



# **APPENDIX B9**

# Ancillary Facilities Management Plan Woolgoolga to Ballina (section 3 to 11) Pacific Highway Upgrade

JANUARY 2016

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# **Glossary / Abbreviations**

AFMP	Ancillary Facilities Management Plan
Ancillary facility	Temporary facility for construction, including for example an office and amenities compound, construction compound, batch plant (concrete or bitumen), material crushing and screening, materials storage compound, maintenance workshop, testing laboratory or material stockpile area.
CEMP	Construction Environmental Management Plan
EIS	Environmental Impact Statement
EPA	NSW Environment Protection Authority
EP&A Act	Environmental Planning and Assessment Act 1979
EPBC Act	Environmental Protection and Biodiversity Conservation Act 1999
ER	Environmental Representative
EWMS	Environmental Work Method Statements
MCoA	Minister's Conditions of Approval
OEH	Office of Environment and Heritage
Project, the	The Woolgoolga to Ballina Project (Sections 3 to 11)
PC	Pacific Complete
Secretary	Secretary of the Department of Planning and Environment
SPIR	Submission / Preferred Infrastructure Report
RAP	Registered Aboriginal Parties
RMS, Roads and Maritime	Roads and Maritime Services

# **1** Introduction

## 1.1 Context

This Ancillary Facilities Management Plan (AFMP) forms part of the Construction Environmental Management Plan (CEMP) for the planned construction of sections 3 to 11 of the Woolgoolga to Ballina Pacific Highway Upgrade. Sections 1 and 2 of the upgrade and soft soil early works (Wave 1, Wave 2, Wave 3 and Wave 4) have been included/will be included in separate CEMPs and their sub plans.

This AFMP has been prepared to address the requirements of the Minister's Conditions of Approval (MCoA), specifically MCoA D21, the mitigation measures listed in the Pacific Highway Upgrade: Woolgoolga to Ballina Environmental Impact Statement December 2012 (the EIS), the Submissions / Preferred Infrastructure Report November 2013 (SPIR) and all applicable legislation.

This plan does not address the requirements of MCoA D22. These requirements are addressed in the Construction Borrow Site Management Plan (Appendix B10 to the CEMP).

#### **1.2** Environmental management systems overview

The CEMP describes the overall system for environmental management. That system forms part of the environmental management framework being delivered by Pacific Complete (PC) in partnership with Roads and Maritime.

Management measures identified in this plan will be incorporated into site or activity specific Environmental Work Method Statements (EWMS) by the contractor.

Contractor EWMS will be developed and signed off by the PC Environment Manager prior to commencement of works and construction personnel will be required to undertake works in accordance with the identified mitigation and management measures.

Additionally an online GIS system of mapping (SiteMap) has been developed for the project and this includes all of the sensitive environmental issues identified during the assessment process for the project. Used together, the CEMP, SiteMap, strategies, procedures and EWMS form a management system that clearly identifies required environmental management actions for reference by project personnel and contractors.

The review and document control processes for this plan are described in Chapters 9 and 10 of the CEMP.

#### 1.3 Purpose

The purpose of this plan is to describe how Pacific Complete will assess and manage ancillary facilities during construction of the project.

## 1.4 Objectives

The key objectives of the AFMP is to ensure that impacts caused by ancillary facilities are minimised within the scope permitted by the planning approval. To achieve this objective, the following will be undertaken:

- Ensure appropriate measures are implemented to address the relevant MCoA outlined in Table 2.2 and the safeguards detailed in the EIS and SPIR
- Ensure appropriate measures are implemented to comply with all relevant legislation and other requirements as described in Section 2.1 of this plan

- Ensure appropriate measures are implemented to avoid damage or destruction to threatened species, aboriginal and non-aboriginal sites and artefacts and sensitive ecosystems during pre-construction, construction and post construction phases of the work
- Provide staff with an increased level of understanding and awareness of sensitive environmental issues within and adjacent to ancillary facilities and ensure effective communication is maintained with statutory authorities.

# 2 Environmental requirements

This chapter describes legislative, regulatory and guidance framework that applies to ancillary facilities.

#### 2.1 Relevant legislation and guidelines

Attachment A1 of the CEMP contains details of the legislative, regulatory, guideline and standard provisions and their relevance to this management plan.

#### 2.1.1 Legislation

Table 2-1 lists the principal legislation and regulation that applies to ancillary facilities management.

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Table 2-1 Principal le	egislation and regulation	relevant to ancillary	facility management

Legislation and regulation	Relevance
Commonwealth	
Environment Protection and Biodiversity Conservation Act 1999	Provides for the protection of matters of national environmental significance including species, populations, communities and their habitat that could be impacted by the work.
National Greenhouse and Energy Report Act 2007	Provides the statutory basis for the National Greenhouse and Energy Reporting Scheme in relation to greenhouse gas emissions and energy consumption and production.
State	
Environmental Planning and Assessment Act 1979 (EP&A Act)	Describes the processes for consenting development in NSW, managing land use and implementing environmental planning instruments. Describes certain permitting and licencing streaming and exclusion provisions that will apply to the work.
Protection of the Environment Operations Act 1997	Prescribes pollution control, incident notification, offence notices and the provision of Environment Protection Licences.
Noxious Weeds Act 1993	Provides for the management and control of noxious weeds to reduce the spread of weeds and minimise damage to the environment.
Threatened Species Conservation Act 1995	Provides a complete list of all endangered and vulnerable species and ecological communities in NSW listed under the Act.
Fisheries Management Act 1994	Governs the management of fish and their habitat in NSW.
Native Vegetation Act 2003	Stipulates the way native vegetation is managed in NSW by preventing largescale clearing, unless it improves or maintains environmental outcomes.
National Parks and Wildlife Act 1974	Provides statutory protection for native fauna and flora and Aboriginal places and objects throughout NSW.

