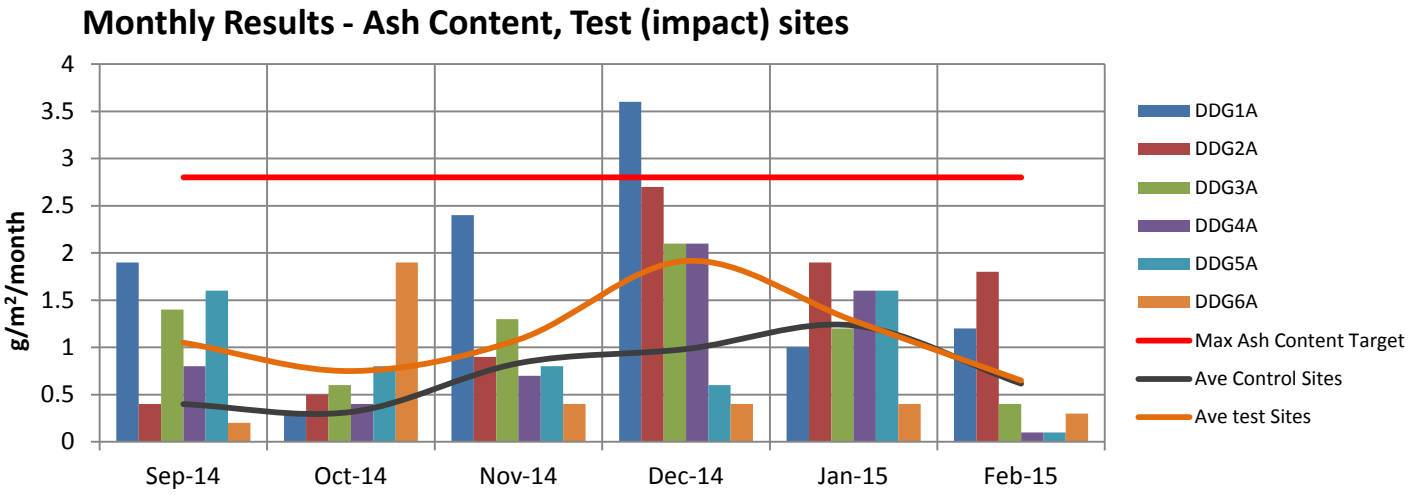

Figure 4-2 Monthly ash content at Cooks Lane (central) compound

Across the project, dust mitigation was actively pursued. Mitigation measures include:

- Frequent use of water carts.
- Minimising drop distances when tipping loads.
- Compacting high traffic areas and haul routes within site.
- Reuse of asphalt millings from the redundant Pacific Highway on temporary haul roads
- Bitumen spray-seal of earthworks prior to paving.
- Reduced speed limits and use of some machinery in high wind conditions.
- Stabilising stockpiles and exposed areas with sterile cover crop and native seed species when inactive for long periods (greater than two weeks).
- Early progress on final landscape/stabilisation works (hydro-mulching). Cover crop growth following rainfall in August and again in December was good and now a high density of native seedlings germinating.

Germination of cover crop on cut batter

4.3 Water quality

Surface water

Surface water quality (pH, turbidity and electrical conductivity) is monitored at seven (7) sites upstream and downstream of the project alignment using a water quality monitoring probe (Yeo-Kal 615 and Yeo-Kal 611). During each monitoring event, the upstream is used as an indicator of the background water quality. The water quality of creeks and rivers has no defined parameters in the EPL. However, changes in water quality greater than 10% between upstream and downstream are investigated and reported on.

The target sampling effort for surface water monitoring is one wet and one dry sampling event each month. A 'wet sampling event' represents a sample taken when there has been an active surface flow of water through the creek system, generally as a result of rainfall greater than 10mm in a 24hr period. A 'dry sampling event'' represents a sample taken when there is no active flow through the creek system. Prevailing weather conditions however do not always provide conditions suitable to collect wet samples.

The surface water monitoring from September to December 2014 was dominated by dry sampling events as a result of the limited rainfall. By early December, all waterways were dry with no connected water flowing through the project area. Prior to this, water was either slow flowing, stagnant or disconnected through the site. During these dry months, differences in water quality up and down stream were attributable to non-project influences (e.g. cattle downstream in Collombatti Creek in October and November) (refer to **Figure 4-3**).

In late December to February, the seasonal increase in rainfall resulted in recharge of the surface water systems allowing monthly wet sampling events. During this period, the turbidity was observed to be within the normal background variation range from upstream to downstream of the project, with the exception of Borirgalla Creek. This indicated that the site controls were adequately maintaining the background water quality. Significant increases in turbidity were observed in Borirgalla Creek downstream of the site. This was attributed to sediment basins that were overtopping during rainfall events that exceeded the 5 day design rainfall event (46mm).

Detailed result of the surface water monitoring is provided in **Appendix 4**.

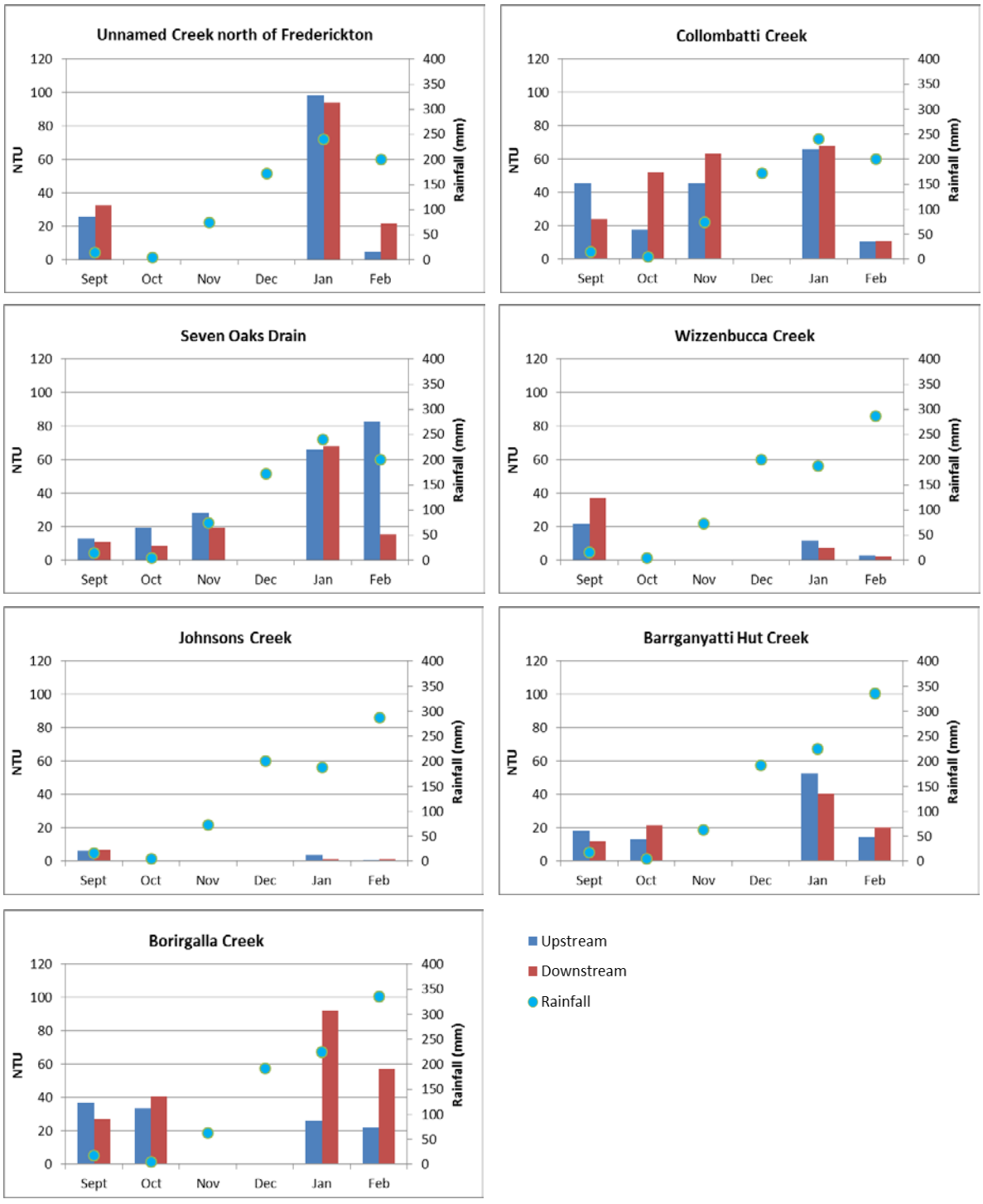

Figure 4-3 Monthly surface water quality (NTU) results

Sediment basins releases

Sediment basins for the project have been designed in accordance with the *Managing urban stormwater: Soils and Construction* (The Blue Book) (Landcom 2004). Basins in sensitive areas have been designed to the 85th percentile rainfall event (46mm) and basins in non-sensitive areas area have been designed to the 80th percentile rainfall event (36.5mm).

Sediment basins are identified as the licensed discharge points referred to in the EPL. The EPL specifies the following pollutant concentration limits from sediment basins:

- oil and grease - nil
- pH - 6.5 – 8.5, and
- total suspended solids - 50mg/L.

Exceeding the pollutant concentration limits is only permitted when the discharge occurs solely as a result of rainfall measured at the premises. The rainfall must exceed the 5 day rainfall depth value over a consecutive 5 day period for discharge to be considered to occur solely as a result of rainfall.

There were eight rainfall events that have resulted in basin overtopping and subsequent basin discharge events (refer to Table 4-2). Details of these overtopping and discharge events are presented in Appendix 4.

Table 4-2 Rainfall Events Resulting in Basin Overtopping

Date	Rainfall (mm)			Number of Basins Overtopping	Number of Discharge Events
	Southern Compound	Main Compound	Northern Compound		
4 September to 23 November	55.4	56.4	60	0	14
24 November - 8 December 2014	44	61.8	43	2	36
11 - 17 December 2014	39.4	38.8	33	2	43
18 - 23 December 2014	9.4	22.6	29.4	2	91
25 December 2014 - 16 January 2015	137.2	143.4	147.8	81	52
19 - 31 January - 2015	154.8	182.8	204.2	107	108
1 - 16 February 2015	132.6	156.6	79.4	107	108
18 February - 24 February 2015	147.9	178.4	121.2	103	83

4.4 Flora and fauna

Stage Two clearing which consists of the western side of the existing Pacific Highway north of Barraganyatti Hut Road, was completed during the reporting period. This completed the bulk vegetation clearing for the project.

Construction of fauna fencing (general 'floppy-top' and phascogale fencing) substantially progressed during this reporting period. The remaining areas for fauna fencing is generally around the culvert headwalls. In accordance with the Ministers Condition of Approval 3.1 the approved ecological monitoring program: Frederickton to Eungai, was implemented during this compliance period as follows.

Maundia monitoring

During this reporting period, one of the summer *Maundia triglochinoides* monitoring events was undertaken. Due to major rain events and subsequent flooding 11 out of the 14 sites were monitoring during January 2015. These sites included seven paired impact sites and four remote control sites.

Results show that three out of seven impact sites contain *Maundia triglochinoides*, while four out seven control sites contain *Maundia triglochinoides.* The control sites display a greater density of the plant than their paired impact sites with consistently greater BB scores represented in the control sites. Four of the four remote sites contain *Maundia triglochinoides*.

Monitoring identified areas requiring maintenance to exclusion measures and installation of additional signage. Exclusion measures have been maintained and additional signage installed.

Hairy Joint Grass monitoring

Hairy Joint Grass, *Arthraxon hispidus* monitoring was undertaken on 23-24 January 2015 at three impact and three control sites. Within each of these sites ten monitoring plots were established, giving a total of 60 plots. Hairy Joint Grass was found at 28 of these 60 plots. It occurred both in and outside the impact zone.

Hairy Joint grass was found in small clumps (generally about 30cm^2), containing only one or two individuals. Hairy Joint grass was mainly found scattered across exotic pastures.

Showing typical dominance of exotic grass in which Hairy Joint Grass grows.

Nest Boxes monitoring

Summer monitoring of the nest boxes installed along the alignment was completed during this reporting period. 220 nest boxes were installed prior to vegetation clearing in 13 zones along the project. 44 boxes had some evidence of occupancy (20%) from native species as follows:

- Mammal nest, unoccupied (likely to be predominantly sugar gliders) (20)
- Brush-tailed possum (8)
- Sugar Glider (5)
- Bird Nest (unoccupied) (4)
- Lace Monitor (2)
- Northern mallard nest (1)
- Brush-tailed phascogale (1)
- Ring-tailed possum (1)
- Antechinus sp. (1)
- Green tree-snake (1).

The next monitoring session will be winter 2015.

Examples of fauna utilising nest boxes.

Clockwise from top right: Brush-tailed possum, Northern Mallard nest, Lace Monitor and Antechinus.

4.5 Noise and vibration

Noise and vibration monitoring was carried out in accordance with the requirements set out in the Noise and Vibration Management Plan (NVMP). Noise sensitive receivers in close proximity to the construction activities include residents immediately adjacent to the project corridor, as well as residents along Quarry Road and Cooks Lane. Appendix 4 presents detailed noise data for the reporting period. No vibration monitoring was required during this reporting period.

A diversity of construction activities have been conducted during the reporting period including those with a potential to impact upon sensitive receivers. These include bulk earthworks, on-site haulage, culvert construction, bridge construction, paving and concrete saw-cutting.

During the reporting period, ninety-three (93) noise monitoring events were completed consisting of:

- Periodic monthly monitoring of standard works (73);
- Response to noise related complaints (0);
- Out of hours assessments (12)
- Spot checks of works generating high noise impact (7); and
- Spot checks of background (no construction impact) (1).

On eight occasions, the recorded noise level was higher than the predicted noise level for the activity. In each case however, the noise level was below the specified noise level.

As required by the EPA Interim Construction Noise Guideline (July 2009) and the projects CEMP, where noise management levels are predicted to exceed or actually exceed noise management levels, specific measures to minimise noise impacts are to be implemented, these include:

- Locating the batch plant and main site compound away from sensitive receivers.
- Placement of stockpiles to minimise the propagation of noise.
- Reducing the size of construction fleet in the vicinity of sensitive receivers.
- Replacing reversing alarms with quackers.
- Tool box talk sessions highlighting the need to minimise noise.
- Direct consultation with affected residents to assess actual impact.
- Assessment of plant noise and operating compliance.
- Site awareness training and environmental inductions detailing noise mitigation measures.

Works outside of normal working hours

Fourteen (14) permits were raised for works outside of the standard works hours during the reporting period. These works were managed in accordance with the EPL and CEMP. These events are summarized in Table 4.3.

Table 4-3 Works outside of normal working hours

EPL Classification and Description of works	Start date	Finish date	Location
L4.2(c)Exempt works - works <5dba			
Night works for soft soil settlement instrumentation monitoring	10/3/2014	19/12/2014	Fill 11, 15, 16, 17, 18 and 19
24hr groundwater bore pump tests	16/12/2014	17/12/2014	Cut 13
24hr groundwater bore pump tests	1/03/2015	31/03/2015	Cut 15
24hr groundwater bore pump tests	5/01/2015	30/01/2015	Main Compound, Cut 15, 35700, 36700, and 37600
24hr groundwater bore pump tests	1/02/2015	28/02/2015	Chainage 35700, 36700, and 37600
24hr culvert diversion pumping	2/2/2015	31/3/2015	Unnamed waterway north of Frederickton (CML 101)
L4.3 Works agreed outside standard working hours			
Extension of works on Saturday afternoons until 5pm	6/9/2014	28/2/2015	Construction zones 1 and 2 and Construction zones 3 from Bridge 12 to Hills Lane and Nirvana Lane to Eungai Rail.
L4.4 Other out of hours works (critical works)			
Stuarts Point Road paving trial - concrete paving and saw cutting night works.	4/08/2014	7/11/2014	Stuarts Point Road
Macleay Valley Way Traffic Switch Night Works	8/10/2014	27/10/2014	Switch from Pacific Highway to Macleay Valley Way and Access Road C
Bridge 17 girder installation	1/11/2014	2/11/2014	Bridge 17 over the Northern railway
Paving Run 2	1/03/2015	31/05/2015	Chainage 14500 - 18300
Paving Run 3	1/02/2015	31/03/2015	Chainage 30500 - 33100
Paving Run 5	1/02/2015	31/05/2015	Chainage 38450 – 39800 south bound
Paving Run 6	1/02/2015	31/05/2015	Chainage 25000 - 27500

4.6 Heritage

During the previous reporting periods, works were identified that had encroached into an area of archaeological sensitivity at the main site compound ancillary facility. A factual investigation report by Kelleher Nightingale Consulting Pty Ltd was provided to the Department of Planning and Environment and EPA on the 28 November 2014.

5
Community engagement

Thiess prepared a Community Involvement Plan for the Frederickton to Eungai Pacific Highway Upgrade Project (F2E). The objective of this plan is to provide stakeholders with:

- Information on the project objectives, scope, timeframe and opportunities for input on the design and construction of the F2E Works;
- Information on any of the construction investigations and activities that may affect them;
- Consideration of the issues raised in discussions with stakeholders and indirectly or directly affected landowners; and
- Information on the progress of Thiess' work, significant milestones, design changes, changed traffic conditions and other matters that could either affect or concern the community.

The Plan has been prepared in accordance with the requirements of the Design and Construct Project Deed and the Scope of Works and Technical Criteria. It also fulfils the requirements of the Community Communication Strategy as specified in condition 5.2 of the Minister's Conditions of Approval. The plan was approved by Department of Planning on 19 August 2013.
The plan has since been revised in accordance with Thiess's commitment to undertake annual reviews and was reissued on 17 September 2014 to the environmental representative, client and project verifier with minor changes only.

5.1 Complaint number and types

Eleven (11) formal complaints were logged during the reporting period (September 2014 – February 2015). Complaints fell into the following categories.

- Out-of-hours work
- Traffic impacts
- Construction noise
- Property Adjustments
- Property damage
- Flooding and drainage
- Property impacts
- Access
- Damaged local roads

Refer to **Table 5.1** and **Figure 5.1** for a more detailed breakdown.

Table 5-1 Breakdown of complaints or discussions by issue

Issues	Complaints [2]	Stakeholders Distinct[3]
Dust	3	3
Traffic impacts	2	1
Out-of-hours work	2	2
Property Adjustments	2	2
Property damage	1	1
Access	1	1
Damaged local roads	1	1
Flooding and drainage	1	2
Construction noise	1	1
Total	11	10

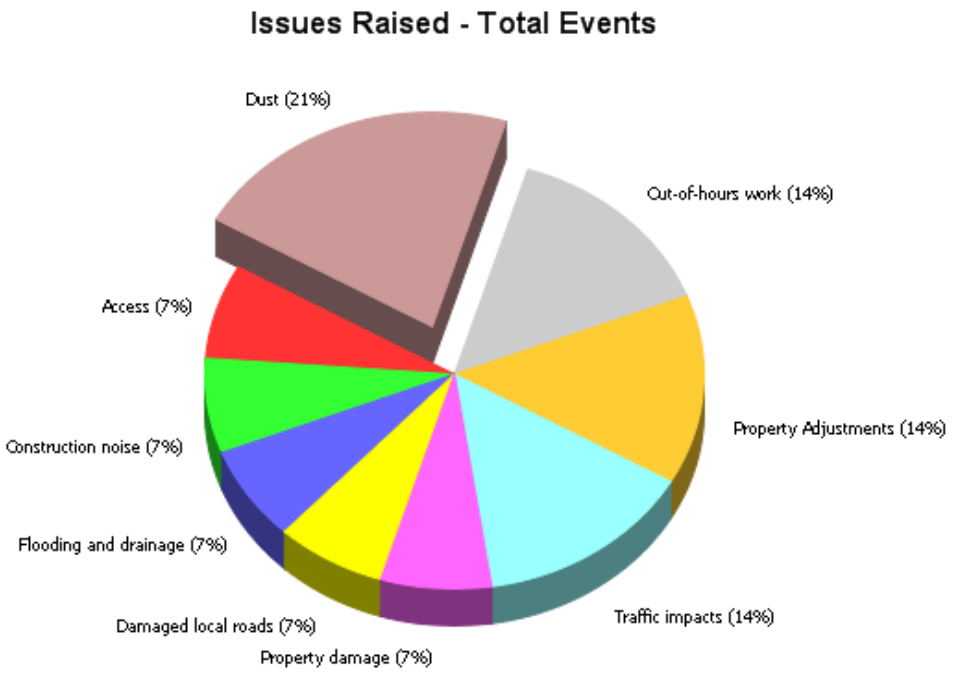

Figure 5-1 Breakdown of complaints by issue

[2] Note that there were 14 items of concern ("issues") raised across the 11 complaints as some complaints referred to more than one issue (for instance, dust and noise).

[3] 'Stakeholder Distinct' provides the total number of stakeholders that raised the issue. So, overall, 10 individuals filed 11 complaints.

The main issues raised within the complaints have been detailed further below.

Dust

Three (3) complaints referred to dust. Of these, two related to dust generated by construction crews using local dirt roads, and one to dust from the project site.

A variety of mitigation strategies were put in place to combat this including:

- Advising crews to apply site speed regulations on local roads to limit dust generation
- Use of water carts on local roads being used by construction crews
- Limiting use of local roads for essential or emergency work only.

With regards to the complaint generated by dust onsite, a water cart was deployed exclusively to this area and the site manager monitored the site for windy conditions. No further complaints were received.

Traffic impacts

During the previous six monthly compliance period there were 24 complaints were reported of which fourteen (14) related to traffic impacts. The 14 traffic related complaints reported during the last period included seven related to truck driver behaviour, four to increased vehicle movements and three to other traffic impacts.

To address complaints related to driver behaviour, the project team conducted toolbox meetings and also requested the same of their contractors and suppliers. The project team also worked closely with local police to identify trouble spots and communicated the message of “zero tolerance” for poor driver behaviour at pre start meetings and inductions.

For this reporting period, there were only two complaints relating to traffic impacts. The first complaint related to the impacts of road construction crews using a local dirt road for access as the resident believed that the additional traffic was adversely impacting the condition of the road.

Consequently, crews were reminded not to use local roads unless critical. Council was also advised of the condition of the road and committed to grade it in the coming months.

The other complaint related to a radar variable message board. The resident believed the speed display was encouraging people to speed. The resident was advised that the sign did not display speeds above 70km/hr but she was not satisfied with this response so the sign was relocated away from the resident’s house.

Since the opening of the Kemps Access bridge (2 April 2015) there is no longer access to the job site form this local road which has ensured the problem will not be repeated.

Out of hours work

Two (2) complaints over the period related out of hours work.

One complaint was received during night works and related to the use of reversing “squawkers” on plant in the early hours of the morning. The plant had recently finished the work it was required to do that evening and there was no further irritation to the resident. The resident was also advised that it was the last night of scheduled night work.

The second complaint related to guard-rail crews starting early (about 6.45 am). Engineering personnel met with the crews and reminded them they were not permitted to start work before 7am. The issue was also discussed at the next toolbox meeting.

The subcontractor was also asked to ensure that appropriate site supervision was provided at the start of each day. This was raised as an incident and is discussed further in Appendix 3.

Property adjustments

Two (2) complaints relating to property adjustments were received during the reporting period.

Both related to the delay in the start of works on resident's property and were mitigated by explanation of the impacts which had caused the delay and a commitment to start the work on specific dates. This work is now currently underway.

Property damage

One (1) complaint related to property damage. The complaint was received from a user of the highway who claimed that a passing truck had "sprayed" rocks onto her vehicle, causing damage to the windscreen and paintwork. The resident was not able to pass on any details of the vehicle and so the truck could not be traced. The resident was provided an Roads and Maritime claims pack to complete. The site foreman also checked the area for any debris but could not find any rocks on the road surface in this vicinity.

Access

One (1) complaint during the reporting period related to access.

The resident complained that there was no longer enough room on the shoulder to allow him to pullover safely before entering his driveway. Construction staff addressed the complaint by moving the safety barriers back to give him some more room to pull off the road.

Local roads damage

One (1) complaint related to damage to local roads and was also included in the "traffic impacts" category of issues. The complaint related to the impacts of road construction crews using a local dirt road for access as the resident believed that the additional traffic was adversely impacting the condition of the road.

Consequently, crews were reminded not to use local roads unless critical. Council was also advised of the condition of the road and committed to grade it in the coming months.

Flooding and drainage

One (1) complaint was received in relation to flooding and drainage. The landowner claimed that a rock access track was causing water to impound longer on one side of their property.

The project team responded by cutting a "slot" in the access track which allowed the water levels to equalise faster.

Construction noise

The complaint relating to construction noise was also categorised as an out of hour's construction issue, details of which have been included above.

5.2 Complaint management

The community engagement team maintains a register of all complaints received from key stakeholders and the public. Complaints are received directly during meetings, by email, letter or via the 1800 number.

The details contained within the community correspondence register include:

- Date and time of complaint.
- Format (email, phone, person, letter).
- Name, association and contact details.
- Nature of complaint.
- Responding officer and date and details of response.

The team responds to complaints and where practical puts into place mitigation measures to address the issue and reduce the likelihood of future complaints.

The community engagement team has advised local residents of upcoming construction activities by sending letterbox drops, issuing project updates, holding community information sessions and forums as well as through direct consultation.

Table 5.2 and Figure 5.2 show the breakdown of consultation activities undertaken in the six months between 1 September 2014 and 28 February 2015.

Table 5-2 Breakdown of consultation activities

Communication Types	Events	Number of recipients / stakeholders
Phone call out	222	244
Email out	119	560
Letter out	97	569
Email in	67	35
Internal Email /Phone call / Meeting	38	23
Phone call in	34	21
Briefing off site	17	14
Briefing on site	14	10
Registration - Feedback form	13	13
Letter in	11	49
Complaint	11	10
Signed Agreement	9	8
Public Information Session	5	552
SMS	2	1
Project update	1	552
Total	660	597

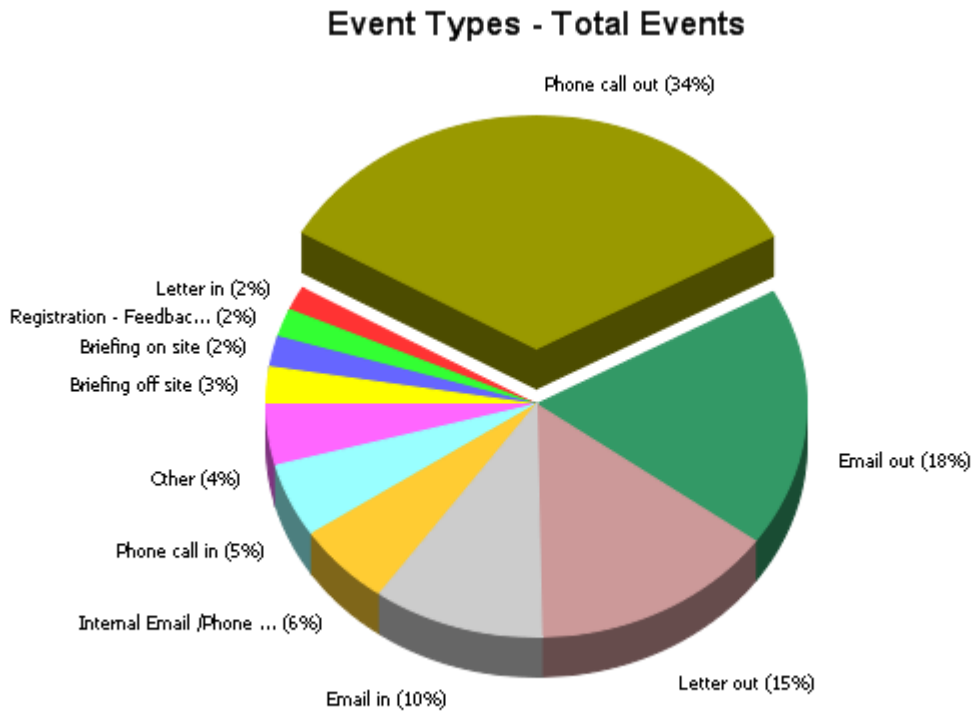

Figure 5-2 Breakdown of consultation activities

5.3 Community engagement initiatives

A number of community activities have been held with interested groups. These include five (5) community information sessions,17 briefings with concerned residents or groups of residents, 14 face-to-face meetings at the project site compound and 222 phone calls.

One project update has also been sent out to all resident's within the project database and more than 97 letters, detailing upcoming traffic changes or impacts and changes in construction activity were also issued to 569 individual residents.

Other initiatives included:

- The F2E project team raised more than $20,000 for the Westpac Rescue helicopter in its end of year raffle.
- The project team raised funds for the Frederickton Sports Club, Frederickton Primary School and Eungai Primary School through the sale of fundraising chocolates at the site compound.
- The project team created a series of templates for upcoming paving notifications which have been refined to meet the requirements under the EPL, Minister's Conditions of Approval and the CEMP. This has streamlined the approval and permit process for out of hours paving and saw-cutting work.

6

Other compliance matters

6.1 Training and awareness

Training and awareness for management, field staff and contractors has been integral to the successful management of the Project. Training has covered environmental, safety and quality awareness.

All staff and sub-contractors attend project induction training prior to commencing work onsite. About 2007 individuals have now been inducted. The induction provides an overview of:

- Relevant details of the CEMP including purpose and objectives.
- Key environmental issues on topics such as flora and fauna and Aboriginal heritage.
- Conditions of environmental licences, permits and approvals.
- Specific environmental management requirements and responsibilities.
- Mitigation measures for the control of environmental issues (for example threatened species and endangered ecological communities).
- Incident response and reporting requirements.

Addition environmental training conducted this period included:

- Presentation of Environmental issues for the coming year presented to all staff and workforce present on the 7 January.
- ”Key Pits” Erosion and sediment control training with workforce and staff 5 February and 25 February regarding utilisation of long drainage to direct water from site to sediment basins.
- Project dewatering requirements training with workforce and staff 25 February.

Additional training is presented through:

- Toolbox talks to cover environmental awareness topics and reported environmental near hits.
- Upcoming environmental risk awareness during planning for works meetings such as Hazard Pre-starts.

6.2 Inspections

Internal inspections are undertaken by the environmental and construction teams. These routine inspections, typically weekly or following rainfall, pick up minor environmental management improvements such as maintenance of clearing boundary delineation, sediment control maintenance and installation of controls in accordance with progressive erosion and sedimentation control plans and maintenance works following rainfall.

The soil conservationist has continued to complete inspections across the entire site fortnightly, to review erosion and sediment controls plans and provide technical advice to minimise erosion and sediment control.

The Environmental Representative (ER) and Roads and Maritime representatives also undertake environmental inspections on a fortnightly basis. These joint inspections incorporate the monthly ERG inspections with EPA. These inspections typically cover active works sites where risk to the environment is highest.

6.3 Audits

Two environmental audits were undertaken during the reporting period.

Roads and Maritime audit

A Roads and Maritime audit was held on the 14 & 15 January 2015 including a systems audit and field inspection component. This audit's focus included a review of previous audit findings and implementation of Roads and Maritime environmental and landscaping specifications. One Corrective Action was raised for not having sufficient evidence to close out seven of the observations of concern from the previous Roads and Maritime audit on the 24 & 25 June 2014. Five of the outstanding observations related to update of the CEMP which was completed in February 2015 and issued to the ERG for review and comment. The remaining two outstanding observations related to close out of a request for agreement to define specified noise limits which has now been closed; and waste and material purchase information that is reportable under the NSW Government Waste Reduction and Resource Recovery Act which remains open.

Seven new observations were also raised during this January audit relating to:

- Revision and resubmission of the CEMP;
- Closing out of inspection actions;
- Obtaining copies of hazardous waste transporters licence numbers;
- Commercial seed suppliers licence;
- Evidence of the laboratory being NATA endorsed for seed germination tests;
- Outstanding germination test certificates for the seed batches delivered to site to date; and
- Not providing monthly seed collection reports in accordance RMS D&C R178.

Independent Compliance Audit

On the 11 & 12 November 2014, KMH Environmental completed an independent compliance audit in accordance with Section 2.4 of the Appendix A11 - Compliance Tracking Program. The main objectives of the environmental review were to assess:

- the Project's compliance with the Minister's Conditions of Approval (MCoA) and Statement of Commitments (SoC) relevant to the Project;
- to the extent of any non-compliance, the reasonable and practical steps that should be taken to ensure the Project becomes compliant (including timeframes);
- if relevant, to what extent, and why, compliance with the Project conditions is impossible; and

- through addressing the matters described above, the identification of any opportunities for improvement in the Project's environmental performance, to assist the Project to achieve enhanced outcomes.

The audit found that the majority of the MCoA and SoC and were complied with and an improvement had been made from the November 2013 Audit. One non-compliance (opportunity for improvement) was noted during the audit relating to there being no update of the CEMP following the June 2014 Roads and Maritime Audit (reference to SoC A7). This has subsequently been completed and issued to the ERG for review in February 2015.

Further observations were noted during the audit for items where information to determine compliance remains outstanding. These observations relate to the following Conditions:

- MCoA 2.10 & 2.11 – Biodiversity Off-Set Strategy and Package
- MCoA 3.1 – Ecological Monitoring Plan
- SCoA T5 – Consultation with Department of Primary Industries
- SCoA ON3 – Architectural treatments required for properties identified in Section 3.7.3 of the
- Noise and Vibration Assessment undertaken as part of the Project EA
- SCoA F21 – Details of compensatory habitat provided in the Biodiversity Off-Set Package
- SCoA G1 – Recommendation to undertake an energy audit of the F2E Project
- SCoA P1, P3, P4 & P6 – Details of consultation undertaken by Roads and Maritime with the Department of Primary Industries and local property owners.

6.4 Incidents

Roads and Maritime, and its contractors, take the view that any environmental related unplanned events, whether they impact the environment or not, are reported and recorded as incidents. This type of approach allows for the analysis of trends and encourages a culture within the workforce for continual improvement. This approach is well accepted within the Workplace Health and Safety industry as a tool to recognise unsafe practices and put in place appropriate controls before significant incidents occur.

There were thirty-six environmental incidents reported during the 6 month reporting period These incidents related to:

- hydrocarbon spills (22)
- non-compliant basin discharge or management (5)
- water pollution from paving or bitumen seal (3)
- fauna road kill on site (2)
- mulch fires (2)
- unapproved works commencing outside standard construction hours (1), and
- non-compliance with approved work procedure (1).

Details of these incidents are included in **Appendix 3**.

Non-compliances with basin discharge or management

Five incidents were reporting during this compliance period relating to non-compliances with the Project EPL. These non-compliances all related to basin discharge or management.

The first non-compliance was in relation to water seepage through a basin wall to a redundant stormwater pipe, which led to a basin wall failure. The wall of the basin was constructed against a temporary access track from the Southern Batch Plant. The redundant stormwater pipe was known to be located under the track, however it was not revealed during the excavation of the basin. Water from the discharge pooled at the end of a surface water drain within the site boundary. There was no evidence that the water had left the site boundary or entered any waterways. Following the incident the pipe was plugged with concrete and the basin wall was repaired.

Three of the non-compliances were in relation to a rain event from 25 December 2014 to 6 January 2015. The first of these non-compliances was a failure to reinstate the capacity of 35 of the projects 104 basins, in accordance with condition O5.9 of the projects EPL. The basins were not reinstated as the total suspended solids concentration limits had not been achieved, despite multiple treatments with gypsum. The second of these non-compliance resulted after the site received a further rain event of up to 27.8mm on 11-12 January 2015. Prior to this rain event the capacities of 11 basins had still not been restored and consequently are presumed to have overtopped. This overtopping was below the designated five day rainfall event and therefore a non-compliance with condition 2.5 of the projects EPL. The third of these non-compliances occurred on the 14 January 2015 when the site received a further 15mm of rain. Eight of the projects basins capacity were still not restored and are presumed to have overtopped again. This was reported as a third incident. The capacity of all basins was restored by 19 January 2015.

Prior to these events the project had a high level of success with basin treatments and reinstating basin capacities. A review of the basin management methodology was undertaken and the likely cause of the difficulties to treat basins was related to a loss of residual gypsum within the basins following the site receiving over 200mm of rain within a one month period. As a result, the following management measures have been implemented:

- inlets of all basin are lined with gypsum to rebuild the residual gypsum within the basins following each rainfall event.
- following each rainfall event, basins that were difficult to flocculate in are identified as ‘priority basins’ for treatment on the first day following the next rainfall events.
- basins with high NTU on the first day following rain are also prioritised for treatment before basins with low NTU.
- liquid gypsum is now used in priority basins.

The final non-compliance involved a failure in a temporary basin spillway in a swale drain during a 113mm rain event between the 19-22 January 2015. The temporary spillway was not constructed in accordance with required width / depth as specified in the guideline Managing Urban Stormwater - Soil & Construction, Volume 2D, Main Road Construction. The swale drain was reconstructed.

All non-compliances with the EPL are reported to the EPA and reported in the monthly EPL report which is published on the Thiess website.

7

Environmental initiatives, best practices and highlights

The environmental management system that is implemented on the F2E project is based on the AS/NZS ISO 14001:2004 which is based on a methodology known as Plan-Do-Check-Act (PDCA). The monitoring, inspections, audits and consultation outlined in this compliance report all contributed to the planning and checking which drives continual improvement.

Environmental initiatives and best practice that are identified are encouraged and tabled for discussion in many forums: daily pre-start talks, toolbox talks, weekly construction team meetings, environmental team meetings, management team meetings, regulatory inspections and internal and external audits.

The following examples were implemented and demonstrate best practice environmental initiatives to advance positive environmental outcomes. In addition, a number of highlights were experienced during the reporting period and these also have been presented.

Key Pits There has been a major focus site wide on identifying and maximising the use of 'key pits' (longitudinal drainage) so as to direct site water runoff into nearby construction sediment basins. The project Soil Conservationist has advised Foreman and support staff on specific pits to target for site runoff, site Environmental staff have ran a number of workshops educating site personnel on key pit terminology and practices, and the result is maximum runoff to basins with lower transfer of silt into drainage infrastructure and basin(s).	
Strengthening of batter chutes to construction basins Batter chutes are designed take site runoff from the project formation down a fill batter and into the basin. A number of chutes failed in recent rainfall events within this reporting period and resulted in scouring to the batter and additional silt deposits within the receiving basin(s). A project review identified a number of possible contributors to failures such as not properly keying the fabric in at the top of the chutes, incorrect placement of sand bags around the inlet to the chute, width of chutes, and type of fabric to line the chute.	

Mid project basin review A recent internal audit of all basins was undertaken that included signage, fencing, condition of syphons and spears, dewater and desilt marker heights, and whether basins required desilting. As a result of the audit new signage has been installed, a number of basins have been desilted and further basins are planned to be desilted over coming weeks, and additional syphons have been installed to reduce pumping requirements.	
North Coast Highway Clearing and River Restoration Project Thiess have donated and transported tree stumps / root balls, timber pins and rock from the Project to the Office of Environment and Heritage's North Coast Highway Clearing and River Restoration Project. The materials will be used to construct rock fillets for bank restoration on the Macleay River. Provide enhanced fish habitat and improved bank conditions.	

Appendices

Appendix 1

Compliance with the Minister for Planning project approval

Appendix 1 – Project Obligations (COURs) Register
MCoA and SoC – Construction – 4 Sep 2014 – 3 March 2015

Ref.	Source Ref.	Timing	Commitment, Obligation, Undertaking, Requirement (COUR)	Con-struction Status	How COUR will be complied with	Responsibility	Addressed where / how	Evidence Reference	Sept 2014 - March 2015 Compliance Report
MCoA	1.1	All Stages	The Proponent shall carry out the project generally in accordance with the: a) Major Projects Application 06_0224; b) Kempsey to Eungai - Upgrading the Pacific Highway: Environmental Assessment (Volumes I and 2), prepared by Parsons Brinckerhoff Australia Pty Limited and dated July 2007; c) Kempsey to Eungai - Upgrading the Pacific Highway: Submissions Report, prepared by Parsons Brinckerhoff Australia Pty Ltd and dated March 2008, including the Statement of Commitments contained therein; d) Modification Application 06_0224 MOD 1 and request for modification dated 5 February 2010; e) Modification Application 06_0224 MOD 2, request for modification dated 1 October 2010 and additional information provided to the Department on 1 November 2010,3 November 2010 and 17 November 2010; f) Modification Application 06_0224 MOD 3 and request for modification dated 7 November 2011 ; and g) the conditions of this approval.	Open	All sources referred to here are included in COUR register where relevant.	Enviro Manager	Project requirements included in CEMP approved by DP&E 19/8/13. Additionally COUR Register to be included in Keystone. - document management system. Tracked via 6 monthly compliance reports.	CEMP Approval. COUR register - See Keystone	Condition satisfied in previous reporting period. No further update this reporting period
MCoA	1.2	All Stages	The Proponent shall carry out the project generally in accordance with the: a) the conditions of this approval and any document listed from condition l.la) to 1.1f) inclusive, the conditions of this approval shall prevail to the extent of the inconsistency; and b) any document listed from condition 1 .1a) to 1.1f) inclusive, and any other document listed from condition 1.1a) to 1.1f) inclusive, the most recent document shall prevail to the extent of the inconsistency.	Open	Any applicable requirements included in this COUR Register and any associated approvals and/or legal register in CEMP	Enviro Manager	Project requirements included in CEMP approved by DP&E 19/8/13. Additionally COUR Register to be included in Keystone. - document management system. Tracked via 6 monthly compliance reports.	CEMP Approval. COUR register - See Keystone	Condition satisfied in previous reporting period. No further update this reporting period
MCoA	1.3	All Stages	The Proponent shall comply with any reasonable requirement of the Director General arising from the Department's assessment of: a) any reports, plans or correspondence that are submitted in accordance with this approval; and b) the implementation of any actions or measures contained in these reports, plans or correspondence.	Open	Condition noted and correspondence shall be responded to as/when necessary. Compliance demonstrated wrt CEMP updates required by DP&E approval. That is CEMP updated as necessary.	Enviro Manager	COUR Register - Document Management System; Incident investigation regarding placement of a topsoil mound in an area identified as being archaeologically sensitive is ongoing and further information shall be provided to DP&E as requested.	CEMP dated July 2013 - updates included. System in place to ensure compliance - e.g. regular consultation with RMS, ERG meetings, etc. G:\NSW\F2E\01 Environment\6 Communication and Consultation\6.4 Meetings and Minutes	On the 28 November, RMS issued DP&E and EPA with an archaeological investigation report relating to the placement of a topsoil mound in an area identified as being archaeologically sensitive at the Cooks Lane Compound site. No formal response has been received from either DP&E or EPA

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MCoA	1.4	Pre-construction	The Proponent may build and operate the project in stages with commensurate staging of compliance with the conditions of this approval. Where the project is to be staged, the Proponent shall submit details of the staging prior to construction to the Director General, including details of how compliance with the conditions of this approval will be ensured across and between the stages of the project.	Closed	RMS provided Staging Report (Doc ID 101)	RMS	N/a for Thiess as RMS responsible;	11 1031 Kempsey FINAL Staging Report	Condition satisfied in previous reporting period. No further update this quarter.
MCoA	1.5	All stages	This approval shall lapse ten years after the date on which it is granted, unless the works the subject of any related project approval are physically commenced on or before that date.	Closed	RMS provided Staging Report (Doc ID 101)	RMS	N/a for Thiess as RMS responsible; RMS submitted an amended staging report (rev 3) to D-G on 07/11/2011. DP&E accepted the amended Staging Report on 05/12/2011. Works commenced on 4 September 2013. Condition satisfied.		Condition satisfied and closed.
MCoA	2.1	Design	The Proponent shall subsidise any new or necessary update(s) to the relevant Kempsey Shire Council, Nambucca Shire Council and State Emergency Service plans and documents to reflect changes in flooding levels, flows and characteristics as a result of the project. [Note: scope includes Collombatti Creek floodplain according to SWTC App 4 cl4.5]	Closed	Flood report provided to RMS - all flood information from Design (FS000).	Design Manager	FS000 completed. No update(s) to the relevant Kempsey Shire Council, Nambucca Shire Council and State Emergency Service plans and documents required to reflect changes in flooding levels, flows and characteristics as a result of the project Email from Michael Young (DP&E) accepting the Hydrological Mitigation Report generally satisfies the requirements of condition 2.5 (email 21.2.2014).	Refer to Keystone for Flood Report	Condition satisfied and closed.
MCoA	2.2	Design	The Proponent shall undertake further flood modelling during detailed design to ensure that the project is designed and constructed with the aim of not exceeding the afflux and flood flow velocity performance criteria specified for the Macleay River Floodplain in Section 10 of the Kempsey to Eungai – Upgrading the Pacific Highway: Environmental Assessment and Section 2.2.8 of the Kempsey to Eungai – Upgrading the Pacific Highway: Submissions Report, referred to in condition 1.1 of this approval. [Note: scope includes Collombatti Creek floodplain according to SWTC App 4 cl4.5]	Closed	Refer WMA Water Collombatti Creek Flood Study for Collombatti Creek floodplain in FS000 Appendix K, and HAJV design package FS000 for other floodplains	Design Manager	FS000 - Flood modelling has been undertaken during detailed design and shows that the aim of not exceeding the afflux and the flood-flow velocity performance criteria has been met. Refer references in Section 2of the flood mitigation report. Email from Michael Young (DP&E) accepting the Hydrological	Refer to Keystone for Flood Report	Condition satisfied and closed.

