



Transport
Roads & Maritime
Services

MAJOR CONSISTENCY ASSESSMENT

Establishment of Northern Compound
Site and Precast Yard

Warrell Creek to Nambucca Heads
Pacific Highway Upgrade

FEBRUARY 2015



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Document Controls

Version	Date	Revision Description
A	08/12/14	Initial Draft for Internal Review
B	09/12/14	Initial Draft for Community Consultation
C	11/12/14	Incorporating Comments from Roads and Maritime
D	03/02/15	Incorporating Community Consultation and further amendments
E	20/02/15	Incorporating further comments from Roads and Maritime and the ER
F	25/02/15	Incorporating further comments from Roads and Maritime

1 Introduction

1.1 Background

Roads and Maritime Services completed an environmental assessment of the Warrell Creek to Urunga Pacific Highway Upgrade. (the Project EA) in January 2010. The Project EA identified a range of environmental, social and planning issues associated with the construction and operation of the Warrell Creek to Urunga Pacific Highway Upgrade and proposed measures to mitigate or manage those potential impacts.

The Project EA was publicly exhibited in from 28 January to 29 March 2010 for a period of 60 days. Following public exhibition, submissions from stakeholders were received and addressed by RMS in the Submissions Report which was lodged with the Director-General in November 2010.

After consideration of the Project EA and Submissions Report, the Minister for Planning approved the Warrell Creek to Urunga Pacific Highway Upgrade under Section 75J of the Environmental Planning and Assessment Act 1979 (EP&A Act) on 19 July 2011 subject to the Minister's Conditions of Approval (CoA) being met.

For the purposes of this environmental assessment, the concept design described and assessed in the Project EA and consequently approved by the Minister, is referred to as the Approved Project.

The Pacifico - Acciona Ferrovia JV (AFJV) was awarded the contract to construct the Warrell Creek to Nambucca Heads section which is Stage 2 of the overall Warrell Creek to Urunga Pacific Highway Upgrade. AFJV is proposing to establish a northern compound site on Roads and Maritime owned land at 52-122 Old Coast Road, North Macksville. The northern compound site will include a concrete batch plant and a precast facility. The site will also include a small office, light vehicle parking, erosion and sediment controls, stockpiling area and a laydown area.

1.2 Purpose of consistency assessment

The purpose of this consistency assessment is to:

- Describe the proposed activity/design refinement relative to the approved project;
- Assess the environmental risks associated with undertaking the activity confirming it is of minimal environmental impact; and
- Determine whether the proposed activity is consistent with the project approval requirements.

This consistency assessment has been undertaken to determine consistency with the Minister's approval.

2 Proposed Ancillary Facility

2.1 Description

AFJV is proposing to establish a northern compound site as an ancillary facility. The compound site is proposed to be located on Roads and Maritime owned land, predominately within 5 large rural lots and part of 2 smaller rural residential lots to the east of Old Coast Road, between Letitia Close and Mattick Road, North Macksville. The proposed location is immediately adjacent to the east of the Approved Project alignment (refer Appendix A).

The total area of the proposed compound site encompasses approximately 30 hectares (ha). The footprint of the precast yard, batch plant, car parks and office facility is expected to occupy approximately 5 ha. The septic waste will be collected in tanks and pumped out regularly to a liquid waste tanker. A sediment basin will also be constructed at a low point to capture runoff from the proposed site, an Erosion and Sediment Control Plan is included in Appendix F. The size of the sediment basin has been increased to allow for temporary water storage for construction purposes. The remainder of the site will be progressively used for temporary stockpiling of spoil, topsoil and mulch.

A concrete batch plant is planned to be installed near the centre of the site. The batch plant will be positioned to meet the required buffer distances to nearby residences on Letitia Close, Old Coast Road and Mattick Road. Prior to the commencement of batch plant operations, a noise/visual mound will be placed along the southern side of the batch plant/precast yard to minimise noise and visual impacts, as shown in Appendix B. The natural terrain provides a noise and visual barrier for residents living in Mattick Road.

The site may also be used for the minor storage of hydrocarbons and chemicals. The storage quantities will be below the quantities deemed as 'minor' in the relevant Australian Standard. The storage will be provided in bunded and ventilated, lockable storage containers. Minor diesel storage may also be provided in double skinned "transtank" facilities. The fill points of the transtank facility will be fully bunded, with automatic shut-off valves. Adequate spill clean-up kits will be provided at each chemical storage location. Chemicals that may be stored include:

- LPG Gas;
- Diesel for refuelling of heavy plant (<10,000L);
- Concrete curing compound for pavement works and the batch plant;
- Concrete batching additives;
- Hydraulic oil/lubricant/coolant etc for plant maintenance activities;
- Paint for landscaping works.

Initially, access to the proposed compound site will be facilitated via Old Coast Road. However, as the project construction progresses, direct access from the alignment will be facilitated.

2.1.1 Site Layout

The proposed compound site would contain:

- Satellite office buildings;
- Amenities;
- Onsite effluent storage area;
- Concrete batch plant;
- Precast yard;
- Sediment basin;
- Storage containers;

- Security fencing and lighting;
- Visitor and personnel car parking;
- Delivery laydown areas;
- Material stockpile areas;

In addition to above, the proposed compound site would also have appropriate erosion and sedimentation controls, hardstand and screening / noise mounds to assist in minimising potential noise and visual impacts. The noise/visual mounds will be installed prior to the commencement of batch plant operations.

Appendix B provides the compound site layout. .

The precast yard will require the erection of two sheds 1) 190x32m by 8m high and 2) 120 x 10m by 5m high.

In the main shed there will be 3 moulds with the dimensions of 50x5m for the precast girders. This shed will also contain:

- Storage space for precast elements;
- Spare mould 50x5;
- Reinforced steel for embedding in the girders,
- Ducts, trumpets, anchorages for the Post-tensioning (PT) works
- Strands for PT
- Spare pieces of moulds and forms.
- Boiler for Heat Accelerating Curing
- Internal access way for pouring the concrete

In the second shed there will be:

- Crib facilities
- Amenities
- Offices
- Ironers Workshop
- PT workshop
- Formworkers workshop
- General storage for tools, devices, spare parts.

Storage space is required for approximately 50 precast girders which will require a minimum area of 1.4ha. Contingency space is also included in the site layout.

Approximately 5 girders can be produced per week, however this may be less due to production issues. The precast program will commence in May 2015, it is important that the precast facility is operational and fully commissioned by this date.

2.1.2 Establishment

Establishment of the proposed compound site is expected to be completed as follows:

- Site establishment including fencing and installation of erosion and sediment controls;
- Earthworks to construct anearth pad to ensure the batch plant and precast yard are not located in low lying areas within the site;
- Installation of on-site effluent storage;
- Set up of concrete batch plant including silo's, hoppers, mixer and first flush system;
- Set up of Precast Facility including moulds;
- Construction of car park;

- Material stockpiling;
- Construction of laydown areas.

The sequence of establishment activities may alter or overlap.

Plant and Equipment:

The following plant and equipment would be required for compound site establishment:

- 20T Excavator;
- Padfoot Roller;
- Smooth Drum Roller;
- Dozer;
- Grader;
- Water Cart;
- Dump Trucks; and
- Crane.

2.1.3 Operation

Construction

During construction, all facilities within the compound site would be in use. The Project intends to cast concrete components such as:

- Bridge girders;
- Bridge Slabs;

During the latter stages of construction, the batch plant will be used for batching concrete used in paving. The proposed compound site would be progressively dismantled and the site rehabilitated as operations wind down. It is proposed that the batch plant will be required for production of concrete pavement. Once the paving operations are complete, the plant will likely be decommissioned. The Precast facility will likely not be required for as long the batch plant and may be decommissioned once the girder installation is complete.

Following the dismantling of the precast yard and batch plant, rehabilitation would be undertaken in accordance with the UDLP to be approved by the Director General.. This would include stabilisation of the site and revegetation with grass, shrub or tree species as specified in the UDLP.

During the peak of the construction program, the compound site would accommodate up to 50 personnel. The working hours during construction of the facility would be consistent with the Project Approval. The working hours during the operation of the facility would require some out of hours activities. This is discussed further in Section 5.5. Extended hours would be likely during evening and night-time periods. A noise assessment has been completed to ensure the Project can comply with the Environmental Protection Licence requirements.

2.2 Need

The establishment of the proposed northern compound, batch plant and precast yard site is needed to provide support office facilities and area for construction plant, equipment and storage for the Project.

Ancillary sites are permitted as part of the Approved Project providing that the proposed location of the ancillary site complies with the criteria in CoA C27 for ancillary facilities.

The Nambucca River bisects the project and divides it into two sections. The existing Pacific Highway, which crosses the Nambucca River at Macksville, is the only access between the

two sections of the project. The existing highway is subject to congestion and delays at Macksville due to local traffic, three sets of traffic lights and the narrow steel truss bridge crossing of the Nambucca River. A number of accidents have occurred on the sharp bend on the northern approach to the bridge.

To reduce the need for project vehicles to travel along the existing highway through Macksville and across the Nambucca River and minimise the associated traffic, noise and amenity impacts, the project is generally being managed as two semi-independent projects – one either side of the river. Consequently, site compounds will be located north and south of the river with the northern compound being the subject of this Review.

2.2.1 Alternatives Considered

AFJV has assessed alternative locations for the northern site compound from land made available to the Project from Roads and Maritime. The land made available to the Project is land that is wholly owned by Roads and Maritime. It is important that the land is located north of Nambucca River to allow the concrete girders to be erected on the new bridge starting from north of the river and prevent traversing across the existing Nambucca River Bridge. Therefore, given the quantity of land available for the precast facility and the batch plant, the land on Old Coast Road was considered the only option available for use for the Project. The other parcels of land shown in Appendix C were considered to be too small and/or contained too many environmental constraints. Table 2.1 lists the constraints against the CoA C27 conditions for the land available north of the Nambucca River.

It is noted that the concrete batch plant and precast yard currently located in the Macksville Industrial Estate was investigated for suitability for the Project. As the batch plant is a 'dry mix plant' it is unsuitable to produce the correct concrete for pavement requirements. The Project requires the use of a 'wet mix plant' to produce suitable concrete for paving.

Table 2.1 RMS Owned Land – Alternatives Analysis										
Site Considered		MCoA C27 Conditions								
Site reference and location	>50m from Waterway	Access to road network / direct access to construction corridor	Low ecological significance / minimal clearing	Level land	>300m from nearest resident	Above 1 in 20yr ARI flood level	Unreasonably affect land use of adjacent residents	Low heritage significance	Sufficient available area to store raw materials	Overall suitability
South of Nambucca River										
1# Warrell Creek (Lot 33 DP 1172069) Adjacent to Butchers Creek on Eastern side of alignment	No – close to Butchers Creek	Access to construction corridor only, access into the compound would need to be constructed.*.	No – Ecological Assessment has ruled site out due to proximity to riparian zone vegetation and limited space.	Yes (Typ 8%)	Yes	No – half of site is under flood level leaving minimal space for compound.	No	No – PAD site is registered on this property.	No – available space too limited (approx.. <1ha)	Not suitable
2 Warrell Creek (Lot 33 DP 1172069) Approx 300m south of Rosewood Creek on eastern side of alignment	Yes	Access to construction corridor only, access into the compound would need to be constructed.*.	Yes – site mostly logged	Yes (Typ 7%)	No	Yes	No	No – PAD site registered on Property.	No – available space very limited, would not fit compound in. (approx.. <1ha)	Not suitable
3# Warrell Creek (Lot 12, 17 DP 1154963) Approx 300m south of	No – within 50m of Rosewood Creek tributary	Access to construction corridor only, access into the compound would need to be constructed.*.	No – Site contains Endangered Ecological Community	No – too steep (Typ 13%)	No	Yes	No	No – PAD site registered on Property	No – available space too limited (<1ha)	Not suitable

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Site Considered		MCoA C27 Conditions								
Site reference and location	>50m from Waterway	Access to road network / direct access to construction corridor	Low ecological significance / minimal clearing	Level land	>300m from nearest resident	Above 1 in 20yr ARI flood level	Unreasonably affect land use of adjacent residents	Low heritage significance	Sufficient available area to store raw materials	Overall suitability
Rosewood Road on eastern side of alignment										
4# Albert Drive (Lot 5 DP 1067522) South of Rosewood Road between upgrade alignment and railway line	Partly – western part of site within 50m of Rosewood Creek	Yes – access off Rosewood Road	Partly – western part of site contains Endangered Ecological Community	Yes (Typ 5%)	No	Partly – western part of site is under 1 in 20yr flood level	No	Yes	No – available space too limited (<1ha)	Not suitable
5 Albert Drive (Lot 20 DP 722702) North of Rosewood Road east of upgrade alignment	Yes	Yes – from Rosewood Road	Yes	Yes (Typ 5%)	No	Yes	No	Yes	No – available land too small, would not fit compound (<1ha)	Not suitable
6# Albert Drive (Lot 5 DP 1067522) East of upgrade alignment between	Partly – Stony Creek runs through the site	Yes – from Rosewood Road	Partly – Riparian zone vegetation present along Stony Creek	Yes (Typ 4%)	Partly – one resident located within 300m on western side of railway line	Partly – half of site is under 1 in 20yr flood level	No	Yes	Yes (>1ha available)	Part of site is suitable

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Site Considered		MCoA C27 Conditions								
Site reference and location	>50m from Waterway	Access to road network / direct access to construction corridor	Low ecological significance / minimal clearing	Level land	>300m from nearest resident	Above 1 in 20yr ARI flood level	Unreasonably affect land use of adjacent residents	Low heritage significance	Sufficient available area to store raw materials	Overall suitability
Rosewood Road and Albert Drive										
7# O'Dells Road (Lot 5 DP 1067522) Between upgrade alignment and O'Dells Road	Partly – Stony Creek runs through site	Yes from Albert Drive	Partly – Riparian zone vegetation present along Stony Creek	Yes (Typ 5%)	Partly – eastern part of the site is within 300m of residents, however batch plant could be positioned in the western part of the site	Parts of the site are under the 1 in 20yr flood level, however compound could fit on site outside of flood zone	No	Partly – Archaeological deposit found adjacent to Stony Creek.	Yes (>1ha available)	Part of site is suitable
8# 124 Albert Drive Warrell Creek (Lot 2 DP 884342)	Yes	Yes – Initially from Albert Drive. From existing highway after construction of new intersection and access road	Yes	Yes (Typ 6%)	Yes	Yes	No	Yes	Yes (>1ha available)	Whole of site is suitable. Approved for use as Main Project Compound.
9 Warrell Creek (Lot 30 DP 1142214) On both sides of railway line north of existing	Partly – some parts are within 50m of Warrell Creek	Partly – Access to eastern part from existing Pacific Highway. Western part severed by railway line	Partly – Riparian vegetation and EEC present along Warrell Creek	Partly – Part west of railway line suitable. (Typ 5%) Part between railway	Partly – Part of the west of railway line suitable.	Partly – Part west of railway line within the flood zone	No	Yes	No – Western part within 50m of Warrell Creek and/or within the flood zone and in accessible due to railway line. Part between railway line and existing	Not suitable