Legislation and regulation	Relevance
Heritage Act 1997	Provides for the conservation of buildings, works, archaeological relics and places of heritage value.
Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Commonwealth)	Enacted to specifically protect Aboriginal and Torres Strait Islander heritage.
Water Act 1912	Provides for the protection of groundwater in the few areas in NSW where water-sharing plans have not come into effect.
Water Management Act 2000	Provides for the protection, enhancement and restoration of water sources and ecosystems, ecological processes and biological diversity.
Soil Conservation Act 1938	Establishes controls to prevent soil erosion and land degradation.
Contaminated Land Management Act 1997	Provides for the investigation and remediation of contaminated land considered to post a significant risk to human health of the environment.
Waste Avoidance and Resource Recovery Act 2001 (WARR Act)	Supplementary legislation aimed at reducing waste and resource consumption, defining the waste hierarchy and promoting its adoption across NSW.
Environmentally Hazardous Chemicals Act 1985	Controls the movement, storage, and disposal of chemical waste. Administered by EPA and the Hazardous Chemicals Advisory Committee.
Dangerous Goods (Roads and Rail Transport) Act 2008	Ensures that dangerous goods are transported in a safe manner.
Pesticides Act 1999	Controls and regulates the use of pesticides in NSW. It prohibits the misuse of pesticides that harms people, property, animals or plants. Under the Act the EPA can issue a person with a clean-up notice, prevention notice and compliance cost notice.

#### 2.1.2 Guidelines

Guidelines and standards relevant to ancillary facility management include the following publications:

- Stockpile Site Management Guideline, RMS 2011
- Pacific Complete Stockpile Management Protocol
- NSW Road Noise Policy (RNP) (DECCW 2011)
- NSW Industrial Noise Policy (INP) (EPA 2000)
- RTA Environmental Noise Management Manual (ENMM) (RTA 2001)
- Interim Construction Noise Guideline (ICNG) (DECC 2009)
- Assessing Vibration: A Technical Guideline (DEC 2006)
- British Standard 7385: Part 2 ""Evaluation and measurement of vibration in buildings"
- German DIN 4150: Part 3 1999 Effects of Vibration on Structure (DIN 1999)

- Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration (1990) Australian and New Zealand Environment and Conservation Council (ANZECC)
- Australian Standard AS2187.2-2006: "Explosives Storage, Transport and Use"
- National Environment Protection Council's (NEPC) NEPM for Ambient Air Quality Guidelines
- Protection of the Environment Operations (Clean Air) Regulation, 2002
- AS 3580.1.1:2007 Methods for Sampling and Analysis of Ambient Air Guide to Siting Air Quality Monitoring Equipment.
- AS 3580.10.1-2003 Methods of Sampling Analysis of Ambient Air
- Action for Air 2009 (NSW DEC)
- Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (DEC 2005)
- Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (DEC 2007)
- Air Quality Monitoring Criteria for Deposited Dust (DEC Guideline).

#### 2.2 Minister's conditions of approval

The MCoAs relevant to this plan are listed in Table 2-2. A cross reference is also included to indicate where the condition is addressed in this plan or other project management documents.

MCoA No.	Condition requirements	Document reference
Definitions	Temporary facility for construction, including for example an office and amenities compound, construction compound, batch plant (concrete or bitumen), material crushing and screening, materials storage compound, maintenance workshop, testing laboratory or material stockpile area. <i>Note: Where a stockpile management protocol has been approved by the Secretary for the SSI, material stockpile areas are not considered to be ancillary facilities.</i>	Glossary
B1	<ul> <li>The clearing of native vegetation shall be minimised with the objective of reducing impacts to any threatened species or EECs where feasible and reasonable, consistent with the following:</li> <li>(b) clearing of native vegetation for ancillary facilities specified in the document referred to in condition A2(d) and outside the SSI boundary defined in the document referred to in condition A2(c) shall be limited to 4.75 hectares;</li> </ul>	Appendix B1, B2 and B3
D21	The Applicant shall prepare and implement an <b>Ancillary</b> <b>Facilities Management Plan</b> to detail the management of ancillary facilities associated with the SSI. The Plan shall be prepared in consultation with the EPA, OEH, DPI (Fisheries), DoE, and the relevant council, and to the satisfaction of the Environmental Representative, and shall include, but not necessarily be limited to:	Appendix B2 Section 2 and Appendix B3 Section 3.1, Table 3-1 (each

MCoA No.	Condition requirements	Document reference
	<ul> <li>(a) a description of the ancillary facility (including a site layout plan), its components and details of the existing environment on and in the vicinity of the site;</li> </ul>	site will be assessed individually
	<ul> <li>(b) details of the activities to be carried out at the facility, including the hours of operation, staging of operation and predicted date of commissioning;</li> </ul>	against each of these
	<ul> <li>(c) a description of the plant, equipment and materials to be used and/or stored on the site, including dangerous and hazardous goods;</li> </ul>	criteria)
	(d) details of the light and heavy construction vehicle movements to and from each facility, including site access and route(s) to be used during the establishment and operation of the facility, and an assessment of potential construction traffic impacts on the local road network and access tracks;	
	<ul> <li>(e) a summary of the potential environmental impacts associated with the construction and operation of the facility;</li> </ul>	
	(f) demonstrate compliance with the locational and environmental criteria in condition B73(a)-B73(n)	
	(g) details of the mitigation, monitoring and management procedures specific to the facility that would be implemented to minimise environmental and amenity impacts or, where this is not possible, feasible and reasonable measures to offset these impacts;	
	<ul> <li>(h) a description of how the management and mitigation measures set out in the documents listed in condition A2 will be implemented on the site, and if not, justification for such decisions particularly on those sites assessed as having a high risk of flood impacts;</li> </ul>	
	<ul> <li>(i) an assessment of alternative site layouts where either noise management levels are predicted to be exceeded and acoustic treatment of residences is not proposed, or where such treatment is proposed (consequent to the operational impacts of the SSI) but will not be provided prior to establishment of an ancillary facility;</li> </ul>	
	<ul> <li>(j) a cumulative noise impact statement for the ancillary facility addressing the worst-case cumulative noise impacts resulting from the concurrent operation of the site (including construction traffic movements to and from the site), nearby construction works within the SSI corridor and any other nearby construction activities associated with other road upgrade projects;</li> </ul>	
	<ul> <li>(k) identification of the timing for the completion of activities at the facility and how the site will be decommissioned (including any necessary rehabilitation); and</li> </ul>	
	<ul> <li>(I) mechanisms for the monitoring, review and amendment of this plan.</li> </ul>	