Ref.	Source Ref.	Timing	Commitment, Obligation, Undertaking, Requirement (COUR)	Con-struction Status	How COUR will be complied with	Responsibility	Addressed where / how	Evidence Reference	Sept 2014 - March 2015 Compliance Report
							Mitigation Report generally satisfies the requirements of condition 2.5 (email 21.2.2014).		
MCoA	2.3	Design	Should modelling required by condition 2.2 identify changes to drainage patterns along the existing Pacific Highway that are directly attributable to the project, the Proponent shall alter or install drainage structures on the existing Pacific Highway to preserve or maintain current hydrological flow paths and flood regimes upstream of the existing highway. [Note: scope includes Collombatti Creek floodplain according to SWTC App 4 cl4.5]	Closed	Modelling of the proposed detailed design shows no change in any drainage patterns along the existing Pacific Highway. Based on the modelling results the existing Pacific Highway will not require additional drainage structures. The F2E detailed design does not affect drainage patterns along the existing Pacific Highway. Demonstrated in FS000.	Design Manager	FS000 - completed;	Refer to Keystone for Flood Report	Condition satisfied and closed.
MCoA	2.4	Design	The Proponent shall employ a suitably qualified and experienced independent hydrological engineer approved by the Director General prior to commencement of construction to assist affected property owners in negotiating reasonable and feasible mitigation measures. [Note: scope includes Collombatti Creek floodplain according to SWTC App 4 cl4.5]	Closed	RMS responsibility	Design Manager	Letter from DP&E (formerly DP&I) approving the Mr Terry McKeown as the Independent Hydrological Engineer (22.01.2010).	Letter from DP&E (formerly DP&I) approving the Mr Terry McKeown as the Independent Hydrological Engineer (22.01.2010).	Condition satisfied and closed.

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MCoA	2.5	Design	Prior to commencement of construction, the Proponent shall submit a hydrological mitigation report to the Department detailing all reasonable and feasible flood mitigation measures for all properties where flood impacts are predicted to increase as a result of the project. The report shall: a) identify all properties likely to have an increased flooding impact and detail the predicted increased flooding impact; b) identify the at residence and/or general property protection measures to be employed to mitigate the predicted increased flooding impact; c) identify measures to be employed for directly impacted commercial/agricultural properties to assist in the protection of critical farm infrastructure and evacuation of stock during flood events; d) 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; e) detail construction methods and landscaping treatments for the Frederickton levee; f) be developed in consultation with the relevant branches of Kempsey Shire Council, DECCW, State Emergency Service and directly-affected property owners; and g) identify operational and maintenance responsibilities for items a) to e) inclusive. The Proponent shall not commence construction of the project on or within areas likely to alter flood conditions on the Macleay River floodplain until such time as works identified in the hydrological mitigation report have been completed unless otherwise agreed by the Director General. [Note: scope includes Collombatti Creek floodplain according to SWTC App 4 cl4.5]	Closed	Hydrological mitigation report prepared and issued to DP&E.	Design Manager, RMS	Hydrological mitigation report prepared and issued to DP&E (formerly DP&I) by RMS on the 25 October 2013. Email from Michael Young (DP&E (formerly DP&I)) accepting the Hydrological Mitigation Report generally satisfies the requirements of condition 2.5 (email 21.2.2014). FS000/ Note: extension letter from DP&E dated 3 September 2013	1. Hydrological Mitigation report 2. Approval of hydrological mitigation report (email) 3. Letter of extension	Condition satisfied and closed.
MCoA	2.6	Design	The Proponent shall prepare a schedule of flood mitigation measures for 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 Council and the Department prior to the implementation / construction of the mitigation measures on the property. [Note: scope includes Collombatti Creek floodplain according to SWTC App 4 cl4.5]	Closed	No specific mitigation measures are proposed for any properties on the F2E project. Six residence were however consulted with in relation to flood impacts, in addition to the SES.	Design Manager Community Liaison	Included in the approved Hydrological Mitigation Report. (Refer RMS Disposition 0060-DR regarding extension of time. Refer RMS Disposition 0061-DR regarding timing of consultation)	1. Letters of correspondence to affected property owners and SES.	Condition satisfied and closed.

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MCoA	2.7	Design	In the event that the Proponent and the relevant property owner cannot agree on reasonable and feasible flood mitigation measures to be applied to a property within one month of the first consultation on the measures (as required under condition 2.6), either party may refer the matter to the Director General for resolution. [Note: scope includes Collombatti Creek floodplain according to SWTC App 4 cl4.5]	Closed	No specific mitigation measures are proposed for any properties on the F2E project. Six residence were however consulted with in relation to flood impacts, in addition to the SES. There has been no disagreement to date.	Design Manager Community Liaison	Community Management Plan	1. Letters of correspondence to affected property owners and SES.	
MCoA	2.8	Design	The Proponent shall, in consultation with the DECCW and I&I NSW (Fisheries), design, construct and maintain reasonable and feasible fauna management measures to: a) facilitate safe fauna movements across the project; and b) encourage fauna movements across the project at the key crossing locations referred to in 2.8 a).	Open	Compliance requirements provided in SWTC Appendix 4, Appendix 5 and Appendix 14. Fauna underpasses included in Cross Drainage packages DC001, DC002, and DC003 demonstrate compliance. Glider crossings and fauna exclusion fencing included in Road furniture packages (RF000, 001, 002 & 003).	Design Manager	DC001, DC002, and DC003; DC001, DC002, and DC003. Note: Condition satisfied with the exception of Borirgalla Creek. Consultation regarding the fauna underpass for the highway and service road are ongoing.	DC001, DC002, and DC003. Example of consultation meeting minutes	Consultation between RMS with EPA and DPI (Fisheries) for Boriragalla Creek was completed during this reporting period. Closed for all other waterways. Construction of fauna exclusion fencing and fauna underpasses ongoing.

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MCoA	2.9	Design	The Proponent shall, in consultation with DECCW:a) investigate the potential for the translocation of Maundia triglochinoides plants impacted by the project.b) if investigation under 2.9 a) reveals translocation of Maundia triglochinoides is reasonable and feasible, the Proponent shall prepare and implement a Maundia triglochinoides translocation plan for plants impacted by the project.c) consider including appropriate compensatory habitat for the Maundia triglochinoides in the Biodiversity Offsets Package referred to in Condition 2.11 should the information obtained during the investigation referred to in Condition 2.9 a) find that translocation is not reasonable and feasible.	Closed	Draft Maundia translocation plan included in Tech Report EA Vol 2. (Doc ID 1)Final Maundia translocation plan provided and recommended that translocation was not reasonable or feasible. No further actions to implement.	Enviro Manager	Flora & Fauna Sub-Plan/ 2121213MaundiaReport-VersionB; Biodiversity Offset Package conditionally approved by DP&E on 14/5/10Flora & Fauna Sub-Plan/ 2121213MaundiaReport-VersionBRefer to RMS Project Website http://www.rms.nsw.gov.au/projects/northern-nsw/port-macquarie-to-coffs-harbour/frederickton-to-eungai/project-documents.html	Biodiversity Offset Package	Condition satisfied and closed.
MCoA	2.10	Pre-construction	The Proponent shall develop and submit for the approval of the Director General, a Biodiversity Offset Strategy. The Strategy shall provide a framework for developing the Biodiversity Offsets Package required by Condition 2.11 and shall be developed in consultation with the DECCW. The Strategy shall: a) include a minimum requirement to provide 382 hectares of native vegetation to offset direct and indirect impacts of the proposal b) identify the extent and types of habitat/vegetation communities that would be lost or degraded as a result of the project; c) describe the quality of the habitat/vegetation communities identified in point a); d) identify the objectives and outcomes to be met by the final Biodiversity Offset Package; e) consider the biodiversity management measures or activities identified in the documents set out in condition 1.1 or elsewhere in these Conditions of Approval, including: i. fauna crossing structures and associated fauna fencing to be installed as part of the project. ii. revegetation measures. iii. translocation plans. iv. any other fauna mitigation measures such as nest boxes and frog breeding ponds. v. any ongoing biodiversity or threatened species monitoring requirements. f) provide details of available compensatory habitat in the region to offset the loss of Freshwater Wetlands, Swamp Sclerophyll Forest, Swamp Oak Floodplain Forest, River Flat Eucalypt Forest and Mahogany Dry Sclerophyll Forest and habitat for threatened fauna species as a result of the project. This may include other non land based management measures or actions to deliver a beneficial outcome for the region; g) provide a decision-making framework to be used in selecting the priority ranking of compensatory habitat options available in the region; and	Closed	BOS provided by RMS as Info Doc 103, dated April 2010.	Enviro Manager / RMS	Biodiversity Offset Strategy Flora and Fauna Subplan in the CEMP; Biodiversity Offset Strategy conditionally approved by DP&E on 14/5/10. Elements included in Flora and Fauna Sub plan in the CEMP. Refer to RMS Project Website http://www.rms.nsw.gov.au/projects/northern-nsw/port-macquarie-to-coffs-harbour/frederickton-to-eungai/project-documents.html	DP&E Letter dated 14/5/10.	Condition satisfied and closed.

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			h) consider the linkage between compensatory measures and floodplain natural resource management. 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 Endangered Ecological Communities or threatened fauna species' habitat. Nothing in this condition prevents minor clearing of Endangered Ecological Communities and threatened species habitat prior to approval of the Strategy, where the clearing does not compromise biodiversity outcomes and has been approved by the Director General, in consultation with DECCW. Nothing in this condition or this approval precludes the Proponent from implementing a suitable offsets package which addresses impacts from multiple Pacific Highway Upgrade Projects (including the Kempsey-Eungai Upgrade) within the North Coast Bio-region (Manning-Macleay sub region). Any such agreement made with the Department of Environment and Climate Change must be made in consultation with the Department and approved by the Director General.						
MCoA	2.11	Pre-construction	Within 12 months of the approval of the Biodiversity Offset Strategy, or as otherwise agreed by the Director General, the Proponent shall submit the Biodiversity Offset Package for the approval of the Director General. The Package shall be developed in consultation with the DECCW and: a) shall detail the final suite of biodiversity offset measures selected in accordance with the Strategy; and b) include a program (timeline) to achieve the implementation of the final suite of measures. Where possible, this should include purchase of land, development of agreements with identified land management authorities (e.g. DECCW, local council etc.) for long term management and funding of offsets and mitigation measures, and installation of identified mitigation measures.	Open	Not applicable - RMS to implement	RMS	Biodiversity Offset Strategy conditionally approved by DP&E on 14/5/10. RMS received DP&E extension for Package to be submitted.	Biodiversity Offset Strategy conditionally approved by DP&E on 14/5/10. DP&E extension letters dated 14.2.13 and 11.7.13 (letter reference 09/03204).	DP&E issued an extension to 30 September 2014. DP&E have been notified of the delay via email correspondence.

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MCoA	2.12	Construction	Standard construction hours for the duration of construction are: a) 7:00 am to 6:00 pm, Mondays to Fridays, inclusive; and b) 8:00 am to 1:00 pm on Saturdays; and c) at no time on Sundays or public holidays. The following exceptions (without further approval) to standard construction hours apply: i. any works that do not cause construction noise to be audible at any sensitive receiver; or ii. for delivery of materials required outside these hours by the Police or other relevant authorities for safety reasons; or iii. where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm.	Open	Sensitive noise receptors to be identified and monitored (including background), constraints to be included in subcontractor agreements, WAPs, site inductions	Construction Manager Enviro Manager	Requirements included in the F2E Noise and Vibration Sub Plan in CEMP plus within site inductions, fact sheet and out of hours permit system. This monitored through weekly inspections, Monthly Environmental Performance Reports, the Out of Hours notifications & associated procedures, as well as within the 6 monthly compliance reports. Community notifications on RMS Website Refer to RMS Project Website http://www.rms.nsw.gov.au/projects/northern-nsw/port-macquarie-to-coffs-harbour/frederickton-to-eungai/project-documents.html	NVMP Out of Hours Works Register Quantitative noise assessments.	Permits for works outside of the standard construction hours that are consistent with the exceptions in CoA 2.12 for this quarter these were: - OoHW Soft Soil Monitoring 10/3/14 to 19/12/14 - OoHW Saturday Afternoons from September 2014 to February 2015 (5/9/14)(F2E-TPL-REC-00567) - OoHW Bridge 17 Girder Delivery and Installation Works (F2E-TPL-CORR-02404) - 24hr ground water bore pump testing (Cut 13) (F2E-TPL-CORR-02564) - Water Extraction Tests Across the Project (Main Compound, Cut 15, 35700, 36700, and 37600) (F2E-TPL-CORR-02595) - OoHW CML 101 Water Extraction for drainage works (F2E-TPL-REC-00736).

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MCoA	2.14	Construction	Certain construction activities (Out of Hours Works) may be allowed to occur outside the standard construction hours 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 standard construction hours 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:a) details of the nature and need for activities to be conducted during the varied construction hours;b) written evidence to the DECCW 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; andc) evidence of consultation with the DECCW on the proposed variation in standard construction hours. Despite the above, Out of Hours Works may also occur where a process for considering the above on a case by case or activity specific basis by the Proponent, including factors a) to c) above, has been approved as part of a Construction Environment Management Plan or Construction Noise and Vibration Management Plan for this project.	Open	Provisions to be included in Construction Noise & Vibration Sub-Plan	Construction ManagerEnviro Manager	Procedure and relevant information included in F2E Noise and Vibration Management Sub Plan in CEMP. This monitored through weekly inspections, Monthly Environmental Performance Reports, the Out of Hours notifications & associated procedures, as well as within the 6 monthly compliance reports.	Process for considering the above on a case by case or activity specific basis by the Proponent, including factors a) to c) above, has been approved as part of a Construction Environment Management Plan or Construction Noise and Vibration Management Plan for this project.Environmental Representative reviews all proposed out of hours works assessments and provides sign off / correspondence of approval.	Permits for works outside of the standard construction hours have been managed in accordance with the process outlined in the NVMP. For this reporting period these were:- OoHW Saturday Afternoons from September 2014 to February 2015 (F2E-TPL-REC-00567)- OoHW Sawcutting at SPR Interchange (F2E-TPL-REC-00573). - OoHW Pacific Hw Traffic Switch (F2E-TPL-REC-00562).- OoHW Paving Operations, CH14500 to 18300 (F2E-TPL-CORR-02598, F2E-TPL-REC-00638)- OoHW Paving Operations, CH25200 to CH27500, CH38450 to CH39800 and batch plants(F2E-TPL-CORR-02654)- OoHW Paving Operations, 30500 to 33100 and batch plants (F2E-TPL-REC-00666)
MCoA	2.15	Construction	Blasting associated with the construction of the project is only permitted during the following hours: a) 9:00 am to 5:00 pm, Mondays to Fridays, inclusive; b) 9:00 am to 1:00 pm on Saturdays; and c) at no time on Sundays or public holidays. This condition does not apply in the event of a direction from police or other relevant authority for safety reasons.	Closed	Was noted different elsewhere for "noisy activities". 9-3 Mon to Fri and 9-12 Sat as per CN3.	Construction Manager Enviro Manager	Addressed via the Noise and Vibration Management Sub Plan in CEMP. This monitored through weekly inspections, Monthly Environmental Performance Reports, the Out of Hours notifications & associated procedures, as well as within the 6 monthly compliance reports. NOTE: Blasting is unlikely to be required on the F2E project due to poor rock strength. No blasting to date.	NVMP	Addressed in the NVMP. No blasting required on the project to date.

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MCoA	2.16	Construction	The Proponent shall consult with affected educational institutions and ensure that noise generating construction works in the vicinity of the institutions are not timetabled during examination periods, unless other arrangements acceptable to the affected institutions are made at no cost to the affected institutions.	Closed	Identify educational institutions, assess degree of sensitivity, incorporate into program. Only education facility is at Frederickton - school. VMP developed to avoid trucks passing the school. F2E works unlikely to impact due to distance from school. VMP included as evidence documentation.	Neil Gross Community Liaison Enviro Manager	Addressed via the Noise and Vibration Management Sub Plan in CEMP & CIP. This monitored through weekly inspections, Monthly Environmental Performance Reports, the Out of Hours notifications & associated procedures, as well as within the 6 monthly compliance reports. VMP prepared and distributed to avoid Frederickton School - i.e. provided to quarries re; deliveries	NVMP VMP Correspondence with Frederickton School.	Condition closed. Refer to NVMP. Only education facility is at Frederickton -Frederickton - school.
MCoA	2.17	Construction	The construction noise objective for the project is to manage noise from construction (as measured by a LA10 (15minute) descriptor) so that it does not exceed the background LA90 noise level by: a) more than 20 dB(A) for a construction period of equal to or less than four weeks; b) more than 10 dB(A) for a construction period of greater than four weeks, but not exceeding 26 weeks; and c) more than 5 dB(A) for a construction period greater than 26 weeks. Any activities that could exceed the construction noise objectives specified under this condition shall be identified and managed in accordance with the Construction Noise and Vibration Management Plan specified under condition 6.5c) of this approval. If the noise from construction is substantially tonal or impulsive in nature (as described in Chapter 4 of the NSW Industrial Noise Policy), 5dB(A) shall be added to the measured construction noise level when comparing the measured noise with the construction noise objectives. The Proponent shall implement all reasonable and feasible noise mitigation measures with the aim of achieving the construction noise objective.	Open	Provisions included in Noise & Vibration Sub Plan	Construction Manager Enviro Manager	Noise and Vibration Sub Plan in CEMP. This monitored through weekly inspections, Monthly Environmental Performance Reports, the Out of Hours notifications & associated procedures, as well as within the 6 monthly compliance reports.	NVMP	Condition satisfied in previous reporting period. Refer to NVMP.

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MCoA	2.18	Construction	The Proponent shall ensure that air blast 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.Table 1 - Airblast Overpressure CriteriaAirblast Overpressure Allowable Exceedance(dB(Lin Peak))115 5% of total number of blasts over a 12 month period120 0%Subject to the Proponent demonstrating to the Director General that consultation with the community and landowners on the proposed blasting program has occurred, these criteria do not apply to Stage 2 Frederickton to Eungai where the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.Note:1. The agreement may be terminated by the landowner at any time should concerns about the increased blasting limits be unresolved. 2. The Airblast Overpressure level of 125 dBL shall not be exceeded.3. The agreement does not apply where the property is a heritage property.	Closed	Sensitive noise receptors to be identified and monitored (including background), constraints to be included in subbies agreements, work methodologies, site inductions.	Construction ManagerEnviro Manager	Relevant information included in F2E Noise and Vibration Management Sub Plan in CEMP. This is monitored through weekly inspections, Monthly Environmental Performance Reports & associated procedures, as well as within the 6 monthly compliance reports. NOTE: Blasting is unlikely to be required on the F2E project due to poor rock strength. No blasting to date.	NVMP	Addressed in the NVMP. No blasting required on the project to date.

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MCoA	2.19	Construction	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. Table 2 – Peak Particle Velocity Criteria Peak Particle Velocity (mms-1) Allowable Exceedance 5 5% of total number of blasts over a 12 month period 10 0% However, these criteria do not apply to the Stage 1 Kempsey Bypass where the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement. Subject to the Proponent demonstrating to the Director General that consultation with the community and landowners on the proposed blasting program has occurred, these criteria do not apply to Stage 2 Frederickton to Eungai where the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement. Note: 1. The agreement may be terminated by the landowner at any time should concerns about the increased blasting limits be unresolved. 2. The Peak Particle Velocity vibration level of 25 mm/s shall not be exceeded. 3. The agreement does not apply where the property is a heritage property.	Closed	Sensitive vibration receptors to be identified and monitored (if blasting), constraints to be included in subbie agreements, work methodologies, pre-start meetings with subbies.	Construction Manager Enviro Manager	Noise and Vibration Sub-Plan in CEMP. Note no blasting to date (4/03/14) or currently proposed. No blasting to date.	NVMP	Addressed in the NVMP. No blasting required on the project to date.
MCoA	2.20	Operation	Unless otherwise agreed to by the Director General, the Proponent shall submit for the approval of the Director General a review of the operational noise mitigation measures for the project within six months of commencing construction. The Review shall take into account the detailed design of the project and shall be prepared in consultation with the DECCW. Consideration of operational noise mitigation measures shall include, but not necessarily be limited to, those operational noise mitigation measures specified in section 16.5 of the document referred to in condition 1.1b) of this approval. For the purpose of this condition, the Proponent is only required to consider reasonable and feasible noise mitigation measures to meet the noise criteria stipulated in Environmental Criteria for Road Traffic Noise (EPA, 1999) and the Environmental Noise Management Manual' (RTA, 2001).	Closed	The ONMP will be prepared for the DP&E approval.	Design Manager	An Operational Noise Management Report has been developed and The Dept. of Planning & Environment approved the ONMP (v.D5 April 2014) on the 2 May 2014 (letter reference MP06_0224).	Refer to Incite Correspondence F2E-RMS-CORR-00156	Condition satisfied and closed. The Dept. of Planning & Environment approved the ONMP (v.D5 April 2014) on the 2 May 2014.

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MCoA	2.21	Construction	Unless otherwise agreed with the DECCW, the Kempsey Local Aboriginal Land Council and the Dunghutti Elders group, the Proponent shall:a) salvage any identified artefacts from sites KE14, KE15, KE16 and KE42; andb) undertake subsurface testing for sites KE PAD 1 to 12 inclusive, and salvage any artefacts of significance identified at those sites.The subsurface investigations and salvage of artefacts shall be undertaken prior to the commencement of construction works that may impact on those sites and in consultation with the DECCW, the Kempsey Local Aboriginal Land Council and the Dunghutti Elders group.The approach to salvage shall be in accordance with a methodology developed in consultation with the DECCW, the Kempsey Local Aboriginal Land Council and the Dunghutti Elders group.The salvage and storage of Aboriginal objects may proceed in the absence of an approved Construction Environmental Management Plan, subject to the activities being undertaken in accordance with a salvage strategy, prepared in consultation with the DECCW, the Kempsey Local Aboriginal Land Council and the Dunghutti Elders group, and approved by the Director General.	Closed	Subsurface investigation and salvage of KE14, KE15, KE16 and KE PAD 6 to 12 prior to the commencement of Stage 2 works which may impact on those sites.	Enviro ManagerCom munity Liaison	Included in Heritage Management Plan -App D for PAD 6-12 + KE 14, 15, 16 report. Draft report issued 8/4/13. Copy of final report. + PAD 1-5 report to be sourced from RMS and referenced.Salvage at KE14 and KE15 was completed on the 10.12.2013. The works included a site walk over of the area to be disturbed by construction activities, followed by removal of the topsoil into bunds and a second review by the Aboriginal Representatives (2 from KLALC and 2 from the Dunghutti Elders) and 2 Archaeologists. There were no artefacts found during these monitoring works and thus no further investigations were deemed warranted. Note KE16 and KE 42 are outside of the construction areas for F2E. KE 16 may be within the footprint of a proposed permanent stockpile MEZ6 extension – however should this site be approved for use the CoA shall be implemented accordingly.	1. Records of salvage and sub-soil testing2. Heritage Management Plan	Condition satisfied and closed.
MCoA	2.23	Pre-construction	An archival record shall be prepared by an appropriately qualified heritage expert for sites KEH3, KEH6, KEH7 and Ferry Lane Memorial Avenue (KEH1) prior to commencement of construction works that may affect those items. A copy of the record shall be provided to Kempsey Shire Council.	Closed	Not applicable. Sites listed in Condition 2.23 are not within Stage 2 (F2E). Undertaken by NOHC in 2011.	RMS	Heritage Management Sub Plan in CEMP Archival recording of KEH1 was submitted to Kempsey Shire Council in December 2010. KEH3, KEH6 and KEH7 were submitted in September 2011	N/a	Condition satisfied and closed.

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MCoA	2.24	Design	The Proponent shall replace the boat ramp, access road, parking and amenities removed as part of the Frederickton Levee construction. The replacement facilities shall be located and constructed in consultation with Kempsey Shire Council and the NSW Maritime Authority	Closed	Not applicable. The Frederickton Levee is not within Stage 2.	RMS	N/a	N/a	Not applicable to F2E
MCoA	2.25	Design	The Proponent shall consult directly affected property owners (as defined in Chapter 15 of the document referred to under condition 1.1b of this approval) in relation to the design and location of reasonable and feasible measures to permit movement of livestock and agricultural machinery between the parts of their properties that may be separated by the project. Those measures shall be installed and function so that farm operations are not disrupted by either construction or operation of the project.	Closed	Consultation undertaken by RMS and further consultation undertaken by Thiess/ RMS. Location and requirements of the farm accesses provided in SWTC Appendix 9 and Appendix 14. Design compliance demonstrated in DC002 . Package references for Severn Hills BR07 and Collombatti BR06.	Community Liaison Construction Manager	CIP DC001, DC002, and DC003, Severn Hills BR07 and Collombatti BR06. Note Variations in place to remove 2 underpasses from the SWTC, tracked via the design register & RFI system.	Written agreement with each directly affected landowner.	Condition satisfied and closed.
MCoA	2.26	Construction	The Proponent shall construct the project in a manner that minimises dust emissions associated with construction works, including wind-blown and traffic-generated dust.	Open	Ensure work methodologies reflect condition; inform team via inductions	Construction Manager Enviro Manager	Air Quality Management Plan in CEMP. This is monitored through weekly inspections, Monthly Environmental Performance Reports & associated procedures, as well as within the 6 monthly compliance reports.	AQMP	Controls and monitoring of the AQMP being implemented during construction. No unresolved complaints relating to dust during the reporting period.
MCoA	2.27	Construction	The Proponent shall take all reasonable and feasible measures to minimise soil erosion and the discharge of sediments and pollutants from the project during construction and operation in accordance with Managing Urban Stormwater: Soils and Construction (Department of Housing and Landcom, 2004);	Open	Designers to consider permanent controls, Construction team to manage temporary controls	Design Manager Construction Manager Enviro Manager	Soil and Water Management Plan in CEMP, Drainage and Basin Design Drawings Controls and monitoring of the SWMP being implemented during construction. PESCPs are prepared for Ground Disturbance Permits. Soil Conservationist reviewed and signed off on all PESCPs. Weekly inspections with the soil conservationist	SWMP, PESCP	Construction phase sediment basins were designed in accordance with the Blue Book. Basins dewatered within 5 days of the cessation of rainfall in accordance with EPL. Controls and monitoring of the SWMP being implemented during construction. Progressive Erosion and Sediment Controls Plans are prepared for all Ground Disturbance Permits. Weekly inspections with the soil conservationist occurring to assist with planning effective erosion and sediment controls.

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							occurring to assist with planning effective erosion and sediment controls.		
MCoA	2.28	Construction	Where available and of appropriate chemical and biological quality for its proposed purpose, the Proponent shall use stormwater, recycled water or other water sources in preference to potable water for construction, including concrete mixing and dust control.	Open	Water sourcing strategy to be determined: relevant approvals to be sought prior to water extraction activities	Construction Manager	Soil and Water Management Plan in CEMP. Implemented and tracked via water movement permit system, monthly report and 6 monthly compliance reports. Surface water and groundwater is being used for construction water. Licenses have been obtained from the Office of Water for surface water and groundwater extraction.	SWMP NSW Office of Water Licenses for Groundwater Extraction and Surface Water Extraction.	Surface water from sediment basin on site and groundwater is being used for construction water. Licenses have been obtained from the Office of Water for groundwater extraction. Potable water is being used for activities including compaction around bridge abutments and concrete production at batch plants where the available groundwater is unsuitable chemical qualities (electrical conductivity)

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MCoA	2.29	Construction	The Proponent shall ensure that ancillary facilities are located so as to satisfy the following criteria, unless otherwise approved by the Director General:a) be located within or directly adjacent to the project;b) have ready access to the road network;c) be located to minimise the need for heavy vehicles to travel through residential areas;d) be sited on relatively level land;e) be separated from nearest residences by at least 200 metres (or at least 250 metres for a temporary batch plant);f) not be within 100 metres of, or drain directly to, a wetland listed under State Environmental Planning Policy No. 14 – Coastal Wetlands;g) be located above the 20 year ARI flood level in other areas unless a contingency plan to manage flooding is prepared and implemented;h) not require vegetation clearing beyond that already required for the project;i) not impact on heritage sites beyond those already impacted by the project; andj) not affect the land use of adjacent properties.The location of the Ancillary Facilities shall be identified in the Construction Environmental Plan required under condition 6.4 and include consideration against the above criteria.Where the above criteria cannot be met for any proposed Ancillary Facility, the Proponent shall demonstrate to the Director General that there will be no adverse impact from that facility's construction or operation.	Open	Shortlisted sites have been checked against these criteria in project planning: Refer to RMS/ ER approvals for ancillary sites. Monitored through pre-commencement consistency assessments in consultation with RMS, & 6 monthly compliance reports.	Construction ManagerEnviro Manager	Ancillary Site Compliance Checklist in CEMP. Consistency Assessments completed for ancillary sites.	CEMP Appendix 5 - Ancillary Facilities	No new ancillary facilities were established during this reporting period. CEMP Appendix 5 was updated to include all approved ancillary facilities.

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MCoA	3.1	All Stages	Prior to the commencement of construction, the Proponent shall develop and implement a Monitoring Program to target the effectiveness of the mitigation measures identified in Condition 2.10(d) for the listed threatened species directly impacted by the project. The program shall include (but not necessarily be limited to) the monitoring of Maundia triglochinoides, Green-thighed Frog, Glossy Black Cockatoo and the Brush-tailed Phascogale. The Program shall be developed in consultation with the DECCW and suitably qualified ecologist(s) and shall include but not necessarily be limited to: a) the monitoring of threatened species in and adjacent to the project footprint. The methodology shall be decided in consultation with DECCW; b) an adaptive monitoring program to assess the effectiveness of the mitigation measures identified in Condition 2.10 (d) and allow their modification if necessary. The monitoring program shall include targets against which effectiveness will be measured; 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 three successive monitoring periods, or as otherwise agreed by the Director General in consultation with DECCW; 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 the 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 the DECCW, or as otherwise agreed by those agencies. The Program shall be submitted to the Director General prior to the commencement of construction and shall be updated to incorporate the monitoring methodology for threatened species, once agreed to, in accordance with condition of this approval.	Open	RMS has provided ecological Monitoring Program (Doc ID 120) plus updates.	Enviro Manager	F2E ecological monitoring program was approved by DP&E on 25.7.13 Flora and Fauna Management Plan in CEMP. 2141112Frederickton-Eungai Ecological Monitoring Program Version 5Flora and Fauna Management Plan in CEMP. 2141112Frederickton-Eungai Ecological Monitoring Program Version 5	Objective file numbers: - SF2012/005795 SF2012/005800	The monitoring of nest boxes, Maundia and Hairy Joint Grass were undertaken during this reporting period. Three paired impact sites were not monitored for Maundia due to flooding.

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MCoA	3.2	Operation	No later than one year after commencement of operation of the project, or as otherwise agreed by the Director General, the Proponent shall undertake operational noise monitoring to confirm the predicted noise performance of the project against actual performance and prepare an Operational Noise Report. The Report shall include, but not necessarily be limited to:a) noise monitoring to assess compliance with the operational noise outcomes predicted in the documents specified under condition 1.1 of this approval;b) a review of the operational noise levels and in terms of criteria and noise goals established in the Environmental Criteria for Road Traffic Noise (EPA 1999) and the Environmental Noise Management Manual' (RTA, 2001);c) methodology, location and frequency of noise monitoring, to be undertaken in accordance with the Environmental Noise Management Manual' (RTA, 2001);d) identification of monitoring sites at which background noise and project noise levels can be ascertained, with specific reference to locations indicative of impacts on sensitive receivers;e) details of any complaints and enquiries received in relation to operational noise generated by the project between the date of commencement of operation of the project and the date the report was prepared;f) any required recalibrations of the noise model taking into consideration factors such as noise monitoring undertaken and actual traffic numbers and proportions; andg) an assessment of the performance and effectiveness of applied noise mitigation measures together with a review and if necessary, reassessment of all reasonable and feasible mitigation measures; andh) any additional noise mitigation measures required and timetables for implementation.	Open	Scope is outside of TPL works.This COUR has been closed as it is an Operational requirement.	RMS	Not Applicable	N/a	Operational phase condition.
MCoA	3.3	Operation	Within 60 days, or as otherwise agreed by the Director General, of completing the operational noise monitoring referred to under condition 3.2 of this approval, the Proponent shall provide the Director General and the DECCW with a copy of the Operational Noise Report. If the Report identifies any non-compliance with the noise objectives specified in the Environmental Criteria for Road Traffic Noise (EPA 1999), the Proponent shall detail what additional measures would be implemented to ensure compliance, clearly indicating these measures, when these measures would be implemented, and how the effectiveness of these measures would be measured and reported to the Director General.	Open	Scope is outside of tender	RMS	Not Applicable		Operational phase condition.

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MCoA	4.1	All Stages	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. The Program shall include, but not necessarily limited to: a) provisions for periodic review of the compliance status of the project against the requirements of this approval (specified under condition 1.1c); b) provisions for the notification of the Director General prior to the commencement of construction and prior to the commencement of operation of the project; c) provisions for periodic reporting of compliance status to the Director General during construction; d) a program for independent environmental auditing in accordance with ISO 19011:2003 - Guidelines for Quality and/ or Environmental Management Systems Auditing; e) mechanisms for recording incidents during construction and actions taken in response to those incidents; f) provisions for reporting environmental incidents to the Director General during construction; and g) mechanisms for rectifying any non-compliance identified during environmental auditing or review of compliance.	Open	Include in CEMP	Enviro Manager	Compliance tracking program incorporated into CEMP. Quarterly reviews to be completed in accordance with Compliance Tracking Program. Refer to section 2.2 for notification strategy.	Appendix A11 - Compliance tracking program, Pre-construction report (include link)	In accordance with the Compliance Tracking Program (CEMP Appendix A11), the following compliance reviews were completed during this reporting period - Quarterly Compliance Report, Sept - Dec 2014 (F2E-TPL-REC-00689) - Quarterly Compliance Report, Dec 2014 - March 2015 (F2E-TPL-REC-####) - Environmental Compliance Report 2 for the 4 March - 3 September 2014 reporting period. Issued to DE&P on the 20/10/14. - An independent audit was completed on the 11 & 12 November of the MCoA in accordance with MCoA 4.1 (d) and Section 2.4 of the Compliance Tracking Program.
MCoA	5.1	Construction	Subject to confidentiality, the Proponent shall make all documents required under this approval available for public inspection on request.	Open	All approved documents provided to RMS for website upload as applicable. Documents available at Site Compound.	Community Liaison Enviro Manager	Included in CEMP/ CIP	CEMP/ CIP	Documents published on RMS website - http://www.rms.nsw.gov.au/projects/northern-nsw/port-macquarie-to-coffs-harbour/frederickton-to-eungai/project-documents.html

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MCoA	5.2	Construction	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, Council and local community (broader and local stakeholders) on the detailed design, progress and the related environmental management of the project. The Strategy shall include, but not necessarily limited to:a) identification of stakeholders to be consulted as part of the Strategy, including affected and adjoining landowners;b) procedures and mechanisms for the regular distribution of information to stakeholders on the progress of the project, detailed design and matters associated with environmental management;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, detailed design and delivery of the project;d) the formation of community-based forums (focus groups) that focus on key design, environmental management and construction issues for the project. The Strategy shall provide detail on the structure, scope, objectives and frequency of the community based forums;e) procedures and mechanisms through which the Proponent can respond to any enquires or feedback from stakeholders in relation to the environmental management, detailed design and delivery of the project; andf) 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. Key issues that should be addressed in the Community Communication Strategy should include (but not necessarily be limited to):i) traffic management (including property access);ii) community infrastructure;iii) property acquisition;iv) business impacts;v) landscaping/ urban design matters;vi) heritage;vii) flood management;viii) construction activities; andix) noise and vibration mitigation and management.The Proponent shall maintain and implement the Strategy throughout construction. The Strategy shall be approved by the Director General prior to the commencement of construction, unless otherwise agreed by the Director General.	Open	Community communication strategy to incorporated into CIP	Community Liaison Enviro Manager	The CIP was approved by DP&E on the 19/8/13 (letter ref 11119471).Ongoing implementation of the CIP	F2E-00G-PL-CIP-001-03	Ongoing implementation of the CIP.

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MCoA	5.4	All Stages	Prior to the commencement of construction of the project, the Proponent shall ensure that the following are available for community enquiries and complaints for the duration of construction: a) a telephone number on which complaints and enquiries about the project may be registered. b) a postal address to which written complaints and enquires may be sent. 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 operation. This information shall also be provided on the Proponent's website.	Open	Community communication strategy to incorporated into CIP	Community Liaison	Details provided on RMS website at http://www.rms.nsw.gov.au/projects/northern-nsw/port-macquarie-to-coffs-harbour/frederickton-to-eungai/index.htm	F2E-00G-PL-CIP-001-03	- Phone: 1800 668 240 - Email: community-enquiries @F2E.incite.com.au - Mail: Frederickton to Eungai Pacific Highway Upgrade, PO Box 53 Frederickton NSW 2440
MCoA	5.5	Construction	Prior to the commencement of construction of the project, the Proponent shall prepare and implement a Construction Complaints Management System consistent with AS 4269: Complaints Handling and maintain the System for the duration of construction. Information on all complaints received, including the means by which they were addressed and whether resolution was reached with or without mediation, shall be included in the construction compliance reports referred to under condition 4.1c) and made available to the Director General on request.	Open	Complaint system to be included in CIP	Community Liaison	CIP/ Consultation Manager	F2E-00G-PL-CIP-001-03	CIP/ Consultation Manager
MCoA	5.6	Construction	Prior to the commencement of construction, the Proponent shall dedicated pages within its project website, for the provision of electronic information associated with the project. The Proponent shall, publish and maintain up-to-date information on these dedicated pages including, but not necessarily limited to: a) a copy of the documents referred to under condition 1.1 of this approval, and any documentation supporting modifications to this approval that may be granted from time to time; b) a copy of this approval and each relevant environmental approval, licence or permit required and obtained in relation to the project; c) subject to confidentiality requirements, a copy of each strategy, plan and program required under this approval; and d) the outcomes of compliance tracking in accordance with condition 4.1 of this approval.	Open	Permits, Licences and Approvals provided to RMS via hold point release system.	Community Liaison	CIP, CEMP	CIP and CEMP provided to RMS. Approvals & permits provided to RMS in accordance with G36 requirements.	Condition satisfied and ongoing. Details available on the RMS website http://www.rms.nsw.gov.au/roadprojects/projects/pac_hwy/port_macquarie_coffs_harbour/frederickton/

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MCoA	6.1	Construction	Prior to the commencement of construction of the project or each stage 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 Environmental Representative(s) independent of the project design 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 Environmental Representative(s) shall:a) be the principal point of advice in relation to all questions and complaints concerning the environmental performance of the project;b) monitor the implementation of all environmental management plans and monitoring programs required by the conditions of this approval;c) monitor the outcome of all environmental management plans and advise the Proponent upon the achievement of all project environmental outcomes;d) ensure that environmental auditing is undertaken in accordance with all relevant project Environmental Management Systems;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; andf) 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	Closed	Role of Env Rep included in CEMP - See section 4.2.1	Enviro Manager	Appointment of Murray Curtis as ER was approved by DP&E on 16.12.09Appointment & responsibilities included in CEMP.	Objective file number:SF2012/005795	Condition satisfied. Murray Curtis remains appointed as EMR.
MCoA	6.3	Design	Prior to the commencement of construction of the project, or as otherwise agreed by the Director General, the Proponent shall prepare an Urban Design and Landscape Plan in consultation with relevant Council(s), relevant Government agencies and the community. The Plan shall include, but not necessarily be limited to: a) sections and perspective sketches; b) location and identification of existing and proposed vegetation including use of indigenous and endemic species where possible; c) location of mounds, bunds, structures (noise walls, bridges) or other proposed treatments, finishes of exposed surfaces (including paved areas); d) progressive landscaping strategies incorporating other environmental controls such as erosion and sedimentation controls, drainage, noise mitigation; and e) monitoring and maintenance procedures.	Closed	Submission of the UD&LMP to DP&E	Design Manager	UD&LP to be submitted to D&PI as per RMS RFI response. Original extension granted til 28 February 2014. DP&E extension letter ref: 4483_001_urban_design_extension Following consultation and revision, the Department approved the UD&LMP on the 2 June 2014 (letter reference 09/03204).	F2E-00G-PL-LMP-001-05	Condition satisfied and closed. Following consultation and revision, the Department approved the UD&LMP on the 2 June 2014 (letter reference 09/03204).

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MCoA	6.4	Pre-construction	Prior to the commencement of construction of the project or each stage of the project, the Proponent shall prepare and implement a Construction Environmental Management Plan to outline environmental management practices and procedures to be followed during construction of the project. The Plan shall be prepared in consultation with relevant Government agencies and local councils, and in accordance with Guideline for the Preparation of Environmental Management Plans (DIPNR, 2004) and shall include, but not necessarily be limited to: a) a description of all activities to be undertaken during construction of the project including an indication of stages of construction, where 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; c) details of how the environmental performance of the construction works will be monitored, and what actions will be taken to address identified adverse environmental impacts; d) a description of the roles and responsibilities for all relevant employees involved in the construction of the project; e) the additional plans listed under condition 6.5 of this approval; and f) complaints handling procedures during construction as set out in condition 5.5 of this approval. The Plan shall be submitted for the approval of the Director General no later than one month prior to the commencement of any construction works associated with the project, 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.	Closed	CEMP developed and approved 19/8/13 (Letter reference 11/19471)	Enviro Manager	CEMP to include all sections as specified in requirement. CEMP approved 19/8/13.	4437_001_Approval	Condition satisfied and closed

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MCoA	6.5	Pre-construction	As part of the Construction Environmental Management Plan for the project required under condition 6.3 of this approval, the Proponent shall prepare and implement the following sub plans:a) 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 DECCW and include, but not necessarily be limited to:i) details of work practices (such as fencing and construction worker education) to minimise the potential for damage to vegetation and native fauna during construction;ii) weed management measures focusing on early identification of invasive weeds and determining effectiveness of management controls;iii) procedures to install and monitor mitigation measures, such as nest boxes, relocated hollows and fauna fencing for effectiveness and maintenance; andiv) an auditing program for construction work practices to ensure that there is no impact on threatened species or their habitats additional to that already permitted.b) 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 Department's Heritage Branch, the DECCW, Kempsey Aboriginal Land Council and the Dunghutti Elders group and shall include, but not necessarily be limited to:i) results and recommendations arising from investigations into Potential Archaeological Deposits;ii) a strategy for the salvage and curation of salvaged Aboriginal objects;iii) an education program for construction and project supervision personnel on their obligations for Aboriginal cultural materials;iv) procedures to be implemented if previously unidentified Aboriginal objects and / or Non-Indigenous heritage items are discovered during construction; andv) a program for construction work practices to ensure that there is no impact on heritage items additional to that already permittedc) a Construction Noise and Vibration Management Plan to detail how construction noise and vibration impacts would be minimised and managed. The Plan shall be developed in consultation with the DECCW and include, but not necessarily be limited to:i) details of construction activities and a schedule for construction works;ii) identification of construction activities that have the potential to generate noise and/or vibration impacts on surrounding sensitive receivers, particularly residential areas;iii) a detailed description of what actions and measures would be implemented to ensure that these works would comply with the relevant noise and vibration criteria/ guidelines;iv) procedures for notifying residents 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; andv) a description of how the effectiveness of these actions and measures would be monitored during the proposed works, clearly indicating how often this monitoring would be conducted, how the results of this monitoring would be recorded; and, if any non-compliance is detected.	Closed	CEMP developed and approved 19/8/13.	Enviro Manager	CEMP developed and approved 19/8/13. Flora and Fauna Management Sub Plan in CEMPHeritage Management Sub Plan in CEMPNoise and Vibration Management Sub Plan in CEMPCondition satisfied.	4437_001_Approval	The 12mth executive review was completed in November. Following the 12 mth executive review, the CEMP was revised and reissued for ERG review / comment in February 2015.