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Site Considered		MCoA C27 Conditions								
Site reference and location	>50m from Waterway	Access to road network / direct access to construction corridor	Low ecological significance / minimal clearing	Level land	>300m from nearest resident	Above 1 in 20yr ARI flood level	Unreasonably affect land use of adjacent residents	Low heritage significance	Sufficient available area to store raw materials	Overall suitability
highway overbridge				line and existing highway too steep (Typ 25%)					highway too steep.	
10 Albert Drive (Lot 31 DP 1142214) East of upgrade alignment and north of Albert Drive	Yes	Yes – from Albert Drive	Yes	No (Typ 13%)	No – resident within 300m	Yes	No	Partly – PAD site located over part of site.	No – available site is too small for a compound site. (<1ha)	Not suitable
11 Kerr Drive (Lot 6 DP 1181639)	Partly – adjacent to Warrell Creek	Yes – from Kerr Drive	SE corner of the site encroaches EEC and Riparian vegetation	No – too steep (Typ 22%)	No – resident within 300m of the site	Yes	No	Mostly - PAD site along southern boundary	No available area due to proximity to residents and waterways and ecological and heritage constraints	Not suitable
12[#] Bald Hill Road (Lot 764 DP 575540) Adjacent to 42 Bald Hill Road	Yes	Yes – from Bald Hill Road	Partly – Northern half of the site is within the Flying Fox buffer zone	No– too steep (Typ 13%)	Yes	Yes	No	Yes	No – Potentially available land too steep	Not suitable
13[#] Gumma	Yes	Access to construction	Partly – southern part of	Yes (Typ	Yes	No – wholly	Potentially may impact on flood	Yes	None	Not suitable

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Site Considered		MCoA C27 Conditions								
Site reference and location	>50m from Waterway	Access to road network / direct access to construction corridor	Low ecological significance / minimal clearing	Level land	>300m from nearest resident	Above 1 in 20yr ARI flood level	Unreasonably affect land use of adjacent residents	Low heritage significance	Sufficient available area to store raw materials	Overall suitability
swamp (Lot 102 DP 1133328)		corridor only, access into the compound would need to be constructed. *.	the site is EEC	<1%)		located within the flood plain	afflux.			
North of Nambucca River										
14 Newee Creek (Lot 21,27 DP 1186376) Northern floodplain of Nambucca River	Partly – some of the site is Freshwater Wetland	Yes – from Nursery Road	Partly – some of the site is Freshwater Wetland	Yes (Typ <1%)	Partly – northern section of the site has resident within 300m north of existing Pacific Highway	No – site located within floodplain	Potentially may impact on flood afflux.	Partly – PAD site located on site.	None	Not suitable
15# Old Coast Road (Lot 7 DP 258324, Lot 6 DP 258324, Lot 5 DP 258324, Lot 4 DP 258324) 50 – 138 Old Coast Road	Yes	Yes – from Old Coast Road	Yes – adjacent to EEC, however not within the worksite	Yes (Steepest part of site approx. 8%, remainder of site <5%)	Parts of the site are close to residents, however 300m buffer zone can be maintained and still fit batch plant / precast yard	Yes	No	Partly – PAD site located on crest, but will not interfere with use of compound.	Yes (> 1ha available)	Part of site is suitable
16 Mattick Road (Lot 2 and 4)	Yes	Yes – from Old Coast Road	Yes	Yes (Typ 10%)	No – Residents close to site	Yes	No	Yes	No available area due to proximity to residents	Not suitable

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Site Considered		MCoA C27 Conditions								
Site reference and location	>50m from Waterway	Access to road network / direct access to construction corridor	Low ecological significance / minimal clearing	Level land	>300m from nearest resident	Above 1 in 20yr ARI flood level	Unreasonably affect land use of adjacent residents	Low heritage significance	Sufficient available area to store raw materials	Overall suitability
DP809906 and Lot 12 DP1185495										

As shown in Table 2.1, Site no. 15 is the most ideal location for the Project batch plant and Precast facility given the locations north and south of Nambucca River, low environmental constraints and large area available for facilities and spoil stockpiling.

Identified as potential Ancillary Facility Site in Warrell Creek to Urunga Environmental Assessment (January 2010)

3 Planning context

3.1 NSW Environmental Planning & Assessment Act 1979 (EP&A Act)

The Warrell Creek to Urunga Pacific Highway Upgrade project was approved on 19 July 2011 by the Minister for Planning subject to a number of conditions being met. Schedule 2 of the project approval details activities that can be undertaken prior to construction.

Schedule 2 of the CoA defines construction activities as all “work in respect to the project other than....establishing ancillary facilities in locations meeting the criteria stated in Condition C27; or other activities determined by the Environmental Representative to have minimal environmental impact....”.

Establishment of the proposed compound site is thus permitted providing that the proposed location of the compound site complies with the criteria in CoA C27 for ancillary facilities..

Under section 115ZI(2) of the EP&A Act RMS may request the Minister to modify the Minister’s approval of a State significant infrastructure project . Roads and Maritime Services is not required to obtain the Minister’s approval for a modification if the project as modified will be consistent with the Minister’s approval. This consistency assessment is being carried out to determine if the proposed change is consistent with the approved project or whether it requires a formal modification to the Minister’s approval. Project modifications that are deemed to be inconsistent would require a modification to the CoA under Section 115ZI(2) of the EP&A Act (or alternatively Section 74W(2) of the EP&A Act including the transition provisions in Schedule 6A of that statute).

3.2 Commonwealth Environmental Protection and Biodiversity Conservation Act 1997 (EPBC Act)

The Warrell Creek to Urunga Pacific Highway Upgrade project was referred to the Commonwealth Minister in accordance with the requirements of the EPBC Act. The Project received Minister’s Approval on the 11 December 2014 (2013/7101).

The proposed compound site is not expected to impact on any Matters of National Environmental Significance (MNES) as confirmed by the ecological survey undertaken at the site (refer to Section 5.1).

4 Consultation

4.1 Community

Twenty-seven residences on Old Coast Road, Letitia Close, Mattick Road and Champions Lane were letterboxed and dropped a notification and map (attached) of the proposed site compound and concrete batch plant on Thursday 11 December 2014 inviting them to provide feedback by close of business on Monday 19 January 2015.

Follow-up phone calls were made or emails were sent to residents that the project had contact details for, while others were doorknocked. At a few residences where no one was home, the project team also left contact details with the notifications inviting them to call the freecall number to arrange a meeting.

At least one meeting was held with each of the 35 residents between Thursday 11 December 2014 and Thursday 22 January 2015 and in some cases, more than one meeting. One

property on Mattick Road that had been letterbox dropped showed signs of being vacant for some time.

4.1.1 Noise Prediction

The preferred use of the site for a pre-cast yard, a concrete batch plant for bridge girders and concrete pavements, office and stockpiling also was explained as well as the remediation of the site following the dismantling of the site compound. Potential impacts including air quality, noise, and lighting and increased traffic movements during the establishment and operation of the site compound were explained, as well as the proposed mitigation measures for identified impacts. All residents at the meetings were invited to send the project team an email by COB on Monday 19 January 2015 if they had issues or concerns regarding the proposal. Residents were advised that a draft assessment of the proposal was available on the project website and hard copies of the draft assessment were provided on request to some residents.

The feedback from many of these potentially sensitive receivers in regards to the proposed site compound and concrete batch plant, was positive. Many advised during the consultation meetings that they were supportive of the project, unconcerned about the concrete batch plant, wanted construction work to begin as soon as possible and were looking forward to the upgrade project being completed.

The residents were provided the names and contact details of the Community Relations Team. They were advised that consultation, including responding to complaints, would continue throughout the establishment and operation of the site compound if the proposal was approved. They also were advised that, if approved, work at the site compound and concrete batch plant would be carried out during the approved construction hours which are 7am to 6pm Monday to Friday and 8am to 1pm on Saturdays. Any proposed work outside of these hours would require consultation with nearby residents in accordance with the approved Out of Hours Work procedure.

Ten written responses to the proposal were received by COB on Monday 19 January 2015. Out of the 10 responses, one respondent directly opposed the proposed batch plant, eight raised issues largely relating to mitigation measures and one respondent stated that they just wanted the work to go ahead. The responses raised a wide range of issues, including issues related to the proposed northern site compound and batch plant. Only issues related to the proposal are addressed in this report in Table 4.1. Separate correspondence addressing all issues raised in each submission will be sent to the individual respondent.

Each of the submissions was examined by the project team to understand the issues raised. The issues were extracted and collated and corresponding responses provided to each of the issues raised. One response has been provided where similar issues were raised in different submissions. The issues raised and the project team's responses to these issues forms the basis of this section of the report.

Table 4.1 lists each submission by number and indicates which part of this section addresses the issues raised in the submission.

Respondent	Submission No.	Section where issues are addressed
Individual	1	4.3, 4.4, 4.5
Individual	2	4.3, 4.4, 4.8, 4.18
Individual	3	4.3, 4.4, 4.6, 4.7, 4.9, 4.10, 4.11, 4.13, 4.14, 4.15, 4.17
Individual	4	4.3, 4.4, 4.5, 4.6, 4.9, 4.10, 4.11, 4.12, 4.13,

		4.15, 4.17, 4.19
Individual	5	4.3, 4.4, 4.9, 4.19
Individual	6	4.3, 4.4, 4.6, 4.12, 4.13, 4.17
Individual	7	4.3, 4.4, 4.5, 4.11, 4.12
Individual	8	4.3, 4.13, 4.17
Individual	9	4.3, 4.4, 4.5, 4.10, 4.11, 4.13, 4.15, 4.16, 4.17, 4.20
Individual	10	4.3, 4.4, 4.5, 4.7, 4.9, 4.10, 4.12, 4.13, 4.14, 4.15, 4.16

4.2 Overview of the issues raised

The submissions received were predominately concerned with:

- Air quality
- Noise and vibration
- Traffic and transport
- Request for a group meeting
- Alternatives considered
- North-facing ramps
- Relocation of the proposed southern access
- Hours of operation of the proposed batch plant
- Remediation of the site
- Planning context
- Community consultation
- Lighting intrusion
- Water quality and hydrology
- Clarifications to the assessment
- Visual amenity
- Support for the proposal
- Hazard and risk
- Socio-economic impacts

4.3 Air quality

Issue description

Concerns that dust from the proposed batching plant could adversely affect health, tank water, washing, bores, a home business and require cleaning of houses, vehicles, solar panels and swimming pools.

Requests for the provision of gutter mesh and water filters and questions regarding who should pay for the use of air-conditioners.

Concerns regarding dust mitigation outside of the batch plant hours of operation.

Concerns regarding the installation and effectiveness of first flush systems and that they should have been installed prior to any house removal operation or requests that they be installed prior to operation of the batch plant.

Concerns that work on the batch plant has already started without safety and environmental measures in place.

Concerns that rock and concrete crushing will be undertaken at the site.
How will air quality be monitored?

Response

The Major Consistency Assessment report sets out measures to mitigate air quality impacts from the proposed establishment of the site compound and operation of the batch plant. The report notes that the environment is influenced by dust from the existing use of the unsealed section of Mattick Road, immediately north of the intersection of Mattick Road and Old Coast Road.

The proposed measures to mitigate air quality impacts from the proposed site compound and casting yard would include:

- Watering or covering of exposed areas to minimise or prevent air pollution and dust
- Stopping work during strong winds or in weather conditions where high levels of dust or air-borne particulates are likely
- Managing stockpiles to suppress dust emissions in accordance with Roads and Maritime Services Stockpile Site Management Guideline (2011)
- Reinstating any exposed areas with fast-growing grasses
- Monitoring aggregate stockpiles for dust and providing water sprays when necessary.
- Sealing the light vehicle carpark and driveway with bitumen.
- Compacting the hardstand laydown area and precast yard to minimise dust emissions.
- Not burning vegetation or other materials on site.
- Vehicles transporting waste or other materials that may produce odours or dust would be covered during transportation.
- The storage silos on the batch plant would have particulate filters to prevent dust emissions.
- To ensure emissions from installation equipment are kept to a minimum, regular maintenance would be undertaken and machinery operated in accordance with manufacturer's guidelines.

The approved Project CEMP recognises that some dust will be generated during construction and allows for 4g/m²/month before non-compliance. The dust generated from the project is monitored by dust deposition gauges. Dust deposition gauges have been installed along the length of the project including at residences in Mattick Road and Letitia Close, north Macksville, to the north and south of the location of the proposed northern site compound. The dust deposition gauges will initially establish existing background dust readings in this area. During the construction phase of the project, the dust deposition gauges are monitored and the monthly records of the dust being generated by construction work in this location are used to determine the need for further mitigation.

One of the air quality mitigation measures that Pacifico proposes is to provide first flush systems to residents within 500m of the batch plant that use tank water as a primary source of drinking water. If the proposed northern site compound is approved, Pacifico would

engage a licensed plumber to install a first flush systems to residences within 500m of the proposed batch plant that rely on tanks for drinking water. The plumber would be required to ensure the systems would work. First flush systems improve water quality and reduce tank maintenance by preventing the first flush of water, which may contain roof contaminants, from entering the tank. They help ensure cleaner water is available for use, which protects rainwater pumps and internal household appliances such as clothes washing machines, toilets, hot water systems, etc. Regular routine tank cleaning is not required. If the proposal is approved, the first flush systems will be installed prior to operation of the batch plant. In regards to bores, it is not possible for airborne particulates to enter artesian waters and therefore affect bores.

Gutter guard mesh is not proposed and would not mitigate airborne particulates. Water purifying systems also are not proposed.

In terms of dust mitigation outside of the batch plant hours of operation, the project will be trialling the use of dust suppressants which have been successfully used on other projects to reduce dust. This will also minimise water use.

The Construction Environment Management Plan approved by the Department of Planning and Environment and the Environment Protection Licence (EPL) issued by the Environment Protection Authority (EPA) sets out the parameters under which the project can be constructed. They do not allow for 'inundation' of residents with dust and noise, either during construction of the upgrade or operation of the batch plant. The project has an Environmental Review Group comprised of government agency representatives which meets regularly to inspect and review the environmental practices on the project. The EPA also will carry out unannounced inspections to check on compliance.