MCoA No.	Condition requirements	Document reference
	The plan shall be approved by the Environmental Representative prior to the establishment of the ancillary facilities described therein. In considering the approval of the plan, the Environmental Representative shall take into account the Applicant's response to public authority and council comments on the plan. The Applicant may prepare a separate plan for the facility	
	or include multiple sites within a single or multiple management plans.	
B73	<ul> <li>The sites for ancillary facilities that are associated with the construction of the SSI and that have not been identified and assessed in the documents listed in condition A2 shall: <ul> <li>(a) be located more than 50 metres from a waterway (100 metres for a State Environmental Planning Policy No. 14 wetland or known Oxleyan Pygmy Perch habitat waterway);</li> <li>(b) not impact on connectivity structures or vegetation leading to a connectivity structure;</li> <li>(c) be located within or adjacent to the SSI boundary;</li> <li>(d) have ready access to the road network;</li> <li>(e) be located in areas of low ecological significance and require no clearing of native vegetation;</li> <li>(f) be located more than 50 metres from threatened species and endangered ecological communities and their habitats;</li> <li>(g) be located on relatively level land;</li> <li>(h) be separated from the nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant) and comply with construction noise management levels at sensitive receivers;</li> <li>(i) be above the 20 year ARI flood level unless a contingency plan to manage flooding is prepared and implemented;</li> <li>(j) have minor impacts on flood storage and not result in obstruction of floodplain flow or blockage of culverts and drains;</li> <li>(k) not unreasonably affect the land use of adjacent properties;</li> <li>(i) operate in accordance with the construction hours set out in conditions B15 and B16;</li> <li>(m) provide sufficient area for the storage of material to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours; and</li> <li>(n) be located in areas of low heritage conservation significance (including areas identified as being of Aboriginal cultural value) and not impact on heritage sites beyond those already impacted by the SSI.</li> </ul> </li> </ul>	Appendix B2 Section 2 and Appendix B3 Section 8 Table 8-1 (each site will be assessed individually against each of these criteria)

MCoA No.	Condition requirements	Document reference
	public authority(s) and the relevant council. The assessment shall be approved by the Environmental Representative and included in the Ancillary Facilities Management Plan required under condition D21.	
B74	<ul> <li>Ancillary facilities that have not been previously identified and assessed in the documents listed in condition A2, and do not meet the criteria set out under condition B73, shall be approved by the Environmental Representative prior to its establishment. In obtaining this approval, the Applicant shall consult with the relevant public authority(s) and the relevant council, and demonstrate to the satisfaction of the Environmental Representative, how the potential environmental impacts can be mitigated and managed to acceptable standards. The outcomes of the assessment shall be documented in a report and include, but not necessarily be limited to: <ul> <li>(a) details on the site location and access arrangements;</li> <li>(b) a description of the assessment of the site against the locational criteria set out in condition B73;</li> <li>(d) an assessment of the environmental impacts on the site and the surrounding environment, including, but not limited to noise, vibration, air quality, traffic and access during site establishment and operation, flora and fauna, heritage, erosion and sedimentation, water quality and light spill;</li> <li>(e) details of the mitigation, monitoring and management procedures specific to the ancillary facility that would be implemented to minimise environmental impacts; and</li> <li>(f) demonstrated overall consistency with the approved SSI (including impacts identified in the documents listed in condition A2).</li> </ul></li></ul>	Appendix B3 Section 3.1, Table 3-1 (each site will be assessed individually against each of these criteria)
B75	Notwithstanding condition B74, ancillary facilities that have not been previously identified and assessed in the documents listed in condition A2 and result in additional impacts to biodiversity, heritage, flooding and noise beyond those approved for the SSI, shall be approved by the Secretary prior to their establishment. In order to obtain this approval, the Applicant shall undertake an assessment of the ancillary facility in accordance with condition B74 and forward a copy of the assessment report to the Secretary, as part of the approval submission, at least one month prior to the establishment of the facility.	Appendix B3 of this plan
B76	The land on which ancillary facilities are located shall be rehabilitated to at least their pre-construction condition or better, unless otherwise agreed by the landowner.	Appendix B2 and B3 of this plan