Appendix 1 – Project Obligations (COURs) Register
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Ref.	Source Ref.	Timing	Commitment, Obligation, Undertaking, Requirement (COUR)	Con-struction Status	How COUR will be complied with	Responsibility	Addressed where / how	Evidence Reference	Sept 2014 - March 2015 Compliance Report
MCoA	6.6	Commissioning	Prior to the commencement of operation, the Proponent shall incorporate the project into its existing environmental management systems and shall ensure that key operational environmental impacts are monitored and managed, including but not limited to: a) ecological factors, including effectiveness of fauna crossings; b) noise impacts; c) soil erosion and the discharge of sediment and other pollutants to lands and/or waters; and d) landscaping and urban design.	Open	RMS Responsibility, though Thiess may operate under RMS OEMP for Landscape Maintenance Works	-	N/a at this time.		Not applicable to this period.
SoC	EM1	Pre-construction	A construction environmental Management plan will be prepared and implemented	Closed	CEMP prepared and approved on the 19/8/13	Enviro Manager	CEMP - Condition satisfied.	Approval	The 12mth executive review was completed in November. Following the 12 mth executive review, the CEMP was revised and reissued for ERG review / comment in February 2015.
SoC	C1	Construction	Newsletters and media releases will be used regularly to provide project updates. The newsletters and media releases will provide contact details and phone numbers of relevant project staff.	Open	Include in CIP	Community Liaison	CIP - Condition satisfied.	http://www.rms.nsw.gov.au/projects/northern-nsw/port-macquarie-to-coffs-harbour/frederickton-to-eungai/project-documents.html	Condition satisfied and ongoing. Details available on the RMS website http://www.rms.nsw.gov.au/projects/northern-nsw/port-macquarie-to-coffs-harbour/frederickton-to-eungai/project-documents.html
SoC	C2	Construction	A project internet site which contains periodic updates of work progress, consultation activities and proposed work schedules will be established prior to the commencement of pre-construction work. The internet site will be regularly updated during the construction phase. The internet site will also provide a description of relevant approval authorities and their areas of responsibility and contact details and phone numbers of relevant project staff.	Open	Include in CIP	Community Liaison	CIP - Condition satisfied and monitoring/ updating is ongoing.	http://www.rms.nsw.gov.au/projects/northern-nsw/port-macquarie-to-coffs-harbour/frederickton-to-eungai/project-documents.html	Condition satisfied and ongoing. Details available on the RMS website http://www.rms.nsw.gov.au/projects/northern-nsw/port-macquarie-to-coffs-harbour/frederickton-to-eungai/project-documents.html
SoC	C3	All Stages	A 24 hour, toll free complaints and community information telephone number will be established for the Proposal and will be advertised, prior to the commencement of pre-construction activities.	Open	Include in CIP. The following number has been set up : 1800 668 240	Community Liaison	CIP - Condition satisfied and monitoring/ updating is ongoing.	The following number has been set up : 1800 668 240	Condition satisfied and ongoing. The following number has been set up : 1800 668 240
SoC	C4	All Stages	A system to receive, record, track and respond to complaints within a specified timeframe will be established.	Open	Include in CIP/ Tracked via *Consultation Manager* (database)	Community Liaison	CIP - Condition satisfied and monitoring/ updating is ongoing.	http://www.rms.nsw.gov.au/projects/northern-nsw/port-macquarie-to-coffs-harbour/frederickton-to-eungai/project-documents.html	Condition satisfied and ongoing. Consultation Manager (database) in use.

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SoC	C5	Construction	Property owners will be consulted about the implementation of mitigation measures that affect their property and any issues raised will be addressed where reasonable and feasible.	Open	Flood consultation records available at: \\tcfs.thiess.aus\Groups\NSW\F2E\02 Community\02_06 Communications & Notifications\02_06_06_Consultation\Flood impacts	Community Liaison Enviro Manager	CIP - Condition satisfied and monitoring/ updating is ongoing.	http://www.rms.nsw.gov.au/projects/northern-nsw/port-macquarie-to-coffs-harbour/frederickton-to-eungai/project-documents.html	Condition satisfied and ongoing.
SoC	T1	Pre-construction	Pre-construction road condition reports will be prepared for all roads likely to be used by construction traffic.	Closed	Road Condition Reports to be developed.	Traffic/ Design/ Community Managers	Road dilapidation information. Condition satisfied.	G:\NSW\F2E\04 Manage Project\04_06 Execute the Works\Road Delap\F2E DILAP	Condition satisfied and closed.
SoC	T2	Commissioning	Post–construction road condition reports will be prepared for the roads assessed in Statement of Commitment T1. Copies of the reports will be provided to the relevant roads authority. Any damage resulting from construction, (not normal wear and tear), will be repaired at the proponent's cost, unless an alternative arrangement is agreed with the relevant roads authority.	Open	Include reference to Council correspondence	Traffic Manager/ Design Manager	Applicable to post construction period.		Not applicable to this period.
SoC	T3	Construction	Construction vehicle movement arrangements will be developed to minimise impacts on all road users (including pedestrians, vehicles, cyclists and disabled persons) and to maintain pre-construction road / intersection capacities, with specific regard to any other road works in the area, local traffic movement requirements and peak traffic volumes, including long weekends and holiday periods.	Open	Construction Traffic Management Sub Plan./ TCPs e.g. \\tcfs.thiess.aus\Groups\NSW\F2E\04 Manage Project\04_06 Execute the Works\Traffic Management\TCPS.	Traffic Manager	Traffic Management Plan - condition satisfied and monitoring/ updating is ongoing.	TMSP	Condition satisfied through the development of Traffic Management Plans
SoC	T4	Design	Where any legal property access is temporarily or permanently affected by the project, alternative property access to an equivalent standard will be provided where feasible and reasonable or other alternative arrangements agreed in consultation with the property owner.	Open	Consultation undertaken by RMS. Location and requirements of the property accesses provided in SWTC Appendix 9.	RMS	Consultation undertaken by RMS. Location and requirements of the property accesses provided in SWTC Appendix 9. Design compliance demonstrated in DC001, DC002, and DC003 and PA design lots.	Property Agreements PA### Design Lots	Property adjustment works ongoing.

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Ref.	Source Ref.	Timing	Commitment, Obligation, Undertaking, Requirement (COUR)	Con-struction Status	How COUR will be complied with	Responsibility	Addressed where / how	Evidence Reference	Sept 2014 - March 2015 Compliance Report
SoC	T5	Construction	In consultation with the Department of Primary Industries (Forests), access to and within State Forest lands adjacent to the Proposal will be retained for forestry operations, fire management activities and recreation purposes.	Closed	Access to and within State Forest lands adjacent to Stage 2 works will be retained for forestry operations, fire management activities and recreation purposes.	RMS	Consultation undertaken by RMS. Location and requirements of the property accesses provided in SWTC Appendix 9. Design compliance demonstrated in DC001, DC002, and DC003. Condition satisfied.		Condition satisfied by RMS and closed.
SoC	CN1	Pre-construction	Pre–construction noise monitoring and traffic counting will be undertaken at locations used to identify the background noise levels for the Environmental Assessment and/or at representative noise sensitive locations.	Closed	Noise monitoring detailed in the NVMP and Operational Noise Management Plan.	Enviro Manager	Noise and Vibration Management Sub Plan in CEMP/ Monitoring completed and background data used in the development of NVMP. Condition satisfied.	NVMP	Condition satisfied and closed. Refer to the ONMP.
SoC	CN2	Construction	Construction activities will be restricted to construction hours for the Proposal. The hours will be 7am to 6pm Monday to Friday; 8am to 1pm Saturdays and no work on Sunday or public holidays except in accordance with commitment CN4 below.	Open	Requirement included in NVMP	Construction Manager Enviro Manager	Noise and Vibration Management Sub Plan in CEMP. This monitored through weekly inspections, Monthly Environmental Performance Reports, the Out of Hours notifications & associated procedures, as well as within the 6 monthly compliance reports. Works outside of the specified working hours managed through the Out of Hours Works Permit as outlined in the NVMP.	NVMP	Refer to MCoA 2.12 and 2.14 above
SoC	CN3	Construction	Rock breaking, rock hammering, sheet piling, pile driving and any similarly noisy project activity will be scheduled only between the hours of 9am to 3pm, Monday to Friday; and 9am to 12 noon, Saturday except in accordance with commitment CN4 below	Open	Requirements included NVMP. NVMP approved by DP&E on 19/8/13.	Construction Manager Enviro Manager	Noise and Vibration Management Sub Plan in CEMP. This monitored through weekly inspections, Monthly Environmental Performance Reports, the Out of Hours notifications & associated procedures, as well as within the 6 monthly compliance reports.	NVMP	Pile driving activities completed in this reporting period. Works were extended to the Standard Construction Hours following consultation and agreement with affected residences. All consultation is recorded in Consultation Manager (database).

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Ref.	Source Ref.	Timing	Commitment, Obligation, Undertaking, Requirement (COUR)	Con-struction Status	How COUR will be complied with	Responsibility	Addressed where / how	Evidence Reference	Sept 2014 - March 2015 Compliance Report
SoC	CN4	Construction	Works outside standard construction hours will be limited to:(i) Any works that do not cause construction noise to be audible at any sensitive receivers; or(ii) The delivery of materials required outside these hours by the Police or other authorities for safety reasons; or(iii) Emergency work to avoid the loss of lives, property and/or to prevent environmental harm; or(iv) Any other work as agreed after appropriate consultation with affected residences, the Department of Environment and Climate Change, and local council.	Closed	Requirements included NVMP. NVMP approved by DP&E on 19/8/13. Closed by compliance with MCoA 2.12 and 2.14.	Construction ManagerEnviro Manager	Noise and Vibration Management Sub Plan in CEMP. This monitored through weekly inspections, Monthly Environmental Performance Reports, the Out of Hours notifications & associated procedures, as well as within the 6 monthly compliance reports. Works outside of the specified working hours managed through the Out of Hours Works Permit as outlined in the NVMP.	NVMP	Closed by compliance with MCoA 2.12 and 2.14
SoC	CN5	Construction	All plant and equipment will be well maintained and fitted with adequately maintained silencers which meet the plant and equipment design specifications.	Open	Included in NVMP controls - Table 8.1. Also plant maintenance records saved at G:\NSW\F2E\07 Health and Safety\07_15 Plant & Equipment\7.15.15 Plant Register Documentation\Plant Documentation.	Plant Manager	Noise and Vibration Management Sub Plan in CEMP. This monitored through weekly inspections, Monthly Environmental Performance Reports, as well as within the 6 monthly compliance reports.	NVMP	Condition satisfied in previous reporting period through the NVMP.
SoC	CN6	Construction	Prior consultation and written notification will be undertaken with nearby residents that may be affected by noise or vibration generating activities.	Open	Included in CIP & CEMP.	Community Liaison Enviro Manager	Noise and Vibration Management Sub Plan in CEMP, CIP. Ongoing implementation of the CIP and NVMP.	Regular community updates/ community information sessions and direct consultation e.g. piling operations.	Condition satisfied and ongoing when works outside of standard construction hours or high noise impact works are proposed. All consultation is recorded in Consultation Manager (database). Community notifications also made available on the RMS F2E website (http://www.rms.nsw.gov.au/projects/northern-nsw/port-macquarie-to-coffs-harbour/frederickton-to-eungai/project-documents.html).
SoC	CN7	Construction	Public address systems (including amplified telephone ringers) used at any construction site will not be used outside normal construction hours except in accordance with commitment CN4 above. Public address systems will be designed to limit noise spillage off-site.	Closed	Included in NVMP controls. PA not currently used however PA system may be used at site compound. This	Construction Manager	Noise and Vibration Management Sub Plan in CEMP. This monitored through weekly inspections, Monthly Environmental Performance Reports, as	NVMP	No public address systems installed to date.

Ref.	Source Ref.	Timing	Commitment, Obligation, Undertaking, Requirement (COUR)	Con-struction Status	How COUR will be complied with	Responsibility	Addressed where / how	Evidence Reference	Sept 2014 - March 2015 Compliance Report
					site is in excess of 200m from residents.		well as within the 6 monthly compliance reports.		
SoC	CN8	Construction	Blasting trials will be undertaken if blasting is to be used or if production blasting fails to comply with the relevant performance criteria, with results from the trials used to modify / determine site-specific blast designs to satisfy relevant performance criteria.	Closed	Blasting to be identified and adequate time for trials to be scheduled in prior to blasting. Site specific blast designs will be formulated following trials.	Construction Manager	Noise and Vibration Management Sub Plan in CEMP - see Table 8.1 (NV22). This monitored through weekly inspections, Monthly Environmental Performance Reports, as well as within the 6 monthly compliance reports. Not applicable to date.	NVMP	Not applicable to this period. No blasting required on the project to date.
SoC	CN9	Construction	All reasonable attempts will be made to contact sensitive receivers located within 500 metres of a blast location. The contact will be made at least 48 hours before a blast and advice given to the receiver will include a schedule of blast time(s) and a telephone number and contact name.	Closed	No blasting anticipated - to be reviewed should blasting be nominated as a construction methodology.	Community Liaison Enviro Manager	Noise and Vibration Management Sub Plan (see Table 8.1 (NV20)) in CEMP. This monitored through weekly inspections, Monthly Environmental Performance Reports, as well as within the 6 monthly compliance reports. Not applicable to date.	NVMP	Not applicable to this period. No blasting required on the project to date.
SoC	CN10	Construction	Construction noise and vibration monitoring will be undertaken at sensitive locations during construction to determine the effectiveness of mitigation strategies.	Open	Scheduled and 'as necessary' noise monitoring included in the NVMP/ Monthly Reported.	Enviro Manager	Noise and Vibration Management Sub Plan in CEMP. This monitored through weekly inspections, Monthly Environmental Performance Reports, as well as within the 6 monthly compliance reports.	NVMP	Noise monitoring undertaken and reported monthly in the Environmental Performance Report. - September 2014 (F2E-TPL-REC-00603) - October 2014 (F2E-TPL-REC-00652) - November 2014 (F2E-TPL-REC-00693) - December 2014 (F2E-TPL-REC-00721) - January 2015 (F2E-TPL-REC-00748) - February 2015 (F2E-TPL-CORR-02738)
SoC	ON1	Design	A reasonable and feasible approach will be adopted to limit operational noise impacts in accordance with the NSW Government's Environmental Criteria for Road Traffic Noise. The approach to operational noise impacts will be finalised during detailed design and in consultation with relevant property owners.	Closed	Considered and applied in the development of the Operation Noise Management	Design Manager	An Operational Noise Management Report has been developed and The Dept. of Planning & Environment approved the ONMP (v.D5 April 2014) on the 2 May 2019	ONMP	Condition satisfied and closed.

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					Report		(letter reference MP06_0224).		
SoC	ON2	Design	Operational noise mitigation measures (e.g.. low- noise pavement, road design, noise mounds or noise barriers) will be further reviewed and optimised during detailed design and installed at the locations identified and set out in section 3.7.1 and 3.7.2 of Technical Report 3 – Noise and Vibration Assessment.	Closed	ONMP - see MCoA 2.20.	Design Manager	An Operational Noise Management Report has been developed and The Dept. of Planning & Environment approved the ONMP (v.D5 April 2014) on the 2 May 2014 (letter reference MP06_0224).	ONMP	Not applicable to this period (operational phased commitment).
SoC	ON3	Design	Architectural treatments will be provided to properties identified in section 3.7.3 of Technical Report 3 – Noise and Vibration Assessment following detailed design and consultation with the property owner.	Open	Architectural treatments to be provided	RMS	53 properties have been identified as requiring architectural treatments. RMS are currently preparing contracts for the work. It is anticipated that works would be scheduled to commence early 2015 and take approximately 6 months to complete.	Records of RMS consultation with identified receivers	The scope of all F2E noise treatments has been completed and contracts drawn up for the works. Tenders have been called from shortlisted contractors to complete the work.
SoC	ON4	Operation	Monitoring of operational noise will be undertaken between six months and one year after opening along the proposed highway upgrade. Should the monitoring indicate traffic noise levels exceeding the relevant noise level criteria in NSW Government's Environmental Criteria for Road Traffic Noise; the RTA will investigate and implement further "reasonable and feasible" mitigation measures. The selection of these measures will be undertaken in consultation with affected property owners.	Open	Considered and applied in the development of the Operation Noise Management Report	Design Manager	Operation phase commitment.	ONMP	Not applicable to this period (operational phased commitment).
SoC	F1	Design	Waterway crossings will be designed to facilitate fish passage where appropriate and in consultation with the relevant government agencies.	Open	Compliance requirements provided in SWTC Appendix 5. Design compliance demonstrated in Cross Drainage packages DC001, DC002, and DC003. Consultation with Fisheries has also occurred for temporary platforms and	Enviro Manager	Cross Drainage packages DC001, DC002, and DC003. Refer to Section 20.3 of design reports for summary of consultation with EPA and Fisheries. Temp Works EWMS F2E-00G-WMS-ENV-012-01. All prepared in consultation and EPA.	G:\NSW\F2E\01 Environment\2 Planning\2.11 EWMS\F2E-00G-WMS-ENV-012-01 Temp Access works near waterways\F2E-00G-WMS-ENV-012-01	Consultation between RMS with EPA and DPI (Fisheries) for Boriragalla Creek was completed during this reporting period. Closed for all other waterways.

Ref.	Source Ref.	Timing	Commitment, Obligation, Undertaking, Requirement (COUR)	Con-struction Status	How COUR will be complied with	Responsibility	Addressed where / how	Evidence Reference	Sept 2014 - March 2015 Compliance Report
					access tracks. Also refer to MCoA 2.8.				
SoC	F2	Construction	Frog breeding ponds suitable for the green-thighed frog will be designed and constructed in consultation with a suitably qualified and experienced ecologist knowledgeable in the breeding requirements of this species.	Open	Compliance requirements provided in SWTC Appendix 4 and Appendix 14 . Design compliance demonstrated in Longitudinal Drainage packages DL001, DL002, and DL003. Consultation with suitably qualified and experienced ecologist knowledgeable in the breeding requirements of this species (Ben Lewis) prior to and during construction. Consultation with OEH undertaken.	Enviro Manager	DL001, DL002, and DL003 Areas for construction of frog breeding ponds were included within the ecological monitoring program, which was approved by DP&E on 25.07.13	Refer to Keystone for design reports/ drawings.	Design component complete. Site inspection of all frog pond sites was completed with Brian Tolhurst of EPA on the 15 September 2014. All sites were considered suitable. Construction component yet to commence.
SoC	F3	Design	Riparian vegetation disturbed by the Proposal will be replaced with endemic species to maintain creek bank stability.	Open	Species for riparian vegetation specified in the UD&LMP and Landscape Design Packages (LA0002).	Enviro Manager	UD&LP to be submitted to D&PE as per RMS RFI response. Original extension granted til 28 February 2014. DP&E extension letter ref: 4483_001_urban_design_extension Following consultation and revision, the Department approved the UD&LMP on the 2 June 2014 (letter reference 09/03204).	FFMP/ UD&LMP	Design component complete (LA001 & LA 002). Construction phase at riparian sites has been limited to hydromulching only during this period.

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SoC	F4	Construction	Threatened plants in proximity to the Proposal to be retained will be protected during construction through exclusion fencing, warning sign posting and education of construction workers through the site induction process.	Open	Included in SWTC App reqmts / included in Flora and Fauna Sub Plan controls. Induction presentation + signage example.	Enviro Manager	CEMP; Flora & Fauna Sub-Plan/ site induction/ GDP. Monitored via weekly inspections, 6 mthly compliance reports. Controls to address condition included in the FFMP. Implementation of these controls including inductions, delineation of clearing limits and environmental NO GO signage ongoing during this quarter.	FFMP. Environmental induction Materials Fencing and signage monitoring	Implementation of controls to protect threatened plants in the proximity of the proposal ongoing. Limit of Clearing fencing has been replaced at some sites with permanent fauna fencing. Review of exclusion signage completed in March 2015 and replacement signs / exclusion fencing installed where required.
SoC	F5	Pre-construction	The feasibility of relocating individuals of Maundia triglochinoide directly affected by the Proposal to suitable habitat on nearby land in secure tenure will be further investigated and resultant action determined on the basis of expert advice.	Closed	Comply with MCoA 2.9	RMS	Final Maundia translocation plan was provided to the DP&E on 13.5.13, which recommended that translocation was not reasonable or feasible. No further actions to implement.	Flora & Fauna Sub-Plan/ 2121213MaundiaReport-VersionB	Condition satisfied and closed
SoC	F6	Construction	A suitably qualified and experienced ecologist will undertake specific searches for native fauna immediately prior to clearing activities or demolition activities. Searches will include checks for nests and large hollow-bearing trees and target habitats of hollow-dwelling species, koalas, bats and frogs.	Open	Included via prior project pre-clearing system (FFMP).	Project Ecologist	Controls to address condition included in the FFMP. Implementation of these controls is ongoing. Clearing Report to be prepared at the completion of clearing.	FFMP Clearing Report Form 1 completed daily by Ecologist. Vegetation Clearing Report	F2E Stage II clearing on the western side of the existing Pacific Highway completed in December 2014.
SoC	F7	Construction	Stands containing hollow-bearing trees will be cleared using a two stage clearing process with adjacent non hollow-bearing trees to be cleared first.	Open	Included via prior project pre-clearing system (FFMP).	Project Ecologist	Controls to address condition included in the FFMP. Implementation of these controls is ongoing. Clearing Report to be prepared at the completion of clearing.	FFMP Clearing Report Form 1 completed daily by Ecologist. Vegetation Clearing Report	Controls to address condition included in the FFMP. F2E Stage II clearing on the western side of the existing Pacific Highway completed in December 2014.
SoC	F8	Construction	Fauna species found in areas to be cleared, immediately prior to clearing activities, will be relocated by qualified ecologist into suitable habitat as close as possible to the area in which they were found.	Open	Included via prior project pre-clearing system (FFMP).	Project Ecologist	Controls to address condition included in the FFMP. Implementation of these controls is ongoing. Clearing Report to be prepared at the completion of clearing.		Controls to address condition included in the FFMP. F2E Stage II clearing on the western side of the existing Pacific Highway completed in December 2014.

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SoC	F9	Construction	Strategies will be developed to deal with incidents involving individual animals during construction activities in consultation with local Department of Environment and Climate Change officers, WIRES and / or other relevant local wildlife carer groups.	Open	Included via prior project pre-clearing system (FFMP).	Project Ecologist	Controls to address condition included in the FFMP. Implementation of these controls is ongoing. Clearing Report to be prepared at the completion of clearing.		Controls to address condition included in the FFMP. Implementation of these controls is ongoing.
SoC	F10	Construction	Habitat features and resources for native fauna (such as hollow-bearing trees, hollow logs and bush rocks), identified by a qualified ecologist, will be distributed along the route of the Proposal. Such relocation will be undertaken in a manner to limit damage to existing vegetation and will not occur in high condition remnant vegetation.	Open	Included in FFMP of CEMP	Enviro Manager	Controls to address condition included in the FFMP. Implementation of these controls is ongoing. Clearing Report to be prepared at the completion of clearing.	FFMP Clearing Report Form 1 completed daily by Ecologist. Vegetation Clearing Report	Controls to address condition included in the FFMP. F2E Stage II clearing on the western side of the existing Pacific Highway completed in December 2014.
SoC	F11	Construction	Nest boxes will be utilised to help offset the removal of hollow-bearing trees in areas where habitat trees are in short supply (<4 suitable trees per hectare) and in consultation with adjacent property owners. If used, nest boxes will be fixed to suitable retained vegetation and in a way that does not damage the tree.	Closed	Included via prior project fauna design provisions and fauna management strategies (FFMP).	RMS	FFMP - Controls to address condition included in the FFMP. Nest box installation was completed in December 2013 (250 nest boxes have been installed to date). Record of installation to be included in the clearing Report to be prepared at the completion of clearing.	FFMP	Condition satisfied and closed.
SoC	F12	Design	Culverts and bridge structures identified during the detailed design as having a potential role in fauna crossing will be designed to facilitate fauna movements.	Closed	Included via prior project fauna design provisions and fauna management strategies (FFMP App B). Incorporated into cross drainage designs (DC001, 002 & 003)	-	Provided within design reports DC001, DC002, and DC003 – Condition satisfied with the exception of Borirgalla Creek. Consultation regarding the fauna underpass for the highway and service road are ongoing.	FFMP	Condition satisfied and closed following resolution of Bridge 18 design for Borirgalla Creek.
SoC	F13	Design	Expert advice will be sought to assist in identifying the need for, and location of, glider crossing points. If required, and in consultation with relevant government agencies, the location and design of crossing points will be incorporated into the Proposal.	Closed	SWTC App4 4.9	-	Compliance requirements provided in SWTC Appendix 4, Appendix 5 and Appendix 14. Road furniture packages RF000, FR001, RF002, RF003. Consultation with EPA (Ian Gaskell) with regard to glider crossings has occurred.		Site inspection of all glider crossing points was completed with Brian Tolhurst of EPA on the 15 September 2014. All sites were considered suitable.

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SoC	F14	Construction	Fauna exclusion fencing (e.g.. floppy-top fencing) will be erected along the Proposal at appropriate locations to direct fauna movement towards fauna crossing structures.	Open	Included in SWTC 5.18, SWTC App 4 4.14 and App 5 5.4. Demonstrated compliance in RF000	-	Approved RF000 design package. Installation of fauna fencing has commenced. Some minor design amendments near Forestry land being considered by RMS.		Installation of fauna fencing ongoing.
SoC	F15	Design	Flora species used in landscaping will be selected such that wildlife is not attracted for feeding or other purposes.	Closed	Included in landscape management plan & UD&L designs.	Design Manager Enviro Manager	UD&LP to be submitted to D&PI as per RMS RFI response. Original extension granted til 28 February 2014. DP&E extension letter ref: 4483_001_urban_design _extension Following consultation and revision, the Department approved the UD&LMP on the 2 June 2014 (letter reference 09/03204).	UD &LMP	No update this compliance period. Design phase closed.
SoC	F16	Operation	Adjoining vegetation will be maintained to limit overhang of fauna fences or other barriers.	Open	Included in FFMP of CEMP/ Landscape Maintenance Plan	Enviro Manager	Flora and Fauna Management Sub Plan in CEMP Clearing of limits inspected to lop overhanging or unsafe trees.	Included in Section 8 of the UD&LMP	Not applicable to this period (operational phased commitment).
SoC	F17	Construction	Water quality control measures will be installed as early as possible in the construction program and will be designed / selected to meet identified receiving water objectives.	Open	Water to be treated as per Soil and Water Mgt Plan, all water to be tested prior to release. Also a requirement of the EPL.	Enviro Manager	Demonstrated compliance in Approved Earthworks and early drainage (EA000, EA001, EA002 and EA003) design package and Longitudinal Drainage (DL000, DL001, DL002, DL003) design packages. . Soil and Water Management Plan in CEMP. Monitored via weekly inspections, 6 mthly compliance reports. Installation of water quality control measures including clean water diversion drains and	SWMP	Construction of construction and operations sediment basins and swale drains completed during period with works commencing on Stage II following switch of highway traffic to Macleay Valley Way.

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							sediment basins has occurred during.		
SoC	F18	Construction	The limits of clearing and other native vegetation disturbance will be clearly marked on relevant work plans and on site prior to clearing.	Open	Included in LMP see S3.1.4. Also clearing limits to be physically delineated.	Enviro Manager	Flora and Fauna Management Sub Plan in CEMP. Monitored via weekly inspections, 6 mthly compliance reports. Limits of clearing marked by surveyors prior to commencement of clearing and verified for G40 Hold Point submission. Maintenance of flagging tape ongoing.	FFMP.	Controls to address condition included in the FFMP. LoC flagging installed in all areas prior to clearing. LoC flagging progressively replaced with permanent fauna or exclusion fencing or other temporary exclusion fencing. Review of exclusion signage completed in March 2015 and replacement signs / exclusion fencing installed where required.
SoC	F19	Operation	Weeds in areas disturbed by construction activities will be managed for a minimum of two years after construction completion.	Open	Landscape maintenance plan (check)	Enviro Manager	Not applicable to this period.	Included in Section 8 of the UD&LMP Seed Collection Records for Seed Collection contractors	Not applicable to this period (operational phase commitment).
SoC	F20	Design	Native and locally indigenous plants will be used in the landscaping and disturbed areas will be progressively revegetated.	Closed	Included in FFMP (Table 5.1) and UD&LMP.	Design ManagerEnviro Manager	Flora and Fauna Management Sub Plan in CEMP / UD&L UD&LP to be submitted to D&PI as per RMS RFI response. Original extension granted til 28 February 2014. DP&E extension letter ref: 4483_001_urban_design_extensionFollowing consultation and revision, the Department approved the UD&LMP on the 2 June 2014 (letter reference 09/03204).	FFMP.	No update this compliance period.Design phase closed.

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MCoA and SoC – Construction – 4 Sep 2014 – 3 March 2015

Ref.	Source Ref.	Timing	Commitment, Obligation, Undertaking, Requirement (COUR)	Con-struction Status	How COUR will be complied with	Responsibility	Addressed where / how	Evidence Reference	Sept 2014 - March 2015 Compliance Report
SoC	F21	Construction	A compensatory habitat (or other suitable offset) package will be developed in consultation with the Department of Environment and Climate Change and other relevant government agencies.	Open	Follow up with RMS	RMS	RMS have an extension for the submission of the Biodiversity Offsets Package until 30 September 2014.	Objective reference: SF2012/005795	Refer to MCoA 2.11
SoC	F22	All Stages	An adaptive monitoring program will be developed and implemented to allow the effectiveness of mitigation and offset measures to be assessed and allow for their modification if necessary. The program will be for a minimum of three years after construction completion.	Open	RMS has provided ecological Monitoring Program (Doc ID 120) plus updates. Include further information from RMS correspondence/ TPL requirements & seek update from RMS re; timing of monitoring program. Links to MCoA 3.1.	RMS	Flora and Fauna Management Plan in CEMP. 2141112Frederickton-Eungai Ecological Monitoring Program Version 5	Frederickton to Eungai Ecological monitoring program, Version 5	Refer to MCoA 3.1
SoC	AH1	All Stages	Any Aboriginal heritage items directly affected by the Proposal will be managed in consultation with Aboriginal stakeholders and the Department of Environment and Climate Change	Open	GDP used to show heritage sites that require further actions, however the majority of sites/PADs have been investigated and salvaged.	Enviro Manager Community Liaison	Heritage Mgt Plan of CEMP / GDP system Salvage at KE14 and KE15 was completed on the 10.12.2013. The works included a site walk over of the area to be disturbed by construction activities, followed by removal of the topsoil into bunds and a second review by the Aboriginal Representatives (2 from KLALC and 2 from the Dunghutti Elders) and 2 Archaeologists. There were no artefacts found during these monitoring works and thus no further investigations were deemed warranted.	HMP	A meeting was held with 16 October with representatives of the Dunghutti Elders Council to review the encroachment into an area identified as being archaeologically sensitive at the Cooks Lane Compound. On the 28 November, RMS issued DP&E and EPA with an archaeological investigation report relating to the placement of a topsoil mound in an area identified as being archaeologically sensitive at the Cooks Lane Compound site.
SoC	AH2	Design	Aboriginal heritage sites and potential archaeological deposits will be clearly identified on construction drawings.	Closed	Heritage to be included in all Induction training, as well as toolbox talks whenever working nears areas of known heritage. Link to	Training section of CEMP + Heritage Mgt Plan of CEMP + Induction	GDP, Training section of CEMP + Heritage Mgt Plan of CEMP + Induction; Sites continue to be identified on GDPs and fencing retained in	HMP	Sites continue to be identified on GDPs

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					GDP folder.		field.		
SoC	AH3	Construction	All relevant construction personnel will receive training on their obligations for protection of Aboriginal cultural materials, including information on site locations, conservation management requirements and legal obligations in regard to Aboriginal cultural materials.	Open	Heritage to be included in all Induction training, as well as toolbox talks whenever working nears areas of known heritage	Enviro Manager	Training section of CEMP + Heritage Mgt Plan of CEMP + Induction; Induction program ongoing.	Induction Program	Condition satisfied through general project induction. Status ongoing.
SoC	AH4	Design	If any part of the project (such as an ancillary facility) is located in an area which has not been subject to detailed Aboriginal heritage field survey and assessment, additional survey and assessment will be undertaken before that part of the project proceeds.	Closed	Consistency Assessments including Heritage Assessment are undertaken for new activities and approved via RMS.	Enviro Manager	Process outlined in CEMP for consistency assessments/heritage assessments. Additional potential impacts to heritage addressed through Consistency Assessments for additional works.	Consistency Assessments	No new ancillary facilities were established during this reporting period.
SoC	AH5	Construction	Subsurface investigations will be conducted of the identified potential archaeological deposits (PADs) at sites KE PAD 1 to 12 with support from the local Aboriginal stakeholders. Any subsequent salvage that may be warranted would occur at that time.	Closed	Subsurface investigation and salvage of KE14, KE15, KE16 and KE PAD 6 to 12 prior to the commencement of Stage 2 works which may impact on those sites.	Enviro Manager Community Liaison	Included in Heritage Management Plan -App D for PAD 6-12 + KE 14, 15, 16 report. Draft report issued 8/4/13. Copy of final report. Sites continue to be identified on GDPs and fencing retained in field	HMP	Condition satisfied and closed.

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SoC	AH6	Construction	Aboriginal heritage items identified within the construction corridor and not directly impacted by the Proposal will be marked on construction plans, fenced and signposted where necessary in consultation with DECC and the Aboriginal stakeholders	Open	Implemented via GDP process.	Enviro Manager	Heritage Management Sub Plan in CEMP Sites continue to be identified on GDPsand fencing retained in field	HMP	A meeting was held with 16 October with representatives of the Dunghutti Elders Council to review the encroachment into an area identified as being archaeologically sensitive at the Cooks Lane Compound. On the 28 November, RMS issued DP&E and EPA with an archaeological investigation report relating to the placement of a topsoil mound in an area identified as being archaeologically sensitive at the Cooks Lane Compound site.
SoC	AH7	Construction	Aboriginal stakeholders will observe initial ground disturbance works / topsoil stripping and salvage artefacts identified at sites KE14, KE15, KE16 and KE42 (regardless of the results of potential archaeological deposit investigations at each of these sites).	Closed	Apply to KE14, KE15 and KE16. - Monitoring completed 10/12/13. Refer to 140120_Memo re topsoil monitoring v2	Enviro Manager	Heritage Management Sub Plan in CEMP. Salvage at KE14 and KE15 was completed on the 10.12.2013. The works included a site walk over of the area to be disturbed by construction activities, followed by removal of the topsoil into bunds and a second review by the Aboriginal Representatives (2 from KLALC and 2 from the Dunghutti Elders) and 2 Archaeologists. There were no artefacts found during these monitoring works and thus no further investigations were deemed warranted.	HMP	Condition satisfied and closed.

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SoC	AH8	Construction	If any presently unknown Aboriginal heritage items are uncovered during the works, all works in the vicinity of the find will cease until Aboriginal heritage specialist advice is obtained	Open	Included in Project Induction/ HMP.	Enviro Manager Construction Manager	Heritage Management Sub Plan in CEMP/ relevant procedures. No presently unknown Aboriginal heritage items are uncovered during the works to date.	HMP	Condition satisfied through general project induction. No unknown Aboriginal Heritage items uncovered this period.
SoC	AH9	All Stages	The RTA will comply with the NSW Government's Aboriginal Participation in Construction Guidelines.	Closed	Guidelines consulted and referenced in heritage mgt plan. Also included in F2E APP - Indigenous Participation Plan - 06052013 Submission1 & 2	Enviro Manager HR Advisor	Aboriginal Participation Plan	HMP	Current Indigenous participation for the project exceeds compliance requirements. Participation includes; - 17 Thiess personnel - 36 out of 268 (13.4%) personnel project wide (inc subcontractors). - 16 Indigenous personnel undertaking training in nationally accredited coursed - Retention rate of 89.5% and 92.3% for Aboriginal trainees.
SoC	NAH1	Construction	An archival record will be prepared for the Ferry Lane Memorial Avenue (Frederickton Memorial Avenue), Frederickton ferry ramp (KEH6), impacted sections of the Frederickton Butter Factory (KEH7) and the early 20th Century house (KEH3) by an appropriately qualified and experienced heritage expert.	Closed	Not applicable. Sites listed in Commitment NAH1 are not within Stage 2. Note this has been completed by NOHC in 2011.	RMS	Archival recording of KEH6, KEH7 and KEH1 has been undertaken. Archival recording of KEH1 was submitted to Kempsey Shire Council in December 2010, with KEH3, KEH6, and KEH7 submitted in September 2011. An addendum to the Frederickton Butter Factory Archival Recording (NOHC 2011) was prepared in December 2011 following a heritage find,	HMP	Not applicable to F2E

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							was provided to Kempsey Shire Council		
SoC	NAH2	Construction	All relevant construction personnel working on site will receive training in their responsibilities under the Heritage Act, 1977. Site specific training will be given to personnel required to work in the vicinity of identified heritage items.	Open	Induction/ HMP	Enviro Manager	Heritage Management Plan/ Project Induction . This is monitored through weekly inspections, Monthly Environmental Performance Reports & associated procedures, as well as within the 6 monthly compliance reports. Training Section of CEMP	HMP	Condition satisfied through general project induction. Status ongoing.
SoC	NAH3	Construction	Should any additional heritage items be uncovered during works, all works in the vicinity of the find would cease until specialist heritage advice is obtained	Open	Heritage to be included in all Induction training, as well as toolbox talks whenever working nears areas of known heritage	Enviro Manager	Training section of CEMP + Heritage Mgt Plan of CEMP + Induction	Induction Program	Condition satisfied through general project induction. No additional heritage items be uncovered during this period.
SoC	NAH4	Construction	Non-Aboriginal heritage items identified within the construction corridor and not directly impacted by the Proposal will be marked on construction plans, fenced and sign posted where necessary.	Open	Implemented via GDP process.	Supervisor Enviro Manager	Heritage Management Plan in CEMP + GDP SEPs in CEMP	HMP	Refer to SoC AH6

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SoC	NAH5	Construction	Pedestrian access will be provided via the re-alignment of Ferry Lane between the two parts of the Ferry Lane Memorial Avenue (Frederickton Memorial Avenue) (KEH1a) separated by the Proposal.	Closed	outside of F2E project scope	RMS / KBA Design Manager	The need for pedestrian access was identified when it was proposed to construct a raised embankment for the highway that would bisect the avenue. The design has since been modified and this section of the Kempsey Bypass comprises an elevated bridge with access along Ferry Lane maintained below. As such, the need to join the two sections of the avenue is no longer pertinent. This was supported at the Ferry Lane stakeholder meeting held on 28.10.10.	N/a	Na. to F2E
SoC	NAH6	Construction	The condition and health of the remaining Frederickton Memorial Avenue trees will be investigated by a suitably qualified and experienced arborist. The outcomes of the investigation will be used to develop and implement a restoration plan for the significant remaining elements of the Frederickton Memorial Avenue in accordance with the mitigation measures outlined in Table 17.3 of the Environmental Assessment.	Closed	outside of F2E project scope	RMS / KBA Design Manager	Stakeholder meetings were held with KSC, RSL and adjoining property owners on 29.03.10, 28.10.10 and 29.12.12. Ferry Lane Management stakeholder meeting was held on 29 February 2012 in order to finalise the requirements of the Ferry Lane Management Plan. At the meeting a number of outstanding matters relating to Ferry Lane Management Plan were resolved. The participants concluded that no further Stakeholder Meetings, as such, would be required. Findersia Australis (Crows Ash) was chosen as the replacement tree.	N/a	Na. to F2E

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SoC	NAH7	Construction	A plan of management for the Frederickton Memorial Avenue will be developed to assist the local community with its long-term maintenance and management of the Avenue. The plan of management will be developed in consultation with Kempsey Shire Council, Kempsey Macleay RSL Sub Branch and other relevant stakeholders.	Closed	outside of F2E project scope	RMS / KBA Design Manager	Stakeholder meetings were held with KSC, RSL and adjoining property owners on 29.03.10, 28.10.10 and 29.12.12. Ferry Lane Management stakeholder meeting was held on 29 February 2012 in order to finalise the requirements of the Ferry Lane Management Plan. At the meeting a number of outstanding matters relating to Ferry Lane Management Plan were resolved. The participants concluded that no further Stakeholder Meetings, as such, would be required. Findersia Australis (Crows Ash) was chosen as the replacement tree.	N/a	Na. to F2E
SoC	HF1	Design	Flood modelling will be undertaken during the detailed design phase to further refine the bridging, drainage structure and flood mitigation requirements for the Macleay River and Collombatti Creek floodplains.	Closed	Refer WMA Water Collombatti Creek Flood Study for Collombatti Creek floodplain in FS000 Appendix K, and HAJV design package FS000 for other floodplains.	Design Manager	Completed. The DP&E (formerly DP&I) has reviewed the Hydrological Mitigation Report and considers that it addresses the department's comments sent by email on September 2013, and generally satisfies the requirements of condition 2.5.	Refer to Keystone for Flood Report Refer to email from Michael Young dated 21 Feb 2014.	Na. to F2E
SoC	HF2	Design	Reasonable and feasible, property specific flood mitigation measures (e.g.: ring levees, scour protection, etc.) will be further developed and implemented for properties identified as flood affected by the Proposal (in Section 10.2.2 of the Environmental Assessment) in consultation with affected landholders.	Closed	Refer WMA Water Collombatti Creek Flood Study for Collombatti Creek floodplain in FS000 Appendix K, and HAJV design package FS000 for other floodplains - Refer to MCoA 2.5 for further information.	Design Manager	Completed. The DP&E (formerly DP&I) has reviewed the Hydrological Mitigation Report and considers that it addresses the department's comments sent by email on September 2013, and generally satisfies the requirements of condition 2.5.	Refer to Keystone for Flood Report	Condition satisfied and closed.