The removal of houses is permissible under the project's early works licence. Any impacts from the removal of houses would not warrant the provision of first flush systems to nearby residents that use tank water as a primary source of drinking water.

Construction of the proposed northern site compound and batch plant has not started. Work cannot begin until the proposal has been assessed and approved. Pacifico has a safety team and environmental team to assess and monitor all construction works.

The Workplace Health and Safety Act prescribes legal obligations, which are enforced by WorkCover, in terms of the health and safety of workers involved in the construction of the project and operational activities including a batch plant. Compliance with the Act will ensure the health and safety of the workers and the surrounding community.

The construction of the upgrade and operational activities including the batch plant will be undertaken in accordance with the Minister's Conditions of Approval, the EPL, the Statement of Commitments for the project and all relevant legislation and policies. Confinement due to construction of the upgrade project and operational works would not be expected.

There will be no rock or concrete crushing operations at the plant and conveyors used in the batch plant are usually misted and this mitigates airborne particulates.

4.4 Noise and vibration

Issue description

Concerns regarding noise mitigation for the proposed concrete batch plant.

Concerns regarding at-house noise treatments being completed before operation of the batch plant.

Concerns regarding noise from the proposed north-facing ramps.
How will noise be monitored?

Concerns that the proposed noise/visual mound would be in place before operation of the batch plant.

Response

The proposed northern site compound has been located and designed to minimise noise impacts on adjacent residents.

This assessment for the proposal includes a table showing the predicted noise levels. The initial assessment predicted that works during the approved construction hours would be within 5dB(A) of the rating background for all properties within the vicinity of the plant. The updated assessment includes the noise modelling and confirms this is the case. The predicted noise levels have been compared with the Noise Management Level (NML) provided for the relevant noise catchment area from the Project Noise and Vibration Management Plan. The levels predicted at residences are below the noise management levels provided in the plan. This is due to the terrain which provides residents in Mattick Road with natural noise attenuation and in part to the proposed mound which would be provided along the southern side of the batch plant/precast yard to provide acoustic and visual screening for residents of Letitia Close. Noise monitoring also will be carried out by Pacifico.

Management of noise generated during construction of the project is the responsibility of Pacifico, the Acciona and Ferrovial joint venture.

The at-residence noise treatments, being managed by Roads and Maritime Services, are provided for operational traffic noise when the upgrade is completed and open to traffic. At-residence noise treatments are not provided for noise generated during construction of the project.

When selected, an environmental assessment will be prepared for the preferred option for the north-facing ramps. The environmental assessment will include a noise assessment which will identify any noise mitigation measures proposed to address any exceedences of the operational noise criteria for the project resulting from traffic using the ramps.

Other proposed mitigation measures include:

- Works to be carried out during approved construction hours (i.e. 7am to 6pm Monday to Friday and 8am to 1pm Saturday. No construction on Sundays or public holidays.
- Any out of hours activities that may need to be undertaken at the compound will be subject to the approval process detailed in the Out of Hours Works Approval Procedure.
- All neighbours potentially affected by noise and vibration impacts to be consulted/notified of the scope and duration of the proposed works and potential impacts.
- Exclusion fencing will be erected to create a 200m buffer zone from sensitive receivers located around the northern, southern and western boundaries. No site compound works will be permitted to take place within this buffer zone to minimise potential noise impacts to nearby sensitive receivers.

- Equipment to be used out of normal construction hours is to be fitted with broadband/non-tonal reversing alarms.
- All reasonable and feasible noise mitigation measures detailed in the approved Construction Noise and Vibration Management Plan to be implemented with the aim of achieving the construction noise objective.
- Implement additional control measures where relevant as outlined on the Site Compound Establishment eWMS.

4.5 Traffic and transport

Issue description

Impacts of traffic delays on Old Coast Road and loss in property value.

Concerns regarding increased traffic, traffic management, ability of the road network to withstand increased traffic, speeding and safety of school children catching a school bus.

Requests for a reduced speed limit.

Response

When completed, there will be no delays for traffic on Old Coast Road and travel times will be improved on the upgraded highway between Warrell Creek and Nambucca Heads.

Pre-condition surveys have been undertaken on local roads that will be used for construction of the upgrade. These will form the basis of any repairs or remediation works required to be undertaken. The estimate of 300 vehicle movements per day into and out of the facility at peak in the traffic section of the report includes the movements of employees' cars each day. Residents would be advised of any required temporary closure of Old Coast Road. In regards to traffic delays on Old Coast Road from construction of the project, movements of construction vehicles will be monitored and every effort will be made to keep any delays to a minimum. Pacifico and Roads and Maritime appreciate the patience and understanding of residents during construction of this major project.

Movements of construction vehicles will be monitored including for issues such as speeding. To minimise disruption to the local through traffic the access points into the site are proposed to be upgraded, to a 'basic right turn' treatment, allowing local traffic to pass a truck waiting to turn into site. These treatments are to be installed in advance of the full operation of the Northern Compound. The use of Old Coast Road would coincide with the installation of truck warning signage and the posting of a road work speed limit. Consultation with Nambucca Shire Council and Roads and Maritime would be undertaken in regards to reducing the speed limit on Old Coast Road.

Throughout the construction period Pacifico will be undertaking regular maintenance of Old Coast Road infrastructure that is affected by Pacifico's work and haulage to ensure that it is maintained in a safe manner and is suitable for the proposed traffic.

A Traffic Management Plan has been approved as part of the CEMP for the project. All construction movements will be subject to a Vehicle Movement Plan (VMP). Prior to any movement being undertaken a VMP shall be developed showing the vehicle path and permitted turning movements at intersections and construction gates. The VMP will be communicated to drivers in advance of its activation. Each vehicle will be identifiable, therefore Pacifico will be able to take corrective action, should drivers be practising unsafe acts.

Safe access to and from existing bus stops along the project will be provided. Pacifico and Roads and Maritime are aware of the school bus service provided by Heelis buses for

students along Old Coast Road and in Letitia Close and Mattick Road. Consultation has already occurred and will continue with the bus operator.

Traffic management plans will be developed in consultation with Heelis buses and residents to take school bus movements into account.

4.6 Request for a group meeting

Issue description

Requests for a group meeting with residents.

Response

The full extent of the proposal for a northern site compound and concrete batch plant was set out in the notification and map provided to residents. The notification also advised that the draft assessment of the proposal was available on the project website. Hard copies also were provided to residents on request. The project team held one-on-one meetings with 35 residents with sight distance or close proximity to the proposed northern site compound from 11 December 2014 until 22 January 2015. It was considered that assessment of the proposal could be progressed and the proposal assessed on its merits in regards to the Minister's Conditions of Approval and the Statement of Commitments for the project.

4.7 Alternatives considered

Issue description

Why couldn't the existing batch plant facility in Macksville be used?

Why couldn't the Roads and Maritime land on the northern floodplain be used?

Response

The Nambucca River bisects the project and divides it into two sections. The existing Pacific Highway, which crosses the Nambucca River at Macksville, is the only access between the two sections of the project. The existing highway is subject to congestion and delays at Macksville due to local traffic, three sets of traffic lights and the narrow steel truss bridge crossing of the Nambucca River. A number of accidents have occurred on the sharp bend on the northern approach to the bridge.

The establishment of the proposed northern compound and batch plant site is also needed to provide support office facilities and area for construction plant, equipment and storage for the northern section of the project.

To reduce the need for project vehicles to travel along the existing highway through Macksville and across the Nambucca River and minimise the associated traffic, noise and amenity impacts, the project is generally being managed as two semi-independent projects – one either side of the river. Consequently, the proposal is for a site compound to be located north of the river.

Ancillary sites are permitted as part of the approved project and are allowed to be established providing that the proposed location of the ancillary site complies with the criteria in the Minister's Conditions of Approval.

Pacifico assessed alternative locations for the northern site compound from land made available to the project from Roads and Maritime. The land made available to the project is land that is wholly owned by Roads and Maritime. It is important that the land is located north

of the Nambucca River to allow the concrete girders to be erected on the bridge starting from north of the river and preventing traversing across the bridge at Macksville. Therefore, given the quantity of land available for the pre-cast facility and the batch plant, the land on Old Coast Road was considered the only option available for use for the project. The other parcels of land available were considered too small and/or contained too many environmental constraints.

The land owned by Roads and Maritime on the northern floodplain is too small to fit the Precast facility and batch plant is flood prone, does not comply with the criteria in the Minister's Conditions of Approval for ancillary facilities and has environmental constraints.

4.8 North-facing ramps

Issue description

When will community consultation occur for the north-facing ramps?

The north-facing ramps will add more noise impacts.

Response

Roads and Maritime Services advised in a September 2014 project update that this was expected to occur in early 2015.

When selected, an environmental assessment will be prepared for the preferred option for the north-facing ramps. The environmental assessment will include a noise assessment which will identify any noise mitigation measures proposed to address any exceedences of the operational noise criteria for the project resulting from traffic using the ramps.

4.9 Relocation of the proposed southern access

Issue description

Requests to relocate the proposed southern access to midway between its existing position and the proposed northern access.

Response

In light of feedback from residents of Letitia Close, it is proposed to leave the southern access and egress to the proposed pre-cast yard off Old Coast Road in its current position but relocate the eastern end of the access road (which is the section of the access road closest to residents in Letitia Close) to the north away from Letitia Close to reduce traffic impacts to residents of Letitia Close. The location of the refined access road is shown in Appendix B.

4.10 Hours of operation of the proposed batch plant

Issue description

There is inconsistent information in the assessment regarding the hours of operation of the batch plant.

Response

The notification regarding the proposed site compound advised that work would be carried out during the approved construction hours which are 7am to 6pm Monday to Friday and 8am to 1pm on Saturdays. It also advised that any proposed work outside of these hours would require consultation with nearby residents. Consultation regarding any out of hours works would be carried out under the approved Out of Hours Works Approval Procedure.

4.11 Remediation of the site

Issue description

Concerns that the batch plant would remain after project completion and that the site would be left contaminated.

What will happen to the land after project completion?

Will the visual mound remain after the project completion?

Response

Following the completion of construction, the compound will be dismantled and the site remediated in accordance with the approved Urban Design and Landscaping Plan.

Contaminated materials will not be left behind. The land is owned by Roads and Maritime who will sell the land under its rural residential zoning after completion of the project.

The visual/noise mound will not remain after project completion.

4.12 Planning context

Issue description

Is there permission from Nambucca Shire Council for the facility?

How can an industrial facility be permitted in a rural residential area?

Response

The Warrell Creek to Urunga upgrade (including the Warrell Creek to Nambucca Heads and the Nambucca Heads to Urunga projects) is subject to Part 3A of the Environmental Planning and Assessment Act 1979 (EP&A Act) and is classified as critical infrastructure pursuant to Section 75C of the EP&A Act. Under the Act, the Minister for Planning is the approval authority for the project.

The Warrell Creek to Urunga Pacific Highway upgrade project was approved on 19 July 2011 by the Minister for Planning subject to a number of conditions being met. Schedule 2 of the project approval details activities that can be undertaken prior to construction. Schedule 2 of the Conditions of Approval (CoA) defines construction activities as all “work in respect to the project other than....establishing ancillary facilities in locations meeting the criteria stated in Condition C27”

Establishment of the proposed compound site is thus permitted providing that the proposed location of the compound site complies with the criteria in CoA C27 for ancillary facilities.

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 to obtain the Minister's approval to change the project if the project as changed is consistent with the Minister's approval. This consistency assessment is being carried out to determine if the proposed change is consistent with the approved project or whether it requires a formal modification to the Minister's approval. Project modifications that are deemed to be inconsistent would require a modification to the CoA under Section 115ZI(2) of the EP&A Act (or alternatively Section 74W(2) of the EP&A Act including the transition provisions in Schedule 6A of that statute).

4.13 Community consultation

Issue description

Who decided on the site, when was it decided and why wasn't it tabled at the community information session at Macksville in November 2014?

The timeframe to respond was inadequate.

The consultation with the Registered Aboriginal Parties occurred in October 2014 so the site had already been chosen.

We only received a post-it note asking us to call a number.

Please provide documentation regarding the requirements around community consultation in regard to batching plant and rock crushing facilities?

Where can we find a copy of the Community Involvement Plan?

Who will be responsible (Roads and Maritime or Pacifico) for recording, actioning and responding to our issues? How will these responses be communicated?

What means of redress do we have for disagreement on response proposals?

Having a freecall number to make complaints indicates that Roads and Maritime believe there would be issues. If the project team is proactive rather than reactive, the freecall number would not be necessary.

How will complaints be addressed?

We have been informed not consulted as consultation indicates some input from both parties and some agreement of what is happening. This has not been the case.

Response

The site was identified as a potential ancillary site in the environmental assessment for the Warrell Creek to Urunga Pacific Highway upgrade which was on display in early 2010. The proposal has to go through a review process to assess its environmental impacts and to ensure it is consistent with the overall project. The proposed site was chosen because it best met the Minister's Conditions of Approval for ancillary facilities including the batch plant being separated from the nearest residences by 300 metres. The consultation with the Registered Aboriginal Parties was part of the above review process.

In regards to community consultation, the notification was letterbox dropped on 11 December 2014 to nearby residents. Follow-up phone calls were made or emails were sent to residents that the project had contact details for, while others were doorknocked to set up meetings to discuss the proposal. At a few residences where no one was home, the project team also left contact details along with the notifications asking them to call the freecall number to arrange a meeting. At least one meeting was held with each of the 35 residents between Thursday 11 December 2014 and Thursday 22 January 2015 and in some cases, more than one meeting, to discuss the proposal.

Roads and Maritime is managing the at-house noise mitigation treatment process. Any issues regarding recording, actioning and responding to the at-house noise mitigation treatment process will be Roads and Maritime's responsibility. As the construction contractor, Pacifico is responsible for recording, actioning and responding to any issues, inquiries and complaints regarding construction work.

All community notifications include the project's 1800 freecall number, email address, postal address, website and community display centre address. Responses are usually returned via the same method they were made.

If community members are not happy with a response from Pacifico, they are entitled to raise the issue further with Roads and Maritime as the road authority.

The proposed northern site compound does not include rock crushing facilities.

In regards to documentation regarding the requirements around community consultation in regards to a batch plant, a consistency assessment is required to be undertaken against the Minister's Conditions of Approval for ancillary sites. These conditions do not specifically include community consultation requirements for ancillary facilities sites.

Consultation is undertaken as a very important part of Pacifico's contract with Roads and Maritime. In regards to consultation regarding a batch plant, the Community Involvement Plan, approved by the Department of Planning, requires a letterbox or email notification to impacted residents, a website update and SMS where mobile phone numbers are available for a batch plant. However, the project team has gone over and above this requirement by arranging face-to-face consultations with 35 residents to enable the proposal to be explained in more detail and to answer residents' questions. The Minister's Conditions of Approval are available on the project website at www.rms.nsw.gov.au/pacific.