MCoA No.	Condition requirements	Document reference
B77	Where changes are made to the boundary or use of an ancillary facility, including facilities identified in the documents listed in condition A2, the Applicant shall assess the facility against the criteria set out in condition B73. If the ancillary facility site:	Appendix B2 and B3 of this plan
	<ul> <li>(a) does not meet the criteria set out under condition B73 the Applicant shall seek the approval of the Environmental Representative in accordance with condition B74; or</li> <li>(b) results in impacts to biodiversity, heritage, flooding and</li> </ul>	
	noise beyond those approved for the SSI, the Applicant shall seek the approval of the Secretary in accordance with condition B75.	
	The relevant approval shall be obtained prior to the establishment of the ancillary facility.	
B54A	<ul> <li>establishment of the ancillary facility.</li> <li>The Applicant may undertake archaeological investigations at sites outside the SSI boundary where the following works associated with the construction of the highway are proposed: <ul> <li>(i) ancillary sites that do not meet the criterion set out in condition B73; or</li> <li>(ii) utilities or services, or</li> <li>(iii) access and service roads and driveways; or</li> <li>(iv) or similar works required for the project that are located within 5 metres of the SSI boundary (with the exception of drainage works in flood prone areas where such activities can be investigated within 20 metres of the SSI boundary).</li> </ul> </li> <li>These investigations are permitted where this is required to assess the potential Aboriginal and non-Aboriginal archaeological impacts of the ancillary facility or other works on previously unidentified heritage sites, provided: <ul> <li>(a) any archaeological investigations undertaken under this condition B44 for Aboriginal heritage and condition B50 for non-Aboriginal heritage and with the Construction Heritage Management Plan or a</li> </ul> </li> </ul>	Appendix B3 of this plan
	<ul> <li>(b) the results of any relevant archaeological investigations undertaken under this condition shall be consistent with the reporting requirements of condition B45 for Aboriginal heritage and condition B50 for non-Aboriginal heritage, and for ancillary sites, be described in the assessment of the ancillary facility required under conditions B74 and B75.</li> </ul>	

# 3 Ancillary facilities

The project will require a range of construction-related ancillary facilities including:

- Minor ancillary facilities eg lunch sheds, office sheds, and portable toilet facilities
- Main site compounds -including site offices, sheds, workshops and storage
- Satellite compounds small site offices
- Bridge site compounds site office to allow for easy access to major bridge sites
- Batch plants for the production of concrete and asphalt
- Crushing plants and material processing sites plant equipment for the processing, crushing and screening of excavated material for use onsite
- Plant workshops for the storage and maintenance of plant equipment
- Stockpile sites for the stockpile and storage of excavated material, mulch and spoil
- Material storage (laydown areas) for the storage of materials delivered to site for construction.

Appendix A1 outlines the locations of approved ancillary facilities for the project.

#### 3.1 Office compounds

Site compounds are required for facilities such as offices, parking, lunchrooms and toilets. Each portion will require at least one main site compound and a number of satellite compounds. These compounds may be co-located with other facilities such as batch plants, plant workshops, stockpile locations and material storage locations. All site compounds would be fenced for security and safety purposes.

Bridge compounds will be required near the construction of major bridges including the Clarence River and Richmond River. Compounds may also be required near interchanges and overpasses.

#### 3.2 Batch plants

Onsite batch plants will be used to provide concrete and asphalt for construction purposes along the project alignment. Concrete batch plants will provide concrete for concrete paving, drainage and other structures where ready-mix concrete is not available from external sources. Asphalt batch plants may be used where large quantities of asphalt are required for constructing flexible pavements, or where onsite production would be more cost-effective and would subsequently avoid public and construction traffic interaction, than importing asphalt from external sources.

#### 3.3 Crushing plant and material processing sites

Material processing, screening and crushing equipment would be required for the production of concrete/asphalt aggregate, material for drainage structures and adequate fill material for use on site. Stabilisation equipment may also be required to neutralise fill material before use. Where possible these sites would be located near cuttings, or at borrow sites, to reduce traffic movements. Stockpile areas would also be required for the storage of the material produced. Construction staging, access and environmental constraints would also be considered during the siting of these facilities.

#### 3.4 Plant workshops

Plant workshops will be required for the storage and maintenance of all plant equipment and machinery. Additional materials required for maintenance, such as chemicals and fuel, will be stored at these ancillary facilities and will need to be managed appropriately.

#### 3.5 Stockpile sites

Stockpile sites will be used for temporary storage of materials required or generated as a result of the construction activities. This can include excavated material, mulch, spoil and unsuitable materials.

Stockpile sites will be located both within ancillary facility sites and within the construction footprint. Under the Minister's Conditions of Approval (MCoA) "where a stockpile management protocol has been approved by the Secretary for the SSI, material stockpile areas are not considered to be ancillary facilities". Appendix C of the Woolgoolga to Ballina (sections 3 to 11) Construction Soil and Water Management Plan includes the approved Stockpile Management Protocol that will be used to situate and manage stockpiles associated with the project.

A number of additional guidelines and legislation will also need to be followed including:

- The Roads and Maritime Stockpile Management Guidelines (Roads and Maritime, 2011)
- Roads and Maritime Management of Tannins and Vegetation Mulch (Roads and Maritime, 2011)
- The Blue Book: Managing Urban Stormwater: Soils and Construction (Landcom, 2004)
- SPIR mitigation measures for stockpiles
- NSW Protection of the Environment Operations Act 1997
- NSW Waste Avoidance and Resource Recovery Strategy 2007.

In accordance with the Stockpile Management Protocol, construction contractors will be required to maintain a register of stockpiles to confirm their compliance. Pacific Complete will maintain a collated register of stockpile sites which will be detailed on the online GIS server, SiteMap, and will be revised when required.

#### 3.6 Material storage (laydown area)

The project will require substantial storage space for construction materials including:

- Earthwork material (topsoil, general fill material and select fill)
- Aggregates for drainage construction, concrete and asphalt production and spray seals
- Road base (aggregates) for pavement layers
- Sand for drainage construction, concrete and asphalt production
- Cement and fly ash for concrete production
- Concrete for drainage construction, pavement construction, bridgeworks and miscellaneous work such as barrier kerbs, kerbs and gutters, paving and signpost footings
- Road base for constructing flexible pavements
- Bitumen for spray seals and asphalt production
- Precast concrete elements for drainage construction (culverts, pits and headwalls), bridge construction (bridge piles, girders and parapets) and miscellaneous work
- Steel for bridge girders, barrier railings and reinforcement in concrete.

These materials will need to be temporarily stored in either ancillary facilities or stockpiled in close proximity to the respective construction activity. Material laydown areas will be managed in accordance with the project Stockpile Management Protocol (refer section 4.1 below).