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SoC	HF3	Design	Where reasonable and feasible, houses identified as flood-affected by the Proposal (in Section 10.2.2 of the Environmental Assessment) will be raised so that the floor level is a minimum of 0.5m higher than the modelled 100 year ARI peak flood level. In consultation with affected landowners, alternative strategies to reduce damage during flooding would be developed and implemented for those premises that cannot be raised by the minimum required.	Closed	N/a - outside the scope of F2E project	RMS	N/a - outside the scope of F2E project	Refer to Keystone for Flood Report	Condition satisfied and closed.
SoC	HF4	Design	Stock mounds, yards and truck loading facilities will be provided for affected landholders along South West Rocks Road to assist in the refuge and / or evacuation of stock during floods. The location of the facilities will be determined in consultation with the affected landowners.	Closed	Not part of the F2E SWTC.	RMS	N/a	N/a	Consistency assessment for two (2) cattle refuge flood mounds (MEZ2 & 5) on RMS property near Raymond's Land and private property at Kemps Access was approved on 7 November. Works commenced on MEZ2 this period. Consistency Assessment for a third Cattle Refuge Mound (MEWB) south of the Cooks Rest Area was prepared and submitted in February for ER, RMS and EPA review.
SoC	HF5	Design	A levee and associated flood control devices will be constructed at Frederickton prior to the commencement of construction of the Proposal on the Macleay River floodplain.	Closed	Not part of the F2E SWTC.	RMS	N/a	N/a	Na. to F2E
SoC	SW1	Construction	Water quality will be monitored upstream and downstream of the project site to determine the effectiveness of mitigation strategies.	Open	Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting.	Enviro Manager	Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting. Condition satisfied.	SWMP	Water quality monitoring undertaken and reported monthly in the Environmental Performance Report. - September 2014 (F2E-TPL-REC-00603) - October 2014 (F2E-TPL-REC-00652) - November 2014 (F2E-TPL-REC-00693) - December 2014 (F2E-TPL-REC-00721) - January 2015 (F2E-TPL-REC-00748) - February 2015 (F2E-TPL-CORR-02738)

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SoC	SW2	Construction	Construction activities that could cause soil erosion or have the potential to discharge sediment from the site during construction will be identified and control methods and techniques will be implemented during those activities.	Open	Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting.	Enviro Manager	Demonstrated compliance in Approved Earthworks and early drainage (EA000, EA001, EA002 and EA003) design package and Longitudinal Drainage (DL000, DL001, DL002, DL003) design packages. . Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting. PESCPs.	SWMP	Managed through the preparation, review and implementation of Progressive Erosion and Sediment Control Plans. Ongoing.
SoC	SW3	Construction	Where feasible and reasonable, the area of soil exposure during construction will be minimised	Open	Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting.	Enviro Manager	Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting.	SWMP	Managed through the preparation, review and implementation of Progressive Erosion and Sediment Control Plans. Ongoing.
SoC	SW4	Construction	There will be progressive revegetation of earthworks areas and stabilisation and restoration works	Open	Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting.	Enviro Manager	Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting.	SWMP	Reinstatement works in accordance with LA001 & LA 002 ongoing with progressive hydro mulching of batters. Seed is 100% complete. Plant propagation is ongoing through our subcontractor B& K Revegetation, nursery inspection completed in February with RMS approval at Bluedale Nursery Wauchope. Landscape works commenced with mulching and preparing garden beds early January. Planting programmed to commence in late May 2015.
SoC	SW5	Construction	Specific construction methods will be developed and implemented for in-stream works in consultation with relevant government agencies to limit water quality impacts.	Open	Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting.	Enviro Manager	Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting. Consultation with EPA and DPI Fisheries occurring with regard to these works through the	SWMP	Consultation with EPA and DPI Fisheries occurring with regard to these works through the ERGs. Work this period included CML 101 in the unnamed creek north of Frederickton, CML 203 in Wizzenbucca Creek and Bridge 18 over Borirgalla Creek.

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							ERGs.		
SoC	SW6	Construction	Erosion and sediment control measures installed during construction will be regularly inspected including after each rainfall event that causes runoff to occur from the site and maintained to ensure the controls are working efficiently and effectively.	Open	Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting.	Enviro Manager	Condition satisfied through the approved Soil and Water Management Plan. Monitored via regular inspections.	SWMP	Conditions satisfied through site inspections recorded in Thiess iForm and Environmental inspection Portal. Inspection records (post rainfall, soil conservationist, weekly inspections and RMS joint inspections) saved to Incite under records > environmental > site inspections.
SoC	SW7	Design	Design requirements for construction and operation phase water quality control structures will be determined in consultation with relevant government agencies to limit water quality impacts on the basis of a site-specific investigation that considers the sensitivity of the receiving environment and the proximity of the discharge point to receiving waters.	Closed	Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting.	Enviro Manager	Demonstrated compliance in Approved Earthworks and early drainage (EA000, EA001, EA002 and EA003) design package and Longitudinal Drainage (DL000, DL001, DL002, DL003) design packages. . Soil and Water Management Plan in CEMP. Monitored via weekly inspections, 6 mthly compliance reports.	SWMP	Design phase condition closed.
SoC	SW8	Construction	Rumble grids or other similar devices will be installed at key entry and exit points (where there is the potential for soil tracking) to minimise the tracking of soil and particulates onto local paved road.	Open	Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting.	Enviro Manager	Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting. Progressive installation of rumble grids has occurred to date.	SWMP	Control included in the SWMP. Implementation of these controls is ongoing.
SoC	SW9	Construction	Areas of creek banks and river banks, within the Proposal boundaries, at risk of erosion as a result of the Proposal will be identified and scour protection will be installed, as necessary, to limit the erosion. Fish passage and fauna movement issues will be considered and addressed when developing and installing the scour protection measures	Open	Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting.	Enviro Manager	Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting.	SWMP	Waterway inlet and outlet scour protection treatments specified in the Cross Drainage design packages (DC-00#). Construction completed at majority of waterways. Sites regularly inspected during ERG site inspections with RMS,

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									EPA and Fisheries.
SoC	SW10	Construction	Culverts and permanent stream protection measures will be installed as early as possible in the construction program to facilitate transverse drainage during the early stages of construction	Open	Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting.	Enviro Manager	Cross Drainage packages DC001, DC002, and DC003. Temp Works EWMS F2E-00G-WMS-ENV-012-01. Cross drainage construction works occurring in accordance with DC001, DC002, and DC003 in all zoned this reporting period.	SWMP	Works on remaining high settlement areas commenced during this quarter as the soft soil settlement periods expired. This included CML 101, 201, 202B, 202C, 203, 301 and ongoing works in 303.
SoC	SW11	Construction	The potential for changes in the groundwater table will be investigated before any major earthworks (defined as a cut or fill area with depth or height exceeding five metres) are undertaken. Where a potential for change is identified, the significance of the change and any resultant impacts will be determined and where necessary, measures to manage the changes will be designed and implemented in consultation with relevant government agencies.	Closed	Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting.	Enviro Manager	The Geotechnical Interpretation Report and Earthworks Design (Design Package GT002) satisfies the requirements for assessment of the predicted and acceptable effects to groundwater. Based on the findings of the Geotechnical Interpretation Report and Earthworks Design, Thiess conclude that there is no further requirement for groundwater bore monitoring to compare the actual effects to the predicted and acceptable effects resulting from the project works. This monitoring requirement will be achieved by visual observation of seepage into the cut faces and reported in the Environmental Impacts Report that will be prepared prior to the date of construction completion (as referenced in the Construction	SWMP	Condition closed in March - May period.

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							Environmental management Plan Appendix A15 – Monitoring Schedule).		
SoC	SW12	Construction	Areas of potential acid sulfate soils (PASS) and actual acid sulfate soils (ASS) will be identified and the oxidisation of acid sulfate soil material will be limited, any exposed acid sulfate soil will be neutralised and surface water drainage and potential acid runoff will be controlled.	Open	Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting.	Enviro Manager	Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting. Acid Sulphate Soil Treatment Area (ASSTA) established and identified in the EPL.	SWMP	Bored piling works recommenced in Johnsons Creek for Bridge 12. This area was mapped as probable ASS and excavated material was field tests. No ASS was detected from sampled material.
SoC	SW13	Construction	Containment strategies will be identified and implemented to ensure that any acidic leachate associated with the oxidation of acid sulfate soil is contained for treatment or removal and is prevented from entering downstream watercourses.	Open	Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting.	Enviro Manager	Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting. Acid Sulphate Soil Treatment Area (ASSTA) established and identified in the EPL.	SWMP	Control measures are contained within the Acid Sulphate Soil Management Strategy. No ASS treatment required during this reporting period.
SoC	AQ1	Construction	Potential dust sources and dust suppression measures will be identified in consultation with the Department of Environment and Climate Change.	Open	Included within the approved Air Quality Management Plan. Monitored via regular inspections and reporting.	Enviro Manager	Included within the approved Soil and Water Management Plan. Monitored via regular inspections and reporting.	AQMP	Controls and monitoring of the AQMP being implemented during construction. A number of minor exceedance of target dust levels which were reported in the monthly reports. No unresolved complaints relating to dust during the

Ref.	Source Ref.	Timing	Commitment, Obligation, Undertaking, Requirement (COUR)	Con-struction Status	How COUR will be complied with	Responsibility	Addressed where / how	Evidence Reference	Sept 2014 - March 2015 Compliance Report
									reporting period.
SoC	AQ2	Construction	A dust monitoring program will be undertaken to determine the effectiveness of dust suppression measures, with dust deposition gauges installed at sensitive locations to determine the effectiveness of dust suppression measures.	Open	Included within the approved Air Quality Management Plan. Monitored via regular inspections and reporting.	Enviro Manager	Included within the approved Air Quality Management Plan. Monitored via regular inspections and reporting. Dust monitoring undertaken and reported monthly in the Environmental Performance Report. Reported in Monthly Environmental Performance Reports and the Six Monthly Compliance Reports.	AQMP	Air quality monitoring undertaken and reported monthly in the Environmental Performance Report. - September 2014 (F2E-TPL-REC-00603) - October 2014 (F2E-TPL-REC-00652) - November 2014 (F2E-TPL-REC-00693) - December 2014 (F2E-TPL-REC-00721) - January 2015 (F2E-TPL-REC-00748) - February 2015 (F2E-TPL-CORR-02738)
SoC	G1	Construction	Energy efficient work practices will be adopted to limit energy use. Measures will include conducting awareness programs for all site personnel regarding energy conservation methods and conducting energy audits during the project to identify and address energy waste.	Open	Included within the approved Waste and Energy Mgt Plan. Monitored via regular inspections and reporting. Energy efficiency to be included in all site inductions.	Site Establishment Mgr/ Enviro Manager	Included within the approved Waste and Energy Mgt Plan. Monitored via regular inspections and reporting. Energy efficiency to be included in all site inductions. Induction program ongoing.	Project Induction	Included within the approved Waste and Energy Mgt Plan. Monitored via regular inspections and reporting. Energy efficiency to be included in all site inductions. Induction program ongoing.
SoC	G2	Construction	Plant and office-based equipment (including lights and computers) will be operated in an efficient manner and regularly maintained. If economically available, electrical energy derived from a renewable energy source accredited by the National Green Power Accreditation Steering Group (or equivalent) will be used for the supply of at least 50 per cent of the on-site electrical energy required during construction.	Open	Energy efficiency to be included in all site inductions.	Enviro Manager	Energy efficiency to be included in all site inductions. Induction program ongoing.		Condition satisfied through general project induction. Status ongoing.
SoC	CS1	Construction	Further soil contamination investigations will be carried out, within the boundaries of the Proposal, in the area of the Frederickton Interchange and within the South Kempsey commercial area.	Closed	Not applicable. The Frederickton Interchange and South Kempsey commercial area are not within Stage 2.	Enviro Manager	N/a	-	Na. to F2E

Appendix 1 – Project Obligations (COURs) Register
MCoA and SoC – Construction – 4 Sep 2014 – 3 March 2015

Ref.	Source Ref.	Timing	Commitment, Obligation, Undertaking, Requirement (COUR)	Con-struction Status	How COUR will be complied with	Responsibility	Addressed where / how	Evidence Reference	Sept 2014 - March 2015 Compliance Report
SoC	CS2	Construction	If site contamination is identified and the contamination is found to pose unacceptable risk to either the environment or human health receptors a remedial action plan will be developed in consultation with the relevant government authorities and remediation works will be undertaken.	Open	Assess contam land risks: determine controls as necessary. CL mitigation controls included in Soil and Water Management Plan, refer to Appendix F.	Enviro Manager Design Manager	CEMP, SWMP. No new areas of site contamination identified during to date.	Soil and Water Mgt Appendix F.	No update this period.
SoC	UD1	Design	The project will be designed in accordance with the urban design and landscape objectives and principles identified in the Environmental Assessment.	Closed	Managed via Urban Design and Landscape Management Plan.	Enviro Manager Design Manager	UD&LMP/ _ Beyond the Pavement – RTA Urban and Regional Design Practice Notes (RTA 2004). _ Pacific Highway Urban Design Framework (RTA 2005). _ Chapter 19 of the Environmental Assessment. The UDLMP was approved by the Department of Planning & Environment on the 2 June 2014 (Let ref. 09/03204).	UD&LMP	Condition satisfied and closed.
SoC	UD2	Design	The schedule of species to be used in landscaping will include native and locally indigenous plants selected in consultation with a qualified landscape officer.	Closed	Managed via Urban Design and Landscape Management Plan.	Enviro Manager Design Manager	UD&LMP	UD&LMP	Condition satisfied and closed.
SoC	UD3	Construction	Disturbed areas will be progressively revegetated with consideration to related controls such as erosion and sedimentation controls and drainage and future road user safety requirements.	Open	Managed via Urban Design and Landscape Management Plan.	Enviro Manager Design Manager	UD&LMP, _ RMS D&C Specification (Frederickton to Eungai version) R178 - Vegetation. _ RMS D&C Specification (Frederickton to Eungai version) R179 - Landscape Planting. Temporary reinstatement of batters stockpiles has occurred.	UD&LMP	Reinstatement works in accordance with LA001 & LA 002 ongoing with progressive hydro mulching of batters. Seed is 100% complete. Plant propagation is ongoing through our subcontractor B& K Revegetation, nursery inspection complete last month with RMS approval at Bluedale Nursery Wauchope. Landscape works commenced with mulching and preparing garden beds early January. Planting programmed to commence in late may 2015.

Appendix 1 – Project Obligations (COURs) Register
MCoA and SoC – Construction – 4 Sep 2014 – 3 March 2015

Ref.	Source Ref.	Timing	Commitment, Obligation, Undertaking, Requirement (COUR)	Con-struction Status	How COUR will be complied with	Responsibility	Addressed where / how	Evidence Reference	Sept 2014 - March 2015 Compliance Report
SoC	UD4	Operation	Landscape and rehabilitation works will have a minimum maintenance period of three years.	Open	Managed via Urban Design and Landscape Management Plan.	Enviro Manager Design Manager	_ RMS D&C Specification (Frederickton to Eungai version) R174 - Landscape Maintenance. Refer to UD&LMP	UD&LMP	Not relevant to this period.
SoC	HR1	Construction	Bunded storage areas will be located at least 50 metres away from watercourses and will be established for oils and other hazardous liquids in accordance with Australian Standards. Any spillages will be contained and collected for appropriate disposal.	Open	Included in HRMP	Enviro Manager/ Construction Manager	Addressed in G36 6.12.1 and included in HRMP, monitored via regular inspections.	HRMP	Included in HRMP, monitored via regular inspections.
SoC	HR2	Construction	Activities with the potential for spillage such as refuelling, maintenance of equipment, mixing of cutting oil and bitumen will be conducted in bunded areas or in other areas where suitable containment measures and/or practices are in place to prevent discharge into watercourses.	Open	Included in HRMP	Enviro Manager/ Construction Manager	Condition satisfied in the HRMP. Implementation of controls ongoing.	HRMP	Included in HRMP, monitored via regular inspections. Any spillage is reported via RMS incident report and Thiess Synergy Incident Reporting.
SoC	HR3	Construction	Potentially hazardous and contaminating activities (such as washing construction plant and handling hazardous chemicals) will be conducted in suitably bunded areas away from watercourses or in other areas where suitable containment measures are in place.	Open	Included in HRMP	Enviro Manager/ Construction Manager	Included in HRMP, monitored via regular inspections.	HRMP	Included in HRMP, monitored via regular inspections.
SoC	WR1	Construction	The waste minimisation hierarchy principles of avoid / reduce / re-use / recycle / dispose will be applied to all aspects of the Proposal.	Open	Included in WEMP	Enviro Manager/ Construction Manager	Condition satisfied in the WEMP. Implementation of controls ongoing.	WEMP	Included in WEMP, monitored via regular inspections.

Appendix 1 – Project Obligations (COURs) Register
MCoA and SoC – Construction – 4 Sep 2014 – 3 March 2015

Ref.	Source Ref.	Timing	Commitment, Obligation, Undertaking, Requirement (COUR)	Con-struction Status	How COUR will be complied with	Responsibility	Addressed where / how	Evidence Reference	Sept 2014 - March 2015 Compliance Report
SoC	WR2	Construction	Waste will be handled, stored and disposed of in accordance with relevant guidelines.	Open	Included in WEMP	Enviro Manager/ Construction Manager	Condition satisfied in the WEMP. Implementation of controls ongoing.	WEMP	Section 143 declarations have been received for all waste not going to registered landfills. During this reporting period the following declarations were received:- s142_SAULS_Cattle Refuge Mound MEZ2.
SoC	WR4	Design	Secondary waste materials (e.g.: fly ash) will be used as construction materials where reasonable and feasible.	Open	Included in WEMP	Enviro Manager/ Construction Manager	Condition satisfied in the WEMP. Implementation of controls ongoing.	WEMP	Fly-ash is included in concrete mix used this reporting period.
SoC	P1	Pre-construction	All property acquisitions will be negotiated in accordance with the RTA Land Acquisition Policy and compensation will be assessed under the provisions of the Land Acquisition (Just Terms Compensation) Act 1991.	Closed	RMS Responsibility - N/a to F2E project team	RMS	Condition satisfied.		Conditions satisfied and closed by RMS.
SoC	P2	Pre-construction	Negotiations for agricultural property acquisition will include consultation on property adjustments where required to limit impact on farm management practices.	Closed	RMS Responsibility - N/a to F2E project team	RMS	Condition satisfied.		Conditions satisfied and closed by RMS.
SoC	P3	Pre-construction	The Department of Primary Industries (Forests) will have access to areas of State Forest land identified for acquisition to remove any harvestable timber within the footprint of the Proposal.	Closed	Included in FFMP and Clearing procedures - Completed during Clearing stage of the project.	Enviro Manager/ Construction Manager	DPI Forests identified and collected harvestable timber from former DPI lands. Requirement satisfied. **Include evidence (e.g. email or otherwise that this was done).**		Conditions satisfied and closed.

Appendix 1 – Project Obligations (COURs) Register
MCoA and SoC – Construction – 4 Sep 2014 – 3 March 2015

Ref.	Source Ref.	Timing	Commitment, Obligation, Undertaking, Requirement (COUR)	Con-struction Status	How COUR will be complied with	Responsibility	Addressed where / how	Evidence Reference	Sept 2014 - March 2015 Compliance Report
SoC	P4	Pre-construction	A risk assessment will be undertaken to determine which structures or properties may be affected by construction activities and therefore need to be inspected. The risk assessment will be undertaken by geotechnical and construction engineering experts with appropriate registration on the National Professional Engineers Register.	Closed	Undertake assessment to determine structures and properties for which dilapidation reports will be required.	RMS	Building condition Reports completed. Condition satisfied.		Conditions satisfied and closed.
SoC	P5	Pre-construction	Property inspections will be conducted, subject to landowner agreement, on all structures within 200 metres of proposed blasting locations, within 50 metres of construction activities that generate vibration impacts and at any other locations identified in the risk assessment. The property inspections will be carried out by suitably qualified / experienced person(s).	Closed	Undertake assessment to determine structures and properties for which dilapidation reports will be required.	RMS	Condition satisfied.		Conditions satisfied and closed.
SoC	P6	Pre-construction	The owners of all properties on which property inspections are to be conducted will be advised of the inspection, its scope and methodology and of the process for making a property damage claim at least two weeks prior to the inspection. The owners of all properties on which property inspections are to be conducted will be given a copy of the property inspection report at least three weeks prior to the commencement of any construction that could affect the property.	Closed	Consultation and condition surveys.	RMS	Condition satisfied.	G:\NSW\F2E\02 Community\02_08 Building Inspections\Reports	Conditions satisfied and closed.
SoC	P7	Construction	Where liable, any property damage caused by the project's construction will be rectified at no cost to the property owner(s). Alternatively the RTA may negotiate compensation for the damage with the property owner.	Open	Addressed via project complaints and disputes resolution process. Additionally works that may affect adjacent property are carried out in consultation with affected residents.	Construction Manager Enviro Manager	Community communication strategy incorporated into CIP. Ongoing implementation of the CIP. The CIP was approved by DP&E on the 19.8.13 (letter ref 11119471).		No unresolved or outstanding complaints this period.
SoC	P8	Construction	Where a licensed bore, dam or other property water supply is adversely affected by the project, water supply of equivalent quality and quantity will be reinstated. Alternatively the RTA may negotiate compensation for the loss with the landowner.	Open	Addressed via land sale negotiations between RMS and the landowner. Water extractions/ use managed via the Office of Water Approvals process - refer to G:\NSW\F2E\01 Environment\3 Legal and Other Compliance\3.2 Approvals, Licences and	RMS/ Enviro Manager	G36, submission of permits & licences to RMS. Notification from one resident on Cooks Lane that existing groundwater bore had run dry. Geotechnical expert (DP) consulted and concluded potential that extraction at Cooks Lane compound may have impacted landowners bore. Thiess have therefore provided alternate water to	E.g. Water extractions/ use managed via the Office of Water Approvals process - refer to G:\NSW\F2E\01 Environment\3 Legal and Other Compliance\3.2 Approvals, Licences and Permits	No reports of any licensed bore, dam or other property water supply is adversely affected by the project this period.

Ref.	Source Ref.	Timing	Commitment, Obligation, Undertaking, Requirement (COUR)	Con-struction Status	How COUR will be complied with	Responsibility	Addressed where / how	Evidence Reference	Sept 2014 - March 2015 Compliance Report
					Permits		landowner.		
SoC	US1	Construction	Utilities and services potentially affected by construction will be identified and requirements for their diversion, protection and / or support identified. Alterations to services will be determined in negotiation with the service providers and will ensure that disruption to services resulting from the project are limited and advised to customers.	Open	Utility relocations have been designed and shall be constructed in consultation (or by) the relevant Utility provider.	Services Manager	Design Package UT000 completed. Ongoing protection / relocation of serviced. Managed through Ground Disturbance Permit.	UT000	Ongoing protection / relocation of serviced. Managed through Ground Disturbance Permit.
SoC	AF1	Construction	Sites chosen for ancillary facilities will satisfy the criteria provided in the Environmental Assessment, unless otherwise approved through the construction environmental management plan (CEMP)	Open	Shortlisted sites have been checked against these criteria in project planning: Refer to RMS/ ER approvals for ancillary sites. Monitored through pre-commencement consistency assessments in consultation with RMS, & 6 monthly compliance reports.	Construction ManagerEnviro Manager	Ancillary Site Compliance Checklist in CEMP. Consistency Assessments completed for ancillary sites.	G:\NSW\F2E\01 Environment\3 Legal and Other Compliance\3.2 Approvals, Licences and Permits\3.2.1 Planning App	Refer to MCoA 2.29

Appendix 2

Compliance with Environmental Protection Licence

Thiess Pty Ltd Environmental Protection Licenced
(Lic No. 20318, Version date 10 November 2014)
Construction Phase
4 September 2014 - 3 March 2015

Source Ref.	Type of Condition	Commitment, Obligation, Undertaking, Requirement (COUR)	How COUR will be complied with	Evidence Reference	Sept 2014 - March 2015 Compliance Report
A1.1	Administrative Conditions	This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation. Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition. -Crushing, grinding or separating >100000-500000T processed -Extractive Activities >500000-2000000T extracted, processed or stored -Road Construction >10-30km constructed, widened or re-rerouted	Works to be carried out in accordance with EPL conditions, and the maximum scale.	Earthworks Quantities Records	No change this period
A2.1	Administrative Conditions	The licence applies to the following premises: 229 Cooks Lane NSW Clybucca 2444 The premises stretches for approximately 27 kilometres from Frederickton linking in with the northern end of the Kempsey Bypass running through the Eungai Rail locality	Noted	Premises changes	No change this period
A2.2	Administrative Conditions	In relation to Condition A2.1, the premises is defined as the licence boundary detailed on the Project Drawings titled "Pacific Highway Upgrade Frederickton to Eungai Environmental Protection Licence (EPL) Premise Maps". A copy of the current drawing (**Number F2E-00G-SKT-RG001-0791, Revision 1, dated 13 November 2013**) sheets 1 to 18 contained in Attachment D are part of the Thiess Pty Ltd EPL application documents received on the 10 July 2013. The application, drawings and supporting documents are filed in Grafton EPA office file LIC13/239 and kept at 49 Victoria Street, Grafton NSW 2460.	* Premise Maps	Premise Maps as per EPL application submitted 16 January 2014 F2E-00G-SKT-RG001-0791/0808 (R01) - 13 November 2013	Commencement of varied condition to identify MEZ2 Cattle Refuge Mound in premises. EPL Variation Date 10-11-14. The premises is now defined as that detailed in sheets 1 to 19 of the "Pacific Highway Upgrade Frederickton to Eungai Environmental Protection Licence Premise Maps Revision 01 dated 3 September 2014" contained in EPA file EF13/5083.
A3.1	Administrative Conditions	Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence. In this condition the reference to "the licence application" includes a reference to: a) the applications for any licenses (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Tribunal) Regulation 1998; and b) the licence information form provided by the licensee to the EPA in connection with the issuing of this licence.	Noted	N/a	All works to date have been carried out in accordance with relevant approval documentation.

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Construction Phase
4 September 2014 - 3 March 2015

Source Ref.	Type of Condition	Commitment, Obligation, Undertaking, Requirement (COUR)	How COUR will be complied with	Evidence Reference	Sept 2014 - March 2015 Compliance Report
P1.1	Discharge to land and water and application to land	The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.	Noted	Soil and Water Management Plan, Sediment Basin Release data spread sheet.	Note only.
P1.2	Discharge to land and water and application to land	The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area. EPA ID#1- Discharge water quality- The outlet from sediment basins referred to in condition P1.3 of this licence. EPA ID#- Discharge water quality- The outlet for sediment basin/s from the acid sulphate soil treatment area/s referred to in condition P1.4 of this licence.	* Soil and Water Management Plan (SWMP)/ Monitored through Water Movement Permit System/ Inspections, Monthly Environmental Performance Report and 6 Monthly Compliance Report.	Soil and Water Management Plan, Sediment Basin Release data spread sheet. Monthly Reports	Reference note to link table to condition P1.3 and P1.4
P1.3	Discharge to land and water and application to land	For the purpose of this licence the discharge points referred to at Condition P1.1 and P1.2 of this licence are those from sediment basins identified in the Thiess Pacific Highway Upgrade -Frederickton to Eungai, Attachment E -Licence Discharge Points as revised and retained on EPA file number LIC13/239.	* Soil and Water Management Plan (SWMP) * Dewatering Procedure * Sediment Basin Management Procedure	Water Movement Permit System, Inspection Records, Monthly Environmental Performance Report.	Attachment E was updated on the 17 October 14 (refer Incite correspondence F2E-TPL-REC-00116).
P1.4	Discharge to land and water and application to land	For the purpose of this Licence, the acid sulphate soil treatment area referred to in Discharge Point 2 of Condition P1.2 of this licence are those identified in Table E-2: *Licenced discharge points* contained in Appendix E of the *EPL application documents, Frederickton to Eungai Project* contained in the EPA administrative file for the premises.	* Soil and Water Management Plan (SWMP) * Acid Sulphate Soils Management Strategy		Refer to update for condition P1.3 above
P1.5	Discharge to land and water and application to land	The licensee, in **commissioning a new sediment basin**, may only vary the discharge point locations identified in Condition P1.1 and P1.2 if it provides the EPA with a copy of the revised documents identified at Condition P1.3 of this licence, at least 7 days prior to the commissioning on the premises, unless otherwise agreed to in writing by the EPA for each new activity.	* Soil and Water Management Plan (SWMP)	Attachment E of EPL.	The discharge point locations of all basins is listed in Attachment E. Refer to Condition P1.3 for record of updated to this attachment.

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4 September 2014 - 3 March 2015

Source Ref.	Type of Condition	Commitment, Obligation, Undertaking, Requirement (COUR)	How COUR will be complied with	Evidence Reference	Sept 2014 - March 2015 Compliance Report
P1.6	Discharge to land and water and application to land	The licensee, in **decommissioning an existing sediment basin**, may only vary the discharge point locations identified in Condition P1.1 and P1.2 if it provides the EPA with a copy of the revised documents identified at Condition P1.3 of this licence, at least 21 days prior to the decommissioning on the premises, unless otherwise agreed to in writing by the EPA for each decommissioning activity.	* Soil and Water Management Plan (SWMP) *EPL issued to all staff via Incite.	Attachment E of EPL. Correspondence of basin decommissioning report.	The discharge point locations of all basins is listed in Attachment E. Refer to Condition P1.3 for record of updated to this attachment. Basin scheduled for construction within 1 month (under construction) •TB37985 (Fill 32) •TB37990 (Fill 32) •Zone 1 Swale Drains with the exception of 19850E & 19850W. Basin decommissioned •38050E (Fill 32) •38100E (Fill 32) Removal of ASSTA •ASSTA Fill 19 (Fill 19). Basin Constructed •22900E (W of Seven Hills Road) •24400W (Floodplain) •Zone 2 Swale drains at Fill 16 & Fill 17 (except 23431W & 23570W)
L1.1	Limit Conditions	Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997. (*NB. Section 120 related to the prohibition of pollution of waters*).	* Construction Environmental Management Plan (CEMP) Project Induction, water movement permit system	G:\NSW\F2E\01 Environment\11 Document and Record Management\11.8 Monitoring Results\02 Water Quality\BASINS	Refer to update for condition L2.1 & L2.5 below.
L2.1	Limit Conditions	For each monitoring/discharge point or utilisation area specified in the tables below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.	* Construction Environmental Management Plan (CEMP) * Soil and Water Management Plan (SWMP) * Dewatering Procedure	G:\NSW\F2E\01 Environment\11 Document and Record Management\11.8 Monitoring Results\02 Water Quality\BASINS	Refer to condition L2.5 for overtopping events during which the pH and TSS exceeded the specified limits.
L2.2	Limit Conditions	Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.	* Construction Environmental Management Plan (CEMP) * Soil and Water Management Plan (SWMP) * Dewatering Procedure	G:\NSW\F2E\01 Environment\11 Document and Record Management\11.8 Monitoring Results\02 Water Quality\BASINS	Refer to update for condition L2.1 above.
L2.3	Limit Conditions	To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table/s.	* Construction Environmental Management Plan (CEMP) * Soil and Water Management Plan (SWMP) * Dewatering Procedure	G:\NSW\F2E\01 Environment\11 Document and Record Management\11.8 Monitoring Results\02 Water Quality\BASINS	Refer to update for condition L2.1 & L2.5.

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4 September 2014 - 3 March 2015

Source Ref.	Type of Condition	Commitment, Obligation, Undertaking, Requirement (COUR)	How COUR will be complied with	Evidence Reference	Sept 2014 - March 2015 Compliance Report
L2.4	Limit Conditions	Water and/or Land Concentration Limits: POINT 1 Oil and grease should not be visible pH- 6.5-8.5 TSS- 50mg/L POINT 2 Dissolved Aluminium- 0.055mg/L Conductivity- 200mS/cm Dissolved Iron- 0.3mg/L TSS- 50mg/L	* Construction Environmental Management Plan (CEMP) * Soil and Water Management Plan (SWMP) * Dewatering Procedure	G:\NSW\F2E\01 Environment\11 Document and Record Management\11.8 Monitoring Results\02 Water Quality\BASINS	L2.4 table details only
L2.5	Limit Conditions	Exceeding the limits specified for Point 1 in Condition L2.4 of this licence for pH and total suspended solids (TSS) for discharges from the sediment basins identified by Conditions P1.1 and P1.2 is only permitted when the discharge occurs solely as a result of rainfall measured at the premises. The rainfall must exceed the 5 day rainfall depth value for the corresponding discharge point in the table below over a consecutive 5 day period for discharge to be considered to occur solely as a result of rainfall.**Table in License**Licenced discharge points- Attachment E to EPL application documents- design 5 day rainfall event 46MM, classification of basin- 85thLicenced discharge points- Attachment E to EPL application documents- design 5 day rainfall event 36.5MM, classification of basin- 80th	* Construction Environmental Management Plan (CEMP)* Soil and Water Management Plan (SWMP)* Dewatering Procedure	G:\NSW\F2E\01 Environment\11 Document and Record Management\11.8 Monitoring Results\02 Water Quality\BASINSG38 4.2.1 BASIN PERFORMANCE REPORT	There were seven rainfall events that resulted in basin overtopping during the reporting quarter. These events were reported in the following basin performance reports.:A non-conformance was identified against Condition L2.5 for discharge from basin following rainfall less than 85th percentile 5-day capacity event on the 6 Nov 14 at basin 13750E. The EPA requested a written report in accordance with condition R3.1 of the license. This report was provided on the 25 Nov 14. There were two non-compliances reported ageist this condition was reported in the December 2015 EPL Report.There were two non-compliances reported ageist this condition was reported in the January 2015 EPL Report.
L2.6	Limit Conditions	The concentration limit for Iron (dissolved) and Aluminium (dissolved) is deemed not to have been breached if: (a) The sample complied with the pH limit at the time of discharge; and (b) The EPA is advised within 3 working days of completion of testing of Iron (dissolved) and Aluminium (dissolved) of any Iron (dissolved) and Aluminium (dissolved) results above the licence limit. Note: The purpose of this condition is to expedite the assessment and subsequent discharge of the treated water from the acid Sulfate soil treatment areas. The correlation between Iron (dissolved) and Aluminium (dissolved) and pH will be subject to ongoing review based on the test results.	* Construction Environmental Management Plan (CEMP) * Soil and Water Management Plan (SWMP) * Dewatering Procedure	Incite correspondence record of EPA notification testing of Iron (dissolved) and Aluminium (dissolved) of any Iron (dissolved) and Aluminium (dissolved) results above the licence limit within 3 days.	No releases from ASS treatment areas to date.
L2.7	Limit Conditions	If the licensee uses turbidity (NTU) in place of TSS to determine compliance with Condition L2.4, the licensee must develop a statistical correlation which identifies the relationship between NTU and TSS for water quality in the sediment basin/s in order to determine the NTU equivalent of 50 *mg/L* TSS before its use.	* Construction Environmental Management Plan (CEMP) * Soil and Water Management Plan (SWMP) * Dewatering Procedure	G:\NSW\F2E\01 Environment\11 Document and Record Management\11.8 Monitoring Results\02 Water Quality\BASINS	The NTU:TSS Correlation was updated on the 22 Oct 2014. The correlation was completed again with 67 samples taken from the November / December 2014. The review resulted in correlation that was within 2 NTU of the 22 Oct 2014. As such, the correlation was not changed during this period.

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Source Ref.	Type of Condition	Commitment, Obligation, Undertaking, Requirement (COUR)	How COUR will be complied with	Evidence Reference	Sept 2014 - March 2015 Compliance Report
L2.8	Limit Conditions	The licensee must provide the EPA with a copy of the statistical correlation assessment methodology and results before using NTU in place of TSS.	correlation procedure	G:\NSW\F2E\01 Environment\3 Legal and Other Compliance\3.2 Approvals, Licences and Permits\3.2.2 Lic\EPL\TSS NTU Correlation	Refer to update for condition L2.7.
L2.9	Limit Conditions	The licensee must develop and implement a method to enable the ongoing verification of the relationship between NTU and TSS.	correlation procedure	G:\NSW\F2E\01 Environment\3 Legal and Other Compliance\3.2 Approvals, Licences and Permits\3.2.2 Lic\EPL\TSS NTU Correlation	Method for ongoing verification of the relationship between NTU and TSS is included in TSS:NTU Correlation Procedure (refer F2E-TPL-CORR-01479) . Refer to update for condition L2.7 for updated on the correlation.
L2.10	Limit Conditions	The licensee must provide the EPA with any amendments the licensee makes to the statistical correlation as a result of the ongoing verification required by Condition L2.8 before using the revised statistical correlation.	correlation procedure	G:\NSW\F2E\01 Environment\3 Legal and Other Compliance\3.2 Approvals, Licences and Permits\3.2.2 Lic\EPL\TSS NTU Correlation	Refer to update for condition L2.7.
L3.1	Limit Conditions	The overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	* Construction Environmental Management Plan (CEMP) * Noise and Vibration Management Plan (NVMP)	N/a to date. No blasting to date.	N/a to date. No blasting to date.
L3.2	Limit Conditions	The overpressure level from blasting operations at the premises must not exceed 115dB (LinPeak) for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	* Construction Environmental Management Plan (CEMP) * Noise and Vibration Management Plan (NVMP)	N/a to date. No blasting to date.	N/a to date. No blasting to date.
L3.3	Limit Conditions	Ground vibration peak particle velocity from the blasting operations at the premises must not exceed *10mm/sec* at any time. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	* Construction Environmental Management Plan (CEMP) * Noise and Vibration Management Plan (NVMP)	N/a to date. No blasting to date.	N/a to date. No blasting to date.
L3.4	Limit Conditions	Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mmlsec for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	* Construction Environmental Management Plan (CEMP) * Noise and Vibration Management Plan (NVMP)	N/a to date. No blasting to date.	N/a to date. No blasting to date.

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L3.5	Limit Conditions	To determine compliance with condition(s) L3.1 and L3.3 a) Airblast overpressure and ground vibration levels must be measured and electronically recorded at the most affected residence or noise sensitive location that is not owned by the licensee or subject to a private agreement between the owner of the premises or noise sensitive location and the licensee for all blasts carried out in or on the premises; and b) Instrumentation used to measure the airblast overpressure and ground vibration levels must meet the requirements of Australian Standard AS 2187.2-2006.	* Construction Environmental Management Plan (CEMP) * Noise and Vibration Management Plan (NVMP)	N/a to date. No blasting to date.	N/a to date. No blasting to date.
L4.1	Limit Conditions	Standard construction hours Unless otherwise specified by any other condition of this licence, all construction activities are: a) restricted to between the hours of 7:00am and 6:00pm Monday to Friday; b) restricted to between the hours of 8:00am and 1:00pm Saturday; and c) not to be undertaken on Sundays or Public Holidays.	* Construction Environmental Management Plan (CEMP) * Noise and Vibration Management Plan (NVMP) * Out of Hours Work Procedure	G:\NSW\F2E\01 Environment\11 Document and Record Management\11.9 Out of Hours Works	Refer to condition L4.2 - L4.4 for works outside of standard working hours.
L4.2	Limit Conditions	Exemptions to standard construction hours The three categories of works that may be undertaken outside the standard hours of operation permitted by Condition L4.1 are: a) the delivery of oversized plant or structures that police or other authorised authorities determine require special arrangements to transport along public roads; b) emergency work to avoid the loss of lives or property, or to prevent environmental harm; c) works that are not more than 5 dB(A) over the rating background level at the nearest noise sensitive receiver as assessed by acoustic investigation. The licensee must notify the EPA via a quarterly forecast prior to the undertaking of any works referred to in Condition L4.2 a) and c) as well as providing the EPA with a copy of the results of any acoustic investigation made in relation to Condition L4.2 c) to be reported as per condition R1.9.	* Construction Environmental Management Plan (CEMP) * Noise and Vibration Management Plan (NVMP) * Out of Hours Work Procedure	G:\NSW\F2E\01 Environment\11 Document and Record Management\11.9 Out of Hours Works	Quarterly Forecast was issued to the EPA on the 22 Oct 14 and 19 December 2014.
L4.3	Limit Conditions	Works agreed outside of standard construction hours The licensee may undertake works outside of standard construction hours if agreement between the licensee and representatives of potentially affected noise sensitive receivers has been reached. Any agreement(s) between the licensee and the potentially affected noise sensitive receivers must be recorded in writing and a copy of the agreement(s) kept on the premises by the licensee for the duration of this licence.	* Construction Environmental Management Plan (CEMP) * Noise and Vibration Management Plan (NVMP) * Out of Hours Work Procedure, tracked via Monthly Performance Report	G:\NSW\F2E\01 Environment\11 Document and Record Management\11.9 Out of Hours Works	Agreed out of hours works completed this quarter were: OoHW Saturday Afternoons from September 2014 to February 2015.

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L4.4	Limit Conditions	Other out-of-hours works implemented in accordance with the projects Conditions of Approval Notwithstanding condition L4.3, the licensee may undertake critical out-of-hours works where it has been demonstrated to the EPA's satisfaction that: a) all reasonable and feasible measures have been undertaken to consult with any affected sensitive receptors on each occasion that out-of hours works are proposed under this condition; b) the Environmental Representative has assessed the works to be undertaken and signs-off on their support for the out-of-hours works; c) the EPA and other relevant agencies, such as Roads and Maritime Services and NSW Department of Planning have been consulted where necessary prior to proceeding with the proposed out-of-hours works; d) any works undertaken under this provision are documented and reported on in the Monthly EPL Compliance Report.	* Construction Environmental Management Plan (CEMP)* Noise and Vibration Management Plan (NVMP)* Out of Hours Work Procedure	G:\NSW\F2E\01 Environment\11 Document and Record Management\11.9 Out of Hours Works	Other (critical) out of hours works this period were: - OoHW Sawcutting at SPR Interchange. - OoHW Pacific Hw Traffic Switch- OoHW Paving Operations, CH14500 to 18300- OoHW Paving Operations, CH25200 to CH27500, CH38450 to CH39800 and batch plants - OoHW Paving Operations, 30500 to 33100 and batch plants
L4.5	Limit Conditions	The licensee must notify, by letterbox drop and by detailing works on the project website, potentially affected noise sensitive receivers of the timing and duration of work agreed to under Condition L4.3 at least 48 hours prior to that work commencing. A copy of the notification must be kept by the licensee and made available to the EPA on request. Note: where no project website currently exists, a website for this purpose must be created.	* Construction Environmental Management Plan (CEMP) * Noise and Vibration Management Plan (NVMP) * Out of Hours Work Procedure	G:\NSW\F2E\01 Environment\11 Document and Record Management\11.9 Out of Hours Works	Refer to update for condition L4.3. Project website updated are http://www.rms.nsw.gov.au/roadprojects/projects/pac_hwy/port_macquarie_coffs_harbour/fredrickton/index.html
L4.6	Limit Conditions	Blasting operations at the premises may only take place between 9:00am and 5:00pm Monday to Friday and 9:00am and 1:00pm Saturday. (Where compelling safety reasons exist, the EPA may permit a blast to occur outside the above hours. A prior written request for approval of any such blast must be made to the EPA).	* Construction Environmental Management Plan (CEMP) * Noise and Vibration Management Plan (NVMP) * Out of Hours Work Procedure	N/a to date. No blasting to date.	N/a to date. No blasting to date.
L4.7	Limit Conditions	Any work generating high noise impact, excluding blasting operations covered in Condition L4.5, must only be undertaken: a) between the hours of 8:00am and 6:00pm Monday to Friday; b) between the hours of 8:00am and 1 :00pm Saturday; and c) in continuous blocks of no more than 3 hours, with at least a 1 hour respite between each block of work generating high noise impact, where the location of the work is likely to impact the same receivers; except as expressly permitted by another condition of this licence. For the purposes of this Condition 'continuous' includes any period during which there is less than a 1 hour respite between ceasing and recommencing any of the work the subject of this Condition.	* Construction Environmental Management Plan (CEMP) * Noise and Vibration Management Plan (NVMP) * Out of Hours Work Procedure		No work generating high noise impact this period.

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O1.1	Operating Conditions	Licensed activities must be carried out in a competent manner. This includes: a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.	Note		Noted.
O2.1	Operating Conditions	All plant and equipment installed at the premises or used in connection with the licensed activity: a) must be maintained in a proper and efficient condition; and b) must be operated in a proper and efficient manner.	Note	G:\NSW\F2E\07 Health and Safety\07_15 Plant & Equipment\7.15.15 Plant Register Documentation\Plant Documentation	Pre-works inspections carried out to assess plant working conditions. Regular maintenance implemented.
O3.1	Operating Conditions	All operations and activities occurring at the premises must be carried out in a manner that will minimise the generation and emission of dust. Note: Deposited dust levels are assessed against the criteria identified in the Approved methods publication for the modelling and assessment of air pollutants in NSW, published by the Department of Environment and Conservation August 2005.	* Construction Environmental Management Plan (CEMP) * Air Quality Management Plan (AQMP) * Air Quality Monitoring Procedure	G:\NSW\F2E\01 Environment\11 Document and Record Management\11.8 Monitoring Results\01 Air Quality	Dust monitoring results are presented in the Monthly Environmental performance reports.
O4.1	Operating Conditions	The licensee must maintain, and implement as necessary, a current Pollution Incident Response Management Plan (PIRMP) for the premises. The licensee must keep the incident response plan on the premises at all times. The incident response plan must document systems and procedures to deal with all types of incidents (e.g. spills, explosions or fire) that may occur at the premises or that may be associated with activities that occur at the premises and which are likely to cause harm to the environment. The licensee must develop a Pollution Incident Response Management Plan in accordance with the requirements in Part 5.7 A of the Protection of the Environment Operations (POEO) Act 1997 and POEO regulations.	* Construction Environmental Management Plan (CEMP) * Pollution Incident Response Management Plan (PIRMP)	PIRMP is saved at G:\NSW\F2E\01 Environment\10 Emergency Planning and Response\F2E-00G-PL-PIR-ENV-00-01, and has been distributed & uploaded to Keystone.	Plan developed and uploaded to Thiess website 2/11/2013 - http://www.thiess.com.au/files/documents/F2E%20Pollution%20Incident%20Response%20Management%20Plan%20Dec%202013.pdf

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O5.1	Operating Conditions	All works must be carried out in accordance with the "Interim Construction Noise Guideline", OECC July 2009 to minimise the emission of noise and vibration from the premises.	* Construction Environmental Management Plan (CEMP) * Noise and Vibration Management Plan (NVMP) * Interim Construction Noise Guideline	G:\NSW\F2E\01 Environment\11 Document and Record Management\11.4 Environmental Reporting\01 Monthly Environmental Performance Report	Mitigation measures outlined in the NVMP are implemented for works that exceed the management levels specified in Table 2 of the Interim Construction Noise Guideline.
O5.2	Operating Conditions	The licensee must maximise the diversion of run-on waters from lands upslope and around the site whilst land disturbance activities are being undertaken.	* Construction Environmental Management Plan (CEMP) * Soil and Water Management Plan (SWMP) * Primary Erosion and Sedimentation Management Plans (PESCP's) completed and approved by the Environmental representative, area engineer, foreman and final sign off by the Soil Conservationist and approval by Roads and Maritime Services (RMS) and the Project Verifier (PV)	G:\NSW\F2E\01 Environment\2 Planning\2.14 ESCPs	Clean water diversion drains continue to be constructed in accordance with the Longitudinal Drainage Design Lots (DL00#) throughout this quarter.