Pacifico and Roads and Maritime are committed to a proactive approach to community issues with the objective of minimising the number of complaints received on the 24 hour hotline number. The telephone number provides a point of contact for the community with the project team to facilitate communications. The telephone number also provides a means of contacting the project team to express concerns and/or register complaints. The telephone number is also a requirement of the Minister's Conditions of Approval. Under the approved Community Involvement Plan approved by the Department of Planning and Environment, calls to the 1800 number will be answered within two hours during the day and out of hours work. Other after hours calls will be answered within four hours of start of work on the next business day.

Complaints will be addressed according to the Construction Complaints and Enquiries Management System outlined in section 6.3 of the CEMP and consistent with Australian Standard 4269 (complaints handling). Roads and Maritime Specification D&C G36 describes the environmental protection management process which Pacifico is required to implement during construction of the project. It contains specific requirements in relation to community liaison and complaints management.

Under the Community Involvement Plan approved by the Department of Planning, the community relations team will:

- Investigate the complaint or enquiry researching any previous issues, checking whether any requirement has been breached, what corrective action, if appropriate, will be undertaken, a timeframe for this action and the appropriate feedback/response to the complainant
- All complaints and enquiries to the 1800 number will be answered within two hours during the day and out of hours work. Other after hours calls will be answered within four hours of start of work on the next business day.
- All written complaints and enquiries received will be acknowledged in five business days
- When a complaint or enquiry cannot be resolved immediately, a verbal response on what action is being proposed to the complainant will be provided within one business day

- Provide a written response to the complainant/enquirer within 10 days, if the complaint or enquiry cannot be resolved by the initial or follow-up verbal response.

4.14 Lighting intrusion

Issue description

What will be done to mitigate against visual impacts eg artificial light pollution from site/security lighting, vehicle lights, etc

Response

Security lighting would be installed so that is directed downwards away from nearby residents. If community members find lighting intrusion to be a problem, they can contact the community team on the 1800 number so that any issue could be addressed.

4.15 Water quality and hydrology

Issue description

Concerns regarding flooding of the site and impacts on the existing hydrology, adjacent properties and water quality.

Where does the proposed sediment basin in the southern portion drain to when natural drainage is to the north east sector?

The area provides habitat for wetland species when heavy rain occurs.

Response

The project team engaged an independent consultant to carry out a flood study for the proposed northern site compound. Review of the soil landscape mapping indicated the site is located in a low-lying backswamp environment with seasonal water logging. As such there is the potential for the centre of the site to become temporarily inundated with water during periods of significant rainfall.

As a result, the earthworks pad for the site will be built up by about a metre to ensure the Precast Facility does not become inundated during heavy rainfall events. The hardstand area also will be sloped west towards the new alignment so that water can be captured for use during construction. The flood study report has found that the proposed northern site compound is not expected to impact on the existing hydrology in the vicinity.

Stormwater management practices will be implemented upon commencement of works to ensure no impact on water quality occurs. These will be in accordance with *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004) and the Roads and Maritime Services *Technical Guidelines: Temporary Stormwater Drainage for Road Construction* (RMS, 2011c). Pacifico will look to improve the drainage situation where possible by freeing up the flow in the blocked drainage lines on the Roads and Maritime owned land. The basin is located in the north-western section of the site and will drain to natural watercourses flowing to the north-east. A sediment basin has also been provided for the batch plant area to the east. The drainage situation will be improved by the sediment basin as 80% of rainfall events will be captured by this basin and released when the rainfall has ceased.

Mitigation measures include:

- Clean water diversions are to be provided for the drainage lines that currently run through the compound site;

- The batch plant is to be set up with a first flush system in accordance with EPA requirements to retain a 10mm rainfall event. The water will be recycled through the batch plant;
- A sediment basin will be provided to capture run-off from the earthworks pad, precast component storage area, aggregate stockpiles and to catch overflow from the first flush pit;
- Visual monitoring of local water quality (i.e. turbidity, hydrocarbon spills/slicks) is to be undertaken on a regular basis to identify any potential spills or deficient erosion and sediment controls;
- Water quality control measures are to be used to prevent any materials (e.g. sediment etc.) entering drain inlets or waterways;
- All oils, fuels, lubricants, liquids and chemicals are to be stored in appropriately bunded areas at least 50m away from drainage lines and waterways, poorly drained areas and slopes of greater than 10%;
- Any refuelling undertaken on site is to be in locations away from where spills may reach watercourses;
- Refuelling to utilise drip trays, spill mats and other spill prevention devices;
- Spill kits will be appropriately stocked and maintained and the crew will be trained in its use;
- Spill kits will be made available at all refuelling locations;
- All other relevant mitigations and management measures that are included in the Soil and Water Management Plan will also be implemented;
- Water quality monitoring as part of the Water Quality Monitoring Program will also be undertaken in the Nambucca River; and
- Appropriate siting of structures to ensure site drainage is not impeded

Most of the low lying land south of the proposed plant will remain unchanged and is expected to continue to provide habitat for wetland species when heavy rain occurs.

4.16 Clarifications to the assessment

Issue description

The assessment appears to be at least inadequate or at most flawed. There are serious concerns and in some places errors in the base information.

The erosion and sedimentation plan should have been included in the assessment.

The document should include a glossary and a list of acronyms.

Response

The assessment uploaded to the project website prior to Christmas was a draft and was believed to contain enough information for residents to respond to the proposal. The assessment has now been updated to include additional information, including the community consultation component.

The Erosion and Sediment Control Plan is part of the Construction Environmental Management Plan that was approved by the Department of Planning and Environment just prior to Christmas. This has now been included in the assessment

It is believed the table of contents is sufficient and acronyms are only used after the full spelling of the term.

4.17 Visual amenity

Issue description

Where is the 300m buffer zone measured from/to in relation to residences?

Will the proposed earth mound be grassed and vegetated with mature trees along its skyline? If so, will there be adequate maintenance to ensure effective establishment and future growth? These measures need to be in place prior to any operation starting.

Response

The 300m buffer is measured from the batch plant to residences, not property boundaries. All residences are more than 300m from the batch plant.

Should any surplus material become available, opportunities for it to be placed adjacent to the upgrade to provide additional noise and visual screening would be considered.

The assessment includes a section on landscape and visual impacts which states that visual amenity will be improved by the installation of a noise/visual mound one metre to two metres high to the south and eastern side of the proposed site compound and that, in addition, the proposed southern stockpile area will also aid in screening the proposed batch plant from residents in Letitia Close. The mound will be constructed to provide the desired mitigation for residents.

4.18 Support for the proposal

Issue description

You need a site compound and a batching plant. It's got to go somewhere, so why not here.

Response

Noted.

4.19 Hazard and risk

Issue description

Concerns regarding storage of flammable products and emergency response for residents.

Concerns regarding safely walking along Letitia Close.

Response

Hazard and risk was addressed in the report. Mitigation measures included:

- Implement the requirements of the Safe Work Method Statement for the activities being undertaken
- Ensure there is a Vehicle Movement Plan for the compound to avoid traffic risks to Old Coast Road
- Noise and dust will be minimised in accordance with the Environmental Work Method Statement
- First flush systems will be provided to local nearby residents within 500m of the batch plant that use tank water as a primary source of drinking water
- The storage, handling and use of the materials would be undertaken in accordance with the *Occupational Health and Safety Act 2000* and the *WorkCover guideline Storage and Handling of Dangerous Goods 2005*
- All personnel working at the batch plant are to undergo specific spill response training
- Construct sediment basin for capturing any potentially contaminated runoff

- Regular maintenance and inspection for construction of controls.

Trucks and plant all need to be driven and operated safely. Signage also needs to be placed where it does not create a hazard. Safe work method statements will be developed and approved for all construction work activities. Pre-starts identifying hazards and mitigations are held every day prior to work starting.

4.20 Socio-economic impacts

Issue description

How will the socio-economic risks be mitigated?

Response

Locating the plant on Roads and Maritime owned land minimises socio-economic impacts of the proposal.

Business activities in the immediate vicinity of the proposed compound site are predominately from the primary sector (i.e. agriculture, including hobby farms enterprises). In the short term, the proposed refinements will have a minor negative impact on the surrounding community with regards to amenity, noise and traffic. However, these impacts will be of limited duration with mitigation measures identified above being employed to reduce impacts. In the long term, the potential socio-economic impacts are positive, as the proposed compound site will contribute to the upgrade of the Pacific Highway. The upgrade of the Pacific Highway will provide enhanced access for the local community including:

- Improving travel times;
- Enhancing safety for localised and interstate travel;
- Improving delivery networks; and
- Provision of goods and services to the region.

4.21 Government agencies

This consistency review will be submitted to the Roads and Maritime and the Independent Environmental Representative (ER) for review and approval prior to any works commencing to establish the proposed compound site.

The location of the site compound has been discussed at the monthly Environmental Review Group (ERG) meeting, which consists of government agency representatives from DPI Fisheries, the EPA, Roads and Maritime and Independent Environmental Representative. A site inspection with ERG participants was undertaken on the 19th November 2014. The participants agreed that the site was a suitable location for the precast yard and concrete batch plant and agreed that there were minimal constraints. A comment was made regarding the potential low-lying nature of the land. AFJV confirmed that the flood mapping has not shown any flood prone areas within the site which are below the 1 in 20yr flood levels. However AFJV intend to build a substantial earth pad to provide immunity from a potential significant rainfall event.

5 Environmental Assessment

An assessment of the proposed compound site has been undertaken to compare the environmental impacts of this proposed ancillary facility relative to the environmental impacts of the Approved Project.

Only those impacts which are additional (either positive or negative) as a result of the proposed ancillary facility are discussed in the following sections. Impacts which are consistent with the Project EA are not discussed. The proposed ancillary facility has been assessed using the topics/issues discussed in the Project EA.

An Environmental Work Method Statement (EWMS) has been prepared for the establishment of the compound site (Appendix E)

5.1 Biodiversity

5.1.1 Introduction

A biodiversity assessment of all proposed ancillary sites and stockpile locations, including the proposed compound site has been undertaken by the Project Ecologist. The assessment was prepared to assess and compare the impacts to the overall biodiversity impacts assessed as part of the broader Warrell Creek to Urunga (WC2U) Pacific Highway upgrade project (SKM 2010) and provide additional assessment of the impacts on threatened species and endangered ecological communities where required. The key findings of the biodiversity assessment are presented below.

5.1.2 Existing Environment

Assessment of Ancillary Site Facility (ASF) 5, which encompasses the proposed northern compound site indicated that vegetation at the proposed compound site consists mostly of cleared pasture land with a number of small stands of Paperbark Forest (EEC). A number of small farm dams and drainage lines occur in low lying parts of the site. An area comprising a residential housing block which includes a number of plantings including garden ornamentals and fruit trees occurs in the north section of the site. A row of regrowth Tallowwood and White Mahogany trees occur along the northern boundary fence of the property. Two relatively small areas occur on the western side of the project site which comprise mostly cleared pasture land with areas of Open Forest – Blackbutt.

Fauna habitat within the proposed compound area include:

- Row of Moist Open Forest along the northern boundary fence of the residential property represents potential Koala habitat.
- Drainage lines and farm dams on the property provide marginal habitat for aquatic fauna.
- Small areas of Paperbark forest provide potential roosting/ nesting habitat for locally occurring/ migratory bird species.
- Areas of Open Forest – Blackbutt to the west of the alignment provide forested habitats for a range of locally occurring fauna

No threatened flora or fauna species were detected within the proposed compound site during the field surveys.

The biodiversity assessment identified a number of small stands of Swamp Forest - Swamp Mahogany/ Paperbark EEC in the eastern and north eastern portion of the proposed site. Two small stands of the same EEC are present in the south western portion of the proposed site. The EEC examples are moderately to highly disturbed (following historic clearing, livestock grazing, drainage modification and dam construction, and edge effects). This vegetation comprises relatively small and fragmented patches of vegetation. These EECs also occur adjacent to the broader study area and within the broader locality, where equivalent and better quality examples occur on the Nambucca River floodplains. The proposed compound site would be designed and constructed to avoid any impacts to EECs.

No EPBC Act listed TECs occur within or adjacent to the proposed compound site.

5.1.3 Potential impacts

The construction/ use of the subject sites as ancillary facilities would have the following potential impacts on biodiversity:

- clearing/ disturbance to areas of cleared pasture land;
- clearing of planted garden/ ornamental vegetation;
- clearing of isolated paddock trees will be required, it is noted that the final design of the precast facility avoids the requirement to remove native vegetation and fauna habitat;
- possible habitat removal for locally occurring fauna species although habitats present are generally of low quality with the exception of native vegetation which would be largely retained;
- may contribute to habitat fragmentation although this would be minor given that clearing of native vegetation would be avoided;
- the use of the subject sites for ancillary facilities would have the potential to contribute to the risk of introducing/ and or spreading weeds and pathogens to/ from the site;
- incrementally contribute to the overall risk of wildlife injury and mortality associated with the Approved Project during vegetation/ habitat removal/ modification, though only to a relatively minor extent; and
- direct impacts to the riparian corridor would be avoided, although the potential to indirectly impact these areas from erosion/ sedimentation and associated impacts to water quality remains if not appropriately managed.

5.1.4 Mitigation Measures

In order to minimise impacts to biodiversity it is recommended that the detailed design process would aim to position ancillary sites to:

- avoid direct impacts (clearing) to areas of EEC and provided a 10 metre buffer to these areas where possible;
- avoid clearing of native vegetation where possible;
- allow for adequate Tree Protection Zones (TPZs) around mature trees in proximity to ancillary sites; and
- avoid positioning ancillary sites within riparian corridors.

Additional biodiversity mitigation measures and safeguards to be implemented to ensure environmental impacts or risks are avoided or minimised, and ensure consistency with the Project approval requirements.

5.2 Land Use and Property

5.2.1 Existing Environment

The proposed compound site would be located on Roads and Maritime owned land, predominately within 5 large rural residential lots and part of 2 smaller rural residential lots to the east of Old Coast Road, between Letitia Close and Mattick Road, North Macksville. The proposed compound site is immediately adjacent to the east of the Project alignment (refer Appendix A).

The formal description of the properties on which the compound will be located include:

- Lot 2 DP258324
- Lot 3 DP258324
- Lot 4 DP258324
- Lot 5 DP258324
- Lot 6 DP258324

- Lot 7 DP258324
- Lot 8 DP258324

The site is zoned R5 Large Lot Residential according to *Nambucca Local Environmental Plan 2010*.