### 3.7 Minor ancillary facilities

Minor ancillary facilities are required to service the construction activities along the project alignment. Minor facilities will generally be more mobile and will generally consist of minor site sheds, lunch/crib sheds, portable toilets and will include parking. These compounds may be co-located near construction activities and generally located within the construction footprint to support the construction workforce. Due to the minor nature and impact of these facilities they will be assessed in accordance with the process outlined in Chapter 4 below.

# 4 Assessment and approval process

The project approval conditions include a number of requirements for ancillary facilities. The use and prior approval of the site under the SPIR will dictate the approval pathway required for the ancillary facility. The assessment and approval process outlined in Figure 4–1 will be followed to gain approval by either Roads and Maritime, Pacific Complete, the Environmental Representative (ER) or Secretary (as required).

#### 4.1 Stockpile and material storage facilities

Ancillary facilities proposed for stockpile and material storage are not required to comply with MCoA B73 or D21 and will be managed in accordance with the Stockpile Management Protocol, Appendix C of the Construction Soil and Water Management Plan (CSWMP). A stockpile checklist will be prepared and approved by the Pacific Complete Environment Manager. Once approved the sites will be included on the register contained in Appendix A.

#### 4.2 Minor ancillary facilities

Minor ancillary facilities are not required to comply with MCoA B73 or D21 and will be assessed against the following criteria:

- Be located within an active construction zone within the approved project boundary
- Have minimal amenity impacts to surrounding residences, with consideration to matters such as noise and vibration impacts, traffic and access impacts, dust and odour impacts, and visual (including light spill) impacts
- Have minimal impact in respect to waste management, and no impacts on flora and fauna, soil and water, and heritage beyond those approved for the project
- Have environmental and amenity impacts that can be managed through the implementation of environmental measures detailed in the Construction Environment Management Plan for the project.

A minor ancillary facility checklist will be prepared and approved by the Pacific Complete Environment Manager. Once approved these sites will be included on the register contained in Appendix A.

#### 4.3 Approved ancillary facilities under the SPIR

Ancillary facilities previously assessed for the project are listed under the *Woolgoolga to Ballina Pacific Highway Upgrade - Ancillary descriptions and impact assessment*, prepared by Roads and Maritime Services and listed in MCoA A2(d) (Appendix A2), and have approval for use as part of the project. Facilities that comply with the approved usage, boundary layout and all applicable safeguards will be assessed via an ancillary facilities checklist, including the requirements under D21. This will be submitted for approval by the ER.

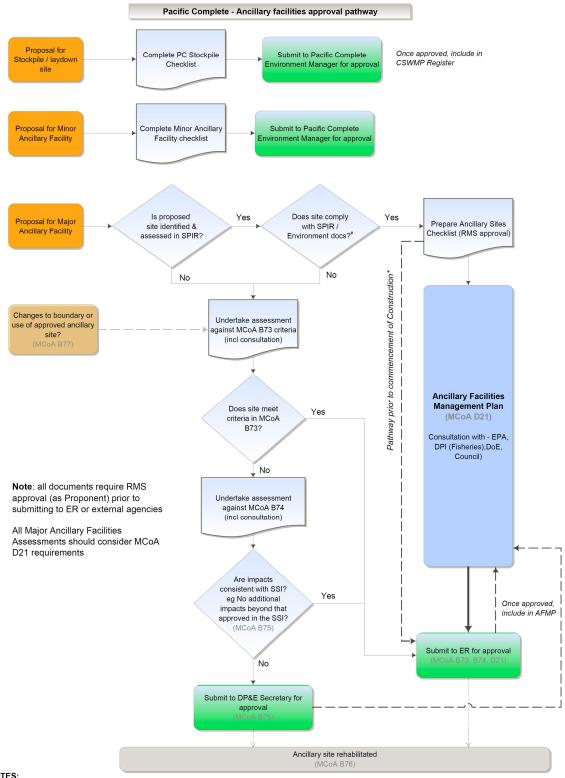
In accordance with MCoA B77, additional assessments will be carried out where changes to the use and/or boundaries of approved ancillary facilities are proposed. A major ancillary facilities assessment will be prepared and the process outlined in Figure 4-1 will be used if additional assessments are required. This assessment will be submitted to the ER or Secretary (as required) for approval.

#### 4.4 Additional ancillary facilities

All additional ancillary facilities will be assessed under MCoA B73. A major ancillary facilities assessment will be prepared and the process outlined in Figure 4-1 will be used if additional assessments are required. This assessment will be submitted to the ER or Secretary (as required) for approval.

All approved ancillary facility assessments and management plans will be recorded on the ancillary facility register and a record kept for the project. All sites will also be recorded in SiteMap.

Contractor EWMS will be developed from the additional assessment and signed off by the PC Environment Manager prior to commencement of works, and construction personnel will be required to undertake works in accordance with the identified mitigation and management measures.



#### NOTES:

#### Rehabilitation / Restoration of sites

Notwithstanding requirements of MCoA B76, all sites on RMS owned land to be managed in accordance with RMS Procedure - Management of Wastes on RMS Land (G36 Clause 4.15).

\*Archaeological assessment

 Ancillary Sites that are identified in the SPIR <u>have not been salvaged</u>. Sites will have to be salvaged prior to any use.
 MCoA B78 details process to follow for archaeological investigations at Ancillary Facility Assessments for sites that dont meet MCoA B73

#### Figure 4-1 Assessment and approval process for ancillary facilities

## 5 Environmental management measures

Environment requirements in relation to ancillary facilities are outlined in the following environmental documents:

- Submission/ Preferred Infrastructure Report (SPIR)
- Supplementary assessments
- Minister's Conditions of Approval (MCoA)
- Ancillary descriptions and impact assessment, prepared by Roads and Maritime Services.