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O5.3	Operating Conditions	The licensee must maximise the diversion of stormwater runoff containing suspended solids to sediment basins installed on the premises.	* Construction Environmental Management Plan (CEMP) * Soil and Water Management Plan (SWMP) * Progressive Erosion and Sedimentation Management Plans (PESCP's), Inspection Records, Actions Register.	G:\NSW\F2E\01 Environment\2 Planning\2.14 ESCPs	Basins construction is +100% complete. Diversion of water from site to basins is maximised through cut off drains and kick ups on fills. Utilisation of the long drainage via pits commenced this quarter to direct site water to basins.
O5.4	Operating Conditions	The drainage from all areas that will mobilise suspended solids when stormwater runs over these areas must be controlled and diverted through appropriate erosion and sediment control measures.	* Construction Environmental Management Plan (CEMP) * Soil and Water Management Plan (SWMP) * Progressive Erosion and Sedimentation Management Plans (PESCP's), Inspection Records, Actions Register.	G:\NSW\F2E\01 Environment\2 Planning\2.14 ESCPs	All possible areas are directed to basins (refer conditions 5.3). Where water can not be directed to basins, catchments are managed in accordance with Blue Book.
O5.5	Operating Conditions	The licensee must minimise the area of the site that is able to generate suspended material when water runs over it.	* Construction Environmental Management Plan (CEMP) * Soil and Water Management Plan (SWMP) * Progressive Erosion and Sedimentation Management Plans (PESCP's), Inspection Records, Actions Register.	G:\NSW\F2E\01 Environment\2 Planning\2.2 CEMP (incl. S-Plans)	Batters are being progressively reinstated with topsoil and hydro mulched to reduce the area of the site that is able to generate suspended material when water runs over it.

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O5.6	Operating Conditions	Unless otherwise approved in writing by the EPA, where sediment basins are necessary, all sediment basins and associated drainage must be installed and commissioned prior to the commencement of any clearing and grubbing works within the catchment area of the sediment basin that may cause sediment to leave the site. Note: This condition does not apply to those works associated with the actual installation of sediment basins or associated drainage.	* Construction Environmental Management Plan (CEMP) * Soil and Water Management Plan (SWMP) * Progressive Erosion and Sedimentation Management Plans (PESCP's), Inspection Records, Actions Register.	G:\NSW\F2E\01 Environment\2 Planning\2.14 ESCPs	Clearing and basin construction complete prior to this reporting quarter.
O5.7	Operating Conditions	The sediment basins and other erosion and sediment controls must be planned, designed (stability, location, type and size), constructed, operated and maintained, **as a minimum**, in accordance with the guideline "Managing Urban Stormwater -Soils and Construction, Volume 20, Main road construction" OECC 2008, to be read and used in conjunction with volume 1 "Managing urban stormwater: soils and construction" Landcom 2006.	* Construction Environmental Management Plan (CEMP)* Soil and Water Management Plan (SWMP)* Progressive Erosion and Sedimentation Management Plans (PESCP's), Inspection Records, Actions Register.	G:\NSW\F2E\01 Environment\2 Planning\2.14 ESCPs	PESCPs are prepared in accordance with the Blue Book and reviewed by the Soil Conservationist. There was one non-compliances reported ageist this condition was reported in the January 2015 EPL Report (F2E-TPL-REC-00749) due to failure of a temporary spillway of a swale drain.
O5.8	Operating Conditions	All erosion and sediment control measures installed on the premises must be inspected and works undertaken to repair and/or maintain these controls: a) Weekly during normal construction hours outlined in Condition L4.1; b) daily during periods of rainfall; and c) within 24 hours of the cessation of a rainfall event causing runoff to occur on or from the premises. The licensee must record all such inspections including observations and works undertaken to repair and/or maintain erosion and sediment controls.	* Construction Environmental Management Plan (CEMP) * Soil and Water Management Plan (SWMP) * Primary Erosion and Sedimentation Management Plans (PESCP's) , inspections, daily diaries (e.g. foremen)	G:\NSW\F2E\01 Environment\11 Document and Record Management\11.5 Inspections	Regular inspections are carried out, including weekly and daily during rainfall events. Improved record keeping is required to demonstrate the total extend of all inspections/ e.g. including all Foremen' inspection.

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O5.9	Operating Conditions	The licensee must ensure the design storage capacity of the sediment basins installed on the premises is reinstated within 5 days of the cessation of a rainfall event that causes runoff to occur on or from the premises.	* Construction Environmental Management Plan (CEMP) * Soil and Water Management Plan (SWMP) * Primary Erosion and Sedimentation Management Plans (PESCP's) , reported via monthly report.	G:\NSW\F2E\01 Environment\11 Document and Record Management\11.8 Monitoring Results\02 Water Quality\BASINS	Basin capacity is being restored within 5 days following rainfall as far as practical. 535discharge events occurred during the reporting period of which 35 were not discharged within the 5 day period. A non-compliance against this condition was reported in the January 2015 EPL Report.
O5.10	Operating Conditions	The licensee must ensure that sampling point(s) for water discharged from the sediment basin(s) are provided and maintained in an appropriate condition to permit: a) the clear identification of each sediment basin and discharge point; b) the collection of representative samples of the water discharged from the sediment basin(s); and c) access to the sampling point(s) at all times by an authorised officer of the EPA.	* Construction Environmental Management Plan (CEMP) * Soil and Water Management Plan (SWMP) * Primary Erosion and Sedimentation Management Plans (PESCP's)		Basin identification is being maintained. Access points available. Permanent spillways are being installed in operational basins during this reporting period.
O5.11	Operating Conditions	The licensee must endeavour to maximise the reuse of captured stormwater on the premises.	* Construction Environmental Management Plan (CEMP) * Soil and Water Management Plan (SWMP) * Primary Erosion and Sedimentation Management Plans (PESCP's)		Reuse prioritised for dust suppression and earthworks.
O5.12	Operating Conditions	The licensee must ensure that any polymer based flocculants used to treat water before discharge from the premises has an EC50 greater than 100 milligrams per litre for water fleas and fish. For the purpose of this condition "EC50" means the concentration of material that is estimated to be lethal to fifty precent of the test organisms, after an exposure period of 48 hours for water fleas and 96 hours for fish. Note: In accordance with the EPA Approved Methods Publication any analysis should be undertaken by a laboratory accredited to perform those analyses by an independent accreditation body acceptable to the EPA, such as the National Association of Testing Authorities (NATA), or equivalent.	* Construction Environmental Management Plan (CEMP) * Soil and Water Management Plan (SWMP) * Progressive Erosion and Sedimentation Management Plans (PESCP's) * Water Quality Monitoring Procedure	G:\NSW\F2E\01 Environment\11 Document and Record Management\11.8 Monitoring Results\02 Water Quality\BASINS	Only Gypsum being used. EPA have provided approval for the use of Triple Strike flocculant if the project needs an~~d~~ alternative

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M1.1	Monitoring and Recording Conditions	The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.	* Soil and Water Management Plan (SWMP) *Erosion and Sedimentation Management Plans (PESCP's) * Water Quality Monitoring Procedure * Water Results Register * Monthly Environmental Report * Consultation with EPA as necessary	G:\NSW\F2E\01 Environment\11 Document and Record Management	Reported in Monthly Environmental performance report.
M1.2	Monitoring and Recording Conditions	All records required to be kept by this licence must be: a) in a legible form, or in a form that can readily be reduced to a legible form; b) kept for at least 4 years after the monitoring or event to which they relate took place; and c) produced in a legible form to any authorised officer of the EPA who asks to see them.	* Water Results Register * Monthly Environmental Report	Keystyone (Monthly Reports) and G:\NSW\F2E\01 Environment\11 Document and Record Management	Refer to condition M1.1
M1.3	Monitoring and Recording Conditions	The following records must be kept in respect of any samples required to be collected for the purposes of this licence: a) the date(s) on which the sample was taken; b) the time(s) at which the sample was collected; c) the point at which the sample was taken; and d) the name of the person who collected the sample.	* Water Results Register * Monthly Environmental Report * Water Quality Monitoring Procedure	Keystyone (Monthly Reports) and G:\NSW\F2E\01 Environment\11 Document and Record Management	Refer to condition M1.1
M2.1	Monitoring and Recording Conditions	For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:	* Water Quality Monitoring Procedure	Keystyone (Monthly Reports) and G:\NSW\F2E\01 Environment\11 Document and Record Management	Refer to condition M1.1
M2.2	Monitoring and Recording Conditions	Water and/ or Land Monitoring Requirements **1** Note- Special frequency 1 means <24 hours prior to a controlled/scheduled discharge and daily for any continued controlled/scheduled discharge.	* Soil and Water Management Plan (SWMP) * Water Quality Monitoring Procedure	Keystyone (Monthly Reports) and G:\NSW\F2E\01 Environment\11 Document and Record Management	Refer to condition M1.1

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M3.1	Monitoring and Recording Conditions	Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.	* Soil and Water Management Plan (SWMP) * Water Quality Monitoring Procedure	Keystyone (Monthly Reports) and G:\NSW\F2E\01 Environment\11 Document and Record Management	Monitoring is being completed in accordance with the CEMP sub plans. No express provision to the contrary has been made during this reporting period.
M4.1	Monitoring and Recording Conditions	Rainfall at the premises must be measured and recorded in millimetres per 24 hour period at the same time each day from the time that the site office associated with the activities permitted by this licence is established.	* Soil and Water Management Plan (SWMP) * Weather Stations	Monthly reports	Weather station and two automated rain gauges were installed during this reporting period. Data available via https://new.mhl.nsw.gov.au/MHLWeb/main.php
M4.2	Monitoring and Recording Conditions	The rainfall monitoring data collected in compliance with Condition M4.1 can be used to determine compliance with Condition L2.5.	* Soil and Water Management Plan (SWMP) * Weather Stations	Monthly reports	Noted
M5.1	Monitoring and Recording Conditions	The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	Community Involvement Plan / Consultation Manager	Monthly reports	Records kept in Consultation Manager (IT system) and reported within Monthly Environmental Performance Report.

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M5.2	Monitoring and Recording Conditions	The record must include details of the following: a) the date and time of the complaint; b) the method by which the complaint was made; c) any personal details of the complainant which were provided by the complainant or, if no such details	Consultation Manager	Consultation Manager	Records kept in Consultation Manager (IT system) and reported within Monthly Environmental Performance Report.
M5.3	Monitoring and Recording Conditions	The record of a complaint must be kept for at least 4 years after the complaint was made.	Consultation Manager	Consultation Manager	Records kept in Consultation Manager (IT system) and reported within Monthly Environmental Performance Report.
M5.4	Monitoring and Recording Conditions	The record must be produced to any authorised officer of the EPA who asks to see them.	Consultation Manager	Consultation Manager	N/a to date, however records available from Consultation Manager (IT system) and reported within Monthly Environmental Performance Report.
M6.1	Monitoring and Recording Conditions	The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	Community Involvement Plan	CIP/ Website at http://www.rms.nsw.gov.au/projects/northern-nsw/port-macquarie-to-coffs-harbour/frederickton-to-eungai/index.html	CIP and RMS website 1800 668 240 or email community-enquiries@F2E.incite.com.au.

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M6.2	Monitoring and Recording Conditions	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	Community Involvement Plan	CIP/ Website at http://www.rms.nsw.gov.au/roadprojects/projects/pac_hwy/port_macquarie_coffs_harbour/fredrickton/project_documents.html	CIP and RMS website 1800 668 240 or email community-enquiries@F2E.incite.com.au.
M6.3	Monitoring and Recording Conditions	The preceding two conditions do not apply until 3 months after a) the date of the issue of this licence or b) if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation. Note: where no project website currently exists, a website for this purpose must be created.	Noted	Noted	Noted
M6.4	Monitoring and Recording Conditions	Prior to the commencement of the licensed activity, the licensee must ensure the project's website provides ready access to clear and concise information about: a) how to make a complaint on the telephone complaints line referred to in Condition M6.1; and b) how complaints on the telephone complaints line will be processed.	RMS Project Website	CIP/ Website at http://www.rms.nsw.gov.au/projects/northern-nsw/port-macquarie-to-coffs-harbour/frederickton-to-eungai/index.html	CIP/ Website at http://www.rms.nsw.gov.au/roadprojects/projects/pac_hwy/port_macquarie_coffs_harbour/fredrickton/index.html
M6.5	Monitoring and Recording Conditions	In response to any noise or vibration complaint made by any persons or bodies other than the EPA, the licensee must: a) investigate the complaint within 2 hours of the complaint being received or within the timeframe agreed with the complainant; b) offer to attend the complainant's premises to undertake noise or vibration monitoring at the complainant's premises as soon as is practical, or at a time agreed with the complainant; and c) advise the complainant of the results of the investigation and any proposed remedial action.	Community Involvement Plan	Consultation Manager	Complaints are reported to Environment Manager and monitoring offered & scheduled. Results of monitoring summaries in the monthly report (refer condition M1.1).

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M6.6	Monitoring and Recording Conditions	In response to any complaint referred by the EPA to the licensee, the licensee must respond to the referred complaint in a manner and timeframe specified by the EPA.	Community Involvement Plan	Consultation Manager	Complaints are reported to Environment Manager and monitoring offered & scheduled. Results of monitoring summaries in the monthly report (refer condition M1.1).
M7.1	Monitoring and Recording Conditions	Noise monitoring must be carried out in accordance with Australian Standard AS 2659.1 -1998: Guide to the use of sound measuring equipment -Portable sound level meters, and the compliance monitoring guidance provided in the NSW Industrial Noise Policy.	* Construction Environmental Management Plan (CEMP) * Noise and Vibration Management Plan (NVMP) * Interim Construction Noise Guideline	Monthly reports	Noise monitoring completed in accordance AS 2659.1 -1998 of monitoring summaries in the monthly report (refer condition M1.1).
M7.2	Monitoring and Recording Conditions	Vibration monitoring must be carried out in accordance with the guidance provided in the Environmental Noise Management Assessing Vibration: A Technical Guideline, published by the Department of Environment and Conservation, February 2006.	* Construction Environmental Management Plan (CEMP) * Noise and Vibration Management Plan (NVMP) * Environmental Noise Management Assessing Vibration: A Technical Guideline * Interim Construction Noise Guideline		Vibration monitoring was completed at sensitive receiver 31c on the 8/12/14. Results were compliant.
M7.3	Monitoring and Recording Conditions	The licensee must undertake noise and vibration monitoring as directed by an authorised officer of the EPA.	* Construction Environmental Management Plan (CEMP) * Noise and Vibration Management Plan (NVMP) * Interim Construction Noise Guideline	N/a at this time	N/a to date - means to comply are available should direction from EPA be received.

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Source Ref.	Type of Condition	Commitment, Obligation, Undertaking, Requirement (COUR)	How COUR will be complied with	Evidence Reference	Sept 2014 - March 2015 Compliance Report
R1.1	Reporting conditions	The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: a) a Statement of Compliance; and b) a Monitoring and Complaints Summary. At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.	CEMP/ EPL compliance.	N/a to date.	The annual return was sent to the EPA via mail on the 10 October 2014 (sent via hard copy).
R1.2	Reporting conditions	An Annual Return must be prepared in respect of each reporting period, except as provided below. Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.	CEMP/ EPL compliance.	N/a to date.	Refer to condition R1.1
R1.3	Reporting conditions	Where this licence is transferred from the licensee to a new licensee: a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period. Note: An application to transfer a licence must be made in the approved form for this purpose.	CEMP/ EPL compliance.	N/a to date.	N/a to date
R1.4	Reporting conditions	Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on: a) in relation to the surrender of a licence -the date when notice in writing of approval of the surrender is given; or b) in relation to the revocation of the licence -the date from which notice revoking the licence operates.	CEMP/ EPL compliance.	N/a to date.	N/a to date
R1.5	Reporting conditions	The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').	CEMP/ EPL compliance.	N/a to date.	refer to condition R1.1
R1.6	Reporting conditions	The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.	CEMP/ EPL compliance.	N/a to date.	Noted. Record maintained on Incite.

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R1.7	Reporting conditions	Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by: a) the licence holder; or b) by a person approved in writing by the EPA to sign on behalf of the licence holder.	CEMP/ EPL compliance.	N/a to date.	refer to condition R1.1
R1.8	Reporting conditions	A person who has been given written approval to certify a certificate of compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review of this licence.	CEMP/ EPL compliance.	N/a to date.	Noted
R1.9	Reporting conditions	The licensee must provide the EPA with a Monthly Report containing the following information: a) details of all non-compliances with the conditions of this licence and measures taken, or proposed, to prevent a recurrence of such a non-compliance; and b) details of all discharges from the sediment basins where the water quality results exceed the limits prescribed by Condition L2.4 including the results of rainfall measurements to demonstrate compliance with Condition L2.5; and c) details of the results of any acoustic investigation made in relation to L4.2 d); and the report referred to in this condition must be received by the EPA within 10 working days of the end of each month.	* Environmental Performance Monthly Report	Monthly reports and Keystone submission records.	All monthly reports have been submitted on time to date. Refer to condition M1.1 Environmental monitoring data published on http://www.thiess.com.au/publications/reports?category=environmental-reports&project=frederickton-to-eungai-pacific-highway-upgrade
R2.1	Reporting conditions	Notifications must be made by telephoning the Environment Line service on 131 555. Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.	Note	N/a to date.	No material harm incidents during this reporting quarter.
R2.2	Reporting conditions	The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.	* Incident Report	N/a to date.	not applicable this quarter.

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Source Ref.	Type of Condition	Commitment, Obligation, Undertaking, Requirement (COUR)	How COUR will be complied with	Evidence Reference	Sept 2014 - March 2015 Compliance Report
R3.1	Reporting conditions	Where an authorised officer of the EPA suspects on reasonable grounds that: a) where this licence applies to premises, an event has occurred at the premises; or b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.	N/a to date	N/a to date.	A non-conformance was identified against Condition L2.5 for discharge from basin following rainfall less than 85th percentile 5-day capacity event on the 6 Nov 14 at basin 13750E. The EPA requested a written report in accordance with condition R3.1 of the license. This report was provided on the 25 Nov 14. The EPA provided a response on the 27 Nov 14 confirming that the report accurately describes the event that occurred and that remedial actions taken are appropriate. No further information on the issue is required at this time. A non-conformance was identified against Condition O5.9 and L2.5 following rainfall between the 25 December 2014 and 14 January 2015. The EPA requested a written report in accordance with condition R3.1 of the license on the 20 January and the report was provided on the 30 January.
R3.2	Reporting conditions	The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.	* Incident Report	N/a to date.	Refer to condition R3.1
R3.3	Reporting conditions	The request may require a report which includes any or all of the following information: a) the cause, time and duration of the event; b) the type, volume and concentration of every pollutant discharged as a result of the event; c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort; e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants; f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and g) any other relevant matters.	* Incident / investigation report	N/a to date.	Refer to condition R3.1
R3.4	Reporting conditions	The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.	* Incident Report		Refer to condition R3.1

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Source Ref.	Type of Condition	Commitment, Obligation, Undertaking, Requirement (COUR)	How COUR will be complied with	Evidence Reference	Sept 2014 - March 2015 Compliance Report
G1.1	General conditions	A copy of this licence must be kept at the premises to which the licence applies.	* Licence available to all Thiess employees on the sites local drive and Keystone. Hard copy maintained at the Premise.	G:\NSW\F2E\01 Environment\3 Legal and Other Compliance\3.2 Approvals, Licences and Permits\3.2.2 Lic\EPL	No change this period
G1.2	General conditions	The licence must be produced to any authorised officer of the EPA who asks to see it.	* Licence available to Thiess employees on the sites local drive and Keystone. Hard copy maintained at the Premise.	G:\NSW\F2E\01 Environment\3 Legal and Other Compliance\3.2 Approvals, Licences and Permits\3.2.2 Lic\EPL	No change this period
G1.3	General conditions	The licence must be available for inspection by any employee or agent of the licensee working at the premises. Note: Condition G1.1 above only applies from the time that the site office associated with the activities permitted by this licence is established.	* Licence available to all Thiess employees on the sites local drive and Keystone. Hard copy maintained at the Premise.	G:\NSW\F2E\01 Environment\3 Legal and Other Compliance\3.2 Approvals, Licences and Permits\3.2.2 Lic\EPL	No change this period
G2.1	General conditions	The licensee must provide the EPA with up to date contact details to enable the EPA: a) to contact either the licensee or a representative of the licensee who can respond at all times to incidents relating to the premises, and b) to contact the licensee's senior employees or agents authorised at all times to: i) speak on behalf of the licensee, and ii) provide any information or document required under licence.	Provided to EPA via application. / Included within CEMP.	G:\NSW\F2E\01 Environment\3 Legal and Other Compliance\3.2 Approvals, Licences and Permits\3.2.2 Lic\EPL\EPL - Application\130705_scanned version	No change this period
G2.2	General conditions	The contact details required by Condition G2.1 above must include: a) the full name and title of the authorised representatives and the scope of their respective authorisations; and b) the direct telephone number, mobile number, pager number, fax number, email address and postal address for contacting each authorised representative.	Provided to EPA via application. / Included within CEMP.	G:\NSW\F2E\01 Environment\3 Legal and Other Compliance\3.2 Approvals, Licences and Permits\3.2.2 Lic\EPL\EPL - Application\130705_scanned version	The contact details were updated in the CEMP that has been issued to the ERG in February for review and comment.

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Source Ref.	Type of Condition	Commitment, Obligation, Undertaking, Requirement (COUR)	How COUR will be complied with	Evidence Reference	Sept 2014 - March 2015 Compliance Report
E1.1	Special conditions	In this Licence, unless the contrary is indicated, the terms below have the following meaning: Noise Sensitive Locations- Means buildings used as a residence, hospital, school, child care centre, places of public worship and nursing homes. A noise sensitive location includes the land within 30m of the building. NSW Industrial Noise Policy- Means the document titled :NSW Industrial Noise Policy" published by the Environment Protection Authority in January 2000. Works generating high noise impact- Means an LAeq(15min) noise measurement of 75 dB(A) as described in the document titled "Interim Construction Noise Guideline" published by the Department of Environment and Climate Change in July 2009. Critical out-of-hours works - Means works undertaken under a Road Occupancy Licence that dictates that the works must occur out-of-hours for traffic safety reasons, time critical works associated with concrete paving or other time critical works that cannot be undertaken under licence conditions L4.2c) or L4.2d) or L4.3 Reasonable and feasible - For the purposes of this licence the term "reasonable and feasible" has the same meaning as that defined under the "Interim Construction Noise Guideline DECC 2009/265".	Noted.	Note only.	Note only.

Appendix 3

Environmental incidents and complaints

Table A3-1 Environmental incidents and near misses which occurred during the reporting period

Event Date	Event Title	Environmental Category	Thiess Category	RMS Category	What Happened	Immediate Actions
04/09/14 11:35	Scraper hydraulic hose spill	Contamination of Land / Groundwater	Class 3	Category 2	Scraper blew a hydraulic hose whilst dumping material on the fill 30 stockpile area. Less than 5 litres of hydraulic oil was spilt on the fill.	Spill kit was used to clean up spill immediately. Spill was contained on the project boundary and residual oil contained in bucket. The Salmon fitter came out to the site to change over the hose, and removed the oily waste to dispose of at a licensed facility.
09/09/14 10:17	Ejector hydraulic hose blow out	Contamination of Land / Groundwater	Class 3	Category 2	Daracon 40Tonne Ejector was hauling fill material from cut 19 to fill 19B when the hydraulic hose blew at the tipping location. Approximately 10 l of hydraulic oil was spilt and contained on fill 19B.	The fitter came out to change the hose and checked the other hoses to ensure that the incident does not repeat. Spill kit material was deployed onto the spill and cleaned up. Spill material was disposed of appropriately. The spill was contained on the fill and did not leave the project boundary.
13/09/14 03:00	ATD hydraulic spill	Contamination of Land / Groundwater	Class 3	Category 2	ATD was hauling cut to fill when smoke was observed coming out of truck. Machine parked up and spill kit deployed. Approximately 5L of hydraulic oil was spilled. Spill contained onsite.	Spill kit used immediately from back of ute and buckets placed under truck by fitter On site. Machine parked up and to be repaired before reuse on site. Contaminated material to be disposed of to a licenced facility.
13/09/14 11:30	Moxy oil leak	Contamination of Land / Groundwater	Class 3	Category 2	Moxy was placing fill material. Operator noticed oil leaking from moxy.	Moxy immediately parked up and spill containment devices deployed. Machine to be repaired prior to reuse and any contaminated material to be disposed of at a licenced facility.
16/09/14 11:10	Ejector moxy hydraulic Oil spill	Contamination of Land / Groundwater	Class 3	Category 2	40 tonne ejector moxy hauling sheared timber from the clearing front south of Blackbutt Shute Road blew a hydraulic hose. Approximately two litres of hydraulic oil spilt onto the ground. The clean water drain was approximately 100 metres away. There was no dispersal of hydraulic oil, no movement of oil off site boundary.	Spill kit was used to clean up spill with waste returned to the workshop for appropriate disposal. The fitter came out to repair the hose and also inspected the other hoses.

Event Date	Event Title	Environmental Category	Thiess Category	RMS Category	What Happened	Immediate Actions
30/09/14 10:00	Diesel spill on southbound lane Stuarts Point Off ramp	Contamination of Land / Groundwater	Class 3	Category 2	Carting material onsite with a side tipping machine when it appeared a leak in fuel line caused a small spill onto pavement within site boundaries.	Spill contained within site, cleaned up, and hose fixed.
20/10/14 14:00	Failure to comply with Temp Waterway Crossing EWMS	Communication Systems Failure	Near Hit (No impact report)	Category 2	A temporary crossing was constructed in Borirgalla Creek, CH 36800, that did not comply with the design in the temporary waterway crossing EWMS under G36 Cl 6.5.4. The works occurred during a period of no-flow in the waterway and within an area that will soon be disturbed for associated bridge construction works.	The crossing has been removed and the area temporarily stabilized with jute mesh until permanent scour rock can be installed
23/10/14 09:10	Watercart hydraulic hose break	Contamination of Land / Groundwater	Class 3	Category 2	Water cart wetting site for dust suppression and hydraulic hose broke. Approximately 3L of hydraulic oil spilled onto chip seal.	Absorbent material placed on spilled material. Water cart removed from site to be repaired.
04/11/14 06:40	Noise complaint Bridge 01 (Quarry Road)	Noise, Vibration & Light (including overpressure)	Class 3	Category 1	Works commenced prior to 7am. Works involved the installation on guard rail. This resulted in a community complaint and a non-compliance with the project EPL. The community complaint was received at 7:56am by the community manager.	The community manager contacted site staff who informed the subcontractor of the incident and reiterated the site requirements. A Toolbox was presented to the subcontractor with regards to site hours of operation and other general site rules. Subcontractor (Protection Barriers) SWMS to be reviewed and revised as required. Community complaint details recorded in the complaints register. RMS and EPA notified of the incident.

Event Date	Event Title	Environmental Category	Thiess Category	RMS Category	What Happened	Immediate Actions
05/11/14 12:30	Non-compliant basin discharge	Discharges to Surface Water	Class 3	Category 1	Water discharged from basin not in accordance with EPL condition L2.5. Water discharge occurred due to a failure in the basin wall. The failure occurred where an existing temporary pipe was plugged. The obvert of the pipe was below the basin spillway causing the discharge to occur prior to the design rainfall depth (46mm) and resulted in a non compliance with EPL condition L2.5. Water discharged into a constructed clean water drain within the project EPL boundary. Water was observed to be ponded at the end of the clean water drain. There was no evidence of water from the discharge event entering the nearest water course. Estimated 10KL was discharged.	Basin dewatered. Basin to be repaired.
13/11/14 09:00	Oil spill on SMZ in Cut 18	Contamination of Land / Groundwater	Class 3	Category 2	Hydraulic oil spilt from truck and dog tipping select material zone (SMZ) material for placement. All contained to within site boundaries and no harm offsite.	Spill kit deployed and contaminated material removed, and truck taken offsite for repair.
13/11/14 09:30	ATD hydraulic hose break	Contamination of Land / Groundwater	Class 3	Category 2	A hydraulic hose broke on an ATD whilst tipping.	Bund placed around truck with backhoe, Fitter called truck fixed and area cleaned up by end of shift.
13/11/14 16:00	Ran over juvenile snake on haul road	Flora & Fauna	Class 3	Nil	Ran over juvenile snake on haul road, which was mistaken for a branch from timber haul.	
18/11/14 15:00	An approved mulch stockpile seen smouldering	Report Only	No impact report	Category 2	Stockpiled mulch was seen smouldering at an approved stockpile site adjoining Access Road B.	Three excavators attended the scene to turn over the stockpile to aerate and prevent further smouldering, which consequently caused smouldered timber to ignite. This timber was turned over and soil added to put out the flame. Turning of the stockpile concluded at 8pm, which was permitted by L4.2(b) of the project EPL and MCoA 2.12 under emergency

Event Date	Event Title	Environmental Category	Thiess Category	RMS Category	What Happened	Immediate Actions
						works.
24/11/14 02:00	Saw cutter oil leak near Bridge 1	Contamination of Land / Groundwater	Class 3	Category 2	Hydraulic oil in the road saw header boiled and breached the breather pipe twice.	Saw cutting contractor contained both spills to the pavement and prevented release offsite with the aid of a nearby spill kit. Operator allowed machine to cool after the first spill, however issue resurfaced a second time near the end of their works for the day. Operator is investigating an alternative oil to prevent future overheating.
25/11/14 14:30	Curing Compound Runoff CH16200	Contamination of Land / Groundwater	Class 3	Category 2	Curing compound was washed off unprotected area of base pavement during rainfall. Prior to rainfall controls (tarps) were installed to protect the base slab an area approximately 20m in length was assessed to be sufficiently cured was not protected. Resulting in some of the curing compound running off the pavement. All spilled material was contained on site.	Additional controls to protect the base slab were installed immediately. Additional controls were installed to contain the curing compound so that it could be pumped into a water cart for on-site reuse. All spilled curing compound was cleaned up.
10/12/14 15:00	Light vehicle disel leak	Contamination of Land / Groundwater	Class 3	Category 2	Diesel leak from light vehicle parked up at main compound - approximately 2 litres.	Deploy spill kit and hose fixed.
16/12/14 12:30	Scraper hydraulic hose break Fill15A	Contamination of Land / Groundwater	Class 3	Category 2	Hydraulic Hose on scraper blew when hauling fill.	Bund put around scraper with grader. Machine fixed and oil picked up by backhoe and placed in bin. Material disposed to a licenced facility.

Event Date	Event Title	Environmental Category	Thiess Category	RMS Category	What Happened	Immediate Actions
17/12/14 11:09	Snake run over by paving machine	Flora & Fauna	Class 3	Nil	Snake caught under pit lid to longitudinal drainage pit within earthworks cut and as a result of being hidden was driven over by paving machine during sub base placement.	The snake was disposed of and the incident reported.
18/12/14 18:00	Curing compound runoff to basins during storm event	Discharges to Surface Water	Class 3	Category 2	Newly placed pavement was covered in anticipation of storm event and as a consequence of the storm, approximately 200 metres of pavement became exposed and curing compound ran off.	Compound was contained in basins with mobile booms and removed the following day.
08/01/15 08:30	Water cart hydraulic hose break Fill19B	Contamination of Land / Groundwater	Class 3	Category 2	While watering haul road a hydraulic hose blew on water cart. Approximately 5L of hydraulic oil was spill. All spilled material was contained onsite.	Spill contained with a bund. Area cleaned up with material disposed of to a licenced facility. Plant repaired prior to reuse onsite.
08/01/15 15:22	Non-compliance with EPL c.O5.9 to reinstate basin capacity	Incident	No impact report	Category 1	Non-compliance with EPL c.O5.9 which requires design storage capacity of sediment basins be restored within 5 days of cessation of rain. 35 of 106 basins across site were not dewatered within 5 days of the cessation of rainfall.	The design capacity was reinstated in 69 basins within the 5 day period. 10 basins were being de-watered on the 8.1.15. 9 basins were tested again on the 8.1.14 and water quality was now within EPL range. 16 basins were retreated on the 7-8.1.14 and will be retested on the 9.1.14.
12/01/15 07:00	Non-compliance with EPL condition L2.5	Incident	No impact report	Category 1	Following rainfall between the 25 December to 6 January 2015, basin capacity had not been reinstated in all basins as reported in NCR on the 8 January. On the 11-12 January, the site received another rainfall event that ranged from 15.2 to 27.8mm. During this event, 11 basins (18800W, 21200E, 25550E, 25950E, 26650E, 27550E, 27550W, 31150E, 31250W, 31650E and 31750W) in which capacity had not been restored are presumed to have overtopped again.	Gypsum was continued to be applied to try and meet the TSS (NTU) discharge criteria. Basins have been treated a number of times. Basins 18800W, 21200E, 25550E, 25950E, 26650E have been dewatered between 13-15 January. Treatment / dewatering continuing in 27550E, 27550W, 31150E, 31250W, 31650E and 31750W.

Event Date	Event Title	Environmental Category	Thiess Category	RMS Category	What Happened	Immediate Actions
14/01/15 14:00	Non-compliance with EPL condition L2.5	Incident	No impact report	Category 1	Following rainfall between the 25 December to 6 January 2015, basin capacity had not been reinstated in all basins as reported in NCR on the 8 January. On the 14 January, the site received another rainfall event that ranged from 6.2 to 15.6mm. During this event, 8 basins (25550E, 25950E, 27550E, 27550W, 31150E, 31250W, 31650E and 31750W) in which capacity had not been restored are presumed to have overtopped again.	Gypsum was continued. Basin 25550E and 25950E achieved the TSS water quality on the 15 Jan and were dewatered. Laboratory samples were taken on the 15 Jan for the remaining basins. The results were received at 14:00 on the 16/01/15. 4 basins had TSS<50 (31150E, 31250W, 31650E & 31700W). Dewatering commenced on these basins immediately. Basin 27550W and 27550E were slightly over (TSS 51 & 62) and will be tested again on the 17 Jan.
22/01/15 17:00	Failure of temporary spillway on swale drain	Erosion & Sediment Controls	Class 3	Category 1	Persistent rainfall resulted in the failure of a temporary spillway of a swale drain. A temporary lined spillway was installed on the swale drain, however not to design or at the required width / depth as specified in the guideline "Managing Urban Stormwater - Soil & Construction, Volume 2D, Main Road Construction" DECC 2008 as required by condition O5.7 of the project EPL (#20318).	Following rainfall and permissible site access, plant have begun reconstruction of swale drain in accordance with design and condition 5.7 of the project EPL and works expected for completion by 9/2/15.
30/01/15 13:30	Hydraulic hose break cut 12	Contamination of Land / Groundwater	Class 3	Category 2	Return hose on diff split when hit by rock whilst reversing spilling approximately 2L of hydraulic oil. No spilled material left the project boundary.	Container was placed under hose, plant repaired prior to being reused on site. Material disposed of to a licenced facility.
05/02/15 11:55	Bobcat hydraulic oil leak on Fill 23	Contamination of Land / Groundwater	Class 3	Category 2	Bobcat was removing concrete from the base paving operations when a leak occurred in the engine bay. It was estimated that 5 litres had spilt onto the ground.	Spill was contained to formation using nearby spill kit and boom installed in basin as a precautionary measure, however no oil entered basin or left site and was cleaned up.
06/02/15 16:30	Truck oil leak	Contamination of Land / Groundwater	Class 3	Category 2	Truck and dog transporting material onsite. Rock hit sump of engine resulting in a small hole causing oil leak. All spilled material was contained on site.	Truck was stopped and removed from site. Oil spill contained and materials disposed of to a licenced facility.

Event Date	Event Title	Environmental Category	Thiess Category	RMS Category	What Happened	Immediate Actions
09/02/15 12:00	Pad foot roller hydraulic hose leak on Fill 26	Contamination of Land / Groundwater	Class 3	Category 2	Burst hose on pad foot roller during placement of select layer	Pad foot stood down, spill kit applied to contain spill and fitter called to fix broken hose.
11/02/15 07:00	Mulch fire at stockpile site adjacent to Access Road B	Dust, Odour & Emissions to Atmosphere	Class 3	Category 2	Mulch stockpile seen smouldering in part and caught a light as it was being turned over.	Excavator immediately deployed to turnover stockpile and aerate.
12/02/15 09:10	Scraper hydraulic hose break Fill 33	Contamination of Land / Groundwater	Class 3	Category 2	Scraper moving material on Fill 33 and blew hydraulic hose.	Scraper parked up and spill kit applied to contain and clean up spill. Hose fixed.
12/02/15 11:30	Burst hydraulic hose on plant placing SMZ	Contamination of Land / Groundwater	Class 3	Category 2	Whilst placing SMZ in Cut the plant burst a hydraulic hose that was noticed by the operator.	Operator parked the machine straight away and used spill kit to contain and clean up the spill. Spill was contained to the formation.
13/02/15 10:45	Hydraulic hose break on elevator scraper	Contamination of Land / Groundwater	Class 3	Category 2	Hose fitting came loose resulting in hydraulic oil spray within engine unit. Most of oil was contained by engine drip tray and small amount leaked onto ground.	Scraper parked up, spill kit applied to contain and clean up spill, and fitter called to fix hose / fitting.
13/02/15 13:00	Excavator hydraulic hose break CML202B	Contamination of Land / Groundwater	Class 3	Category 2	Excavating for cross drainage line CML202b. Hydraulic hose blew on top of excavator boom resulting in a fine spray of hydraulic oil covering the machine. All spilled material contained on site.	A bund was placed on downslope side of excavation. The machine was repaired prior to reuse on site. Spill cleaned up and contaminated material disposed of to a licenced facility.
25/02/15 15:01	Malicious damage to Perrycut span saw	Contamination of Land / Groundwater	Class 3	Category 2	Whilst conduction a site inspection on the plant to resolve a modification the team noticed an oil leak as a result of malicious damage done to the Perrycut Span Saw.	Paving crew were mobilised to bring in sand bags to contain the spill and 30 bags of oil absorption material was rushed from the stores. A floating boom was located and placed in the basin and dragged through to clean the basin of oil. Fitters were called in to repair hydraulic lines.

Event Date	Event Title	Environmental Category	Thiess Category	RMS Category	What Happened	Immediate Actions
25/02/15 15:08	Cutter oil runoff from select spray seal north of Bridge 2	Contamination of Land / Groundwater	Class 3	Category 2	Select spray seal didn't set resulting in cutter oil (kerosene) runoff to basin following rainfall. Estimated 50 litres was seen on surface of basin during investigation. Runoff was contained in basin and no evidence of it leaving site. Rainfall occurred the following day of application.	Boom installed in basin to prevent emulsion overtopping spillway and emulsion removed from basin's surface. Contaminated rock at drainage outlet to be removed as required. Review and adjustment of spray seal rates / spread should reduce the risk of reoccurrence.

RMS Incident Classification

Category 1: Generally breaches of environmental legislation, such as pollution of waters, non-compliance with EPL / approval conditions, and unauthorised.

Category 2: Generally less environmental serious with no or minimal offsite environmental impact. E.g. Minor non-compliances with CEMP, small spills."

Thiess Incident Classification

Class 1 - High Severity Incident

Class 2 – Moderate Severity Incident

Class 3 – Low Severity Incident

Table A3-2 Summary of environmental management related complaints received during the reporting period.

Event title	Type	Date	Complaint description	Response
Delay in property adjustment works	Property adjustments	3/9/14	Resident complained that he property works at their property have still not been started.	Community Manager advised the resident that the project team was awaiting environmental approval. Environment Manager confirmed that this should be available in the next week or so. This was communicated to the resident who was happy with this response. The work began once this approval was received.
Complaint about rocks causing damage to car	Property damage	11/9/14	Resident complained about damage caused to her car by rocks spraying off a passing truck on the Pacific Highway.	Community Manager asked the resident if she was able to identify the truck at all, which she could not. Community Manager also asked the site foreman to check the area to ensure there were not rocks / gravel on the road surface which he did but could not see any. An RMS insurance claims pack was sent to the resident to pursue the matter further
Dust on Kemps Access	Dust	02/10/14	Resident wants the trucks to stop using Kemps Access and would also like a water truck to wet the road down to stop the dust.	Community Manager advised that the project trucks should not be using Kemps Access but would make some calls to make sure that it does not continue and will also get a water truck to the area. The Project Engineer confirmed that the road has been watered and the issue will be addressed at the next pre-start meeting.

Event title	Type	Date	Complaint description	Response
Noise complaint associated with traffic switch night works	Noise	29/10/14	Resident called to complain about “beeping” noise from equipment working on the tie-in between Macleay Valley Way and the existing Pacific Highway. She said the noise had now stopped (3.34am).	Community manager told resident she would investigate source of noise and also note her complaint. Community Manager said there would not be any night work in that area for some time now but when other works were impending (such as concrete saw-cutting) we would speak with her to discuss mitigation measures such as relocation. Community manager spoke with zone manager / night crews to ensure that the equipment was fitted with a “squawker” rather than beeper which was confirmed by plant department. Safety manager confirmed this is a required safety control and could not be turned off, especially with plant and people working so close together and in the dark. Complaint closed and concerns regarding operation noise have been noted and forwarded to RMS / noise consultant.
Noise complaint BR01	Noise	04/11/14	Works commenced prior to 7am. Works involved the installation on guard rail. This resulted in a community complaint and a non-compliance with the project EPL. The community complaint was received at 7:56am by the community manager. The location to the nearest sensitive receiver is approximately 150m. Other contributing factors included the following - Work area immediately adjacent to pre start location. - The works were being undertaken to try and achieve traffic switch date and site working hours on the day reduced (early shutdown). - Site engineer responsible for works was not in attendance at pre start.	The community manager contacted site staff who informed the subcontractor of the incident and reiterated the site requirements. A Toolbox was presented to the subcontractor with regards to site hours of operation and other general site rules. Subcontractor SWMS to be reviewed and revised as required. RMS and EPA notified of the incident.