The existing properties are all largely cleared and have been historically used for agricultural purposes. A number of rural-residential dwellings and associated sheds are located on the more elevated portions of the lots (i.e. adjacent to Old Coast Road), however these areas are within the Project alignment and as such outside the boundary of the proposed compound site. A number of farm dams are located within the existing lots and a drainage line runs in approximate south west to north west direction through the middle of the proposed site. Much of the proposed site is currently being used for grazing purposes.

5.2.2 Potential Impacts

The existing site structures may be utilised as the new office facility. Site establishment will also involve installation of security fencing and lighting, demountable crib/compound office buildings, amenities, effluent disposal system and carpark. The compound would then be progressively expanded to include the concrete batch plant and precast yard.

Establishment of the proposed compound site will convert the site from a predominately rural residential land use to commercial / industrial land use for a short period of time during the Project construction phase.

5.2.3 Mitigation Measures

To minimise the land use and property impacts of the proposal, the following measures will be undertaken:

- All neighbours potentially affected by the establishment of the proposed compound site will be consulted/notified of the scope and duration of the proposed works and potential impacts;
- Following completion of the project the site will be rehabilitated and returned to as close as possible to its original condition.

5.3 Socio-Economic

5.3.1 Existing Environment

An analysis of the social and economic impacts and changes likely to occur as a result of the approved Project was undertaken as part of the Project EA. The proposed compound site is located in a rural residential landscape in the locality of North Macksville, approximately 2.2km north east of the Macksville CBD. The population within the vicinity of the proposed compound site generally reside on rural residential properties. Business activities in the immediate vicinity of the proposed compound site are predominately from the primary sector (i.e. agriculture, including hobby farms enterprises).

5.3.2 Potential Impacts

In the short term, the proposed refinements are expected to have a minor negative impact on the surrounding community with regards to amenity, noise and traffic. However, these impacts will be of limited duration with mitigation measures being employed to reduce impacts. In the long term, the potential socio-economic impacts are positive, as the proposed compound site will contribute to the upgrade of the Pacific Highway. Noise/visual mounds will also be provided along the Project boundary within Roads and Maritime owned

land which will reduce the noise and visual impacts during both the construction and operational phases of the Project.

5.3.3 Mitigation Measures

To minimise the socio-economic impacts of the proposal, the following measures will be undertaken:

- Community consultation will be undertaken in accordance with the Community Involvement Plan prepared for the Approved project, with the objective of:
 - notification of any potential noise, visual or air quality impacts;
 - advising of any road closures or disruptions; and
 - informing of the time of works, including the fact that the proposed refinements described in this document do not represent the final stages of construction work for the overall Project.

5.4 Landscape and Visual Impacts

5.4.1 Existing Environment

Much of the proposed compound site is located on the Seven Oaks Soil Landscape, comprising of level alluvial backswamp, with relief less than 1m, elevation less than 5m and slopes less than 1%. The more elevated portions of the site located on hilly spurs in the north western, north eastern and south eastern portions of the site are located on the Newry Soil Landscape comprising undulating rises and low hills with relief of 10-30 metres, elevation of 5-40m and slopes between 5-10% on crests and up to 20% on side slopes. The eastern portion of the site is located on Raleigh Soil Landscape comprising levees of the fluvial deltaic plain of the lower Nambucca River, with relief less than 3m, elevation less than 10m and slopes less than 2% on plains and upper surfaces, to 20% on banks. A small portion in the north eastern corner of the site is located on the Stuarts Point Landscape comprising a low inner barrier beach ridge plain with relief of 1-9m, elevation less than 10m and slopes less than 5%.

The current visual environment surrounding the areas of the proposed compound site is predominately of a rural landscape, with rural residential areas to the north, in the vicinity of Mattick Road and to the south in the vicinity of Letitia Close. Existing rural residential dwellings (to be demolished for construction of new highway) are located immediately to west, with Old Coast Road beyond. Partly forested rural landscape is present to the east.

5.4.2 Potential Impacts

Works associated with establishment of the proposed compound site will result in a negative visual amenity impact to the surrounding environment. Views from the properties on Mattick Road are constrained by existing topography. Views from the properties on Letitia Close are not constrained by topography and only partially constrained by existing private property vegetation. Views from the property on the east of Old Coast Rd is not constrained by topography but is partially constrained by vegetation which is to be retained during construction. In the context of the approved Project, the visual impact of the proposed compound site is relatively minor in nature. With implementation of appropriate mitigation measures, and appropriate landscaping, it is expected that any negative visual amenity impacts can be managed and minimised. As a batch plant is proposed for the property visual amenity will be further improved by the installation of a noise / visual mound 1 metre to 2 metres high to the South of the property. In addition the proposed southern stockpile area will also aid in screening the proposed batch plant location from residents on Letitia Close.

5.4.3 Mitigation Measures

To limit the impacts on visual amenity occurring before and after the proposed refinements, the following mitigation measures are recommended:

- Establish a noise/visual mound along the southern end of the batch plant/precast yard to minimise line of site to the compound;
- Permanent landscaping and rehabilitation is to be managed in accordance with the Urban Design and Landscape Plan (UDLP);
- Residents likely to be impacted by the establishment of the proposed compound site, particularly those receivers located along Letitia Close will be informed before commencement of work and regularly updated on progress; and
- Sowing of a mix of fast growing grasses for short- term stabilisation and native grasses for longer term amenity at the site.
- Exclusion fencing will be erected to create a 200m buffer zone from sensitive receivers located around the northern, southern and western boundaries. No site compound works will be permitted to take place within this buffer zone.
- The proposed concrete batching plant will be located towards the centre of the site to ensure the 300m buffer zone to sensitive receivers located around the northern, southern and western boundaries is met.

5.5 Noise and Vibration

5.5.1 Existing Environment

The proposed site is located within a rural and rural residential area with minimal noise and vibration impacts. Current noise sources include traffic along Old Coast Road, general farm noise sources from machinery and animals and contributions from rural residential premises. There are no considerable existing vibration sources beyond Old Coast Road traffic. A noise and vibration assessment was undertaken as part of the Project EA and also as part of the Construction Noise and Vibration Management Sub-plan.

Noise modelling has been undertaken by Jacobs to determine the potential impact. The noise assessment is available in Appendix G.

5.5.2 Potential Impacts

Works associated with the establishing the compound site are likely to increase noise levels in the immediate vicinity of the site for the duration of the construction phase.

Noise modelling results for the proposed construction and operation of the facility are shown in Table 5.1. The predicted noise levels have been compared with the Noise Management Level (NML) provided for the relevant noise catchment area from the Project Noise and Vibration Management Plan.

Table 5-1 Predicted noise levels from facility type (L_{Aeq} (15min))

Receiver ID	NML $L_{Aeq}(15 \text{ minute})$			Predicted noise level $L_{Aeq}(15 \text{ minute})$ dB(A)		
	Day	Evening	Night	No stockpiles	2m stockpiles	9m stockpiles
1812	44	37	38	26	26	26
1813	44	37	38	23	23	23
1814	44	37	38	37	37	37
1815	44	37	38	35	35	35
1816	44	37	38	31	31	30
1817	44	37	38	21	21	21
1818	44	37	38	12	12	12
1819	59	48	46	13	13	13
1820	44	37	38	29	29	29
1821	44	37	38	28	28	28
1822	44	37	38	28	28	28
1823	44	37	38	27	27	26
1824	44	37	38	20	20	20
1825	44	37	38	42	42	42
1826	59	48	46	36	36	36
1827	59	48	46	36	36	36
1828	59	48	46	28	28	27
1829	59	48	46	27	21	19
1830	59	48	46	27	24	24
1831	59	48	46	18	17	16
1832	59	48	46	22	21	19
1833	59	48	46	36	35	32
1834	59	48	46	38	38	37
1835	59	48	46	34	34	32
1836	59	48	46	35	35	33
1837	59	48	46	25	25	24
1838	59	48	46	38	38	36
1839	59	48	46	26	26	26
1840	59	48	46	29	29	28
1841*	59	48	46	44	44	43
1842*	44	37	38	36	36	36
1843	44	37	38	36	36	36
1844	44	37	38	29	29	27
1845	44	37	38	29	29	29
1846	44	37	38	32	32	32
1847	59	48	46	30	29	28

(1841 and 1842 are unoccupied residents that will be demolished as part of this Project works)

It is likely that the concrete batch plant will need to operate outside of the hours approved by the Planning Approval. AFJV has an approved Out of Hours Works Procedure (WC2NH-EN-NV-PRO_C). Table 5.1 above shows an exceedance of the night time NML at one property (1825). The noise sources were modified to remove the requirement for night time deliveries and truck movements to and from the batch plant during the night. The noise impacts were remodelled to demonstrate compliance with the night time NML for receiver 1825. Table 5.2 below shows the remodelled results for this receiver.

Table 5.2 Noise levels at receiver 1825 with removal of night time deliveries to the precast yard

Receiver ID	NML $L_{Aeq}(15 \text{ minute})$			Predicted noise levels dB(A)		
	Day	Evening	Night	Day	Evening	Night
1825	44	37	38	42	36	36
				Complies	Complies	Complies

The batch plant will only be operated when deemed necessary. The operation of the batch plant may be required out of hours to cast the precast girders to ensure strict quality requirements are met. Concrete batching may also be required out of hours during the paving operation to ensure the concrete meets strict quality requirements.

It is not envisioned that night time deliveries will be required, however, if night time deliveries are unavoidable, approval will be sought in accordance with the approved Out of Hours Procedure and EPL conditions.

5.5.3 Mitigation Measures

To ensure noise emissions are kept to acceptable limits, the following mitigation measures are recommended:

- Residents living in Mattick Road are provided with natural noise attenuation from the local terrain.
- An approximate 2m high noise mound will be provided along the southern side of the batch plant/precast yard to provide acoustic and visual screening.
- Works to be carried out during approved construction hours (i.e. 7am to 6pm Monday to Friday and 8am to 1pm Saturday. No construction on Sunday's or Public Holidays;
- Any Out of Hours activities that may need to be undertaken at the compound will be subject to the approval process detailed in the AFJV Out of Hours Works Approval Procedure and the EPL.
- All neighbours potentially affected by noise and vibration impacts to be consulted/notified of the scope and duration of the proposed works and potential impacts. Where impacts are expected, site specific controls to be implemented prior to commencement.
- Exclusion fencing will be erected to create a 200m buffer zone from sensitive receivers located around the northern, southern and western boundaries. No site compound works will be permitted to take place within this buffer zone to minimise potential noise impacts to nearby sensitive receivers;
- The proposed concrete batching plant will be located towards the centre of the site to ensure a 300m buffer zone to sensitive receivers located around the northern, southern and western boundaries is met.
- Equipment to be used out of normal construction hours is to be fitted with broadband/non-tonal reversing alarms.

- All reasonable and feasible noise mitigation measures detailed in the Construction Noise and Vibration Management Plan to be implemented with the aim of achieving the construction noise objective; and
- Implement additional control measures where relevant as outlined on the Site Compound Establishment eWMS.

5.6 Aboriginal Heritage

5.6.1 Introduction

An Aboriginal and cultural heritage assessment of all proposed ancillary sites and stockpile locations, including the proposed compound site has been undertaken by the Project Archaeologist. The key findings of the Aboriginal and cultural heritage assessment are presented below.

5.6.2 Existing Environment

The proposed compound site was identified as ASF5-C and ASF5-D in the Aboriginal and cultural heritage assessment. ASF5-C comprises the southern two-thirds of the proposed site and includes Lots 4-8. ASF5-D comprises the northern one third of the proposed site and includes Lot 2 and 3.

ASF5-C was assessed by the Project Archaeologist as having:

- No known Aboriginal heritage items identified nearby;
- No known historical heritage items identified nearby.
- No sensitive landforms located within works area (low-lying swampy floodplain).

As such no further assessment was required in this portion of the site.

ASF5-D was assessed by the Project Archaeologist as having:

- One area of PAD intersected by the works area.
- No known historical heritage items identified nearby.

As such archaeological field survey and consultation with Registered Aboriginal parties (RAPs) along with sub-surface testing of PAD areas to be impacted was required. A previously recorded PAD located in the northwest corner of the proposed site was extended in a south eastern direction across the crest of a spur overlooking the low lying areas of the site. A total of 17 manual shovel test pits (STPs) were excavated in 500 mm x 500 mm units within the extended PAD area. Two stone artefacts were discovered in STP 2.

Consultation was undertaken with the Registered Aboriginal Parties (RAP) during an Aboriginal Focus Group (AFG) meeting held on the 22 October 2014. No issues were raised with the use of the site for a compound and no issues were raised with the methodology used to survey and test excavate the site.

5.6.3 Potential Impacts

The artefact scatter was given an overall rating of low significance. However as the artefact scatter located wholly within the proposed site, it will be subject to proposed ancillary activities and therefore subject to potential direct impact if appropriate mitigation measures are not employed.

5.6.4 Mitigation Measures

The required management strategy for the identified artefact scatter on the northern portion of the site is:

- Erection of exclusion zones at a distance of at least 20 m beyond the recorded site extent to ensure damage does not occur to archaeological deposits.

- The exclusion zone must consist of fencing such as would exclude entry by people or plant not authorised by the WC2NH Environmental Manager, in order to avoid incidental impact to the site (eg high visibility construction webbing)

Furthermore, RMS' Standard Management Procedure: *Unexpected Heritage Items* (Roads and Maritime 2013) will be followed should any unexpected heritage items be uncovered during ancillary works.

5.7 Hydrology and Water Quality

5.7.1 Existing Environment

A spur extending in a south easterly direction from the ridgeline to the west of the proposed site, provides more elevated land in the north western portion of the site. Overland flows from this spur would follow natural topography and be directed to lower lying areas of the proposed site to the south, south east and east. Much of the remainder of the proposed compound site is located on relatively flat, level land, with a slight grade towards the centre of the proposed site where an unnamed drainage line runs in an approximate south west to north east direction.

A second unnamed drainage line extends onto the site across the northern boundary and meets the above mentioned drainage line in the north eastern corner of the site. The drainage line forms a more recognisable ephemeral channel towards the north eastern corner of the site as it continues off site to the north east.

Both drainage lines are not considered 'waterways' as they do not meet the requirements of a waterway as defined in the CEMP:

- *Any Class 1 or Class 2 fish habitat waterways (as described in the NSW Fisheries guidelines).*
- *Any permanent or ephemeral drainage line with direct drainage to State Environmental Planning Policy No 14 Coastal Wetlands.*
- *Waters that are used for the purposes of human consumption.*
- *Waters that have a known Maundia triglochinos population*

5.7.2 Potential Impacts

There is a potential for erosion and sedimentation to affect the unnamed drainage line running through the centre of the site in an approximate south west to north east direction during earth works and material stockpiling activities if appropriate controls are not implemented. Leaks of hydrocarbon containing materials from construction machinery are also a potential source of contamination within or in the immediate vicinity of the project site. These potential impacts can be adequately mitigated through the measures presented in Section 5.7.3.