Specific management measures identified in the SPIR for ancillary facilities are outlined in Table 5-1 and include, but are not limited to,

- Hydrology and flooding
- Soils and water
- Aboriginal heritage
- Non-Aboriginal heritage
- Biodiversity
- Urban design and landscape
- Traffic and transport
- Noise and vibration
- Land use.

Where additional issues are identified for individual ancillary sites, site specific environmental mitigation measures would be included in each management plan for the site (refer Appendix B1, B2 and B3)

#### Table 5-1 Ancillary facilities mitigation and management measures

ID	Measure / Requirement	When to implement	Responsibility	Reference
Hydrology and flo	ooding			
HF1	Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.	Pre-construction	Pacific Complete Environment Manager Pacific Complete Construction Lead Project Contractor Project Engineer	SPIR HF22
HF2	<ul> <li>The potential impacts of ancillary facilities and haul roads on cane drains will be further investigated and addressed when ancillary facility locations are confirmed. The design of these ancillary facilities will be developed in consultation with relevant cane industry stakeholders, affected landowners, and in accordance with the following principles:</li> <li>Maintain conveyance characteristics of existing cane drains.</li> <li>Provide adequate capacity in temporary drainage to prevent blockages.</li> </ul>	Pre-construction Construction	Pacific Complete Environment Manager Pacific Complete Construction Lead Project Contractor Project Engineer/ Environment Representative	SPIR HF15
Soils and water				
SW1	<ul> <li>As part of the Construction Environmental Management Plan, a soils and water management plan will be prepared and include (but not limited to):</li> <li>Erosion and sediment control plans for all stages of construction.</li> <li>Consideration of soil erodibility.</li> <li>At-source erosion controls (eg check dams).</li> <li>Sedimentation basin construction and management.</li> <li>Protection of waterways.</li> <li>Acid sulfate soil sub-plan issues (including from groundwater drawdown).</li> <li>Management of stockpiles.</li> </ul>	Pre-construction	Pacific Complete Site Environment Officer Project Contractor Environment Representative/ Project Engineer	SPIR SSW3

ID	Measure / Requirement	When to implement	Responsibility	Reference
	<ul> <li>Tannin leachate management control.</li> <li>Batch plant/ chemical storage controls.</li> <li>Water quality monitoring and checklists.</li> <li>Detailed consideration of measures to prevent, where possible, or minimise any water quality impacts</li> </ul>			
SW2	Topsoil, earthworks and other excess spoil material will be stockpiled and managed in accordance with Roads and Maritime Stockpile Management Guidelines (Roads and Maritime, 2011a) and the "Management of Surplus Material" in Section 3.9 of the Submissions / Preferred Infrastructure Report.	Construction	Project Contractor Environment Representative/ Project Engineer	SPIR SSW10
SW3	Where reasonable and feasible, stockpiles will:		Pacific Complete Site Environment	SPIR SSW11
	<ul> <li>Not require removal of areas of native vegetation.</li> <li>Be located outside of known areas of weed infestation.</li> <li>Be located such that waterways and drainage lines are not directly or indirectly impacted.</li> </ul>		Project Contractor Environment Representative/ Project Engineer	
SW4	Where practicable, stockpiles will be located away from areas subject to concentrated overland flow. Stockpiles		Pacific Complete Site Environment Officer	SPIR SSW12
	located on a floodplain be finished and contoured so as to minimise loss of material in flood or rainfall events.		Project Contractor Environment Representative/ Project Engineer	
SW5	Topsoil will be stockpiled separately and inspected for noxious weed seedlings at six monthly intervals and		Pacific Complete Site Environment Officer	SPIR SSW13
	controlled with herbicide as required		Project Contractor Environment Representative/ Project Engineer	
SW6	All construction stockpiles will comply with the requirements of the <i>Protection of the Environment</i>		Pacific Complete Site Environment Officer	SPIR SSW14
	Operations Act 1997 and NSW Waste Avoidance and Resource Recovery Strategy 2007 for any waste activities that involve the generation, storage and/or disposal of waste and also consider the NSW Resource Recovery Exemptions as applying the storage of stockpiled material.		Project Contractor Environment Representative/ Project Engineer	

ID	Measure / Requirement	When to implement	Responsibility	Reference
SW7	Stockpiles containing potential acid sulfate soils will be lined, bunded and covered in accordance with relevant		Pacific Complete Site Environment Officer	SPIR SSW15
	guidelines.		Project Contractor Environment Representative/ Project Engineer	
SW8	At ancillary facilities, management of runoff and spills will include:	Construction	Pacific Complete Site Environment Officer	SPIR SSW38
	<ul> <li>Restricting vehicle movements to designated pathways where feasible.</li> <li>Paving areas that will be exposed for extended periods, such as car parks and main access roads, where reasonable and feasible.</li> <li>Diverting off-site runoff around sites where required.</li> <li>Locating chemical or other hazardous material storage areas away from areas of known near-surface groundwater supplies, in areas where the water table is more than five metres below the surface; otherwise, areas be lined if they are to be located over a shallow groundwater source less than two metres deep.</li> </ul>		Project Contractor Environment Representative/ Project Engineer	
Aboriginal h	eritage			
AH1	If any part of the project (such as an ancillary facility) is located in an area which has not been subject to	Pre-construction	Pacific Complete Site Environment Officer	SPIR AH3
	Aboriginal heritage field survey and assessment, an assessment will be undertaken before that part of the project proceeds.		Project Contractor Environment Representative/ Project Engineer	
AH1	If any part of the project (such as an ancillary facility) is located in an area which has not been subject to	Pre-construction	Pacific Complete Site Environment Officer	SPIR AH3
	Aboriginal heritage field survey and assessment, an assessment will be undertaken before that part of the project proceeds.		Project Contractor Environment Representative/ Project Engineer	
AH2	Ancillary facility - Section 3, Site 3b (at WX2I Site 8 (09- 4-0108)):	Pre-construction	Pacific Complete Environment Manager	AH14h