Event title	Type	Date	Complaint description	Response
Complaint regarding radar sign and dust in Eungai	Traffic Impacts / Dust	16/11/14	Resident wants the radar sign near her property (which monitors speed) removed and more regular water trucks to keep the dust levels down.	The Community Manager explained that the reason the board was in place was because several residents had pointed out that people had a history of speeding along that area and so wanted a system to warn them to slow down. The Community Manager suggested having a meeting with the traffic manager to see if it could be moved. This was not received positively. The Community Manager also spoke with the Environment Manager who advised that there was a water cart for this area specifically and it was deployed at all times during work. Construction noise was also monitored adjacent to the complainant's property and found that it is compliant with the CEMP. The Community Manager called the complainant to advise of the outcomes but received no answer, a voicemail message was left.
Dust complaint at Eungai Rail	Dust	11/12/14	Resident wanted more water trucks in the area and also wanted the speed indicator to be moved to a different location.	The Community Manager explained that we were undertaking regular watering to minimise dust. Complaint was referred to the environment team.
Damage to Kemps Access Road	Damage to local road	16/01/15	He alleged construction traffic was contributing to deterioration of the road.	Council was contacted and advised Thiess they had scheduled maintenance occurring on this road next month, at which time they would rectify.
Dust on Kemps Access	Dust	16/01/15	Resident called to complain about construction traffic on Kemps Access and request drivers to slow down and also put some water on road to control dust.	Crews tool boxed to make them aware of issue. Water truck also sent to the area.

Event title	Type	Date	Complaint description	Response
Works contributing to flooding of Collombatti Floodplain	Drainage	22/23/15 23/01/15	Flooding on Collombatti Floodplain upstream project works were being exacerbated by temporary drainage works associated with the access tracks around Bridge 3 and 6.	Following numerous conversations, permission was sought from EPA to excavate slots in the temporary access track increase flow capacity through site. Initial works were completed at 9.00am on 23/01 at Bridge 3 (Collombatti Creek). Further works were completed at 3.00pm on the 23/01 at Bridge 3 Following rise in flood level on the 25-26/01, additional slots were cut in access track at Bridge 6 and CML 302 on the 26/01.
Complaint from resident on Macleay Valley Way regarding access and	Property adjustments / access	28/01/15	Resident at Macleay Valley Way complained regarding water being directed over his driveway which was restricting access. He also complained about the position of barriers and signage which were restricting his ability to pull into his driveway safely and line of sight when exiting. .	Work to complete the inlet/outlet scour protection at the culvert was undertaken the following Wednesday and work begun on the resident's driveway so he would no longer have to use the one which inundates. Barriers were moved back to allow room for the resident to pull onto shoulder and signage to be removed as soon as crews available.

Appendix 4
Monitoring data

AIR QUALITY MONITORING RESULTS

Table 1 – Total Insoluble Solids

Gauge Number	Type	Monthly Results - Total Insoluble Solids - (g/m^2/month)							
		Max target	Ave +2g/m^2 Target[1]	September 2014	October 2014	November 2014	December 2014	January 2015	February 2015
DDG1 - Frederickton	A - Test	4	4.0	2.4	0.4	3.9	4.5	0.9	1.4
	B - Control	4	2.9	0.2	0.4	0.7	3.5	0.6	0.4
DDG2 – Kemps Access	A - Test	4	3.1	0.4	0.7	1.0	3.4	1.9	2.1
	B - Control	4	3.3	1.2	0.6	1.2	1.5	0.6	2.7
DDG 3 – Cooks Lane	A - Test	4	3.7	1.4	0.8	1.6	2.8	1.4	0.7
	B - Control	4	3.8	0.4	0.4	4.8	2.6	8.1	2.1
DDG 4 – Nirvana Way	A - Test	4	4.3	0.7	0.5	1.2	3.4	3.4	0.1
	B - Control	4	2.3	0.3	0.3	0.2	0.5	0.5	0.1
DDG 5 – Stuarts Point Road	A - Test	4	3.2	1.9	1.6	1.3	1.3	2.7	0.1
	B - Control	4	2.7	0.5	0.6	0.6	1.4	1.1	0.6
DDG 6 – Eungai Rail	A - Test	4	2.8	0.2	3.6	0.5	0.8	0.8	0.5
	B - Control	4	2.5	0.2	0.5	0.6	0.7	1.1	0.1

Table 2 – Total Ash Content

Gauge Number	Type	Monthly Results – Ash Content - (g/m^2/month)							
		Max target	Ave +2g/m^2 Target[2]	September 2014	October 2014	November 2014	December 2014	January 2015	February 2015
DDG1 - Frederickton	A - Test	4	3.5	1.9	0.3	2.4	3.6	1.0	1.2
	B - Control	4	2.5	0.2	0.3	0.5	1.8	0.6	0.3
DDG2 – Kemps Access	A - Test	4	3.0	0.4	0.5	0.9	2.7	1.9	1.8
	B - Control	4	3.0	1.2	0.6	1.2	1.5	0.6	2.7
DDG 3 – Cooks Lane	A - Test	4	3.4	1.4	0.6	1.3	2.1	1.2	0.4
	B - Control	4	3.0	0.3	0.3	2.4	1.5	4.8	0.3
DDG 4 – Nirvana Way	A - Test	4	3.3	0.8	0.4	0.7	2.1	1.6	0.1
	B - Control	4	2.2	0.2	0.2	0.2	0.2	0.4	0.1
DDG 5 – Stuarts Point Road	A - Test	4	2.8	1.6	0.8	0.8	0.6	1.6	0.1
	B - Control	4	2.4	0.3	0.3	0.3	0.6	0.4	0.2
DDG 6 – Eungai Rail	A - Test	4	2.4	0.2	1.9	0.4	0.4	0.4	0.3
	B - Control	4	2.3	0.2	0.2	0.4	0.3	0.6	0.1

Notes:

1. 12 month total insoluble average (February 2014 – January 2015) **= 1.2 g/m^2**
2. 12 month Ash Content Average (February 2014 – January 2015) **= 0.8 g/m^2**

Table 3 – Gauge Locations

Gauge Number	Type	Address	Proximity to Construction work
DDG1 B	Test (impact)	Frederickton School. Corner Great Northern Road / Pacific Highway	App. 850m to nearest construction area (west of corridor).
DDG2 B	Control	101 Kemps Access	App. 740m to nearest construction area (west of corridor)
DDG3 B	Test (impact)	92 Cooks Lane	App. 1000m to nearest construction (east of corridor)
DDG4 A	Control	62 Nirvana Way	App 370m to nearest construction (west of corridor)
DDG5 B	Test (impact)	165/175 Stuarts Point Road	App 1000m to nearest construction and 200m from proposed upgrade to access along Stuarts Point road (east of corridor)
DDG6 B	Control	Road Reserve. 26 – 30 Vacant blocks	App 700m to nearest construction (west of corridor)
DDG1 A	Test (impact)	Southern Compound	App. 140m to nearest construction area (west of corridor).
DDG2 A	Control	243 Kemps Access	App. 90m to nearest construction area (west of corridor)
DDG3 A	Test (impact)	229 Cooks Lane	App. 230m to nearest construction area (east of corridor)
DDG4 B	Control	Power line Easement south of Nirvana Way, opposite Kawana Lane	App. 315m to nearest construction area (east of corridor)
DDG5 A	Test (impact)	21 Stuarts Point Road	App. 35m to nearest construction area (east of corridor)
DDG6 A	Control	3420 Pacific Highway	App. 70m to nearest construction area (west of corridor)

NOISE MONITORING

Frederickton to Eungai Noise Monitoring Summary Report

Monitoring Type	Reference Activity for Predicted $L_{Aeq\ 15min}$ Noise Levels	Site	Date (dd/mm/yyyy)	Time (24 Hour)	ICNG Noise Management Level	Predicted Noise Level (NVMP or Acoustic Assessment)	Specified Noise Level	Leq (dB(A))	Non-construction (background) LAbB	Sampled at sensitive receiver?	Sound Level at receiver (dB(A) = 10log(r12/r22))	Compliance to Specified Noise Level	Comments	Actions carried out in the event of an exceedence.
Periodic (monthly) monitoring	Bulk Earthworks	22B	9/09/2014	11:45	*41*	*53*	75	50.0	40-54	Yes	50.0	Compliant. Controls as per NVMP adequate	Construction activities included the loading moxies with rock and preparation of culvert outlet treatments. Construction noise was audiable between 40-66dB. Other sources of noise included birds and insects were audiable between 40-54dB.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	21C	9/09/2014	14:10	*41*	*60*	75	48.6	44-52	Yes	48.6	Compliant. Controls as per NVMP adequate	Construction activities included the use of an excavator and roller installing the logditudinal drainage from Cut 10 to Fill 14 and a grader trimming in Cut10. On site haulage was also ingoing through Cut 10 . Construction noise was audiable between 44-52dB. Other sources of noise incuilded birds and local traffic audiable between 44-52dB.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	20D	9/09/2014	15:15	*41*	*59*	75	50.7	46-52	Yes	50.7	Compliant. Controls as per NVMP adequate	Construction activities included and excavator trenching for longditudinal drainage, excavator boxing out the cut fill transition, bridge works, a hiab loading pipes and onsite haulage. Constructioon noise was audiable between 46-58dB. Other sources of noise included birds, frogs and insects audiable between 46-52dB.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	23A	9/09/2014	15:50	*41*	*44*	75	74.0	50-64	No	43.1	Compliant. Controls as per NVMP adequate	Monitoring was undertaken adjacent to boundary fence construction included moxy haulage approximately 20m away with passing moxies audiable at 80-90dB. Other construction activities included use of a compactor, dozer and excavator audiable between 50-56dB. Other sources of noise included frogs audiable between50-64dB.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	28C	10/09/2014	11:00	*51*	*60*	75	58.4	-	Yes	58.4	Compliant. Controls as per NVMP adequate	Construction works occurring in this noise catchment included a scraper fleet hauling material from cut 23, past the monitoring point to fill 30. A scraper water cart passed by a couple of times. Non-construction noise heard throughout included the current Pacific Highway and bird noise.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	30E	10/09/2014	11:35	*49*	*56*	75	56.9	-	Yes	56.9	Compliant. Exceeding predicted noise level. Review adequacy of controls	Construction works occurring included the Stuarts Point Tie-In works. This included the placement and compaction (with rollers) of upper zone material on the north side of the current Stuarts Point Road. Guard rails were being installed at the time of sampling which was occurring on Access Road C. Truck and Dog deliveries were also occurring with traffic control in place. These truck and dogs were tipping material on the southern side of Stuarts Point Road. Highway noise was heard througout. The noise meter was paused on several occassions due to non-construction related traffic noise passing by. Sampling ended at 11:55.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	31A	10/09/2014	12:30	*50*	*60*	75	54.5		Yes	54.5	Compliant. Controls as per NVMP adequate	Construction noise heard included a dozer pushing material in cut 30 which is to the south of Brushbox Road. A grader was also working in the same vicinity of the dozer. Bogie trucks were hauling back and forth on cut 30 to fill 33 past the sampling location which was undertaken under traffic control. Pacific Highway noise was heard throughout.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	26A	17/09/2014	11:10	*44*	*52*	75	44.0	44-56	Yes	44.0	Compliant	A scraper circuit was operating behind the residence. The scrapers were hauling material from fill 22 to cut 20. A dozer was heard in cut 20 tracking back a forth. Birds were heard througout as well as the current Pacific Highway.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	27A	17/09/2014	11:45	*44*	*54*	75	44.1	43-55	No	42.2	Compliant	A scraper circuit was operating in cut 25 to fill 22. A dozer was occassionally heard tracking along. Birds were heard constantly and accounted for readings above 49 dB(A) as no construction noise was registered above this value. The higher readings only registered for a few seconds at a time due to the birds calls. The Pacific Highway was heard through parts of the reading, not on a consistent basis.	No additional mitigation measures implemented.
Spot check of noise intensive plant	OoHW - Saw Cutting Paving Trial (Aug 2014)		9/09/2014	18:55	*0*	*0*	N/A	80.8	81-85	No	#N/A	#N/A	Spot check taken approximately 20 metres from the saw cutter and generator which was to the north of the sampling location. 20 metres to the south was the Joint Master with a watercart and generator running. Approximately 10 metres to the west was the Pacific Highway. Construction noise was heard between 79 and 82 dB(A). Spikes in the readings up to 85 dB(A) was registered when large trucks pass by on the Pacific Highway.	No additional mitigation measures implemented.
Out of Hours Works Assessment	OoHW - Saw Cutting Paving Trial (Aug 2014)	30E	9/09/2014	19:25	*44*	*47*	47	45.6	-	Yes	45.6	Compliant. Controls as per NVMP adequate	Construction works occurring in the area was Saw Cutting Night Works north of Stuarts Point Road on the Southbound Off-Ramp. This included machines such as a saw-cutter, joint master, backhoe, water truck, Texture Curer and light vehicles. These machines were not heard at the sensitive receiver above the background noise of the Pacific Highway along with frog and bird noise.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	29A	18/09/2014	13:45	*52*	*55*	75	47.9	45-54	No	48.7	Compliant	Works occurring in this area included a scraper haul from fill 23 to fill 29 which was approximately 880 metres away from the sampling location. Truck and dogs were tipping off material across from fill 30 on Macleay Valley Way which was being pushed by a grader and compacted with a roller. he tip truck and its horn was heard occassionally over the Pacific Highway traffic. The scrapers were also heard in the distance. Reversing sounds from these pieces of plant were also heard from time to time. The Highway was heard throughout and was the main noise sourvce. Bird noise was constant.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	25C	18/09/2014	14:30	*44*	*51*	75	43.1	42-56	Yes	43.1	Compliant	The main construction noise heard at this location was a moxie haul which was passing the monitoring location from the north to fill 19B. A dozer was also heard occassionally to the north which was ripping and recompacting material. Birds were heard throughout.	No additional mitigation measures implemented.
Out of Hours Works Assessment	OoHW - Saturday Afternoon Z1,2&3 (September 2014)	30E	20/09/2014	14:50	*49*	*56*	56	53.8	58-68	Yes	53.8	Compliant. Controls as per NVMP adequate	Traffic switch tie-in works were occurring this Saturday afternoon. The construction equipment used included a grader, backoe, roller and watercart. Non-construction noise was heard between 58 and 68 dB(A) which included the local traffic and bird noise.	No additional mitigation measures implemented.

Monitoring Type	Reference Activity for Predicted $L_{Aeq\ 15min}$ Noise Levels	Site	Date (dd/mm/yyyy)	Time (24 Hour)	ICNG Noise Management Level	Predicted Noise Level (NVMP or Acoustic Assessment)	Specified Noise Level	Leq (dB(A))	Non-construction (background) LAbB	Sampled at sensitive receiver?	Sound Level at receiver (dB(A) = 10log(r12/r22))	Compliance to Specified Noise Level	Comments	Actions carried out in the event of an exceedence.
Out of Hours Works Assessment	OoHW - Saturday Afternoon Z1,2&3 (September 2014)	30D	27/09/2014	13:30	*49*	*61*	44	63.3	48-70	No	43.3	Compliant	The main source of noise was traffic from the Pacific Highway with noise audiable between 48-70dB. The main construction was at Stewarts point road which included the use of 3 excavators , 1 dozer and moxies. These construction works were in audiable. Construction activities also included the use of 3 bogies and 2 water carts on Macleay valley way. During the sample period there were 2 passes of water cart and 2 passes of Bogies. The maximum recorded noise level was 80dB. The predicted impact at the sensitive reciver was 43.3 calculated via the formula for predicted noise levels in the DECC Interim Construction Noise Guidelines. Additional monitoring at the reciver was undertaken to verify this.	No additional mitigation measures implemented.
Out of Hours Works Assessment	OoHW - Saturday Afternoon Z1,2&3 (September 2014)	30D	27/09/2014	13:55	*49*	*61*	44	44.2	40-60	Yes	44.2	Compliant. See comments.	Additional monitoring taken at the sensitive reciever to verify impacts from boigies and watercart on Macleay Valley Way. The main source of noise was traffic on the Pacific Highway, noise generated from the boigies and watercarts on Macleay Vally Way could not be distinuished from the noise generated from the Pacific Highway.	No additional mitigation measures implemented.
Spot check of background (no construction noise)	OoHW - Saturday Afternoon Z1,2&3 (September 2014)	30D	27/09/2014	13:15	n/a	n/a	n/a	60.0	48-70	No	n/a	Compliant	Sample taken to establish background. No Construction noise. Sample was taken on Macleay valley way in line with sensitive receiver 30D but approximately 340m to the west.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	19A	30/09/2014	12:00	*48*	*52*	75	47.9	40-48	Yes	47.9	Compliant	Construction activities included the loading of material into moxies and truck and dog haulage. Construction noise was audible between 42-60dB with the main source of noise being the reversing quackers. Other noise sources included insects and birds audible between 40-48dB.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	19A	20/10/2014	12:45	*44*	*52*	75	45.2	42-52	No	30.0	Compliant	No construction works were heard, only a couple of light vehicles passed which were logged between 50 and 57 dB(A). The closest activity was at Mill Lane bridge which is approximately 1.3 km away. An excavator and roller was working in the area.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	20D	15/10/2014	7:55	*52*	*55*	75	48.7	42-58	Yes	48.7	Compliant	Construction works included cut fill transition and bridge abutment works. Equiptment being used included grade, excavators, moxy, hiab and hand tools. Construction noise was audiable between 42-56 dBA . Other noise included briads and dogs audiable between 42- 58 dBA.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	21C	23/10/2014	15:30	*52*	*55*	75	41.9	45-56	Yes	41.9	Compliant	Construction works in this area included the installation of agg-drainage pipes. Also, an excavator was working on the Bridge at Mill Lane. The works on the drainage pipe was being worked on with a roller. Birds were heard throughout. Construction works reached a peak of 49 dB(A) and non-construction noise reached a peak of 56 dB(A).	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	22B	20/10/2014	11:35	*44*	*53*	75	49.1	-	Yes	49.1	Compliant. Controls as per NVMP adequate	Construction works in this area included water cart operations, and an excavator working on a material stockpile which was also heard tracking along and the reversing beeper was also heard. The crushing plant was working about 1km away to the south which was not heard at this location. Light vehicles passed by also.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	23A	23/10/2014	14:55	*51*	*44*	75	64.2	-	No	44.8	Compliant. Exceeding predicted noise level. Review adequacy of controls	Construction works in this area included a dozer pushing material on the southbound lane, directly in front of the monitoring location (80m). An excavator was also working approximately 200m away to the north which was loading material into moxies which were hauling further to the north. Reversing sounds and horns from this equipment was heard. A couple of light vehicles passed by. Construction noise ranged between 51 and 74 dB(A).	Reversing beepers were in place as per NVMP controls.
Periodic (monthly) monitoring	Bulk Earthworks	25C	11/10/2014	11:50	*41*	*53*	75	42.9	42-59	Yes	42.9	Compliant. Controls as per NVMP adequate	Construction works in this area included the loading of moxies at the bridge 12 Cooks Lane bridge on the western abutment side. The moxies were being loaded by one excavator. Birds were heard throughout. The background noise dominated which ranged between 42 and 59 dB(A) where construction noise was heard between 36 and 50 dB(A).	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	26A	8/10/2014	10:25	*41*	*59*	75	43.4	41-52	Yes	43.4	Compliant. Controls as per NVMP adequate	Construction activities in this area included two excavators, two dozers and a moxie fleet hauling material. Although the moxies were the only construction machinery heard at this location. Constant noise from birds and bugs was heard throughout.	No additional mitigation measures implemented.
Out of Hours Works Assessment	OoHW - Saturday Afternoon Z1,2&3 (September 2014)	26C	11/10/2014	13:20	*41*	*44*	44	49.2	45-61	Yes	-	-	Reading was taken for Out of Hours works for Saturday afternoons past 1pm. No construction noise was heard at this location. The readings gained were from highway and bird noise, with wind gusts which would encourage tree and leaves blowing above and surrounding the sample location.	Prior to 1pm, the Construction Team were informed that no works are to occur in this area. Noise reading was representative of background noise as no construction noise was audible.
Periodic (monthly) monitoring	Bulk Earthworks	27A	13/10/2014	11:20	*44*	*52*	75	46.0	42-55	No	44.3	Compliant. Controls as per NVMP adequate	The main construction noise heard was moxies hauling timber from fill 27 to the Cooks rest area. A roller was heard once to the north. The main source of noise was non-construction related which included highway and bird noises. A plane was heard for a couple of minutes.	No additional mitigation measures implemented.
Out of Hours Works Assessment	>>Out of Hours Operations	27C	17/10/2014	21:30	*42*	*49*	46	52.0	56 - 60	No	45.5	Compliant. Controls as per NVMP adequate	Activity sampled were night works for upcoming traffic switch and consisted of asphalt placement and repair. Construction noise consistenty between 50 to 54 dBA throughout sample and background (traffic) between 56 to 60 dBA.	No additional mitigation measures implemented.

Monitoring Type	Reference Activity for Predicted $L_{Aeq\ 15min}$ Noise Levels	Site	Date (dd/mm/yyyy)	Time (24 Hour)	ICNG Noise Management Level	Predicted Noise Level (NVMP or Acoustic Assessment)	Specified Noise Level	Leq (dB(A))	Non-construction (background) LAbB	Sampled at sensitive receiver?	Sound Level at receiver (dB(A) = 10log(r12/r22))	Compliance to Specified Noise Level	Comments	Actions carried out in the event of an exceedence.
Out of Hours Works Assessment	>>Out of Hours Operations	28B	17/10/2014	21:55	*44*	*44*	50	40.6	40-56	No	39.6	Compliant	Intermittent construction noises heard at 40dBA consisting of plant humming sound and reversing quackers. Background noise sources were the main contributor consisting of traffic and insects between 40 to 56dB(A).	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	28C	10/10/2014	15:40	*44*	*60*	75	53.2	48-55	Yes	53.2	Compliant. Controls as per NVMP adequate	Construction works heard at this sampling location was moxies hauling timber past from cut 27 to the rest area timber encapsulation area. A watercart passed by several times for dust suppression purposes. Highway noise and birds contributed as the main noise source throughout the noise reading.	No additional mitigation measures implemented.
Spot check of noise intensive plant	Bulk Earthworks	29A	1/10/2014	15:20	*48*	*#N/A*	-	49.5	44-57	Yes	49.5	-	Construction activities to the south in Fill 30 included the haulage of material via a moxie fleet. A grader was also working in this area flattening the material being tipped. Reversing sounds were heard in this area. Non construction noise was heard between 44 and 57 dB(A).	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	29A	10/10/2014	16:10	*41*	*55*	75	53.2	51-61	No	50.6	Compliant. Controls as per NVMP adequate	Construction works in this area included a bobcat and padfoot roller working on the western bridge 14 abutment on Barraganyatti Hut Road. A light vehicle entered this area and reversing sounds were heard. As well as this, moxies were being loaded on Macleay Valley Way with two excavators with grabs attached which were operating under traffic control to allow the moxies to cross the current Pacific Highway. Horns were used a couple of times. The Pacific Highway noise was heard throughout especially with the 60km speed zone and the traffic having to reduce speed for the red light.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	30E	24/10/2014	15:30	*49*	*56*	75	42.7	-	Yes	42.7	Compliant	Construction works in this area included the delivery of material via a small truk and dog fleet. Also, an excavator was working at the old Stuarts Point Road which was heard working, reversing and using its horn occassionally. Non-construction noise was heard throughout which consisted of birds, highway and the neighbour making noise.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	31A	13/10/2014	12:00	*44*	*60*	75	51.8	46-64	Yes	51.8	Compliant. Controls as per NVMP adequate	Construction work was heard from the north and from the south. To the north, two excavators were working- one on batter works and the other for drainage works. A roller was also working to the north near bridge 17 where truck and dogs were tipping material. To the south in cut 30, a grader was heard grading backwards and forwards, where also a water cart was operating. There was traffic control in place at Brushbox where it meets the current Pacific Highway for the removal of roadside barriers. The neighbour generated noise by starting up his tip truck and leaving it idling for 3:30 minutes at the end of the reading, this truck was approximately 10m from the noise monitoring location.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	31A	1/10/2014	12:05	*40*	*60*	75	59.2	-	Yes	59.2	Compliant. Controls as per NVMP adequate	Construction works in this area included culk earthworks. The hydrodigga was working relocating optic fibres on Bruhbox Road which was the closest activity. A grader, roller and moxie/ejector were working on fill 33. Truck and dogs were entering gate 12 on fill 33 and transporting material to Bridge 17 at the rail line. The highway noise was constant and traffic control was implemented at the time for linemarking activities.	No additional mitigation measures implemented.
Spot check of noise intensive plant	Bulk Earthworks	26C	25/10/2014	12:20	*50*	*#N/A*	-	70.7	-	No	-	-	Spot check of water cart passing to determine how close the machine can work to the sensitive receiver 26C after 1pm on Saturday.	Works were not permitted in this area after 1pm on Saturday the 25/10/2014.
Spot check of noise intensive plant	Bulk Earthworks	26C	25/10/2014	12:25	*50*	*#N/A*	-	46.7	40-60	No	-	-	Spot check was taken on a Saturday Afternoon before 1pm. This was to gauge the background noise impacts which included highway and bird noise. Construction noise was inaudible.	
Spot check of noise intensive plant	Bulk Earthworks	26C	25/10/2014	12:45	*44*	*#N/A*	-	54.3	-	No	-	-	Spot check was taken on a Saturday Afternoon before 1pm. This was to gauge the noise impacts of the bogie that was tipping material in a stockpile on Fill 27, behind sensitive receiver 26C. It was determined that this construction activity was not permitted to working in this area after 1pm on Saturday.	Works were not permitted in this area after 1pm on Saturday the 25/10/2014.
Periodic (monthly) monitoring	Bulk Earthworks	28C	4/11/2014	7:50	*51*	*60*	75	55.0	40-48	Yes	55.0	Compliant. Controls as per NVMP adequate	Main construction works in this area was the haulage of timber from the Stuarts Point Interchange area to the Rest Area past the sampling location in fill 29. A water cart was also operating back and forth for this haul route. A fuel cart also passed by, along with a light vehicle. Non-construction noise was heard throughout including the Pacific Highway traffic and birds.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	27A	4/11/2014	8:30	*44*	*54*	75	40.4	36-48	No	38.2	Compliant	Main construction works in this area was the haulage of timber from the Stuarts Point Interchange area to the Rest Area past the sampling location in fill 29. A hitting noise was heard a few times which was the fencing crew preparing their area on the other side of Nirvana Way. A roller was also working on the northbound carriageway. Birds and highway noise was heard throughout.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	29A	4/11/2014	9:10	*52*	*55*	75	43.0	40-52	No	41.9	Compliant	Construction works in this area included the haulage of timber from the Stuarts Point Interchange area to the Rest Area past the sampling location on Barraganyatti Hut Road. The excavator loading the moxies was heard operating, along with water carts and reversing sounds. Non-construction noise was heard throughout which included highway and bird noise. The current highway has now been switched over to Macleay Valley Way which is further away from the noise sensitive receiver to the east of the alignment.	No additional mitigation measures implemented.

Monitoring Type	Reference Activity for Predicted $L_{Aeq\ 15min}$ Noise Levels	Site	Date (dd/mm/yyyy)	Time (24 Hour)	ICNG Noise Management Level	Predicted Noise Level (NVMP or Acoustic Assessment)	Specified Noise Level	Leq (dB(A))	Non-construction (background) LAbB	Sampled at sensitive receiver?	Sound Level at receiver (dB(A) = 10log(r12/r22))	Compliance to Specified Noise Level	Comments	Actions carried out in the event of an exceedence.
Periodic (monthly) monitoring	Bulk Earthworks	22B	4/11/2014	10:20	*41*	*53*	75	47.2	45-46	Yes	47.2	Compliant. Controls as per NVMP adequate	Main construction works in this area was the closure of drainage pipework. An excavator was placing material back onto the newly laid pipes, as well as a vibrator which was consolidating the material on top of the pipes. A couple of truck and dog deliveries were made during this sampling period which was delivering more drainage pipes to continue the works to the south of the sampling location. A water cart passed through a few times on the haul route, as well as light vehicles passing by. Non-construction noise included noises from the neighbouring property and frog and bug noise.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	23A	4/11/2014	11:10	*41*	*44*	75	61.4	42-43	No	36.5	Compliant	Works in this area included the finalisation of the swale drains in fill 15. A small excavator was working close to the monitoring location which was picking up and placing topsoil material on the swales, as well as placing the rock for the spillways of these basins. Moxies were also hauling past the monitoring location which were being filled up just south of bridge 6 by two excavators. A hammering sound was heard which was coming from the structures team working on bridge 6 at the time. Reversing sounds, horns were all heard during the reading. A manatu was also operating near the bridge picking up heavy items for the structures team.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	20D	5/11/2014	13:45	*41*	*59*	75	54.7	-	No	35.9	Compliant	Main construction works in this area included bridgeworks. Two excavators were working on the western bridge abutment and the other in the centre pier. A bobcat was also operating at the eastern abutment. Other construction vehicles passed by including a concrete agitator, truck and dogs, as well as light vehicles. Horns and reversing sounds were heard, along with approaching thunder.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Paving	19A	7/11/2014	9:05	*48*	*48*	75	68.3	-	No	56.0	Compliant. Exceeding predicted noise level. Review adequacy of controls	Paving operations have begun in this area this morning. Base pavement was being laid by the paver, curing compound was being applied and truck and dogs continuously delivering and tipping concrete at the site. Horns were used a few times for a safety measure.	Noise mitigation measures were implemented, truck and dogs were also very quiet when lifting back their trays to the original position. The spot check taken after this reading was taken at the receiver to determine the effectiveness of the noise model as this particular reading was not taken at the receivers property.
Spot check of noise intensive plant	Paving	19A	7/11/2014	9:45	*48*	*48*	75	46.8	-	Yes	46.8	Compliant	Spot check taken to determine the effectiveness of the noise model as original periodic sample was not taken at the receiver due to reoccuring non-construction related background noise (barking dogs).	Spot check verified that the prior exceedence of the predicted values in the periodic sample at the same location is not accurate. This spot check verifies that noise levels at the receiver were indeed lower than the noise model specified from a distance.
Periodic (monthly) monitoring	Bulk Earthworks	25C	7/11/2014	11:55	*44*	*51*	75	24.6	Up to 65	Yes	24.6	Compliant	Construction works in this area included bulk earthworks and drainage. A dozer and fleet of moxies was heard delivering timber from the north to the rest area encapsulation area. The dozer was pushing and spreading the material. Also, an excavator and vibrator was heard working at CML 303 just south east of the encapsulation area. Pipes were being consolidated and material was being placed on top of the newly installed pipework.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	31A	7/11/2014	13:55	*50*	*60*	75	59.4	-	Yes	59.4	Compliant. Controls as per NVMP adequate	Construction works in this area included the conformance of cut 30/fill 33 by a grader continuously running up and down the alignment, the beeper was heard. An excavator was also working on the eastern side of the cut/fill transition of the same area which was working on placing rock on the batter. An Ejector moxie was offloading this material at the excavator. Moxies also travelled to the north towards bridge 17.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	26A	11/11/2014	13:50	*44*	*52*	75	43.8	41-52	Yes	43.8	Compliant	Two main construction activities were occurring behind this receiver; drainage and haulage works. Moxies were heard hauling timber and fill material and the drainage crew were placing pipes with an excavator. A low rumble was heard from the drainage works. Birds and Highway noise was heard throughout the reading, which at times was louder than the construction activity itself.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	30E	11/11/2014	14:25	*49*	*56*	75	49.5	-	Yes	49.5	Compliant. Controls as per NVMP adequate	Earthworks was the main construction activity in this area. Macleay Valley Way and Access Road C are now open to the public, which makes the background noise closer to the receiver with construction works being completed on the western side of these two new opened roads. Excavators and moxies were heard working. There were approximately five excavators working within 1000m of the receiver. One was working at the intersection of the old Stuarts Point Road and Pacific Highway. Two excavators were loading timber into a fleet of moxies who were hauling to the south to the timber encapsulation area. The other two were further south working on foundations on the alignment. The monitoring event was paused multiple times and monitoring concluded at 14:50. This was due to local traffic passing by.	No additional mitigation measures implemented.

Monitoring Type	Reference Activity for Predicted $L_{Aeq\ 15min}$ Noise Levels	Site	Date (dd/mm/yyyy)	Time (24 Hour)	ICNG Noise Management Level	Predicted Noise Level (NVMP or Acoustic Assessment)	Specified Noise Level	Leq (dB(A))	Non-construction (background) LAbB	Sampled at sensitive receiver?	Sound Level at receiver (dB(A) = 10log(r12/r22))	Compliance to Specified Noise Level	Comments	Actions carried out in the event of an exceedence.
Periodic (monthly) monitoring	Paving	21C	11/11/2014	15:45	*41*	*53*	75	49.2	51-56	Yes	49.2	Compliant. Controls as per NVMP adequate	Two main construction activities were occurring behind this receiver; paving and earthworks. An excavator was backfilling the bridge, a seal was being placed on the bridge, sub-base paving was approximately 200m from the receiver and steel pegs for the use of paving were being installed. Paving works consisted of a paving machine, bogies tipping concrete and also truck and dogs were passing by.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	29j	17/11/2014	16:55	*52*	*51*	75	53.1	-	No	47.7	Compliant	Construction and background noise was recorded during monitoring. Background was of birds and the highway. Construction, which was located behind the highway on southbound lane south of BW17 consisted of moxy haulage of material, water cart, grader, and one excavator.	No additional mitigation measures implemented.
Out of Hours Works Assessment	Bulk Earthworks	25d	15/11/2014	13:30	*44*	*48*	48	46.0	-	No	21.6	Compliant	Most activities were stood down after 1pm with only machine maintenance, light vehicle access, and watercarts in operation.	No additional mitigation measures implemented.
Out of Hours Works Assessment	Saw Cutting Night Works (Lamax+2dB)	19A	20/11/2014	20:00	*44*	*57*	57	57.0	45.0	No	53.8	Compliant. Controls as per NVMP adequate	Sawcutting works passing Raymonds Lane which then continued through night progressively moving away from 19A.	No additional mitigation measures implemented.
Out of Hours Works Assessment	Saw Cutting Night Works (Lamax+2dB)	21H	25/11/2014	16:40	*41*	*65*	65	54.0	52-60	Yes	54.0	Compliant. Controls as per NVMP adequate	Saw cutting works passing by Quarry Road which then continued for approximately 100m. Works were complete by 6pm.	No additional mitigation measures implemented.
Out of Hours Works Assessment	Saw Cutting Night Works (Lamax+2dB)	21J	25/11/2014	17:00	*41*	*56*	56	48.4	35-64	Yes	48.4	Compliant. Controls as per NVMP adequate	Saw cutting works passing by Quarry Road which then continued for approximately 100m. Works were complete by 6pm.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	25C	8/12/2014	9:00	*44*	*51*	75	60.3	54-59	Yes	60.3	Compliant. Exceeding predicted noise level. Review adequacy of controls	Construction works in this area included a scraper fleet working in fill 19B and the northbound rest area. A dozer was working with the scrapers who were dropping off material and the dozer was heard pushing the material. The dominant noise source was the background noise which consisted of constant cicada and bug buzzing, along with bird noise.	Spot check was taken to show the background noise. The sample was taken at lunchtime when construction noise was inaudible. The results came back to show that the average background noise was 57.4 dB(A) which is 6.4 dB(A) above the predicted levels.
Spot check of noise intensive plant	Bulk Earthworks	25C	8/12/2014	9:30	*44*	*51*	75	57.4	54-59	Yes	57.4	Compliant. Exceeding predicted noise level. Review adequacy of controls	Spot check taken to show background noise which would have contributed to the predicted level being exceeded at this location for the periodic sample. This sample shows that the background noise when there is no construction noise, already exceeds the predicted noise levels at this location. Therefore, the periodic sample cannot be recorded as an exceedence in the predicted noise levels.	Spot check was taken to show the background noise. The sample was taken at lunchtime when construction noise was inaudible. The results came back to show that the average background noise was 57.4 dB(A) which is 6.4 dB(A) above the predicted levels.
Periodic (monthly) monitoring	Bulk Earthworks	30E	8/12/2014	10:15	*49*	*56*	75	47.0	48-58	Yes	47.0	Compliant	Construction noise in this area included two excavators, a moxie fleet and a roller. These machines were working on the stage two eathworks. Excavators were loading moxies who were then hauling away from the sample location to the south. The current Pacific Highway traffic passes by between the sample location and construction works. Non-construction noise was heard which included bird noise which reached up to 58 dB(A), highway traffic and an overhead plane. Sample concluded at 10:40 due to constant public traffic passing by the sample location.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	28C	8/12/2014	11:10	*51*	*60*	75	49.6	-	Yes	49.6	Compliant	Three excavators were working in the area of fill 29 and cut 25. One excavator tracked past the sample location to the north to drop off a bucket. The reversing sounds were heard from these pieces of plant. Two watercarts and a truck and dog also passed by the sample location. Pacific Highway traffic was heard throughout, with an overhead plane heard for about a minute.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	29A	8/12/2014	11:50	*52*	*55*	75	48.5	-	No	46.6	Compliant	Main construction works in this area included the use of two profilers which were working on the top of the cut across from the sensitive receiver. These machines were cutting out the current Pacific Highway. Moxies were also heard hauling material from fill 30 to the south of the sample location. Water boring was taking place but these works were inaudible at the sample location. Non-construction noise consisted of bug buzzing, birds and the Pacific Highway traffic.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	26A	10/12/2014	12:30	*44*	*52*	75	48.7	40-62	Yes	48.7	Compliant. Controls as per NVMP adequate	Haulage works were heard at this location. Truck and dogs were tipping material on the fill behind the resident and a grader was pushing this material to the required height. Construction works were only heard for four and a half minutes in the entire fifteen minute sample period. Backgound noise dominated which consisted of highway traffic, cicadas, bugs and birds.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	27A	10/12/2014	13:55	*44*	*54*	75	45.0	44-50	Yes	45.0	Compliant. Controls as per NVMP adequate	Drainage works were occuring in fill 25 and cut 29 adjacent to the sampling location. There was two excavators working on drainage pipes. A watercart passed by a couple of times in the sample period and a truck was heard tipping material once. Background noise dominated which consisted of highway noise, bugs, birds and noises made by the neighbour.	No additional mitigation measures implemented.

Monitoring Type	Reference Activity for Predicted $L_{Aeq\ 15min}$ Noise Levels	Site	Date (dd/mm/yyyy)	Time (24 Hour)	ICNG Noise Management Level	Predicted Noise Level (NVMP or Acoustic Assessment)	Specified Noise Level	Leq (dB(A))	Non-construction (background) LAbB	Sampled at sensitive receiver?	Sound Level at receiver (dB(A) = 10log(r12/r22))	Compliance to Specified Noise Level	Comments	Actions carried out in the event of an exceedence.
Periodic (monthly) monitoring	Bulk Earthworks	31A	10/12/2014	15:00	*50*	*60*	75	49.4		Yes	49.4	Compliant	Foundation works and drainage works were occurring in the immediate area. Two excavators were working on fill 33 to the north of the sample location which were heard digging and reversing. As well as this, a third excavator and a roller were working to the north of the sample location in cut 30 which were working on the foundation works. A peak of 69 dB(A) for a couple of seconds was recorded as one of the excavators made a loud squeeking sound.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Paving	19A	10/12/2014	10:55	*48*	*48*	75	49.1	Up to 58	No	47.0	Compliant	Paving works was the main activity in this location. A shoulder paver was working to the north of the sample location. Hitting sounds were heard to the south of the sample location which would have been the maintenance works occurring on the other paver as this area consists of two different types of shoulder paving works. Bogies hauling past were heard, as well as a backhoe, watercart, a couple of hiabs and light vehicles. Reversing sounds were heard at this sampling location. A horn was heard once from the bogie. A plane overheard was heard for approximately thirty seconds. A peak of 58 dB(A) was recorded by the approaching thunder.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	22B	10/12/2014	11:30	*41*	*53*	75	45.8	56-62	Yes	45.8	Compliant. Controls as per NVMP adequate	A scraper circuit was operating to the north of the monitoring location which was approximately one kilometre away. The tracking of an excavator was heard in the same area as the scrapers. Immediate noise sources included the passing of light vehicles and hiabs. Non-construction noise consisted of cicadas, and birds.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	21C	8/12/2014	10:15	*41*	*60*	75	51.2	52-56	Yes	51.2	Compliant. Controls as per NVMP adequate	Construction works less than predicted noise level. Background noise including cicadas contributing to Laeq.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	23A	10/12/2014	12:10	*41*	*44*	75	64.2	42.0	No	33.3	Compliant	Construction works less than predicted noise level. Sample taken at works boundardy and modelled to residence.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	20D	8/12/2014	11:25	*41*	*59*	75	43.9	44-48	Yes	43.9	Compliant. Controls as per NVMP adequate	Construction works less than predicted noise level.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	19A	29/01/2015	10:50	*50*	*52*	75	54.2	43-52	No	45.0	Compliant	Construction activties included , remove and repalce conctre works, brooming of seal. Works were audiable between 48-60dB. Other sources of noise included birds and insects audiable bewteen 43-52dB.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	20C	19/01/2015	10:30	*44*	*59*	75	54.1	52-60	Yes	54.1	Compliant. Controls as per NVMP adequate	Construction activities inculded bridgewroks audiable between 48-60dB.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Paving	21h	29/01/2015	10:00	*41*	*56*	75	52.4	48-54	Yes	52.4	Compliant. Controls as per NVMP adequate	Construction activities included joint sealing works. Works were audiable between 48-54dB. Other sources of noise included pulic traffic, insects and birds.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	23A	19/01/2015	8:10	*41*	*44*	75	49.1	41-50	No	44.0	Compliant. Controls as per NVMP adequate	Construction activities incuded the removal of surcharge material. Works included the use of an excavator to load moxies . Constuction works were audiable between 44-60dB. Other sources of noise included birds and insects audiable between 41-50dB.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	25d	30/01/2015	11:20	*51*	*48*	75	55.5	44-48	No	38.0	Compliant	Construction activities incuded the use of and excavator, works were audiable between 50-66dB. Other sources of noise included insects audiable between 44-48dB.	No additional mitigation measures implemented
Periodic (monthly) monitoring	Bulk Earthworks	26a	30/01/2015	11:55	*49*	*52*	75	48.4		No	41.7	Compliant	Construction works were deemed inaudiable.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	27c	31/01/2015	11:00	*44*	*53*	75	59.6	50-75	No	47.3	Compliant. Controls as per NVMP adequate	Construction activities included the use of an excavator shaping stockpiles. Works were audiable between 50-60dB. Other sources of noise was traffic on the Pacific Highway audiable between 50-55dB and private vehicle access 70-75dB.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	28a	30/01/2015	12:35	*52*	*53*	75	56.1		No	43.9	Compliant	Construction activties included the use of a grader, works were audiable between 54 to 70dBA. No background noise was recorded.	No additional mitigation measures implemented
Periodic (monthly) monitoring	Bulk Earthworks	29F	29/01/2015	15:15	*41*	*65*	75	61.1	54-70	Yes	61.1	Compliant. Controls as per NVMP adequate	Construction activities included bridge works and earthworks at the bridge abutment works were audiable between 50-58dB . The mian source of noise was traffic on the Pacific Highway with noise audiable between 56-70dB.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	30b	31/01/2015	11:30	*44*	*59*	75	59.5	55-65	No	56.9	Compliant. Controls as per NVMP adequate	Construction activties included the use of excavators and graders. Coonstruction works were inaudiable with the main source of noise being traffic on the Pacific highway.	No additional mitigation measures implemented.
Out of Hours Works Assessment	Bulk Earthworks	31A	31/01/2015	14:40	*50*	*60*	60	54.4		No	39.2	Compliant	Construction activities included backhoe shapping stockpile and dump truck unloading material onto stockpile. Works were audible between 53 to 65dBA and peaked at 70dBA. No other sources were recorded.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	31c	29/01/2015	15:40	*48*	*73*	75	62.2	58-75	Yes	62.2	Compliant. Controls as per NVMP adequate	Construction activities included bridge works and earthworks at the bridge abutment works were only audiable when there was a no traffic works were audiable between 48-54dB . The mian source of noise was traffic on the Pacific Highway with noise audiable between 60-75dB.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	19a	18/02/2015	7:45	*41*	*56*	75	46.3	38-50	Yes	46.3	Compliant. Controls as per NVMP adequate	Construction activities included landscaping works and onsite haulage. Construction noise was audible between 40-60dB. Other sources of noise included birds audible between 338-50dB.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	20c	18/02/2015	8:20	*41*	*52 (D)*	75	48.8	44-50	Yes	48.8	Compliant. Controls as per NVMP adequate	Construction activities included the use of the crusher on Sauls cattle mound, bulk earthworks on Fill15A and bridge works at BW02. Construction noise was audible between 46 -52dB. Other sources of noise included birds audible between 44-50dB.	No additional mitigation measures implemented.