The proposed compound site is not identified to be below the 1 in 20 year flood zone. Notwithstanding, review of the soil landscape mapping indicates the site is located in low-lying backswamp environment with seasonal water logging. As such there is the potential for the centre of the site to become temporarily inundated with water during periods of significant rainfall.

It is unlikely that the establishment of the compound site will impact on the hydrology or flooding characteristics of the area in excess of that already assessed as part of the approved Project.

The batch plant area will store materials that may impact on the surrounding water quality. This includes concrete aggregates, cementitious materials, lime and fly ash.

5.7.3 Mitigation Measures

Stormwater management practices will be implemented upon commencement of works to ensure no impact on water quality occurs. These will be in accordance with *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004) and the *RMS Technical Guidelines: Temporary Stormwater Drainage for Road Construction* (RMS, 2011c), and will generally include:

- Clean water diversions are to be provided for the drainage lines that currently run through the compound site;
- An earthworks pad is to be established at an appropriately designed height to prevent inundation of the precast yard and batch plant;
- The batch plant is to be set up with a first flush system in accordance with EPA requirements to retain a 10mm rainfall event. The water will be recycled through the batch plant;
- A sediment basin will be provided to capture run-off from the earthworks pad, precast component storage area, aggregate stockpiles and to catch overflow from the first flush pit;
- Visual monitoring of local water quality (i.e. turbidity, hydrocarbon spills/slicks) is to be undertaken on a regular basis to identify any potential spills or deficient erosion and sediment controls;
- Water quality control measures are to be used to prevent any materials (e.g. sediment etc.) entering drain inlets or waterways;
- All oils, fuels, lubricants, liquids and chemicals are to be stored in appropriately bunded areas at least 50m away from drainage lines and waterways, poorly drained areas and slopes of greater than 10%;
- Any refuelling undertaken on site is to be in locations away from where spills may reach watercourses;
- Refuelling to utilise drip trays, spill mats and other spill prevention devices;
- Spill kits will be appropriately stocked and maintained and the crew will be trained in its use;
- Spill kits will be made available at all refuelling locations;
- All other relevant mitigations and management measures that are included in the Soil and Water Management Plan will also be implemented; and
- Appropriate siting of structures to ensure site drainage is not impeded.

5.8 Traffic, Transportation and Access

5.8.1 Existing Environment

Local roads in the vicinity of the proposed compound site include:

- Old Coast Road, located to the west of the proposed compound site;
- Mattick Road, located to the north of the proposed compound site; and
- Letitia Close, located to the south of the proposed compound site.

Old Coast Road is a rural collector road which services a number of rural-residential and agricultural properties along its length. It also services two local road intersections which are Mattick Road and Letitia Close. Old Coast Road also provides access to Nambucca Shire Waste Management Facility, Nambucca State Forest and is an alternative route from North Macksville to Nambucca Heads. Its existing traffic is a mix of light and heavy vehicles owing to the surrounding land use, the current volume is anticipated to be between 200-700 vehicle

movements per day, based on information from Nambucca Shire Council (*Nambucca Shire Council Road Hierarchy Plan, 2009*), which is considered relatively low.

Letitia Close is a local road providing access to 12 rural residential properties to the east of Old Coast Road. Its existing traffic mix is made up of light vehicles, with limited heavy vehicle access required for transport of machinery and livestock. The current volume is anticipated to be less than 50 movements per day.

Mattick Road is a local road providing access to 11 rural residential properties to the east of Old Coast Road. Its existing traffic mix is made up of light vehicles, with limited heavy vehicle access required for transport of machinery and livestock. The current volume is anticipated to be less than 50 movements per day.

There is also a school bus service that travels along Old Coast Road twice daily, in the morning to pick up school children and in the afternoon to drop them off. The bus stops on Old Coast Road at the intersection of Letitia Close and Mattick Road. There are no formal bus stops currently on Old Coast Road.

5.8.2 Potential Impacts

The northern compound site will house a site office and amenities and neighbouring concrete batch plant, pre-cast yard and storage areas. It is proposed that two separate access/egress points are installed off Old Coast Road:

- One light vehicle access/egress point for office staff and workers accessing the site; and

One heavy vehicle access/egress point to and from the pre-cast yard, batch plant and storage area. The estimated traffic generation based on the number of vehicles per person are in table 5.2 below. The figures are generated based on experience from other similar road construction projects, the figures are above average with the trips per day likely to be generally lower. There may be days when the maximum trips per day are greater than those figures quoted below.

Table 5.2 – Traffic movements for the Northern Site Compound

TYPE	STAFF NOS.	VEHICLES NOS.	TRIP MOVEMENTS		MAXIMUM TRIPS PER DAY
			IN	OUT	
Office staff: Managers, Supervisors, Survey, Lab and Plant staff	5	5	20	20	40
Workers	45	40	40	40	80
Concrete Agitators	-	8	80	80	160
Batch Plant delivery and Service	-	10	10	10	20
Totals:	50	63	150	150	300

As the Northern Compound will house the Projects Precast Facility, girders will be cast on site and escorted from the Facility to their final destination. The majority of the girders will be travelling south via the Old Coast Road and traverse into site, and travel along the alignment, thus avoiding the need to access the existing Pacific Highway. Where girders are required to

access the Pacific Highway they will do so via the Old Coast Road intersection with the Pacific Highway.

Girders will commence exiting the yard from August 2015 to June 2016. These timing may change based on weather conditions and construction requirements at the time. The movement of girders will be subject to an over dimensional vehicle escort.

The typical site traffic flows will occur between 06:30 – 07:30 and 17:30 – 18:30 Monday to Friday and 07:00 to 14:00 Saturday's.

The estimated in movements will generally be outside of the morning peak which is generally between 08:30 – 09:30. The impact of project vehicles exiting the evening peak is considered to fall within normal volume fluctuations.

Establishment of the proposed compound site will require the delivery of materials, prefabricated structures and other structures, with heavy vehicles. Traffic movements are anticipated to be approximately 15-20 (10-15 heavy vehicles) movements per day over a four week period.

5.8.3 Mitigation Measures

To provide safe access and accommodate additional construction vehicle movements it is proposed that the existing Pacific Highway / Old Coast Road intersection will be upgraded, with an acceleration and deceleration lanes installed to permit all turning movements safely, additionally sufficient storage length for all construction vehicles using the intersection will also be provided if required.

It is proposed that an 80km/h speed zone coming out of North Macksville is extended further north, past the Old Coast Road intersection.

This intersection will be operational during the pre-construction phase and for the length of construction phase of the project.

Two accesses will be provided directly off Old Coast Road, it is proposed that basic right turn treatments are provided at these access points, which would allow local traffic to pass a construction vehicle waiting to turn into site; this will be agreed between RMS Representative and the Project.

In addition to the above measures, the following mitigation measures will be implemented as a minimum:

- Implement Vehicle Movement Plans to detail the proposed route and ensure that the minimum amount of movements are utilised for each task;
- Site access and traffic controls would be developed in accordance with the RMS D&C G10 and other Project documents;
- Traffic management measures would include the installation of short term and long term reduced speed limits, turning restrictions and traffic control during high Heavy Vehicle volumes and to accommodate over dimensional loads;
- Site access points and vehicle movements will be routed as far from sensitive receivers as practical; and
- Implement additional control measures where relevant as outlined on the Site Compound Establishment SWMS.

5.9 Geology and Soils

5.9.1 Existing Environment

Reference to the *1:250,000 Geological Series Sheet SH/ 56-10 and 11 for Dorrigo–Coffs Harbour* (Leitch et al 1971) indicates the proposed compound site is situated on Dummy Creek Conglomerate of the Lower Permian age comprising slate, phyllites, schistose, sandstone, schistose conglomerate and basic volcanics.

According to the *Soil Landscapes of the Macksville and Nambucca 1:100,000 sheets* the proposed compound site is situated on the following Soil Landscapes:

Newry Soil Landscape located in hilly spurs in the north western, north eastern south eastern portions of the site, characterised by:

- 100-180cm moderately well drained Red and Brown Kurosols (Red or Yellow Podzolic Soils) with <70cm gravelly Brown Kurosols on coastal headlands and 100-200cm silty textured Brown or Red Kurosols (Brown Podzolic Soils) on footslopes;
- moderate to high erosion risk due to moderate erodibility, high rainfall erosivity and moderate slopes;
- topsoil materials are susceptible to rill erosion on steeper sideslopes, where ground cover has been removed; and
- low to moderate limitations due to erosion risks, foundation hazard, low wet bearing strength and low subsoil permeability.

Seven Oaks Soil Landscape comprising much of the centre of the site, characterised by:

- <200cm poorly drained Sulfidic Hydrosols (Humic Gleys) and Sulfidic Organosols (Acid Peats);
- Organic soils with low wet bearing strength, high erodibility, sodicity, low permeability, potential acid sulfate soils;
- Strong acidity, high aluminium toxicity potential and salinity; and
- Poor drainage, high flood hazard, seasonal waterlogging, permanently high watertables.

Raleigh Soil Landscape, located in the eastern portion of the site, characterised by:

- >200cm moderately to poorly drained Brown Kandosols (Alluvial Soils and Prairie Soils);
- Soils with high subsoil plasticity, low wet bearing strength, organic topsoils, high erodibility, sodicity, low subsoil permeability;
- localised poor drainage, flood hazard, localised seasonal waterlogging; and
- minor sheet erosion hazard, high streambank erosion, high foundation hazard, high acid sulfate soil risk.

Stuarts Point Soil Landscape, located in the north east corner of the proposed site, characterised by:

- >300cm rapidly drained Aeris Podzols (Podzols) with shelly Cumulic Anthrosols (Prairie Soils) on midden mounds;
- Sandy soils with high erodibility, very low available waterholding capacity and low fertility;
- Rapid drainage, groundwater pollution hazard, high wind erosion hazard and
- Non-cohesive soils, very low moisture availability, high landscape fire hazard.

Review of the Macksville Acid Sulfate Soils Risk Map – Edition Two (former Department of Land and Water Conservation, 1997) indicates the centre of the proposed site associated with the Seven Oaks Soil Landscape is mapped as having high probability of acid sulfate soils with 1m of the ground surface. The eastern portion of the proposed site, associated

with the Raleigh Soil Land Shape is mapped as having a high probability of acid sulfate soils between 1 and 3m below the ground surface. The high risk Acid Sulfate Soil areas are shown on the Constraints Maps in Appendix A.

There are no known areas of contamination at the proposed compound site.

5.9.2 Potential Impacts

The activities associated with the establishment of the proposed compound site described in this consistency review will result in clearing and/or disturbance to ground vegetation and a number of garden ornamental trees, potentially exposing soils to erosional forces. Erosion of disturbed areas or of imported fill material by water may result in the potential for sedimentation and water quality issues in the unnamed drainage line running through the centre of the site and down gradient waterways.

There is also potential for soil contamination associated with the storage, handling and use of fuels and oil on site during construction works. Fuel and oil would be stored and secured in a bunded area within the proposed compound site, and measures outlined in *Section 5.7.3* would be put in place to minimise potential risks.

There is the potential that earthworks may disturb underlying acid sulfate soils and/or uncover unknown contaminated materials from past land use activities, such as past agricultural land uses.

5.9.3 Mitigation measures

In addition to the Soil and Water Management Plan which is part of the approved CEMP for the approved Project, a site specific erosion and sedimentation control plan has been developed to mitigate the above mentioned issues (as provided in Appendix F). The plan has been developed in accordance with the approved CEMP, *RMS Specification G39 Soil and Water Management Plan (Erosion and Sediment Control Plan)* (RMS, 2011) and *Managing Urban Stormwater Soils and Construction* (Landcom, 2004). In particular, the following general principles are addressed by the management plan and will be implemented both during construction and maintenance works:

- Erosion and sediment control measures are to be implemented and maintained to:
 - Prevent sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets;
 - Reduce water velocity and capture sediment on site;
 - Minimise the amount of material transported from site to surrounding pavement surfaces; and
 - Divert clean water around the site.
- Erosion and sedimentation controls are to be checked and maintained on a regular basis (including clearing of sediment from behind barriers) and records kept and provided on request;
- Erosion and sediment control measures are not to be removed until the works are complete and areas are stabilised;
- Work areas are to be stabilised progressively during the works;
- Regular inspection and maintenance to check effectiveness of erosion and sediment controls and the revegetation process.

To minimise potential for accidental spills or releases of contaminating materials, the mitigation measures outlined in *Section 5.7.3* will be employed.

Ground disturbance in areas mapped as acid sulfate soil (ASS) or potential acid sulphate soil (PASS) will be avoided where at all possible. Where disturbance is not avoidable ASS/PASS will be managed in accordance with the Acid Sulfate Materials Management Procedure. Soil sampling will be undertaken of this material prior to disturbance to determine the liming rates for the soil. A treatment area will be established to treat the material in accordance with the liming rates and further samples will be taken to confirm the material is neutralised after it has been treated. It is unlikely that ASS/PASS will need to be disturbed, as an earthworks pad will be established to raise the ground level in this location.

If PASS or ASS are encountered in unexpected areas of the site (i.e. in areas not mapped) it will be managed in accordance with ASS Chance Find Procedure and Treatment of ASS Procedure.

If contaminated or potentially contaminated material is exposed during earthworks then work in the area would cease and a qualified consultant engaged to investigate the extent of contamination and recommend measures to dispose of contaminated material. The RMS Unexpected Discovery of Contaminated Land Procedure will be followed.

5.10 Hazard and Risk

5.10.1 Existing Environment

Dangerous goods and hazardous materials that may be used during establishment and construction of the proposed compound site include, but may not be limited to, diesel fuels, oils, greases and lubricants, petrol, gases (oxy-Acetylene), bitumen, paints and epoxies, curing compounds, herbicides and hydrated lime.

5.10.2 Potential Impacts

Hazards and risks associated with establishment and construction of the proposed compound site would include:

- Traffic entering and exiting from the compound site onto Old Coast Road;
- Operation of heavy plant for the batch plant;
- Potential noise and dust impacts from the operation of the batch plant;
- Spills of hazardous materials and subsequent dangers to construction workers and the public;
- Transport of hazardous materials.
- Handling and storage of hazardous materials.
- Impacts to the drinking water supply for residents within close proximity to the batch plant.