ID	Measure / Requirement	When to implement	Responsibility	Reference
	<ul> <li>All previously recorded artefacts will be recovered and removed off-site before construction, subject to a care agreement being established.</li> <li>All cultural material recovered will be subject to detailed analysis, which will be included in a technical report, including detailed discussion and interpretation.</li> </ul>			
AH3	Ancillary facility - Section 4, Site 1:	Pre-construction	Pacific Complete Environment Manager	AH14k
	• Sub-surface test excavations will be undertaken in accordance with the methodology used in the working paper, and will occur before any ground disturbance at this location. Further recommendations for the Aboriginal archaeological site will then be made in consultation with the registered Aboriginal stakeholders.			
AH4	Ancillary facility - Section 4, Site 3:	Pre-construction	Pacific Complete Environment Manager	AH14I
	• This property could not be accessed for field investigations. Sub-surface test excavations are to be undertaken. This will be conducted in accordance with the methodology used in the working paper, and will occur before ground disturbing work for the project or ancillary activities being undertaken at this location. Further recommendations for the Aboriginal archaeological site will then be made in consultation with the RAPs.			
AH5	Ancillary facility - Section 4, Site 5 (at Hirst 3 (13-1-0192):	Pre-construction	Pacific Complete Environment Manager	AH14m
	<ul> <li>This Aboriginal archaeological site is to be avoided if possible unless agreement can be reached with the RAPs. An exclusion zone will be established as per management measure AH2.</li> <li>If agreement to use the site is reached with RAPs, salvage excavation of the portion of the Aboriginal archaeological site to be impacted will be undertaken as detailed in the Ancillary facility and design change</li> </ul>			

ID	Measure / Requirement	When to implement	Responsibility	Reference
	CHAR (Appendix D of the Submissions/ Preferred Infrastructure Report) and in consultation with RAPs.			
AH6	Ancillary facility - Section 7, Site 1:	Pre-construction	Pacific Complete Environment Manager	AH14p
	• A site walk over survey will be undertaken to confirm whether sub-surface test excavations are required. This will be conducted in accordance with the methodology used in the working paper, and will occur several months before any ground disturbance at this location. Further recommendations and use of the Aboriginal archaeological site will be developed in agreement with the registered Aboriginal stakeholders.			
AH7	Ancillary facility - Section 10, Site 1a:	Pre-construction	Pacific Complete Environment Manager	
	• A site walk over survey will be undertaken to confirm whether sub-surface test excavation is required. This will be conducted in accordance with the methodology used in the working paper, and will occur several months before any ground disturbance at this location. Further recommendations for the Aboriginal archaeological site will then be made in consultation with the registered Aboriginal stakeholders.			
AH8	Ancillary facility - Section 3, Site 9 (at Upper Coldstream 1 (13-4-0182):	Pre-construction Construction	Pacific Complete Environment Manager Project Contractor Project Engineer/	AH14j
	<ul> <li>All previously recorded artefacts will be recovered and removed off-site, subject to a care agreement being established.</li> <li>Any portions of the Aboriginal archaeological site not to be impacted will be protected by exclusion zones as per management measure AH2.</li> </ul>		Environment Representative	
AH9	Ancillary facility - Section 7, Site 3 (Dubaijeen Site (New	Pre-construction	Pacific Complete Environment Manager	AH14q
	<ul><li>Italy 1):</li><li>Salvage excavation of the portion of the Aboriginal archaeological site to be used will be undertaken as</li></ul>	Construction	Project Contractor Project Engineer/ Environment Representative	

ID	Measure / Requirement	When to implement	Responsibility	Reference
	<ul> <li>detailed in the Ancillary facility and design change CHAR (Appendix D of the Submissions/ Preferred Infrastructure Report) and in consultation with RAPs. The excavations apply to the portion of the site that be impacted by the project as well as the ancillary facility.</li> <li>Any portions of the Aboriginal archaeological site that are not to be impacted will be protected by exclusion zones as per management measure AH2.</li> </ul>			
AH10	Ancillary facility - Section 7, Site 4 (The Gap Rd 1(13-1- 0194)): Pre-construction Pacific Complete Environment Manage Construction Project Contractor Project Engineer/	AH14r		
	<ul> <li>If impact to The Gap Rd 1 is necessary, salvage excavation of the portion of the Aboriginal archaeological site to be impacted will be undertaken as detailed in the Ancillary facility and design change CHAR (Appendix D of the Submissions/ Preferred Infrastructure Report) and in consultation with RAPs.</li> <li>Any portions of the Aboriginal archaeological site that are not to be impacted will be protected by exclusion zones will be established as per management measure AH2.</li> </ul>		Environment Representative	
AH11	Ancillary facility - Section 10, ancillary facility 5At Rudgley Site 1 (04-4-0167):	Pre-construction Construction	Pacific Complete Environment Manager Project Contractor Project Engineer/	AH14t
	<ul> <li>This Aboriginal archaeological site will be avoided, where practical, using an exclusion zone as per management measure AH2.</li> <li>If avoidance is not possible, salvage excavation of the portion of the Aboriginal archaeological site to be impacted will be undertaken as detailed in the Ancillary facility and design change CHAR (Appendix D of the Submissions/ Preferred Infrastructure Report) and in consultation with RAPs.</li> <li>Any portions of the Aboriginal archaeological site that are not to be impacted will be protected by exclusion zones as per management measure AH2.</li> </ul>		Environment Representative	