Monitoring Type	Reference Activity for Predicted $L_{Aeq\ 15min}$ Noise Levels	Site	Date (dd/mm/yyyy)	Time (24 Hour)	ICNG Noise Management Level	Predicted Noise Level (NVMP or Acoustic Assessment)	Specified Noise Level	Leq (dB(A))	Non-construction (background) LAbB	Sampled at sensitive receiver?	Sound Level at receiver (dB(A) = 10log(r12/r22))	Compliance to Specified Noise Level	Comments	Actions carried out in the event of an exceedence.
Periodic (monthly) monitoring	Paving	21h	9/02/2015	12:20	*41*	*59*	75	63.4	56-65	Yes	63.4	No additional mitigation measures implemented.	Construction activities included sub base paving audible between 53-66dB. Other sources of noise included cicada and birds audible between 56-65dB.	Short tem activity. No complaints from resident. No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bridgeworks (D-Driven Piles)	23a	9/02/2015	14:15	*48*	*52*	75	56.2	46-62	No	51.1	Compliant. Controls as per NVMP adequate	Construction activities included pile driving at bridge 6. piling activities were audible between 48-64dB.	Respite periods in place
Periodic (monthly) monitoring	Paving	25A	16/02/2015	13:45	*51*	*51*	75	54.3	50-55	No	34.6	Compliant	Construction activities include quality testing of pavement (core hole drilling), light vehicle reversing and watercart to north bound carriageway. Core hole drilling was recorded between 52 to 55dBA and watercart at 61dBA. Background consisted of insects and traffic on Cooks Lane.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	26c	17/02/2015	9:12	*44*	*43*	75	55.8	46-50	No	39.1	Compliant	Construction activates include batter chute repair to 34100E and haulage through site. Light truck, scraper, and light vehicle haulage on mainline between Cut 23 to Cut 25 where dB ranged from 50 to 64 and peak of 76. Background consisted of birds between 46 to 50dBA.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	27a	16/02/2015	12:25	*52*	*65*	75	53.4	NA	No	34.8	Compliant	Construction consisted of trimming fill above CML312 using scrapper elevator and recorded between 50 to 60 dB(A)	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	28b	17/02/2015	11:50	*49*	*56*	75	56.2	48-54	No	48.3	Compliant	Construction activities included SMZ placement on northbound south of Cut 26 and trimming upperzone on southbound using scrapper elevator. Works were recorded between 50 to 68 dB(A) and background consisting of birds was recorded at 48 to 54 dB(A).	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	29a	16/02/2015	12:45	*44*	*54*	75	50.2	NA	No	49.8	Compliant. Controls as per NVMP adequate	Construction activities monitored was the turning of the mulch pile on Cross property by an excavator. Activity recorded at 50 to 52 dB(A).	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	29f	17/02/2015	8:10	*52*	*55*	75	60.5	58-66	No	57.8	Compliant. Exceeding predicted noise level. Review adequacy of controls	Construction activities consisted of drainage works north of BW17, some bridge works, and SMZ placement to the south of BW17 on Fill 33. Works were recorded between 50 to 58 dB(A) and background was the main contributor consisting of highway traffic recorded between 58 to 70 dB(A).	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	30e	17/02/2015	8:37	*50*	*60*	75	63.4	48-80	No	59.2	Compliant. Controls as per NVMP adequate	Construction activities included the placement and shaping of a stockpile to the east of the roundabout to Stuarts Point as well as a watercart cleaning Stuarts Point Road. Works ranged from 48 to 58 dB(A), however the main and loudest source recorded was that of local traffic and ranged from 66 to 80 dB(A). Insects were also recorded between 48 to 50 dB(A) and were heard throughout.	No additional mitigation measures implemented.
Periodic (monthly) monitoring	Bulk Earthworks	31a	17/02/2015	7:38	*44*	*56*	75	59.7	53-56	No	53.5	Compliant. Controls as per NVMP adequate	Construction activities include truck & dog unloading SMZ, Backhoe on Access Road C loading materials onto tipper trucks, Grader placing SMZ on mainline Fill 33, and Excavator placing topsoil at northern end of Cut. Majority of works were within the 54 to 64 dB(A) range with a few instances of 70 to 80dB(A) as a result of ARC usage. Background ranged from 53 to 56 dB(A) and consisted of insects and emissions from traffic on highway.	No additional mitigation measures implemented.

Summary of monitoring events for report period

Periodic (monthly) monitoring events - 73

Response to Complaint events - 0

Out of Hours Works Assessment events - 12

Spot check of noise intensive plant - 7

Spot check of background (no construction noise) - 1

Notes:

Orange shading indicates noise level above predicted noise level

Red shading indicates noise level at reciever above specified noise level.

Notes

1. Noise monitoring is completed in accordance with the Pacific highway Upgrade Frederickton to Eungai Constrcution Noise and Vibration Management Plan (http://www.rms.nsw.gov.au/roadprojects/projects/pac_hwy/port_macquarie_coffs_harbour/fredrickton/project_documents.html)

2. Where noise monitoring is completed at a sensitive receiver, the 'Actual Sound Level at reciever' is equal to the Recorded Sound Level

3. Where noise monitoring is unable to be completed at a sensitive receiver, the 'Actual Sound Level at reciever' is calculated in accordance with the rough calculation of noise level (dB(A) = $10\log(r1^2/r2^2)$ as per the Interim Construction Noise Guidelines (DECC2009).

4. ICNG = Interim Construction noise Guideline (DECC, 2009)

SURFACE WATER QUALITY MONITORING

Unnamed Waterway north of Frederickton (Fill 11)

Location	Last date of rain before sample taken	Days since last 10 mm rain event and sample taken	Rain event (mm)	Sample date	Time	Temp (C)	Elec. Conduct. (µS/cm)	Dissolved Oxygen (%sat)	pH	Turbidity (NTU)	Comments	Construction or other contributing activities
SW 1 U	27/08/2014	16	61.0	12/09/2014	13:54:00	23.99	675	113.7	6.15	25.7	Shallow, stagnant.	Fill 11 in surcharge.
SW 1 D	27/08/2014	16	61.0	12/09/2014	13:58:00	22.27	880	115.3	5.9	32.5	Shallow, stagnant.	Fill 11 in surcharge.
SW 1 U	27/08/2014	51	61.0	17/10/2014	15:20	-	-	-	-	-	Very shallow water ponding in scour rock inlet treatment, murky surface material. No water quality samples taken.	Hydro mulched batters
SW 1 D	27/08/2014	51	61.0	17/10/2014	15:20	-	-	-	-	-	Water ponded within construction site. No connection to dry creek downstream as there is no visible water downstream from construction site. No water quality samples taken.	Hydro mulched batters
SW 1 U	27/08/2014	69	61.0	4/11/2014	12:15	-	-	-	-	-	No sampling completed as there is no connection through construction site	Fill 11 in surcharge.
SW 1 D	27/08/2014	69	61.0	4/11/2014	12:15	-	-	-	-	-	Creek bed dry, no sampling completed	Fill 11 in surcharge.
SW 1 U	5/11/2014	1	33.2	6/11/2014	8:15	-	-	-	-	-	Ponding water, no connection through construction site. No sampling completed	Fill 11 in surcharge.
SW 1 D	5/11/2014	1	33.2	6/11/2014	8:15	-	-	-	-	-	Ponding water, no connection through construction site. No sampling completed	Fill 11 in surcharge.
SW 1 U	27/11/2014	1	23.2	28/11/2014	8:20	-	-	-	-	-	No water upstream, no connection. No sample taken.	Fill 11 in surcharge.
SW 1 D	27/11/2014	1	23.2	28/11/2014	8:20	-	-	-	-	-	No water downstream, no connection. No sample taken.	Fill 11 in surcharge.
SW 1 U	27/11/2014	6	23.2	3/12/2014	11:30	-	-	-	-	-	No connection, no sample taken.	Fill 11 in surcharge.
SW 1 D	27/11/2014	6	23.2	3/12/2014	11:30	-	-	-	-	-	No connection, no sample taken.	Fill 11 in surcharge.
SW 1 U	27/11/2014	9	23.2	6/12/2014	13:00	-	-	-	-	-	Dry, no connection. No sample taken.	Fill 11 in surcharge.

Location	Last date of rain before sample taken	Days since last 10 mm rain event and sample taken	Rain event (mm)	Sample date	Time	Temp (C)	Elec. Conduct. (µS/cm)	Dissolved Oxygen (%sat)	pH	Turbidity (NTU)	Comments	Construction or other contributing activities
SW 1 D	27/11/2014	9	23.2	6/12/2014	13:00	-	-	-	-	-	Dry, no connection. No sample taken.	Fill 11 in surcharge.
SW 1 U	1/01/2015	6	5.0	7/01/2015	11:30	-	-	-	-	-	Water pooling both upstream and downstream, however no connection observed.	Culvert works on hold due to flooding, no other works current on Fill 11.
SW 1 D	1/01/2015	6	5.0	7/01/2015	11:30	-	-	-	-	-	As above	As above
SW 1 U	11/01/2015	1	12.0	12/01/2015	14:30	-	-	-	-	-	Water pooling both upstream and downstream, however no connection observed.	Culvert works on hold due to flooding, no other works current on Fill 11.
SW 1 D	11/01/2015	1	12.0	12/01/2015	14:30	-	-	-	-	-	As above	As above
SW 1 U	20/01/2015	1	41.8	21/01/2015	12:02:03	24.58	302	41.9	5.58	98.1	Water flowing through temporary pipes. No visible construction impacts	Culvert works on hold due to flooding, no other works current on Fill 11.
SW 1 D	20/01/2015	1	41.8	21/01/2015	12:05:17	23.9	418	32.2	5.71	94	As above	None
SW 1 U	3/02/2015	1	43.0	4/02/2015	17:35:24	28.67	302	15.5	6.14	5.2	Water flowing through temporary pipes, erosion and sediment controls in place, no evidence of impact from construction works	Basin treatment and dewatering
SW 1 D	3/02/2015	1	43.0	4/02/2015	17:40:21	26.46	328	18.8	6.21	21.4	As above	As above
SW 1 U	13/02/2015	3	1.4	16/02/2015	17:21:46	29.8	288	17.8	6.31	47.7	Water tannin stained, slow flow through work area, sediment controls installed.	Sheet piles installed up and downstream of culvert works.
SW 1 D	13/02/2015	3	1.4	16/02/2015	17:25:56	26.35	477	21	6.29	32.5	As above	As above
SW 1 D	24/02/2015	1	5.2	25/02/2015	9:00:00	-	-	-	6.7	24	Baseline downstream prior to discharge of water from between sheet-piles at CML 101. Water quality between sheet piles was pH 6.63 and NTU 16.	Prior to dewatering CML 101 temporary culvert.
SW 1 D	24/02/2015	1	5.2	25/02/2015	9:35:00	-	-	-	6.47	24	Sample taken within 30 minutes of the commencement of discharge	Dewatering CML 101 temporary culvert.

Location	Last date of rain before sample taken	Days since last 10 mm rain event and sample taken	Rain event (mm)	Sample date	Time	Temp (C)	Elec. Conduct. (µS/cm)	Dissolved Oxygen (%sat)	pH	Turbidity (NTU)	Comments	Construction or other contributing activities
											from CML 101.	
SW 1 D	24/02/2015	1	5.2	25/02/2015	10:05:00	-	-	-	6.42	24	Sample taken between 30 - 60 minutes of the commencement of discharge from CML 101. Pumping ceased at 10.45am.	Dewatering CML 101 temporary culvert.
SW 1 U	24/02/2015	3	5.2	27/02/2015	15:00:00	-	-	-	6.67	13	Upstream sample taken prior to commencement of dewatering from CML 101.	Dewatering CML 101 temporary culvert.
SW 1 D	24/02/2015	3	5.2	27/02/2015	15:00:00	-	-	-	6.42	22	Baseline downstream prior to discharge of water from between sheet-piles at CML 101. Water quality between sheet piles was pH 6.46 and NTU 22.	Dewatering CML 101 temporary culvert.
SW 1 D	24/02/2015	3	5.2	27/02/2015	15:35:00	-	-	-	6.49	21	Sample taken within 30 minutes of the commencement of discharge from CML 101.	Dewatering CML 101 temporary culvert.
SW 1 D	24/02/2015	3	5.2	27/02/2015	16:05:00	-	-	-	6.3	22	Sample taken between 30 - 60 minutes of the commencement of discharge from CML 101. Pumping ceased at 4.45pm.	Dewatering CML 101 temporary culvert.
SW 1 U	24/02/2015	6	5.2	2/03/2015	10:25:00	-	-	-	6.47	19	Upstream sample taken prior to commencement of dewatering from CML 101.	Dewatering CML 101 temporary culvert.
SW 1 D	24/02/2015	6	5.2	2/03/2015	10:50:00	-	-	-	6.21	20	Sample taken within 30 minutes of the commencement of discharge from CML 101. Water quality between sheet piles was pH 6.45 and NTU 21.	Dewatering CML 101 temporary culvert.
SW 1 D	24/02/2015	6	5.2	2/03/2015	11:15:00	-	-	-	6.21	20	Sample taken between 30 - 60 minutes of the commencement of discharge from CML 101.	Dewatering CML 101 temporary culvert.
SW 1 D	24/02/2015	6	5.2	2/03/2015	17:23:00	-	-	-	6.51	19	Sample taken at end of day after pumping had ceased.	Dewatering CML 101 temporary culvert.

Collombatti Creek

Location	Last date of rain before sample taken	Days since last 10 mm rain event and sample taken	Rain event (mm)	Sample date	Time	Temp (C)	Elec. Conduct. (µS/cm)	Dissolved Oxygen (%sat)	pH	Turbidity (NTU)	Comments	Construction or other contributing activities
SW 2 U	27/08/2014	16	61.0	12/09/2014	13:33:46	25.14	1187	109.4	5.69	45.4	Shallow, slow moving, limited connection between up and down stream	Placement of surcharge material on bridge abutment and Fill 15 A, bridgeworks
SW 2 D	27/08/2014	16	61.0	12/09/2014	13:29:05	20.3	403	108.9	6.46	24.1	Shallow, slow moving	As above.
SW 2 U	27/08/2014	51	61.0	17/10/2014	13:33:49	24.5	807	58.9	3.94	17.7	Connection of water through temporary pipes	Bridgeworks, haulage
SW 2 D	27/08/2014	51	61.0	17/10/2014	13:41:01	23.74	761	122.5	4.52	52.2	Cattle activity, creek width half full of water	Bridgeworks, haulage
SW 2 U	27/08/2014	69	61.0	4/11/2014	9:50						Creek bed dry, no sampling completed	Bridgeworks, haulage
SW 2 D	27/08/2014	69	61.0	4/11/2014	9:50						Creek bed dry, no sampling completed	Bridgeworks, haulage
SW 2 U	5/11/2014	1	33.2	6/11/2014	8:04:44	18.65	1279	51.5	4.97	45.6	Shallow water connected through construction site through temporary steel pipes.	Bridgeworks, haulage
SW 2 D	5/11/2014	1	33.2	6/11/2014	7:59:12	21.97	794	53.4	5.52	63.3	Shallow water connected through construction site through temporary steel pipes.	Bridgeworks, haulage
SW 2 U	27/11/2014	1	23.2	28/11/2014	9:35	-	-	-	-	-	No water upstream, no connection. No sample taken.	Bridgeworks, haulage
SW 2 D	27/11/2014	1	23.2	28/11/2014	9:35	-	-	-	-	-	Pond of water within construction footprint, no flow downstream. No sample taken.	Bridgeworks, haulage
SW 2 U	27/11/2014	6	23.2	3/12/2014	11:00	-	-	-	-	-	No connection, no sample taken.	Stabilisation under bridges has started. Boom in place.
SW 2 D	27/11/2014	6	23.2	3/12/2014	11:00	-	-	-	-	-	No connection, no sample taken.	Stabilisation under bridges has started. Boom in place.

Location	Last date of rain before sample taken	Days since last 10 mm rain event and sample taken	Rain event (mm)	Sample date	Time	Temp (C)	Elec. Conduct. (µS/cm)	Dissolved Oxygen (%sat)	pH	Turbidity (NTU)	Comments	Construction or other contributing activities
SW 2 U	27/11/2014	9	23.2	6/12/2014	11:50	-	-	-	-	-	Dry, no connection. No sample taken.	Stabilisation under bridges has started. Boom in place. Wet sample taken, 14.2mm received in the past two days.
SW 2 D	27/11/2014	9	23.2	6/12/2014	11:50	-	-	-	-	-	Dry, no connection. No sample taken.	As above.
SW 2 U	1/01/2015	8	5.0	9/01/2015	7:24	22.98	267	13.7	6.35	4.1	Some connection with downstream, stagnate water observed at both up and down stream. Some algae was present on the water surface both up and down stream.	Bridge works ongoing and surcharge removal works.
SW 2 D	1/01/2015	8	5.0	9/01/2015	7:29	25.53	264	5.3	6.25	4.6	As above	As above
SW 2 U	11/01/2015	1	12.0	12/01/2015	13:13	30.01	273	53.8	6.63	14.7	Stagnate water with a slight tannin staining appearance was observed both up and downstream. Slight connection with downstream.	Bridge and pilling works ongoing
SW 2 D	11/01/2015	1	12.0	12/01/2015	13:17	27.63	282	20.2	6.39	6.1	Stagnate water with a slight tannin staining appearance was observed both up and downstream. Slight connection with upstream. Construction sediment controls in place, some bank disturbance from cattle was observed.	As above
SW 2 U	20/01/2015	1	41.8	21/01/2015	12:45:40	24.98	57	42.1	5.45	66.1	Floodplain / system flooding.	Side track over topping, all pipes charged. Additional slots cut in access track to reduce afflux of water upstream of site.
SW 2 D	20/01/2015	1	41.8	21/01/2015	12:52:03	24.31	144	44.6	5.68	67.9	As above	As above

Location	Last date of rain before sample taken	Days since last 10 mm rain event and sample taken	Rain event (mm)	Sample date	Time	Temp (C)	Elec. Conduct. (µS/cm)	Dissolved Oxygen (%sat)	pH	Turbidity (NTU)	Comments	Construction or other contributing activities
SW 2 U	3/02/2015	1	43.0	4/02/2015	16:09:46	26.21	149	30.9	5.89	10.5	Flood plain receding, tannin staining, side track now visible without water flowing over the top, pipes remain charged.	Basin treatment and dewatering
SW 2 D	3/02/2015	1	43.0	4/02/2015	16:13:22	26.01	149	43	6.08	11.1	As above	As above
SW 2 U	13/02/2015	3	1.4	16/02/2015	16:54:41	31.58	275	8.6	5.92	1.4	Water still, algae and other plant material growth on surface.	Construction includes removal of surcharge, bridge abutment works and haulage.
SW 2 D	13/02/2015	3	1.4	16/02/2015	16:49:18	32.05	252	78.9	6.1	1.8	As above	As above
SW 2 U	13/03/2015	6	34.2	19/03/2015	14:45	28.28	363	85.7	6.24	32.6	Flood waters receding. Flow through site.	Construction includes removal of surcharge, bridge abutment works and haulage.
SW 2 D	13/03/2015	6	34.2	19/03/2015	14:50	28.79	268	145	6.53	10.8	As above	As above

Seven Oaks Drain

Location	Last date of rain before sample taken	Days since last 10 mm rain event and sample taken	Rain event (mm)	Sample date	Time	Temp (C)	Elec. Conduct. (µS/cm)	Dissolved Oxygen (%sat)	pH	Turbidity (NTU)	Comments	Construction or other contributing activities
SW 3 U	27/08/2014	16	61.0	12/09/2014	13:41:04	20.6	395	92.8	6.09	13.2	Shallow, slow moving	Placement of surcharge material on fill 15A haulage
SW 3 D	27/08/2014	16	61.0	12/09/2014	13:38:07	21.14	401	130	6.09	10.9	Shallow, slow moving	Placement of surcharge material on fill 15A haulage
SW 3 U	27/08/2014	51	61.0	17/10/2014	13:56:16	23.3	872	69.3	4.18	19.3	Water level low, connection of water through construction site	Haulage
SW 3 D	27/08/2014	51	61.0	17/10/2014	13:51:11	26.65	959	92.9	4.05	8.8	Water level low, grasses and organic matter present. Connection of water through construction site	Haulage
SW 3 U	27/08/2014	69	61.0	4/11/2014	11:50	-	-	-	-	-	Ponded water upstream, no connection through construction site, no sampling completed	Haulage
SW 3 D	27/08/2014	69	61.0	4/11/2014	11:50	-	-	-	-	-	No sampling completed as there is no connection through construction site	Haulage
SW 3 U	5/11/2014	1	33.2	6/11/2014	8:09:36	19.93	1111	39	4.04	28.4	Water level low. Connection through construction site through temporary steel pipes and through scour rock.	Haulage
SW 3 D	5/11/2014	1	33.2	6/11/2014	8:14:26	20.5	532	55.1	4	19.5	Water level low. Connection through construction site through temporary steel pipes and through scour rock.	Haulage
SW 3 U	27/11/2014	1	23.2	28/11/2014	9:40	-	-	-	-	-	One pool upstream, no connection. No sample taken.	
SW 3 D	27/11/2014	1	23.2	28/11/2014	9:40	-	-	-	-	-	No connection, no sample taken.	
SW 3 U	27/11/2014	6	23.2	3/12/2014	11:00	-	-	-	-	-	No connection, no sample taken.	No works
SW 3 D	27/11/2014	6	23.2	3/12/2014	11:00	-	-	-	-	-	No connection, no sample taken.	No works

Location	Last date of rain before sample taken	Days since last 10 mm rain event and sample taken	Rain event (mm)	Sample date	Time	Temp (C)	Elec. Conduct. (µS/cm)	Dissolved Oxygen (%sat)	pH	Turbidity (NTU)	Comments	Construction or other contributing activities
SW 3 U	27/11/2014	9	23.2	6/12/2014	11:55	-	-	-	-	-	Dry, no connection. No sample taken.	Wet sample taken, 14.2mm received in the past two days.
SW 3 D	27/11/2014	9	23.2	6/12/2014	11:55	-	-	-	-	-	Dry, no connection. No sample taken.	Wet sample taken, 14.2mm received in the past two days.
SW 3 U	1/01/2015	8	5.0	9/01/2015	7:37	24.7	268	5.9	6.36	25	Some connection with downstream, stagnate water observed at both up and down stream.	Bridge works ongoing and surcharge removal works.
SW 3 D	1/01/2015	8	5.0	9/01/2015	7:43	25.04	276	4.9	6.36	11.6	As above	As above
SW 3 U	11/01/2015	1	12.0	12/01/2015	13:21	29.4	263	41.8	6.58	3.2	Stagnate water with a slight tannin staining appearance was observed both up and downstream. Slight connection with downstream. No observed impacts from construction works.	Piling works ongoing.
SW 3 D	11/01/2015	1	12.0	12/01/2015	13:24	28.27	278	40.5	6.51	3.8	As above	As above
SW 3 U	3/02/2015	1	43.0	4/02/2015	15:58:19	25.58	146	20.8	5.9	82.8	Drain charged, tannin staining pipe under side track fully charged. Debris and algae present on the upstream side of the temporary access track.	Basin treatment and dewatering
SW 3 D	3/02/2015	1	43.0	4/02/2015	16:04:44	25.72	141	26.3	5.99	15.7	As above	As above
SW 3 U	13/02/2015	3	1.4	16/02/2015	17:09:48	31.76	270	40.7	6.15	67.4	Water still, algae and other plant material growth on surface. Debris from flooding present between boundary fence and temporary side track.	Construction includes removal of surcharge, bridge abutment works and haulage.
SW 3 D	13/02/2015	3	1.4	16/02/2015	17:01:21	29.18	291	14.6	6.16	35.9	Water still, algae and other plant material growth on surface.	As above
SW 3 U	13/03/2015	6	34.2	19/03/2015	15:05	28.54	315	88.8	6.76	7.6	Flood waters receding. Flow through site.	Construction includes removal of surcharge,

Location	Last date of rain before sample taken	Days since last 10 mm rain event and sample taken	Rain event (mm)	Sample date	Time	Temp (C)	Elec. Conduct. (µS/cm)	Dissolved Oxygen (%sat)	pH	Turbidity (NTU)	Comments	Construction or other contributing activities
												bridge abutment works and haulage.
SW 3 D	13/03/2015	6	34.2	19/03/2015	15:15	29.45	359	79.1	6.15	10.6	As above	As above

Wizzenbucca Creek

Location	Last date of rain before sample taken	Days since last 10 mm rain event and sample taken	Rain event (mm)	Sample date	Time	Temp (C)	Elec. Conduct. (µS/cm)	Dissolved Oxygen (%sat)	pH	Turbidity (NTU)	Comments	Construction or other contributing activities
SW 4 U	27/08/2014	17	68.6	13/09/2014	13:02:52	21.63	381	76.3	5.98	21.4	Shallow, stagnant water	Haulage, backfilling fauna culvert.
SW 4 D	27/08/2014	17	68.6	13/09/2014	13:08:01	21.46	408	67	6.25	37.2	Shallow, stagnant water	Haulage, backfilling fauna culvert.
SW 4 U	27/08/2014	51	68.6	17/10/2014	14:07	-	-	-	-	-	Small amount of water ponded upstream. No connection of water through construction site. No water quality samples taken.	Haulage, landholder access track
SW 4 D	27/08/2014	51	68.6	17/10/2014	14:07	-	-	-	-	-	Small amount of water ponded upstream. No connection of water through construction site. No water quality samples taken.	Haulage, landholder access track
SW 4 U	27/08/2014	69	68.6	4/11/2014	10:07	-	-	-	-	-	Creek bed dry, no sampling completed	Haulage
SW 4 D	27/08/2014	69	68.6	4/11/2014	10:07	-	-	-	-	-	Creek bed dry, no sampling completed	Haulage
SW 4 U	5/11/2014	1	24.0	6/11/2014	9:45	-	-	-	-	-	Dry creek bed. No water quality samples taken.	Haulage, drainage works nearby.
SW 4 D	5/11/2014	1	24.0	6/11/2014	9:45	-	-	-	-	-	Dry creek bed. No water quality samples taken.	Haulage, drainage works nearby.
SW 4 U	27/11/2014	1	26.8	28/11/2014	12:26	-	-	-	-	-	No water upstream, no connection. No sample taken.	
SW 4 D	27/11/2014	1	26.8	28/11/2014	12:26	-	-	-	-	-	No water, no connection. No sample taken.	
SW 4 U	27/11/2014	6	26.8	3/12/2014	12:00	-	-	-	-	-	Dry, no connection. No sample taken.	Commencement of surcharge removal on fill 17.
SW 4 D	27/11/2014	6	26.8	3/12/2014	12:00	-	-	-	-	-	Dry, no connection. No sample taken.	Commencement of surcharge removal on fill 17.
SW 4 U	4/12/2014	1	25.4	5/12/2014	10:47	-	-	-	-	-	Dry, no connection. No sample	Commencement of

Location	Last date of rain before sample taken	Days since last 10 mm rain event and sample taken	Rain event (mm)	Sample date	Time	Temp (C)	Elec. Conduct. (µS/cm)	Dissolved Oxygen (%sat)	pH	Turbidity (NTU)	Comments	Construction or other contributing activities
											taken.	surcharge removal on fill 17.
SW 4 D	4/12/2014	1	25.4	5/12/2014	10:47	-	-	-	-	-	Dry, no connection. No sample taken.	Commencement of surcharge removal on fill 17.
SW 4 U	1/01/2015	8	5.0	9/01/2015	8:00	-	-	-	-	-	No observed connection between upstream and downstream.	Surcharge removal ongoing
SW 4 D	1/01/2015	8	5.0	9/01/2015	8:00	-	-	-	-	-	As above	As above
SW 4 U	11/01/2015	1	16.4	12/01/2015	12:45	-	-	-	-	-	Creek bed dry. No connection	Surcharge removal ongoing
SW 4 D	11/01/2015	1	16.4	12/01/2015	12:45	-	-	-	-	-	As above	As above
SW 4 U	28/01/2015	1	1.8	29/01/2015	8:36:08	21.38	173	45.7	5.76	11.8	Water flowing through temporary pipe, tannin stained, erosion and sediment controls in place.	Basins over topping, site works include basin treatment and repair of erosion and sediment controls.
SW 4 D	28/01/2015	1	1.8	29/01/2015	8:39:21	21.41	163	37.2	5.74	7.7	As above	As above
SW 4 U	3/02/2015	1	69.6	4/02/2015	8:32:41	20.9	190	32.6	5.82	2.9	Water level in creek receding, temporary pipe remains charged, tannin staining, erosion and sediment controls in place.	Basin treatment and dewatering
SW 4 D	3/02/2015	1	69.6	4/02/2015	8:36:00	20.58	165	41.7	5.8	2.4	As above	As above
SW 4 U	13/02/2015	4	3.2	17/02/2015	13:47:20	22.77	228	8	6.1	9.7	Water still, tannin stained.	Sheet piles installed, sediment controls in place. Set up for dewatering.
SW 4 D	13/02/2015	4	3.2	17/02/2015	13:51:28	22.68	234	9.3	6.23	6.6	Water still, shallow, tannin stained.	As above
SW 4 U	13/03/2015	6	67.8	19/03/2015		-	-	-	-	-	Flood waters receding. Flow through site.	Construction includes removal of surcharge, bridge abutment works and haulage.
SW 4 D	13/03/2015	6	67.8	19/03/2015		-	-	-	-	-	As above	As above

Johnsons Creek

Location	Last date of rain before sample taken	Days since last 10 mm rain event and sample taken	Rain event (mm)	Sample date	Time	Temp (C)	Elec. Conduct. (µS/cm)	Dissolved Oxygen (%sat)	pH	Turbidity (NTU)	Comments	Construction or other contributing activities
SW 5 U	27/08/2014	17	68.6	13/09/2014	12:43:01	21.41	788	62	3.64	6.1	Shallow, stagnant water	Haulage
SW 5 D	27/08/2014	17	68.6	13/09/2014	12:46:08	20.58	1012	80.1	4.99	6.6	Stagnant water, limited connection with upstream, water moving through rock platform.	Haulage
SW 5 U	27/08/2014	51	68.6	17/10/2014	13:51	-	-	-	-	-	Dry creek bed, no connection of water flow through construction site. No water quality samples taken.	Bridgeworks
SW 5 D	27/08/2014	51	68.6	17/10/2014	13:51	-	-	-	-	-	Dry creek bed, no connection of water flow through construction site. No water quality samples taken.	Bridgeworks
SW 5 U	27/08/2014	69	68.6	4/11/2014	10:05	-	-	-	-	-	Creek bed dry, no sampling completed	Bridgeworks, haulage
SW 5 D	27/08/2014	69	68.6	4/11/2014	10:05	-	-	-	-	-	Creek bed dry, no sampling completed	Bridgeworks, haulage
SW 5 U	5/11/2014	1	24.0	6/11/2014	10:00	-	-	-	-	-	Dry creek bed. No water quality samples taken.	Haulage, backfilling of piers with scour rock.
SW 5 D	5/11/2014	1	24.0	6/11/2014	10:00	-	-	-	-	-	Dry creek bed. No water quality samples taken.	Haulage, backfilling of piers with scour rock.
SW 5 U	27/11/2014	1	26.8	28/11/2014	12:59	-	-	-	-	-	No water upstream, no connection. No sample taken.	
SW 5 D	27/11/2014	1	26.8	28/11/2014	12:59	-	-	-	-	-	No water downstream, no connection. No sample taken.	
SW 5 U	4/12/2014	6	25.4	10/12/2014	11:00	-	-	-	-	-	Dry creek bed upstream. No connection. No sample taken.	Bridge works occurring on temp working platform
SW 5 D	4/12/2014	6	25.4	10/12/2014	11:00	-	-	-	-	-	Dry creek bed upstream. No connection. No sample taken.	Bridge works occurring on temp working platform
SW 5 U	4/12/2014	1	25.4	5/12/2014	11:40	-	-	-	-	-	Dry, no connection. No sample taken.	Bridge works occurring on temp working platform

SW 5 D	4/12/2014	1	25.4	5/12/2014	11:40	-	-	-	-	-	Dry, no connection. No sample taken.	Bridge works occurring on temp working platform
SW 5 U	1/01/2015	6	5.0	7/01/2015	12:00	-	-	-	-	-	No observed connection between upstream and downstream.	Temporary crossing still in place and bridge works ongoing.
SW 5 D	1/01/2015	6	5.0	7/01/2015	12:00	-	-	-	-	-	As above	As above
SW 5 U	11/01/2015	1	16.4	12/01/2015	12:20	-	-	-	-	-	Too shallow to sample, limited to no connection with downstream.	Bridge and surcharge removal works ongoing.
SW 5 D	11/01/2015	1	16.4	12/01/2015	12:20	-	-	-	-	-	To shallow to sample, shallow no evidence of impact from construction works.	As above
SW 5 U	28/01/2015	1	1.8	29/01/2015	8:03:03	20.66	24	11.9	5.82	3.6	Water flowing through temporary pipes, track has not over topped, erosion and sediment controls in place not evidence of failure, water tannin stained.	Basins over topping, site works include basin treatment and repair of erosion and sediment controls.
SW 5 D	28/01/2015	1	1.8	29/01/2015	8:05:47	20.73	165	39.1	5.84	1.1	As above	As above
SW 5 U	3/02/2015	1	69.6	4/02/2015	7:50:23	20.61	129	18.3	5.72	0.9	Water flowing through temporary pipes, erosion and sediment controls in place, tannin stained.	Basin treatment and dewatering
SW 5 D	3/02/2015	1	69.6	4/02/2015	7:52:56	20.85	133	20.2	5.76	1.3	As above	As above
SW 5 U	17/02/2015	0	3.2	17/02/2015	10:11:42	23.79	516	50.4	4.69	19.5	Taken in deeper water than downstream sample due to access restraints. Quality of water looks consistent between both sample points. Small flow observed through bridging rock.	Bridge works, haul crossing and drainage on Fill 19b
SW 5 D	17/02/2015	0	3.2	17/02/2015	10:04:30	27.93	506	105	5.44	34.4	Taken in shallow water.	As above
SW 5 U	13/03/2015	6	67.8	19/03/2015	16:05	28.82	305	75.7	6.44	13.1	Flood waters receding. Flow through site.	Construction includes removal of surcharge, bridge abutment works and haulage.
SW 5 D	13/03/2015	6	67.8	19/03/2015	16:10	27.28	318	71	6.21	14.7	As above	As above

Barraganyatti Creek

Location	Last date of rain before sample taken	Days since last 10 mm rain event and sample taken	Rain event (mm)	Sample date	Time	Temp (C)	Elec. Conduct. (µS/cm)	Dissolved Oxygen (%sat)	pH	Turbidity (NTU)	Comments	Construction or other contributing activities
SW 6 U	27/08/2014	21	67.8	17/09/2014	12:58:01	17.7	789	31.4	6.19	18.1	No/little flow, shallow water less than 5cm deep. Murky look, tannin sheen on top of creek.	Haulage and placement of fill in fill 29.
SW 6 D	27/08/2014	21	67.8	17/09/2014	13:10:17	21.81	685	63.5	6.45	12	Slight trickle, water less than 2cm deep.	Haulage and placement of fill in fill 29.
SW 6 U	27/08/2014	35	67.8	1/10/2014	12:56	19.87	820	34.3	6.08	13.2	No flow, still water. Murky residue on surface. Water level low, less than 5cm deep	Haulage works, new stockpile area above culvert in fill 29. Erosion and sediment controls in place.
SW 6 D	27/08/2014	35	67.8	1/10/2014	13:08	21.25	709	29.5	6.42	21.8	Shallow water connected to construction site. Water level less than 5cm deep. Highly vegetated with grass.	Haulage works, new stockpile area above culvert in fill 29. Erosion and sediment controls in place.
SW 6 U	27/08/2014	69	67.8	4/11/2014	8:15	-	-	-	-	-	No connection through construction site	Stockpiling works, haulage
SW 6 D	27/08/2014	69	67.8	4/11/2014	8:15	-	-	-	-	-	No connection from construction site to downstream creek line due to dry conditions, no sampling completed	Stockpiling works, haulage
SW 6 U	5/11/2014	1	23.0	6/11/2014	11:20	-	-	-	-	-	No connection through construction site, no sampling completed.	Haulage of timber.
SW 6 D	5/11/2014	1	23.0	6/11/2014	11:20	-	-	-	-	-	No water leaving site or connected to downstream creek. No sampling completed.	Haulage of timber.
SW 6 U	27/11/2014	0	20.6	27/11/2014	15:40	-	-	-	-	-	No connection with downstream, no sample taken	
SW 6 D	27/11/2014	0	20.6	27/11/2014	15:40	-	-	-	-	-	Water less than 2cm deep downstream, no sample taken due	

											to limited connection	
SW 6 U	4/12/2014	6	14.0	10/12/2014	11:30	-	-	-	-	-	Dry creek bed upstream. No connection. No sample taken.	Fencing works, drainage works.
SW 6 D	4/12/2014	6	14.0	10/12/2014	11:30	-	-	-	-	-	Dry creek bed upstream. No connection. No sample taken.	Fencing works, drainage works.
SW 6 U	4/12/2014	1	14.0	5/12/2014	8:50	-	-	-	-	-	No connection with downstream, no sample taken	Preparation for select material placement
SW 6 D	4/12/2014	1	14.0	5/12/2014	8:50	-	-	-	-	-	Water less than 2cm deep downstream, no sample taken due to limited connection	Preparation for select material placement
SW 6 U	1/01/2015	6	5.0	7/01/2015		-	-	-	-	-	Apparent connection between upstream and downstream, however water to shallow upstream to take an accurate sample. Water quality consisted throughout catchment and observed to be slightly cloudy and stained.	Access only across CML312, there is longitudinal drainage occurring in Cut 25 to the south of CML312 and basins either side of carriageway have all been dewatered following recent wet weather.
SW 6 D	1/01/2015	6	5.0	7/01/2015		-	-	-	-	-	As above	As above
SW 6 U	11/01/2015	1	24.2	12/01/2015	11:20	-	-	-	-	-	Some ponding however there was no connection to downstream.	
SW 6 D	11/01/2015	1	24.2	12/01/2015	11:16	27.44	359	64.1	6.56	-1.3	Shallow, clear, stagnate water observed downstream, Sediment controls in place with no observed impact from construction activities.	
SW 6 U	20/01/2015	1	73.2	21/01/2015	14:16:27	24.56	422	33.8	5.97	52.5	Slow to medium flow, water level height close to background levels and water slightly turbid.	Site shutdown, basin full, and secondary controls damaged from storm event.
SW 6 D	20/01/2015	1	73.2	21/01/2015	14:30:54	30.18	510	45.1	6.19	40.2	Water pooling, no flow observed. Water level height near background levels and high flow mark from yesterday's rain event a third a metre higher. Water slightly more discoloured than upstream although sampling location much deeper.	As above
SW 6 U	1/02/2015	1	69.2	2/02/2015	14:22:13	24.46	269	46.5	6.01	14.3	Medium flow, water has tannin	Mainline basins have

											stain, sample taken in shallower water than that of downstream, and creek was overtopping landowners crossing.	overtopped following recent rainfall. No works at time of sample, however formation is being trimmed for select placement.
SW 6 D	1/02/2015	1	69.2	2/02/2015	14:10:17	24.96	262	47.4	5.93	20.4	Slow flow, water quality similar to upstream sample, and sample taken in deeper spot.	As above.
SW 6 U	17/02/2015	0	2.2	17/02/2015	10:44:23	25.12	534	58.4	6.34	3	Small flow observed, water clear although slightly stained and algae present both up and downstream	Activities include select placement northbound from Cut 25 to Cut 26
SW 6 D	17/02/2015	0	2.2	17/02/2015	10:32:54	26.89	516	91	6.44	9.8	Same as upstream	As above

Borirgalla Creek

Location	Last date of rain before sample taken	Days since last 10 mm rain event and sample taken	Rain event (mm)	Sample date	Time	Temp (C)	Elec. Conduct. (µS/cm)	Dissolved Oxygen (%sat)	pH	Turbidity (NTU)	Comments	Construction or other contributing activities
SW 7 U	27/08/2014	23	67.8	19/09/2014	13:43:53	14.14	427	18.2	6.22	37	Tannin sheen on surface	Placement of asphalt on Macleay Valley Way
SW 7 D	27/08/2014	23	67.8	19/09/2014	14:03:47	16.07	385	41	6.49	27.2	Tannin sheen on surface, slow flow through construction site	Placement of asphalt on Macleay Valley Way
SW 7 U	27/08/2014	50	67.8	16/10/2014	12:43:32	19.06	408	37.5	6.38	33.6	Tannin sheen on surface	Clearing works, timber waterway crossing implemented
SW 7 D	27/08/2014	50	67.8	16/10/2014	13:06:36	20.85	419	40.5	6.33	40.8	Slight tannin sheen on surface, organic material floating on top (pollen of some sort)	Fencing works, verge material placement
SW 7 U	27/08/2014	69	67.8	4/11/2014	9:31	-	-	-	-	-	No on site flow from upstream side to construction site, no sampling completed	Clearing works, clean water drains and sediment basin installation, removal of timber
SW 7 D	27/08/2014	69	67.8	4/11/2014	9:31	-	-	-	-	-	No connection through construction site, no sampling completed	Clearing works, clean water drains and sediment basin installation, removal of timber
SW 7 U	5/11/2014	1	23.0	6/11/2014	11:00	-	-	-	-	-	No connection upstream of water through construction site. No sampling completed.	Clearing, haulage of timber.
SW 7 D	5/11/2014	1	23.0	6/11/2014	11:00	-	-	-	-	-	No connection upstream of water through construction site. No sampling completed.	Clearing, haulage of timber.
SW 7 U	27/11/2014	0	20.6	27/11/2014	15:55	-	-	-	-	-	Water upstream, although does not connect to construction site. No sample taken.	
SW 7 D	27/11/2014	0	20.6	27/11/2014	15:55	-	-	-	-	-	No connection, no sample taken.	
SW 7 U	4/12/2014	6	14.0	10/12/2014	11:45	-	-	-	-	-	Pool of water upstream. No connection. No sample taken.	Milling of pavement, stage two earthworks
SW 7 D	4/12/2014	6	14.0	10/12/2014	11:45	-	-	-	-	-	Pool of water upstream. No	Milling of pavement, stage

Location	Last date of rain before sample taken	Days since last 10 mm rain event and sample taken	Rain event (mm)	Sample date	Time	Temp (C)	Elec. Conduct. (µS/cm)	Dissolved Oxygen (%sat)	pH	Turbidity (NTU)	Comments	Construction or other contributing activities
											connection. No sample taken.	two earthworks
SW 7 U	4/12/2014	1	14.0	5/12/2014	9:03	-	-	-	-	-	No connection with downstream, no sample taken	Installation of clean water drains. Milling of asphalt.
SW 7 D	4/12/2014	1	14.0	5/12/2014	9:03	-	-	-	-	-	No connection with upstream, no sample taken	Installation of clean water drains. Milling of asphalt.
SW 7 U	1/01/2015	6	5.0	7/01/2015	15:10	26.98	353	55.8	6.43	21.8	Stagnant water observed at both upstream and downstream locations. Water quality looked to have little sediment and appeared to have a slight staining. Little to no organic matter floating on surface.	Dozer operating to the south of the creek on mainline and haulage through site over existing structure. No other works observed in proximity to monitoring event and basins were recently dewatered.
SW 7 D	1/01/2015	6	5.0	7/01/2015	15:08	25.82	450	60.7	6.36	6.8	As above	As above
SW 7 U	11/01/2015	1	24.2	12/01/2015	11:37	25.94	360	47.4	6.59	8.8	Stagnate, shallow, slightly turbid water observed . Sediment controls in place.	
SW 7 D	11/01/2015	1	24.2	12/01/2015	11:51	24.83	439	43.8	6.63	2.9	Stagnate water observed. Sediment controls in place, basins have not over topped, no observed construction impact, reveg on MVW looking good.	
SW 7 U	20/01/2015	1	73.2	21/01/2015	14:41:58	23.05	202	37.1	5.92	26.3	Standing water at levels above background. Connection downstream. Water stained with tea colour and no debris on surface.	Site shutdown, basins overtopped and secondary controls full.
SW 7 D	20/01/2015	1	73.2	21/01/2015	15:01:01	25.86	201	45	5.86	92.4	Similar to upstream although more turbid.	As above
SW 7 U	1/02/2015	1	69.2	2/02/2015	14:33:47	23.68	116	44.6	5.93	22	Slow flow, organic matter on surface, and higher than usual levels. Visually quality appeared consistent with downstream	Erosion controls upstream and downstream inundated with water due to higher than normal flow