5.10.3 Mitigation Measures

To minimise the potential for hazard and risk impacts of the proposal, the following measures will be undertaken:

- Implement the requirements of the Safe Work Method Statement for the activities being undertaken;
- Ensure there is a Vehicle Movement Plan for the compound to avoid traffic risks to Old Coast Road;
- Noise and dust will be minimised in accordance with the Environmental Work Method Statement and Sections 5.5 and 5.11 respectively;
- Tank First flush systems will be provided to local nearby residents within 500m of the batch plant that use tank water as a primary source of drinking water.

- The storage, handling and use of the materials would be undertaken in accordance with the *Occupational Health and Safety Act 2000* and the *WorkCover guideline Storage and Handling of Dangerous Goods 2005*;
- Implement the mitigation measures outlined in Section 5.7.3 to minimise potential for accidental spills or releases of contaminating materials;
- All personnel working at the batch plant are to undergo specific spill response training;
- Construct sediment basin for capturing any potentially contaminated runoff; and
- Regular maintenance and inspection for construction controls.

5.11 Air Quality

5.11.1 Existing Environment

The current air quality conditions in the vicinity of the proposed compound site would be influenced by exhaust fumes and particulates from traffic on adjacent Old Coast Road. Old Coast Road is partially sealed to just north of Mattick Road. Fugitive dust particles generated by vehicles travelling on nearby cleared rural land and any potentially exposed soils on agricultural lands adjacent to the proposed compound site are also expected to have a minor influence on local air quality conditions.

5.11.2 Potential Impacts

Activities associated with the establishment of the proposed compound site have the potential to create localised impacts to air quality resulting from exhaust fumes from plant and machinery, and dust generation from ground disturbance during earthworks and wind erosion from exposed surfaces.

The operation of the batch plant may also generate dust emissions from the storage and handling of aggregates, lime, cementitious materials and fly-ash. The dust impacts may impact on the tank water supply for nearby residents, particularly those that rely on tank water as a primary source of drinking water.

5.11.3 Mitigation Measures

Dust generation would be minimised by the following measures:

- The light vehicle carpark and driveway will be sealed with bitumen.
- The hardstand laydown area and precast yard will be compacted to minimise dust emissions.
- Watering or covering of exposed areas will be implemented to minimise or prevent air pollution and dust.
- Works (including the spraying of paint and other materials) are not to be carried out during strong winds or in weather conditions where high levels of dust or air borne particulates are likely.
- Vegetation or other materials are not to be burnt on site.
- Vehicles transporting waste or other materials that may produce odours or dust are to be covered during transportation.
- Stockpiles or areas that may generate dust are to be managed to suppress dust emissions in accordance with the RMS's Stockpile Site Management Guideline (2011).
- Any exposed areas are to be reinstated with fast growing local provenance grasses.
- The storage silo's on the batch plant will have particulate filters to prevent dust emissions.
- Aggregate stockpiles will be monitored for dust and water sprays provided where necessary;
- Tank First flush systems will be provided to local nearby residents within 500m of the batch plant that use tank water as a primary source of drinking water.

To ensure emissions from installation equipment are kept to a minimum, regular maintenance will be undertaken and machinery operated in accordance with manufacturer's guidelines.

5.12 Non-Aboriginal Heritage

5.12.1 Exiting Environment

No items of historical heritage were identified during the Aboriginal and cultural heritage assessment.

5.12.2 Potential Impacts

No potential impacts to items of historical heritage were identified.

5.12.3 Mitigation Measures

RMS' Standard Management Procedure: *Unexpected Heritage Items* (Roads and Maritime 2013) will be followed should any unexpected heritage items be uncovered during establishment of the proposed compound site.

5.13 Matters of National Environmental Significance

Under the environmental assessment provisions of the *Environment Protection and Biodiversity Conservation Act 1999*, the following matters of national environmental significance and impacts on Commonwealth land are required to be considered for the proposed combine site.

Factor	Impact
Any impact on a World Heritage property?	No
Any impact on a National Heritage place?	No
Any impact on a wetland of international importance?	No
Any impact on a listed threatened species or communities?	No
Any impacts on listed migratory species?	No
Any impact on a Commonwealth marine area?	No
Does the proposal involve a nuclear action (including uranium mining)?	No
Additionally, any impact (direct or indirect) on Commonwealth land?	No

It is noted that the WC2NH Project was considered to be a 'Controlled Action' under the EPBC Act. The Project was granted approval by the Federal Department of Environment on the 11th December 2014 (EPBC Ref: 2013/7101).

6 Consistency Assessment

6.1 Minister's Condition of Approval

The CoA for the project relate to administrative conditions; specific environmental conditions; environmental monitoring and auditing; compliance monitoring and tracking; community information; consultation and involvement; and environmental management.

The proposed compound site has been assessed in Table 6-1 below in relation to the relevant CoA in the context of the approved project.

Table 6-1 – Consistency against relevant MCoA for project

#	Condition of Approval	Discussion	Consistent
C27	Unless otherwise approved by the Director General in accordance with this condition, the sites for ancillary facilities associated with the construction of the project shall:		
a)	be located more than 50 metres away from a waterway;	The proposed compound site is located more than 50m from a defined waterway. An assessment of the ephemeral drainage line running through the centre of the site does not meet the definition of a waterway provided in the Project CEMP.	Yes
b)	have ready access to the road network or direct access to the construction corridor;	The proposed compound site is situated to the east of Old Coast Road, allowing connection to the existing road network. The location is also located immediately adjacent to the Project alignment, which will be critical to future construction activities.	Yes
c)	be located in areas of low ecological significance and require minimal clearing of native vegetation (not beyond that already required by the project);	A biodiversity assessment has recently been undertaken, which confirmed that no threatened flora or fauna are present within the proposed site boundaries. A number of small stands of Swamp Forest - Swamp Mahogany/ Paperbark EEC in the eastern and north eastern portion of the site. Two small strands of the same EEC are also present in the south western portion of the site. The proposed compound site would be designed and constructed to avoid any impacts to EECs. The areas of EEC will be fenced off as "Environmental No-Go Zones" to prevent construction access. Vegetation required to be cleared for the compound site would consist predominantly of introduced pastures and weeds.	Yes
d)	be located on relatively level land;	The proposed compound site would be located on relatively level land, with a slight grade towards the centre of the proposed site where an unnamed drainage channel runs in an approximate south west to north east	Yes

		direction. A spur extending in a south easterly direction from a ridgeline to the west of the proposed site, provides more elevated land in the north western portion of the site. The slope ranges from <5% to 8%.	
e)	be separated from the nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant;	Exclusion fencing will be erected to create a 200m buffer zone from sensitive receivers located around the northern, southern and western boundaries. No site compound works will be permitted to take place within this buffer zone. The proposed concrete batching plant will be located towards the centre of the site to ensure the 300m buffer zone to sensitive receivers located around the northern, southern and western boundaries is met.	Yes
f)	be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented;	The proposed compound site is located above the 20 ARI flood level (refer Appendix A).	Yes
g)	not unreasonably affect the land use of adjacent properties;	The use of the identified properties for a compound site would not affect the rural residential or agricultural land use of adjacent properties. Consultation with potentially affected residents has been undertaken as outlined in Section 4.	Yes
h)	provide sufficient area for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours;	The total area of the proposed compound site encompasses approximately 50ha with the footprint of the precast yard, batch plant and car park area expected to occupy approximately 5ha. Much of the remaining 45ha of the operational area of the proposed site would provide sufficient opportunities for stockpiling as well as storage of raw materials and thus out of hours deliveries of materials will not be required for compound establishment.	Yes
i)	be located in areas of low heritage conservation significance (including identified Aboriginal cultural value) and not impact on heritage sites beyond those already impacted by the project.	An Aboriginal cultural heritage survey of the proposed compound site was recently undertaken. A previously recorded PAD located in the northwest corner of the proposed site was extended in a south eastern direction across the crest of a spur overlooking the more low-lying portions of the site. Two stone artefacts were discovered in one of 17 manual shovel test pits (STPs) excavated. The artefact scatter was given an overall rating of low significance. A 20m exclusion zone will be erected around the artefact scatter to ensure no damage to the archaeological deposit occurs.	Yes
	Ancillary sites identified that do not meet the above criteria shall be	The proposed compound site meets the above criteria.	N/A

	assessed against this criteria to demonstrate how any impacts can be mitigated and managed to acceptable standards (including demonstrating consistency with project impacts identified in the documents listed under condition A1 to the satisfaction of the Director General. Such assessment(s) can be submitted separately or as part of the Construction Environmental Management Plan required under condition B30.		
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6.2 Statement of Commitments / mitigation measures

The Statement of Commitments (SoC) for the project relate to administrative commitments, site-specific environmental commitments, environmental monitoring and auditing, and environmental management. Table 6-2 below addresses those SoC relevant to the proposed compound site in the context of the approved project.

Table 6-2 – Consistency against relevant Statement of Commitments / mitigation measures

#	Statement of Commitment	Discussion	Consistent
S3	Minimise environmental and social impacts from the construction of temporary ancillary facilities.	The proposed compound site chosen for the ancillary facility will satisfy criteria outlined in Section 7.3.7 (Table 7.7) of the EA. Occupation and use of the proposed compound will seek to minimise disturbance to adjacent residents.	Y
Criteria for location of ancillary facilities (Table 7.7 of the EA)	Environment		
	More than 100 metres from SEPP 14 wetlands and 40m from waterways.	There are no SEPP 14 wetlands within 100m of the proposed compound site. The closest SEPP 14 Wetland is No. 383, associated with Newry Creek, approximately 230m to the west of the western boundary of the proposed compound site. The proposed compound site is located more than 40m from a recognised waterway. An assessment of the ephemeral drainage line running through the centre of the site does not meet the definition of a waterway provided in the Project CEMP.	Yes
	In areas of low ecological and heritage conservation significance	A biodiversity assessment of the proposed compound site has confirmed there are no threatened flora or fauna species at the site. A number of small stands of Swamp Forest - Swamp Mahogany/ Paperbark EEC in the eastern and north eastern portion of the site. Two small stands of the same EEC are also present in the south western portion of the site. The proposed compound site would be designed	Yes

		and constructed to avoid any impacts to EECs. An Aboriginal cultural heritage survey of the proposed compound site was recently undertaken. A previously recorded PAD located in the northwest corner of the proposed site was extended in a south eastern direction across the crest of a spur overlooking the more low-lying portions of the site. Two stone artefacts were discovered in one of 17 manual shovel test pits (STPs) excavated. The artefact scatter was given an overall rating of low significance. A 20m exclusion zone will be erected around the artefact scatter to ensure no damage to the archaeological deposit occurs.	
	In areas requiring no substantial clearance of vegetation	Vegetation required to be cleared for the compound site would consist predominantly of introduced pastures and weeds.	Yes
	200m from dwellings or other activities that may be affected by noise or other plant impacts	Exclusion fencing will be erected to create a 200m buffer zone from sensitive receivers located around the northern, southern and western boundaries. No site compound works will be permitted to take place within this buffer zone.	Yes
	Construction		
	Easy and safe access to the main road network.	The proposed compound site is situated to the east of Old Coast Road, allowing connection to the existing road network. The location is also located immediately adjacent to the Project alignment, which will be critical to future construction activities.	Yes
	Electricity and phone services are available or able to be provided without additional environmental impacts (except for stockpiles).	Existing electricity and phone services that previously serviced the existing dwellings are located at the proposed compound site. No additional environmental impacts are anticipated to reconnect these services once the compound site is established.	Yes
	A relatively level ground elevated to assist drainage and allow treatment of runoff.	The proposed compound site would be located on relatively level land, with a slight grade towards the centre of the proposed site where an unnamed drainage channel runs in an approximate south west to north east direction. A spur extending in a south easterly direction from a ridgeline to the west of the proposed site, provides more elevated land in the north western portion of the site.	Yes
	Easily accessible potable water supply or suitable dam (except	Potable water is not available on-site. Water storage tanks will be installed	Yes

	for stockpiles).	and potable water delivered from Macksville which is 2.2km to the south east. A number of farm dams will be utilised where suitable and feasible to supply processing water for batch plant etc.	
	Minimum area preferred of 1ha.	The operational area of the proposed compound site exceeds 1ha.	Yes

6.3 Environmental Biodiversity Protection and Conservation Act (EBPC) Referral decision

The Commonwealth Minister approved the Project under Part 9 of the EPBC Act on the 11 December 2014.

The approval was granted based on 26 conditions. The Northern Compound Ancillary Facility does not require the clearing of native vegetation and therefore will not impact on MNES. The ancillary site facility also does not impact on the habitat of MNES.

An EWMS has been provided for this activity and is provided in Appendix E.

6.4 Ministerial Order

Pursuant to section 75C of the EP&A Act, the Warrel Creek to Urunga Pacific Highway upgrade project was declared a critical infrastructure project in 2006. The order was amended by the then Minister for Planning on 3 December 2010 and gazetted on 10 December 2010. The ministerial order specified the project would involve:

Development for all associated or ancillary works, activities, uses, structures or facilities for the purposes of the Project, and includes (but is not limited to) works, activities, uses, structures or facilities for the following:

- a) construction (including demolition works) and operation (excluding maintenance) of the Project;*
- b) access for construction and operation of the Project including access for pedestrians, public transport and vehicles;*
- c) environmental management and pollution control for the Project;*
- d) associated interchanges, intersections, bridges, overpasses, ramps, service roads and road modifications for the Project;*
- e) any changes to the route of the existing carriageway or road for the Project;*
- f) any re-alignment, modification, demolition or replacement of the existing carriageway or road for the Project; and*
- g) any winning or obtaining extractive material as part of the construction work for the Project.*

Development does not include activities comprising of surveys, test drilling, test excavations, preliminary geotechnical investigations or the like associated with the design and environmental assessments required for the Project prior to the commencement of construction.

This consistency review considers the establishment of the proposed compound site as an ancillary facility. The proposed activity is consistent with the Ministerial Order for the project.

6.5 Project Objectives

The principle objectives of the Pacific Highway Upgrade Program are detailed within Section 3.4 of the Project EA and include:

- Significantly reduce road accidents and injuries.
- Improve transport efficiency by reducing travel times and freight costs.
- Develop a route that involves the community and considers its interests.
- Provide a route that supports economic development.
- Manage the Program in accordance with ecologically sustainable development principles.
- Provide the best value for money.

Additionally, the project-specific objectives are outlined within Section 3.4 of the Project EA and include the following.