Location	Last date of rain before sample taken	Days since last 10 mm rain event and sample taken	Rain event (mm)	Sample date	Time	Temp (C)	Elec. Conduct. (µS/cm)	Dissolved Oxygen (%sat)	pH	Turbidity (NTU)	Comments	Construction or other contributing activities
											sample.	following rainfall, as well as overtopping of basins likely to have contributed to higher downstream readings.
SW 7 D	1/02/2015	1	69.2	2/02/2015	14:51:02	22.61	109	50.2	6	57.4	As above.	As above.
SW 7 U	17/02/2015	0	2.2	17/02/2015	12:22:38	27.76	217	57.9	6.45	14	Same as downstream. No flow observed.	Scraper circuit and foundation works around bridge.
SW 7 D	17/02/2015	0	2.2	17/02/2015	12:07:50	24.62	267	78.2	6.93	33	Slightly turbid, no flow, level reducing to near background levels, organic debris on surface.	As above

Sediment Basin Overtopping Events

Rainfall Summary 24 November - 8 December 2014								
Date	Rainfall (mm)			Basin	Easting	Northing	Site Location	Overflow Date
	Southern Compound	Main Compound	Northern Compound	31150E	492702.9	6580868.4	NE of Cooks Lane 130m	1/12/2014
24/11/2014	0	5.6	0.6	31250W	492679.1	6580960.2	NE of Cooks Lane 130m	1/12/2014
25/11/2014	8.4	1.6	0.4					
26/11/2014	0	0	0					
27/11/2014	23.2	26.8	20.6					
28/11/2014	1.8	3.6	3.4					
29/11/2014	0	0	0.2					
30/11/2014	0	0	0					
1/12/2014	2.8	2	2					
2/12/2014	0	0	0.2					
3/12/2014	0	0	0					
4/12/2014	7.6	25.4	14					
5/12/2014	6.6	0.6	0.8					
6/12/2014	1.8	2.2	1.2					
7/12/2014	0.2	0	0.2					
8/12/2014	0	1.2	0.4					
Total	44.0	61.8	43.0					

Rainfall Summary 11 - 17 December 2014								
Date	Rainfall (mm)			Basin	Easting	Northing	Site Location	Overflow Date
	Southern Compound	Main Compound	Northern Compound	15500E	487614	6568767.5	W CML 104	12/12/2014
11/12/2014	31.2	29	22.4	16500E	487055.2	6569494.7	N Mill/Quarry Road 170m	12/12/2014
12/12/2014	6.4	4.4	4.4					
13/12/2014	0.8	4.6	4					
14/12/2014	0.4	0.6	1					
15/12/2014	0	0	0					
16/12/2014	0	0	0.4					
17/12/2014	0.6	0.2	0.8					
Total	39.4	38.8	33.0					

Rainfall Summary 18 - 23 December 2014								
Date	Rainfall (mm)			Basin	Easting	Northing	Site Location	Overflow Date
	Southern Compound	Main Compound	Northern Compound	35750E	493097.4	6585194	E Pacific Highway (adjacent) Swamp Sclerophyll Forest	18/12/2014
18/12/2014	9.4	22.4	28.6	39400E	490853.5	6587923.6	Opp Intersection of Pacific Highway and Station Street	18/12/2014
19/12/2014	0	0	0.2					
20/12/2014	0	0.2	0.4					
21/12/2014	0	0	0.2					
22/12/2014	0	0	0					
23/12/2014	0	0	0					
Total	9.4	22.6	29.4					

Rainfall Summary 25 December 2014 - 16 January 2015								
Date	Rainfall (mm)			Basin	Easting	Northing	Site Location	Overflow Date
	Southern Compound	Main Compound	Northern Compound	TB13750	488644.5	6567460.7	Southern Batch Plant	27-29/12/2014
25/12/2014	10.2	13.4	11.2	14500E	488294.7	6568081.8	N of un-named waterway N of Frederickton	27-29/12/2014
26/12/2014	28.8	21.6	24.8	14900E	487982.3	6568408.9	E of Raymonds Lane	27-29/12/2014
27/12/2014	14.8	16.8	11.4	15000E	487947.2	6568447.9	W of Raymonds Lane	27-29/12/2014
28/12/2014	46.6	51.2	56.8	15000W	487882.6	6568376.7	E of Raymonds Lane	27-29/12/2014
29/12/2014	0.6	0.8	1.4	15400E	487636	6568734.8	E CML 104	27-29/12/2014
30/12/2014	0	0	0	15450W	487516.5	6568742.1	Swamp Sclerophyll Forest	27-29/12/2014
31/12/2014	3.2	3.2	5	15500E	487614	6568767.5	W CML 104	27-29/12/2014
1/01/2015	2.2	4	2	16350E	487067.7	6569472.9	N Mill/Quarry Road 250m	27-29/12/2014
2/01/2015	0	0	0	16500E	487055.2	6569494.7	N Mill/Quarry Road 170m	27-29/12/2014
3/01/2015	0	0	0	17350E	486683.7	6570386	W Seashore Lane - upstream of Maundia	27-29/12/2014
4/01/2015	0	0	0	17350W	486615.8	6570263	W Seashore Lane - upstream of Maundia	27-29/12/2014
5/01/2015	0	0	0	17400W	486589.2	6570388.1	W Seashore Lane - upstream of Maundia	27-29/12/2014
6/01/2015	0	0.2	0	17450E	486657.5	6570507.7	W Seashore Lane Swamp Sclerophyll Forest	27-29/12/2014
7/01/2015	0	0	0.8	18600E	486531.3	6571628.3	N of Kemps Access 280m	27-29/12/2014
8/01/2015	0	0	0	18800W	486448.5	6571827.9	N of Kemps Access 500m	27-29/12/2014
9/01/2015	0	0	0	18950E	486539.1	6571983.9	Swamp Sclerophyll Forest	27-29/12/2014
10/01/2015	0	0	0	18950W	486459	6571965	Swamp Sclerophyll Forest	27-29/12/2014
11/01/2015	12	16.4	24.2	21200E	486502.1	6574181.1	Swamp Oak Floodplain Forest	27-29/12/2014
12/01/2015	3.2	2.6	3.6	21550W	486332.3	6574537.3	Swamp Oak Floodplain Forest	27-29/12/2014
13/01/2015	0	0.2	0.2	21600W	486328.7	6574576.2	Swamp Oak Floodplain Forest	27-29/12/2014
14/01/2015	15.6	13	6.2	21700E	486391.3	6574710.4	S of Seven Hills Road 1km	27-29/12/2014
15/01/2015	0	0	0.2	22750E	486467.1	6575698.2	W of Seven Hills Road	27-29/12/2014
16/01/2015	0	0	0	22900E	486512.9	65758320.1	W of Seven Hills Road	27-29/12/2014
17/01/2015	0	0	0	23800W	486998.7	6576620	E of Tanban Road 400m	27-29/12/2014
18/01/2015	0	0	0	23850E	487091	6576583.9	E of Tanban Road 400m	27-29/12/2014
19/01/2015	0	0	0	24300W	487256.3	6577008.3	E of Tanban Road 600m	27-29/12/2014
Total	137.2	143.4	147.8	24950E	487641.9	6577444.1	E of Tanban Road 900m	27-29/12/2014
				24950W	487548.7	6577475.9	E of Tanban Road 900m	27-29/12/2014
				25550E	488005.7	6578066.5	E of CP 1/2 Road 550m	27-29/12/2014
				25950E	488208.1	6578332.4	SE of Spankers Flat Road near CP 1/3 Road 400m	27-29/12/2014
				26050W	488204.2	6578484.9	Floodplain	27-29/12/2014
				26650E	488725.6	6578883.5	SE of Spankers Flat Road 450m	27-29/12/2014
				27550E	489479.3	6579311	SE of Battersons Road 1km	27-29/12/2014
				27550W	489424.5	6579375.9	SE of Battersons Road 1km	27-29/12/2014
				29344W - 29607W	#N/A	#N/A	Doughboy Swamp - Fill 19 Swale Drain	27-29/12/2014
				29406E - 29707E	#N/A	#N/A	Doughboy Swamp - Fill 19 Swale Drain	27-29/12/2014
				29791E - 29950E	#N/A	#N/A	Doughboy Swamp - Fill 19 Swale Drain	27-29/12/2014
				29950W - 30050E	#N/A	#N/A	Doughboy Swamp - Fill 19 Swale Drain	27-29/12/2014
				30250E	491996.4	6580259.2	SW of Cooks Lane near Interchange	27-29/12/2014
				30350E	492045.7	6580278.3	SW of Cooks Lane near Interchange	27-29/12/2014
				30400W	492011.4	6580424	SW of Cooks Lane near Interchange	27-29/12/2014
				30750E	492415.1	6580576.4	SW of Cooks Lane 200m	27-29/12/2014
				31150E	492702.9	6580868.4	NE of Cooks Lane 130m	27-29/12/2014
				31250W	492679.1	6580960.2	NE of Cooks Lane 130m	27-29/12/2014
				31650E	493016	6581264.9	Swamp Sclerophyll Forest	27-29/12/2014
				31750W	492989.6	6581393.9	SW of Hills Lane 700m	27-29/12/2014
				32400E	493333.2	6581935.3	SW of Hills Lane 700m	27-29/12/2014
				32450W	493258.3	6581996.2	SW of Hills Lane 700m	27-29/12/2014
				32700E	493437.4	6582209.2	N of Hills Lane 120m	27-29/12/2014
				32800E	493454.4	6582281.1	N of Hills Lane 230m	27-29/12/2014
				33000E	493546.8	6582502.8	E of Clancys Road 270m	27-29/12/2014
				33070E	493558.3	6582525.4	E of Clancys Road 270m	27-29/12/2014
				33950E	493695.7	6583488	W Pacific Highway 400m River-flat Forest	27-29/12/2014
				33950W	493571.2	6583407.8	W Pacific Highway 300m River-flat Forest	27-29/12/2014

34000W	493594.8	6583493.8	W Pacific Highway 385m River-flat Forest	27-29/12/2014
34100E	493688.2	6583609.6	W Pacific Highway 320m River-flat Forest	27-29/12/2014
34400E	493638.4	6583881.7	S of Nirvana Road 600m	27-29/12/2014
35200E	493385.9	6584674.1	N of Nirvana Road 650m	27-29/12/2014
35200W	493328	6584637.2	S Pacific Highway 650m	27-29/12/2014
35250E	493368.4	6584724	S Pacific Highway 600m	27-29/12/2014
35250W	493315.4	6584669.5	S Pacific Highway 600m	27-29/12/2014
35650E	493186.6	6585068.8	W Pacific Highway (adjacent) Swamp Sclerophyll Forest	27-29/12/2014
35750E	493097.4	6585194	E Pacific Highway (adjacent) Swamp Sclerophyll Forest	27-29/12/2014
35750W	493056.2	6585129.6	W Pacific Highway (adjacent) Swamp Sclerophyll Forest	27-29/12/2014
36750E	492439.9	6585933	E Pacific Highway (adjacent) Swamp Sclerophyll Forest	27-29/12/2014
36750W	492412.5	6585841	W Pacific Highway (adjacent) Swamp Sclerophyll Forest	27-29/12/2014
36850E	492411.3	6585957.9	E Pacific Highway (adjacent) Swamp Sclerophyll Forest	27-29/12/2014
37200E	492130.5	6586255.7	W Pacific Highway, 490m SE Stuarts Point Road	27-29/12/2014
37350E	492097.6	6586291.6	W Pacific Highway, 340m SE Stuarts Point Road	27-29/12/2014
37600E	491933.2	6586494.5	Close to intersection of Stuarts Point Road and Pacific Highway	27-29/12/2014
37600W	491840.9	6586417.9	Close to intersection of Stuarts Point Road and Pacific Highway	27-29/12/2014
38100W	491453.3	6586830.1	W Pacific Highway, 450m N Stuarts Point Road	27-29/12/2014
38450E	491293.5	6587168.2	E Pacific Highway, 300m S Brushbox Lane	27-29/12/2014
39400E	490853.5	6587923.6	Opp Intersection of Pacific Highway and Station Street	27-29/12/2014
TB30100	#N/A	#N/A	Main Compound - E	27-29/12/2014
TB30300	#N/A	#N/A	Main Compound - D	27-29/12/2014
TB30400	#N/A	#N/A	Main Compound - C	27-29/12/2014
TB30450	492399.2	6580054.2	Main Compound - B	27-29/12/2014
TB30600	#N/A	#N/A	Main Compound - F	27-29/12/2014
TB30900	#N/A	#N/A	Main Compound - A	27-29/12/2014

Rainfall Summary 19 - 31 January - 2015

Date	Rainfall (mm)		
	Main Compound	**Northern Compound**	**Southern Compound**
19/01/2015	17.6	5.4	57.6
20/01/2015	39	73.2	41.8
21/01/2015	29.4	10.2	29.4
22/01/2015	26.4	39.2	20.2
23/01/2015	4.4	6.6	1.8
24/01/2015	0	0.2	0
25/01/2015	1.6	1.4	0.8
26/01/2015	26	37.4	34.6
27/01/2015	8.6	5.6	10.6
28/01/2015	1.8	3.2	1
29/01/2015	0	0.2	0
30/01/2015	0	0.2	6.2
31/01/2015	0	0	0.2
Total	154.8	182.8	204.2

Basin	**Easting**	**Northing**	**Site Location**	**Overflow Date**
TB13750	488644.5	6567460.7	Southern Batch Plant	19-31/1/15
14500E	488294.7	6568081.8	N of un-named waterway N of Frederickton	19-31/1/15
14900E	487982.3	6568408.9	E of Raymonds Lane	19-31/1/15
15000E	487947.2	6568447.9	W of Raymonds Lane	19-31/1/15
15000W	487882.6	6568376.7	E of Raymonds Lane	19-31/1/15
15400E	487636	6568734.8	E CML 104	19-31/1/15
15450W	487516.5	6568742.1	Swamp Sclerophyll Forest	19-31/1/15
15500E	487614	6568767.5	W CML 104	19-31/1/15
16350E	487067.7	6569472.9	N Mill/Quarry Road 250m	19-31/1/15
16500E	487055.2	6569494.7	N Mill/Quarry Road 170m	19-31/1/15
17350E	486683.7	6570386	W Seashore Lane - upstream of Maundia	19-31/1/15
17350W	486615.8	6570263	W Seashore Lane - upstream of Maundia	19-31/1/15
17400W	486589.2	6570388.1	W Seashore Lane - upstream of Maundia	19-31/1/15
17450E	486657.5	6570507.7	W Seashore Lane Swamp Sclerophyll Forest	19-31/1/15
18600E	486531.3	6571628.3	N of Kemps Access 280m	19-31/1/15
18800W	486448.5	6571827.9	N of Kemps Access 500m	19-31/1/15
18950E	486539.1	6571983.9	Swamp Sclerophyll Forest	19-31/1/15
18950W	486459	6571965	Swamp Sclerophyll Forest	19-31/1/15
19070E-19850E	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	19-31/1/15
19068W-19850W	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	19-31/1/15
20047E	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	19-31/1/15
20050W	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	19-31/1/15
20177E-20277E	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	19-31/1/15
20175W-20275W	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	19-31/1/15
20422E-20721E	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	19-31/1/15
20425W-20725W	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	19-31/1/15
20977E-21119E	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	19-31/1/15
20985W-21255W	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	19-31/1/15
21200E	486502.1	6574181.1	Swamp Oak Floodplain Forest	19-31/1/15

21550W	486332.3	6574537.3	Swamp Oak Floodplain Forest	19-31/1/15
21600W	486328.7	6574576.2	Swamp Oak Floodplain Forest	19-31/1/15
21700E	486391.3	6574710.4	S of Seven Hills Road 1km	19-31/1/15
21700W	486304.9	6574680	S of Seven Hills Road 1km	19-31/1/15
22750E	486467.1	6575698.2	W of Seven Hills Road	19-31/1/15
22900E	486512.9	65758320.1	W of Seven Hills Road	19-31/1/15
23033E-23226E	#N/A	#N/A	Collombatti Flood Plain - Fill 16 Swale Basin	19-31/1/15
23345E-23431E	#N/A	#N/A	Collombatti Flood Plain - Fill 16 Swale Basin	19-31/1/15
23356W-23431W	#N/A	#N/A	Collombatti Flood Plain - Fill 16 Swale Basin	19-31/1/15
23565E-23810E	#N/A	#N/A	Collombatti Flood Plain - Fill 16 Swale Basin	19-31/1/15
23570W-23770W	#N/A	#N/A	Collombatti Flood Plain - Fill 16 Swale Basin	19-31/1/15
23800W	486998.7	6576620	E of Tanban Road 400m	19-31/1/15
23850E	487091	6576583.9	E of Tanban Road 400m	19-31/1/15
24300W	487256.3	6577008.3	E of Tanban Road 600m	19-31/1/15
24400W	487327.8	6577128.8	E of Tanban Road 700m	19-31/1/15
24518E-24603E	#N/A	#N/A	Wizzenbucca Catchment - Fill 17 Swale Basin	19-31/1/15
24687E-24772E	#N/A	#N/A	Wizzenbucca Catchment - Fill 17 Swale Basin	19-31/1/15
24540W-24749W	#N/A	#N/A	Wizzenbucca Catchment - Fill 17 Swale Basin	19-31/1/15
24950E	487641.9	6577444.1	E of Tanban Road 900m	19-31/1/15
24950W	487548.7	6577475.9	E of Tanban Road 900m	19-31/1/15
25550E	488005.7	6578066.5	E of CP 1/2 Road 550m	19-31/1/15
25950E	488208.1	6578332.4	SE of Spankers Flat Road near CP 1/3 Road 400m	19-31/1/15
26050W	488204.2	6578484.9	Floodplain	19-31/1/15
26650E	488725.6	6578883.5	SE of Spankers Flat Road 450m	19-31/1/15
27550E	489479.3	6579311	SE of Battersons Road 1km	19-31/1/15
27550W	489424.5	6579375.9	SE of Battersons Road 1km	19-31/1/15
28100E	489976.5	6579488.1	Floodplain	19-31/1/15
29344W - 29607W	#N/A	#N/A	Doughboy Swamp - Fill 19 Swale Drain	19-31/1/15
29406E - 29707E	#N/A	#N/A	Doughboy Swamp - Fill 19 Swale Drain	19-31/1/15
29791E - 29950E	#N/A	#N/A	Doughboy Swamp - Fill 19 Swale Drain	19-31/1/15
29950W - 30050W	#N/A	#N/A	Doughboy Swamp - Fill 19 Swale Drain	19-31/1/15
30150W - 30300W	#N/A	#N/A	Doughboy Swamp - Fill 19 Swale Drain	19-31/1/15
30250E	491996.4	6580259.2	SW of Cooks Lane near Interchange	19-31/1/15
30350E	492045.7	6580278.3	SW of Cooks Lane near Interchange	19-31/1/15
30400W	492011.4	6580424	SW of Cooks Lane near Interchange	19-31/1/15
30750E	492415.1	6580576.4	SW of Cooks Lane 200m	19-31/1/15
31150E	492702.9	6580868.4	NE of Cooks Lane 130m	19-31/1/15
31250W	492679.1	6580960.2	NE of Cooks Lane 130m	19-31/1/15
31650E	493016	6581264.9	Swamp Sclerophyll Forest	19-31/1/15
31750W	492989.6	6581393.9	SW of Hills Lane 700m	19-31/1/15
32400E	493333.2	6581935.3	SW of Hills Lane 700m	19-31/1/15
32450W	493258.3	6581996.2	SW of Hills Lane 700m	19-31/1/15
32700E	493437.4	6582209.2	N of Hills Lane 120m	19-31/1/15
32800E	493454.4	6582281.1	N of Hills Lane 230m	19-31/1/15
33000E	493546.8	6582502.8	E of Clancys Road 270m	19-31/1/15
33070E	493558.3	6582525.4	E of Clancys Road 270m	19-31/1/15
33950E	493695.7	6583488	W Pacific Highway 400m River-flat Forest	19-31/1/15
33950W	493571.2	6583407.8	W Pacific Highway 300m River-flat Forest	19-31/1/15
34000W	493594.8	6583493.8	W Pacific Highway 385m River-flat Forest	19-31/1/15
34100E	493688.2	6583609.6	W Pacific Highway 320m River-flat Forest	19-31/1/15
34350E	493645.3	6583853	S of Nirvana Road 100m	19-31/1/15
34400E	493638.4	6583881.7	S of Nirvana Road 600m	19-31/1/15
35200E	493385.9	6584674.1	N of Nirvana Road 650m	19-31/1/15
35200W	493328	6584637.2	S Pacific Highway 650m	19-31/1/15
35250E	493368.4	6584724	S Pacific Highway 600m	19-31/1/15
35250W	493315.4	6584669.5	S Pacific Highway 600m	19-31/1/15
35650E	493186.6	6585068.8	W Pacific Highway (adjacent) Swamp Sclerophyll Forest	19-31/1/15
35750E	493097.4	6585194	E Pacific Highway (adjacent) Swamp Sclerophyll Forest	19-31/1/15

				35750W	493056.2	6585129.6	W Pacific Highway (adjacent) Swamp Sclerophyll Forest	19-31/1/15
				36750E	492439.9	6585933	E Pacific Highway (adjacent) Swamp Sclerophyll Forest	19-31/1/15
				36750W	492412.5	6585841	W Pacific Highway (adjacent) Swamp Sclerophyll Forest	19-31/1/15
				36850E	492411.3	6585957.9	E Pacific Highway (adjacent) Swamp Sclerophyll Forest	19-31/1/15
				37200E	492130.5	6586255.7	W Pacific Highway, 490m SE Stuarts Point Road	19-31/1/15
				37350E	492097.6	6586291.6	W Pacific Highway, 340m SE Stuarts Point Road	19-31/1/15
				37600E	491933.2	6586494.5	Close to intersection of Stuarts Point Road and Pacific Highway	19-31/1/15
				37600W	491840.9	6586417.9	Close to intersection of Stuarts Point Road and Pacific Highway	19-31/1/15
				38050E	491587.2	6586884.7	E Pacific Highway, 450m N Stuarts Point Road	19-31/1/15
				38100E	491565.8	6586915.2	E Pacific Highway, 450m N Stuarts Point Road	19-31/1/15
				38100W	491453.3	6586830.1	W Pacific Highway, 450m N Stuarts Point Road	19-31/1/15
				38450E	491293.5	6587168.2	E Pacific Highway, 300m S Brushbox Lane	19-31/1/15
				39400E	490853.5	6587923.6	Opp Intersection of Pacific Highway and Station Street	19-31/1/15
				TB30100	#N/A	#N/A	Main Compound - E	19-31/1/15
				TB30300	#N/A	#N/A	Main Compound - D	19-31/1/15
				TB30400	#N/A	#N/A	Main Compound - C	19-31/1/15
				TB30450	492399.2	6580054.2	Main Compound - B	19-31/1/15
				TB30600	#N/A	#N/A	Main Compound - F	19-31/1/15
				TB30650	#N/A	#N/A	Main Compound - Storage	19-31/1/15
				TB30900	#N/A	#N/A	Main Compound - A	19-31/1/15
Rainfall Summary 1 - 16 February 2015								
1/02/2015	29.2	69.2	11.4	TB13750	488644.5	6567460.7	Southern Batch Plant	1-16/2/15
2/02/2015	3.6	0	1.4	14500E	488294.7	6568081.8	N of un-named waterway N of Frederickton	1-16/2/15
3/02/2015	69.6	58.6	43	14900E	487982.3	6568408.9	E of Raymonds Lane	1-16/2/15
4/02/2015	0	0	0	15000E	487947.2	6568447.9	W of Raymonds Lane	1-16/2/15
5/02/2015	12.6	13.4	12.4	15000W	487882.6	6568376.7	E of Raymonds Lane	1-16/2/15
6/02/2015	0	0.2	0	15400E	487636	6568734.8	E CML 104	1-16/2/15
7/02/2015	0	0	0	15450W	487516.5	6568742.1	Swamp Sclerophyll Forest	1-16/2/15
8/02/2015	0	0	0	15500E	487614	6568767.5	W CML 104	1-16/2/15
9/02/2015	2	1.4	0	16350E	487067.7	6569472.9	N Mill/Quarry Road 250m	1-16/2/15
10/02/2015	3	4.6	0.4	16500E	487055.2	6569494.7	N Mill/Quarry Road 170m	1-16/2/15
11/02/2015	4.8	4	5.4	17350E	486683.7	6570386	W Seashore Lane - upstream of Maundia	1-16/2/15
12/02/2015	4.6	2.6	3.2	17350W	486615.8	6570263	W Seashore Lane - upstream of Maundia	1-16/2/15
13/02/2015	3.2	0.2	1.4	17400W	486589.2	6570388.1	W Seashore Lane - upstream of Maundia	1-16/2/15
14/02/2015	0	2.2	0.8	17450E	486657.5	6570507.7	W Seashore Lane Swamp Sclerophyll Forest	1-16/2/15
15/02/2015	0	0	0	18600E	486531.3	6571628.3	N of Kemps Access 280m	1-16/2/15
16/02/2015	0	0.2	0	18800W	486448.5	6571827.9	N of Kemps Access 500m	1-16/2/15
Total	132.6	156.6	79.4	18950E	486539.1	6571983.9	Swamp Sclerophyll Forest	1-16/2/15
				18950W	486459	6571965	Swamp Sclerophyll Forest	1-16/2/15
				19070E-19850E	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	1-16/2/15
				19068W-19850W	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	1-16/2/15
				20047E	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	1-16/2/15
				20050W	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	1-16/2/15
				20177E-20277E	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	1-16/2/15
				20175W-20275W	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	1-16/2/15
				20422E-20721E	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	1-16/2/15
				20425W-20725W	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	1-16/2/15
				20977E-21119E	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	1-16/2/15
				20985W-21255W	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	1-16/2/15
				21200E	486502.1	6574181.1	Swamp Oak Floodplain Forest	1-16/2/15
				21550W	486332.3	6574537.3	Swamp Oak Floodplain Forest	1-16/2/15
				21600W	486328.7	6574576.2	Swamp Oak Floodplain Forest	1-16/2/15
				21700E	486391.3	6574710.4	S of Seven Hills Road 1km	1-16/2/15
				21700W	486304.9	6574680	S of Seven Hills Road 1km	1-16/2/15
				22750E	486467.1	6575698.2	W of Seven Hills Road	1-16/2/15
				22900E	486512.9	65758320.1	W of Seven Hills Road	1-16/2/15
				23033E-23226E	#N/A	#N/A	Collombatti Flood Plain - Fill 16 Swale Basin	1-16/2/15
				23345E-23431E	#N/A	#N/A	Collombatti Flood Plain - Fill 16 Swale Basin	1-16/2/15
				23356W-23431W	#N/A	#N/A	Collombatti Flood Plain - Fill 16 Swale Basin	1-16/2/15

23565E-23810E	#N/A	#N/A	Collombatti Flood Plain - Fill 16 Swale Basin	1-16/2/15
23570W-23770W	#N/A	#N/A	Collombatti Flood Plain - Fill 16 Swale Basin	1-16/2/15
23800W	486998.7	6576620	E of Tanban Road 400m	1-16/2/15
23850E	487091	6576583.9	E of Tanban Road 400m	1-16/2/15
24300W	487256.3	6577008.3	E of Tanban Road 600m	1-16/2/15
24400W	487327.8	6577128.8	E of Tanban Road 700m	1-16/2/15
24518E-24603E	#N/A	#N/A	Wizzenbucca Catchment - Fill 17 Swale Basin	1-16/2/15
24687E-24772E	#N/A	#N/A	Wizzenbucca Catchment - Fill 17 Swale Basin	1-16/2/15
24540W-24749W	#N/A	#N/A	Wizzenbucca Catchment - Fill 17 Swale Basin	1-16/2/15
24950E	487641.9	6577444.1	E of Tanban Road 900m	1-16/2/15
24950W	487548.7	6577475.9	E of Tanban Road 900m	1-16/2/15
25550E	488005.7	6578066.5	E of CP 1/2 Road 550m	1-16/2/15
25950E	488208.1	6578332.4	SE of Spankers Flat Road near CP 1/3 Road 400m	1-16/2/15
26050W	488204.2	6578484.9	Floodplain	1-16/2/15
26650E	488725.6	6578883.5	SE of Spankers Flat Road 450m	1-16/2/15
27550E	489479.3	6579311	SE of Battersons Road 1km	1-16/2/15
27550W	489424.5	6579375.9	SE of Battersons Road 1km	1-16/2/15
28100E	489976.5	6579488.1	Floodplain	1-16/2/15
29344W - 29607W	#N/A	#N/A	Doughboy Swamp - Fill 19 Swale Drain	1-16/2/15
29406E - 29707E	#N/A	#N/A	Doughboy Swamp - Fill 19 Swale Drain	1-16/2/15
29791E - 29950E	#N/A	#N/A	Doughboy Swamp - Fill 19 Swale Drain	1-16/2/15
29950W - 30050W	#N/A	#N/A	Doughboy Swamp - Fill 19 Swale Drain	1-16/2/15
30150W - 30300W	#N/A	#N/A	Doughboy Swamp - Fill 19 Swale Drain	1-16/2/15
30250E	491996.4	6580259.2	SW of Cooks Lane near Interchange	1-16/2/15
30350E	492045.7	6580278.3	SW of Cooks Lane near Interchange	1-16/2/15
30400W	492011.4	6580424	SW of Cooks Lane near Interchange	1-16/2/15
30750E	492415.1	6580576.4	SW of Cooks Lane 200m	1-16/2/15
31150E	492702.9	6580868.4	NE of Cooks Lane 130m	1-16/2/15
31250W	492679.1	6580960.2	NE of Cooks Lane 130m	1-16/2/15
31650E	493016	6581264.9	Swamp Sclerophyll Forest	1-16/2/15
31750W	492989.6	6581393.9	SW of Hills Lane 700m	1-16/2/15
32400E	493333.2	6581935.3	SW of Hills Lane 700m	1-16/2/15
32450W	493258.3	6581996.2	SW of Hills Lane 700m	1-16/2/15
32700E	493437.4	6582209.2	N of Hills Lane 120m	1-16/2/15
32800E	493454.4	6582281.1	N of Hills Lane 230m	1-16/2/15
33000E	493546.8	6582502.8	E of Clancys Road 270m	1-16/2/15
33070E	493558.3	6582525.4	E of Clancys Road 270m	1-16/2/15
33950E	493695.7	6583488	W Pacific Highway 400m River-flat Forest	1-16/2/15
33950W	493571.2	6583407.8	W Pacific Highway 300m River-flat Forest	1-16/2/15
34000W	493594.8	6583493.8	W Pacific Highway 385m River-flat Forest	1-16/2/15
34100E	493688.2	6583609.6	W Pacific Highway 320m River-flat Forest	1-16/2/15
34350E	493645.3	6583853	S of Nirvana Road 100m	1-16/2/15
34400E	493638.4	6583881.7	S of Nirvana Road 600m	1-16/2/15
35200E	493385.9	6584674.1	N of Nirvana Road 650m	1-16/2/15
35200W	493328	6584637.2	S Pacific Highway 650m	1-16/2/15
35250E	493368.4	6584724	S Pacific Highway 600m	1-16/2/15
35250W	493315.4	6584669.5	S Pacific Highway 600m	1-16/2/15
35650E	493186.6	6585068.8	W Pacific Highway (adjacent) Swamp Sclerophyll Forest	1-16/2/15
35750E	493097.4	6585194	E Pacific Highway (adjacent) Swamp Sclerophyll Forest	1-16/2/15
35750W	493056.2	6585129.6	W Pacific Highway (adjacent) Swamp Sclerophyll Forest	1-16/2/15
36750E	492439.9	6585933	E Pacific Highway (adjacent) Swamp Sclerophyll Forest	1-16/2/15
36750W	492412.5	6585841	W Pacific Highway (adjacent) Swamp Sclerophyll Forest	1-16/2/15
36850E	492411.3	6585957.9	E Pacific Highway (adjacent) Swamp Sclerophyll Forest	1-16/2/15
37200E	492130.5	6586255.7	W Pacific Highway, 490m SE Stuarts Point Road	1-16/2/15
37350E	492097.6	6586291.6	W Pacific Highway, 340m SE Stuarts Point Road	1-16/2/15
37600E	491933.2	6586494.5	Close to intersection of Stuarts Point Road and Pacific Highway	1-16/2/15
37600W	491840.9	6586417.9	Close to intersection of Stuarts Point Road and Pacific Highway	1-16/2/15

38050E	491587.2	6586884.7	E Pacific Highway, 450m N Stuarts Point Road	1-16/2/15
38100E	491565.8	6586915.2	E Pacific Highway, 450m N Stuarts Point Road	1-16/2/15
38100W	491453.3	6586830.1	W Pacific Highway, 450m N Stuarts Point Road	1-16/2/15
38450E	491293.5	6587168.2	E Pacific Highway, 300m S Brushbox Lane	1-16/2/15
39400E	490853.5	6587923.6	Opp Intersection of Pacific Highway and Station Street	1-16/2/15
TB30100	#N/A	#N/A	Main Compound - E	1-16/2/15
TB30300	#N/A	#N/A	Main Compound - D	1-16/2/15
TB30400	#N/A	#N/A	Main Compound - C	1-16/2/15
TB30450	492399.2	6580054.2	Main Compound - B	1-16/2/15
TB30600	#N/A	#N/A	Main Compound - F	1-16/2/15
TB30650	#N/A	#N/A	Main Compound - Storage	1-16/2/15
TB30900	#N/A	#N/A	Main Compound - A	1-16/2/15

Rainfall Summary 18 February - 24 February 2015

Date	Rainfall (mm)		
	Main Compound	Northern Compound	Southern Compound
18/02/2015	2.6	11.4	2.6
19/02/2015	6.4	11	4
20/02/2015	30.8	35.6	24.8
21/02/2015	53.6	53.8	48.2
22/02/2015	14.4	20.6	13.2
23/02/2015	34.4	33.4	20
24/02/2015	3.2	2.4	5.2
25/02/2015	0.1	9.8	0.4
26/02/2015	1.4	0.2	1.4
27/02/2015	0.2	0	0.2
28/02/2015	0.2	0	0
1/03/2015	0.6	0	1
2/03/2015	0	0.2	0.2
3/03/2015	0	0	0
Total	147.9	178.4	121.2

Basin	Easting	Northing	Site Location	Rainfall event 18-26 February 2015 Overflow (Y/N)
TB13750	488644.5	6567460.7	Southern Batch Plant	18-26/2/15
14500E	488294.7	6568081.8	N of un-named waterway N of Frederickton	18-26/2/15
14900E	487982.3	6568408.9	E of Raymonds Lane	18-26/2/15
15000E	487947.2	6568447.9	W of Raymonds Lane	18-26/2/15
15000W	487882.6	6568376.7	E of Raymonds Lane	18-26/2/15
15400E	487636	6568734.8	E CML 104	18-26/2/15
15450W	487516.5	6568742.1	Swamp Sclerophyll Forest	18-26/2/15
15500E	487614	6568767.5	W CML 104	18-26/2/15
16350E	487067.7	6569472.9	N Mill/Quarry Road 250m	18-26/2/15
16500E	487055.2	6569494.7	N Mill/Quarry Road 170m	18-26/2/15
17350E	486683.7	6570386	W Seashore Lane - upstream of Maundia	18-26/2/15
17350W	486615.8	6570263	W Seashore Lane - upstream of Maundia	18-26/2/15
17400W	486589.2	6570388.1	W Seashore Lane - upstream of Maundia	18-26/2/15
17450E	486657.5	6570507.7	W Seashore Lane Swamp Sclerophyll Forest	18-26/2/15
18600E	486531.3	6571628.3	N of Kemps Access 280m	18-26/2/15
18800W	486448.5	6571827.9	N of Kemps Access 500m	18-26/2/15
18950E	486539.1	6571983.9	Swamp Sclerophyll Forest	18-26/2/15
18950W	486459	6571965	Swamp Sclerophyll Forest	18-26/2/15
19070E-19850E	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	18-26/2/15
19068W-19850W	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	18-26/2/15
20047E	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	18-26/2/15
20177E-20277E	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	18-26/2/15
20175W-20275W	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	18-26/2/15
20422E-20721E	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	18-26/2/15
20425W-20725W	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	18-26/2/15
20977E-21119E	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	18-26/2/15
20985W-21255W	#N/A	#N/A	Collombatti Flood Plain - Fill 15 Swale Basin	18-26/2/15
21200E	486502.1	6574181.1	Swamp Oak Floodplain Forest	18-26/2/15
21550W	486332.3	6574537.3	Swamp Oak Floodplain Forest	18-26/2/15
21600W	486328.7	6574576.2	Swamp Oak Floodplain Forest	18-26/2/15
21700E	486391.3	6574710.4	S of Seven Hills Road 1km	18-26/2/15
21700W	486304.9	6574680	S of Seven Hills Road 1km	18-26/2/15
22750E	486467.1	6575698.2	W of Seven Hills Road	18-26/2/15
22900E	486512.9	65758320.1	W of Seven Hills Road	18-26/2/15
23033E-23226E	#N/A	#N/A	Collombatti Flood Plain - Fill 16 Swale Basin	18-26/2/15
23345E-23431E	#N/A	#N/A	Collombatti Flood Plain - Fill 16 Swale Basin	18-26/2/15
23356W-23431W	#N/A	#N/A	Collombatti Flood Plain - Fill 16 Swale Basin	18-26/2/15
23565E-23810E	#N/A	#N/A	Collombatti Flood Plain - Fill 16 Swale Basin	18-26/2/15
23570W-23770W	#N/A	#N/A	Collombatti Flood Plain - Fill 16 Swale Basin	18-26/2/15
23800W	486998.7	6576620	E of Tanban Road 400m	18-26/2/15
23850E	487091	6576583.9	E of Tanban Road 400m	18-26/2/15
24300W	487256.3	6577008.3	E of Tanban Road 600m	18-26/2/15

24518E-24603E	#N/A	#N/A	Wizzenbucca Catchment - Fill 17 Swale Basin	18-26/2/15
24687E-24772E	#N/A	#N/A	Wizzenbucca Catchment - Fill 17 Swale Basin	18-26/2/15
24540W-24749W	#N/A	#N/A	Wizzenbucca Catchment - Fill 17 Swale Basin	18-26/2/15
24950E	487641.9	6577444.1	E of Tanban Road 900m	18-26/2/15
24950W	487548.7	6577475.9	E of Tanban Road 900m	18-26/2/15
25550E	488005.7	6578066.5	E of CP 1/2 Road 550m	18-26/2/15
25950E	488208.1	6578332.4	SE of Spankers Flat Road near CP 1/3 Road 400m	18-26/2/15
26050W	488204.2	6578484.9	Floodplain	18-26/2/15
26650E	488725.6	6578883.5	SE of Spankers Flat Road 450m	18-26/2/15
27550E	489479.3	6579311	SE of Battersons Road 1km	18-26/2/15
27550W	489424.5	6579375.9	SE of Battersons Road 1km	18-26/2/15
29344W - 29518W	#N/A	#N/A	Doughboy Swamp - Fill 19 Swale Drain	18-26/2/15
29406E - 29506E	#N/A	#N/A	Doughboy Swamp - Fill 19 Swale Drain	18-26/2/15
29607E - 29707E	#N/A	#N/A	Doughboy Swamp - Fill 19 Swale Drain	18-26/2/15
29607W	#N/A	#N/A	Doughboy Swamp - Fill 19 Swale Drain	18-26/2/15
29791E-29851E	#N/A	#N/A	Doughboy Swamp - Fill 19 Swale Drain	18-26/2/15
29950E-30050E	#N/A	#N/A	Doughboy Swamp - Fill 19 Swale Drain	18-26/2/15
29950W-30050W	#N/A	#N/A	Doughboy Swamp - Fill 19 Swale Drain	18-26/2/15
30150W-30250W	#N/A	#N/A	Doughboy Swamp - Fill 19 Swale Drain	18-26/2/15
30250E	491996.4	6580259.2	SW of Cooks Lane near Interchange	18-26/2/15
30350E	492045.7	6580278.3	SW of Cooks Lane near Interchange	18-26/2/15
30400W	492011.4	6580424	SW of Cooks Lane near Interchange	18-26/2/15
30750E	492415.1	6580576.4	SW of Cooks Lane 200m	18-26/2/15
31150E	492702.9	6580868.4	NE of Cooks Lane 130m	18-26/2/15
31250W	492679.1	6580960.2	NE of Cooks Lane 130m	18-26/2/15
31650E	493016	6581264.9	Swamp Sclerophyll Forest	18-26/2/15
31750W	492989.6	6581393.9	SW of Hills Lane 700m	18-26/2/15
32400E	493333.2	6581935.3	SW of Hills Lane 700m	18-26/2/15
32450W	493258.3	6581996.2	SW of Hills Lane 700m	18-26/2/15
32700E	493437.4	6582209.2	N of Hills Lane 120m	18-26/2/15
32800E	493454.4	6582281.1	N of Hills Lane 230m	18-26/2/15
33000E	493546.8	6582502.8	E of Clancys Road 270m	18-26/2/15
33070E	493558.3	6582525.4	E of Clancys Road 270m	18-26/2/15
33950E	493695.7	6583488	W Pacific Highway 400m River-flat Forest	18-26/2/15
33950W	493571.2	6583407.8	W Pacific Highway 300m River-flat Forest	18-26/2/15
34000W	493594.8	6583493.8	W Pacific Highway 385m River-flat Forest	18-26/2/15
34100E	493688.2	6583609.6	W Pacific Highway 320m River-flat Forest	18-26/2/15
34400E	493638.4	6583881.7	S of Nirvana Road 600m	18-26/2/15
35200E	493385.9	6584674.1	N of Nirvana Road 650m	18-26/2/15
35200W	493328	6584637.2	S Pacific Highway 650m	18-26/2/15
35250E	493368.4	6584724	S Pacific Highway 600m	18-26/2/15
35250W	493315.4	6584669.5	S Pacific Highway 600m	18-26/2/15
35650E	493186.6	6585068.8	W Pacific Highway (adjacent) Swamp Sclerophyll Forest	18-26/2/15
35750E	493097.4	6585194	E Pacific Highway (adjacent) Swamp Sclerophyll Forest	18-26/2/15
35750W	493056.2	6585129.6	W Pacific Highway (adjacent) Swamp Sclerophyll Forest	18-26/2/15
36750E	492439.9	6585933	E Pacific Highway (adjacent) Swamp Sclerophyll Forest	18-26/2/15
36750W	492412.5	6585841	W Pacific Highway (adjacent) Swamp Sclerophyll Forest	18-26/2/15
36850E	492411.3	6585957.9	E Pacific Highway (adjacent) Swamp Sclerophyll Forest	18-26/2/15
37200E	492130.5	6586255.7	W Pacific Highway, 490m SE Stuarts Point Road	18-26/2/15
37350E	492097.6	6586291.6	W Pacific Highway, 340m SE Stuarts Point Road	18-26/2/15
37600E	491933.2	6586494.5	Close to intersection of Stuarts Point Road and Pacific Highway	18-26/2/15
37600W	491840.9	6586417.9	Close to intersection of Stuarts Point Road and Pacific Highway	18-26/2/15
38100W	491453.3	6586830.1	W Pacific Highway, 450m N Stuarts Point Road	18-26/2/15
38450E	491293.5	6587168.2	E Pacific Highway, 300m S Brushbox Lane	18-26/2/15
39400E	490853.5	6587923.6	Opp Intersection of Pacific Highway and Station Street	18-26/2/15
TB30100	#N/A	#N/A	Main Compound - E	18-26/2/15
TB30300	#N/A	#N/A	Main Compound - D	18-26/2/15
TB30400	#N/A	#N/A	Main Compound - C	18-26/2/15
TB30450	492399.2	6580054.2	Main Compound - B	18-26/2/15

TB30600	#N/A	#N/A	Main Compound - F	18-26/2/15
TB30900	#N/A	#N/A	Main Compound - A	18-26/2/15