Table 6-4 – Project objectives

Significantly reduce road accidents and injuries.	• Develop solutions for the ultimate grade separation of the Pacific Highway and local road intersections including consolidation of accesses by the use of service roads. • Provide rest areas within the investigation area. • Achieve safe driving conditions on the highway for travel speeds of 110 km/h in rural areas and 80 km/h in urban areas.
Improve transport efficiency by reducing travel times and freight costs.	• Have acceptable roadway capacity for traffic volumes 30 years after opening. • Develop a dual carriageway road that accommodates all vehicles up to and including B-Doubles.
Develop a route that involves the community and considers their interests	• Provide acceptable access to properties. • Maintain highway access during flood conditions. • Integrate input from local communities into the development of the Proposal.
Provide a route that supports economic development	• Provide connections from the upgraded highway to the key centres of Macksville, Nambucca Heads and Urunga. • Develop delay management strategies to minimise disruption to local and through traffic and maintain access to affected properties and land during construction.
Manage the Program in accordance with ecologically sustainable development principles	• Provide transport infrastructure that is complementary with surrounding land use.
Provide the best value for money	• Ensure the Proposal outcomes achieve value for money. • Develop solutions that facilitate the staged construction of the Proposal.

The proposed compound site supports the Pacific Highway Program objectives of:

- **Develop a route that involves the community and considers their interests:**

The location and layout of the proposed compound site has been chosen to minimise impacts to surrounding residence and community. Consultation with the nearby residences along Letitia Close, Mattick Road and Old Coast Road was undertaken during the preparation of this consistency assessment. The key outcomes of this consultation are presented in Section 4 of this assessment. Regular consultation with affected residences will be undertaken to ensure the interests and concerns of nearby residences are managed appropriately.

- **Manage the Program in accordance with ecologically sustainable development principles:**

The environmental impacts of the proposed compound site have been assessed as accurately as possible using appropriate specialists in relevant disciplines where required. Where there has been any uncertainty in the prediction of the impacts throughout the assessment process, a conservative approach was adopted to ensure the worst case scenario was predicted in the assessment of impacts. This approach is consistent with the 'precautionary principle'.

The proposed compound site is consistent with the principles of social equity and 'intergenerational equity' as it will support the efficient provision of a service (roads) that provides a number of fair and wide ranging benefits to society. This assessment has identified and assessed all presently foreseeable impacts of the proposed compound site which assists in ensuring that the health and productivity of the environment is maintained or enhanced for the benefit of future generations.

The location and layout of the proposed compound site has been chosen to avoid impacts to biodiversity and as such supports the principle of 'conservation of biological diversity and ecological integrity'.

This consistency assessment examines the environmental consequences of the proposed compound site and has identified a number of environmental safeguards for potential adverse impacts. Although applying standard methods of valuation and pricing to environmental resources is a difficult process, the cost of the mitigation measures can be used as an indirect indication of the value of environmental resources to address the principle of 'improved valuation, pricing and incentive mechanisms'.

- **Provide the best value for money:**

The compound site has been chosen to provide the most efficient, cost effective solution for servicing the construction of the northern portion of the Project. Being strategically located adjacent to the new alignment will result in cost savings for transport and delivery of materials and vehicle fuel expenses.

In addition, the proposed compound site also supports the project-specific objectives of:

- **Integrate input from local communities into the development of the Proposal:**

Consultation with the nearby residences along Letitia Close and Mattick Road has been undertaken during the preparation of this consistency assessment.

- **Provide transport infrastructure that is complementary with surrounding land use:**

The location and layout of the proposed compound site has been chosen to minimise impacts to the surround land use. Although, the establishment of the proposed compound site will temporarily convert the site from a predominately rural land use to commercial / industrial land use during construction, following completion of the Project

the proposed compound site will be rehabilitated and returned to as close as possible to its original condition.

- **Ensure the Proposal outcomes achieve value for money:**
The compound site has been chosen to provide the most efficient, cost effective solution for servicing the construction of the northern portion of the Project.
- **Develop solutions that facilitate the staged construction of the Proposal:**
Access to the proposed compound site would initially be facilitated via Old Coast Road. The Old Coast Road access arrangement would be in place during pre-construction and early phases of construction until construction of the new alignment in the vicinity of the proposed compound site commences.

As such, the proposed compound site is consistent with the Pacific Highway Upgrade Program objectives and project-specific objectives.

6.6 Consistency questions

Table 6-5 below details presents three questions that assist RMS in determining whether the proposed activity can be considered consistent with the Minister's approval.

Table 6-5 – Consistency questions

Consistency question(s)	Discussion	Response
Q1) Are the proposed works being carried out as part of an approved project? Eg. Are works "generally in accordance with" project documents and plans, where relevant?	The establishment of the proposed northern compound site will be carried out as part of the approved Project. Works will be carried out generally in accordance with the Project documents. The establishment of the proposed site compound as described in this assessment meets the definition of pre-construction work as defined in Schedule 2 of the CoA and meets the requirements of CoA C27 and SoC S3 in relation to ancillary facilities.	Yes
Q2) Is the modification such a radical transformation of the project as a whole, as to be, in reality, an entirely new project? <i>Note: If answered Yes, a new project application is required.</i>	The establishment of the proposed compound site is needed to assist in streamlining the coordination of the preconstruction activities and subsequently provide a vital support role during the construction phase of the Project. The establishment of the compound will take place within the context of the approved Project and as such would not result in a radical change to the approved Project.	No

Q3) 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.	The establishment of the proposed compound site is considered consistent with the approved Project and the environmental impacts raised in the EA. This consistency assessment has assessed the environmental risks associated with undertaking the activity, confirming that with the inclusion of safeguards, it is of minimal environmental impact. All works will be undertaken in accordance with the eWMS provided in Appendix E.	Yes
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Further to the details provided in Table 6 above, it is considered that the proposed compound site is considered consistent with the Ministers Conditions of Approval, and the Statement of Commitments.

7 Conclusion

AFJV propose to establish a Northern Satellite Compound on Old Coast Road, North Macksville to provide a critical support facility to the Project as the precast yard. This major consistency assessment has described the proposed compound site relative to the approved project and assessed the environmental risks associated with undertaking the activity, confirming that with the inclusion of safeguards, it is of minimal environmental impact.

The consistency assessment has considered the proposed establishment of the northern compound site in terms of consistency against the project approval conditions.

Further to the details provided in Table 6-5 above, the northern compound site is considered:

☒ Consistent with the Ministers Conditions of Approval, and the Statement of Commitments

Not consistent with the Ministers Conditions of Approval, and the Statement of Commitments. A Modification to the project approval must be prepared and submitted to the Department of Planning and Infrastructure for approval.

8 Certification

Certification

This Major Consistency Assessment provides a true and fair review of the proposed activity for the Warrell Creek to Nambucca Heads project.

Signed

Name

Position

Organisation

Date

Environmental Representative's Certification

I have reviewed the information contained within this Consistency Assessment and based on this information provided I certify that the proposed activity is consistent with the project approvals.

Signed

Name

Position

Date

Certification - RMS

The proposal subject to the implementation of all the environmental requirements of the project is consistent with the Ministers Approval and is likely to result in minimal environmental impacts additional to that already described.

Signed

Name

Position Environmental Officer

Date

Signed

Name

Position Project Manager

Date

In accordance with Section 115ZI(2) of the EP&A Act (or alternatively Section 74W(2) of the EP&A Act and transition provisions in Schedule 6A of that statute), I have examined consistency of the proposal with the Minister's approval and consider that the proposal is consistent with the existing project approval conditions.

I agree with the recommendations of the RMS Project Manager and approve carrying

out the Northern Compound and Precast yard works in accordance with those recommendations.

Signed

Name

Position

RMS Environmental Manager – Pacific Highway South

Date

Approved

Name

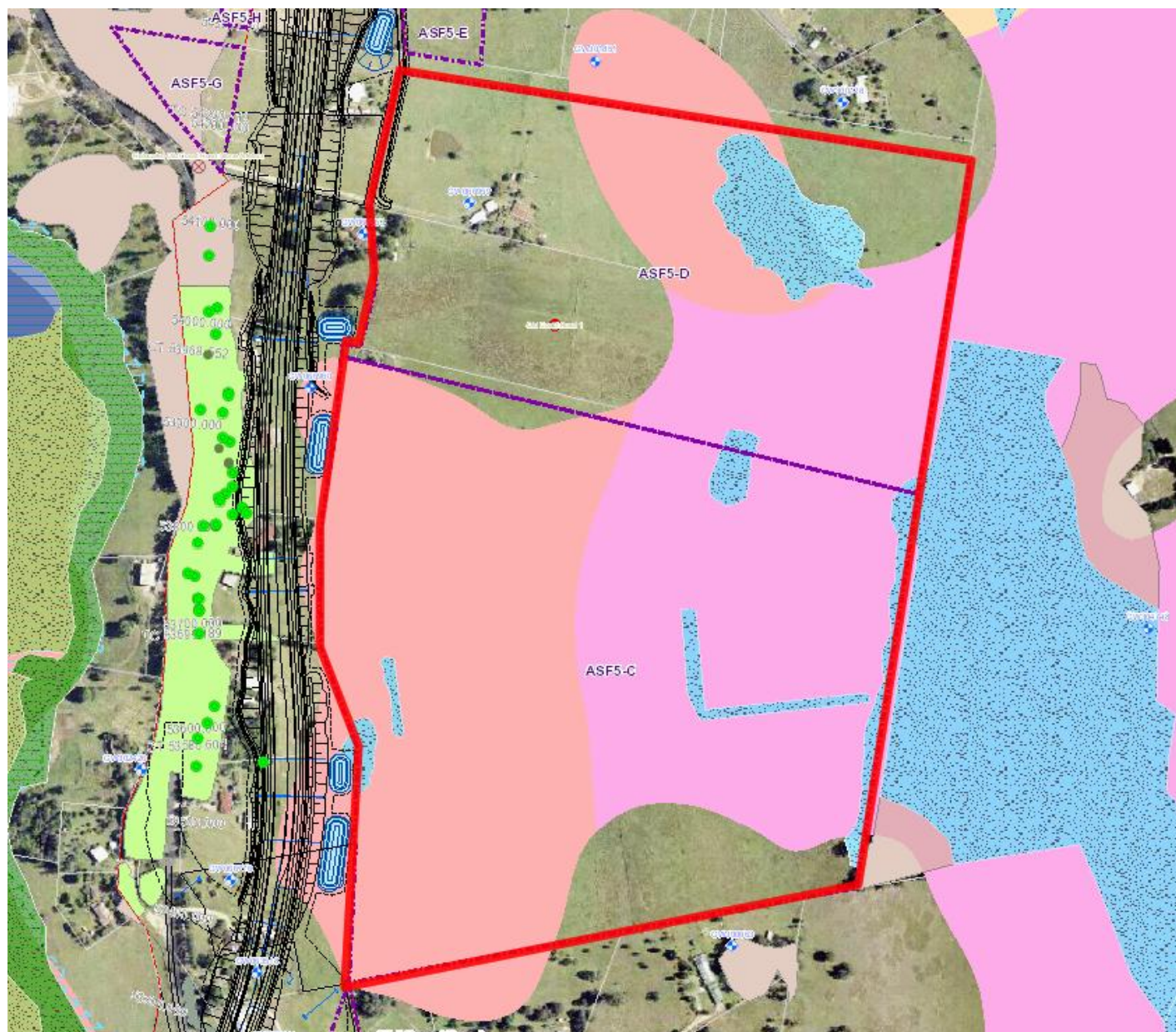
Position

RMS General Manager Pacific Highway Office

Date

Appendix A

Environmental Constraint Maps



Environmental Constraints Maps – Northern Compound and Precast Yard (Legend on following page)

Environmental Constraint Maps - Legend

WC2NH GIS

2KM_GW_BORE_WQDATA

2KM_GW_BORE_WORKSDATA

eco_Flora_Field_Data_140713_GEO_revision

Alexfloydia repens

Artanema fimbriatum

Dendrobium melaleucaphilum

Eucalyptus ancophila

Goodenia fordiana

Marsdenia longiloba

Maundia triglochinoides

Niemeyera whitei

Tylophora woolfsii

CD_FloraFieldDataConsolidated_edited_20...

CD_CulvertsMicrobatSurveySitesGISAttribut...

CD_GreenThighedFrogBreedingPonds_201...

Geolink_habitat_trees

LEWIS_ECOLOGICAL_SURVEY_Habitat_tr...

2378_Vegetation_MASTER_GeoLINK_0112...

2378_Vegetation_MASTER_GeoLINK_0112...

2378_Vegetation_MASTER_GeoLINK_01122...

Mangrove and pneumatophores

Soft mud

WC2NH_All_Heritage_Constraints

WC2NH_Identified_points

WC2NH_All_Heritage_Constraints

Heritage_transect_areas_M2U

CONTAMINATION_SITE_ply

GiantbarredFrogHabitat_20130418

CD_GreenThighedFrogHabitat_20120723

LikelyGreenThighedFrogHabitat_20130418

DD_FlyingFoxRoostJan2014_20140204

SEPP14

2378_Vegetation_MASTER_GeoLINK_01122...

Freshwater Wetlands (EEC)

Mixed Floodplain Forest (EEC)

Swamp Forest - Swamp Mahogany/...

Swamp Oak Forest (EEC)

2378_Vegetation_MASTER_GeoLINK_01122...

Mangrove Forest

Moist Open Forest - Flooded Gum

Moist Open Forest - White Mahogany - ...

Open Forest - Blackbutt

Hardwood Plantation - mostly cleared

Regrowth Swamp Oak

EEC_20130619_OUT_edit

EEC_20130619_OUT_edit

EXG_20m_Q020_Flat0_9Oc_extents_smooth

NSW_AcidRisk_GDA

High Risk 0-1m

High Risk 1-2m

High Risk 2-4m

High Risk above 4m

High Risk Sediments

Low Risk 0-1m

Low Risk 1-2m

Low Risk 2-4m

Low Risk above 4m

Low Risk Sediments

No Risk

Water

Disturbed Terrain

Beach

Appendix B

Indicative Site Layout

Appendix C

Locations of alternative sites

Appendix D

Plates



Plate 1 – Area of site looking in a south eastern direction across the crest of a spur overlooking the low lying areas of the site.



Plate 2 – Looking north from the north western portion of the proposed site towards sensitive receivers along Mattick Road.



Plate 3 – Looking south from the north western portion of the site, over low-lying portion of the site towards sensitive receivers to the south along Letitia Close



Plate 4 – Looking east from the north western portion of the site, towards small stands of EEC in the eastern portion of the site



Plate 5 – Example of small stand of Swamp Forest - Swamp Mahogany/ Paperbark EEC in the eastern portion of the site.



Plate 6 – Looking south west along exiting drainage line located near the centre of the site. Drainage line was dry at the time of site inspection.



Plate 7 – Example of one of the existing farm dams on the proposed site.



Plate 8 – Example of one the existing single story dwelling to be demolished, located within the Project alignment adjacent to the west of the proposed compound site.

Appendix E

Environmental Work Method Statement

Appendix F

Erosion and Sediment Control Plan

Appendix G – Noise Assessment