ID	Measure / Requirement	When to implement	Responsibility	Reference
AH12	<ul> <li>Ancillary facility - Section 10, Site 6 (Site 12 (11-2-0082)):</li> <li>If avoidance is not possible, salvage excavation of all portions of the Aboriginal archaeological site to be impacted will be undertaken as detailed in the Ancillary facility and design change CHAR (Appendix D of the Submissions/ Preferred Infrastructure Report) and in consultation with RAPs.</li> <li>Any portions of the Aboriginal archaeological site that are not to be impacted will be protected by exclusion zones as per management measure AH2.</li> </ul>	Pre-construction Construction	Pacific Complete Environment Manager Project Contractor Project Engineer/ Environment Representative	AH14u
AH13	<ul> <li>Ancillary facility - Section 11, Site 1a:</li> <li>The ground will be inspected for any Aboriginal archaeological material by an archaeologist and registered Aboriginal stakeholders during and following clearing activities. Any archaeological material will be recorded, removed from the Aboriginal archaeological site, and a suitable location for the material determined in consultation with the stakeholders. An AHIMS record will be submitted for any finds and any locations where the material is to be stored – unless reburied on or near Aboriginal archaeological site, establishing a care agreement will also be necessary.</li> </ul>	Pre-construction Construction	Pacific Complete Environment Manager	AH14v
AH14	<ul> <li>For the Gittoes Jali (09-1-0204, 09-1-0205, 09-1-0203) site:</li> <li>Where possible, impacts on the Gittoes Jali site will be reduced or avoided. Avoided areas will be protected by an exclusion fence as per management measure AH2. If avoidance is not an option, then extensive salvage will be undertaken as per the methodology detailed in the Ancillary facilities and design change CHAR (refer to Appendix D of the Submissions/ Preferred Infrastructure Report).</li> </ul>	Pre-construction Construction	Pacific Complete Environment Manager Project Contractor Project Engineer/ Environment Representative	AH21

ID	Measure / Requirement	When to implement	Responsibility	Reference
	• Any sediment from the site to 0.6 metre depth proposed to be used outside the site will be sieved to remove any cultural material.			
	Paint wells and grinding rock:			
	<ul> <li>Residue analysis will be undertaken to determine if any pigment is found within the wells. This will be undertaken by a suitably qualified consultant.</li> <li>The location of these paint wells will be accurately plotted and drawn.</li> <li>If the paint wells cannot be avoided, they will be relocated; this requires consultation with the registered Aboriginal stakeholders.</li> </ul>			
	Geomorphology assessment:			
	• A geomorphology assessment will be undertaken. The assessment will be non-invasive, but could use observations of the machine salvage excavation.			
	Borrow site:			
	• Haul routes from the project formation to the borrow source that limit direct impacts to Aboriginal heritage will be confirmed in consultation with Registered Aboriginal Parties.			
AH15	Ancillary facility - Section 3, Site 6b (at Old Tucabia Dump 1 (13-4-0184)):	Construction	Pacific Complete Environment Manager Project Contractor Project Engineer/ Environment Representative	AH14i
	• An exclusion zone will be established at the boundary of the Aboriginal archaeological site (including a buffer based on the drip zone of the tree) as per management measure AH2.			
AH16	Ancillary facility - Section 5, Site 7 (at Mororo Creek 1 (13-1-0191)):	Construction	Pacific Complete Environment Manager Project Contractor Project Engineer/ Environment Representative	AH14n
	<ul> <li>This Aboriginal archaeological site within the ancillary facility location will be avoided. An exclusion zone at least five metres outside the boundary of the Aboriginal</li> </ul>			

ID	Measure / Requirement	When to implement	Responsibility	Reference
	archaeological site will be established as per management measure AH2.			
AH17	Ancillary facility - Section 5, Site 5 and Site 7 (at Mororo Creek 2 (13-1-0193):	Construction	Pacific Complete Environment Manager Project Contractor Project Engineer/	AH14o
	<ul> <li>This Aboriginal archaeological site within the ancillary facility location will be avoided. An exclusion zone at least five metres outside the boundary of the Aboriginal archaeological site will be established as per management measure AH2.</li> </ul>	Environment Representative		
Non- Aborig	inal (Historical) heritage			
AH18	Any new ancillary facility and spoil placement locations not identified as part of this EIS will require a non- Aboriginal heritage assessment, with a database search and site walkover to identify any potential heritage items. If items are found, HH4, HH7-HH8 will be followed.	Pre-construction	Pacific Complete Environment Manager	SPIR HH9
	HH4: Should the impact to any historic heritage item change during detailed design, further assessment of impacts on the items will be undertaken.			
	HH7: Where local or state significant heritage items not previously identified are identified on an ancillary site and use of the site will impact on the heritage significance of the item, the site will not be used for ancillary facilities.			
	HH8: Where local or state significant heritage items are identified on an ancillary site and use of the site will not impact on the heritage significance of the item, appropriate management measures (such as barrier fencing) will be put in place to clearly identify the heritage item and exclude use of the ancillary site within the heritage item's curtilage. Use of these ancillary facilities may commence:			
	<ul> <li>When the appropriate protective measures have been implemented.</li> </ul>			

ID	Measure / Requirement	When to implement	Responsibility	Reference
	<ul> <li>When the relevant records have been updated and/or completed.</li> </ul>			
AH19	Where local or state significant heritage items not previously identified are identified on an ancillary site and use of the site will impact on the heritage significance of the item, the site will not be used for ancillary facilities.	Pre-construction Construction	Pacific Complete Environment Manager	SPIR HH7
AH20	Where local or state significant heritage items are identified on an ancillary site and use of the site will not impact on the heritage significance of the item, appropriate management measures (such as barrier fencing) will be put in place to clearly identify the heritage item and exclude use of the ancillary site within the heritage item's curtilage. Use of these ancillary facilities may commence:	Pre-construction Construction	Pacific Complete Environment Manager Project Contractor Environment Representative	HH8
	<ul><li>When the appropriate protective measures have been implemented.</li><li>When the relevant records have been updated and/or completed.</li></ul>			
AH21	At project section 10, site 4: a temporary barrier fence will be erected to protect the drainage channel that is not directly impacted by the project (item 43). The fence will remain in place until the conclusion of the use of the ancillary site at which time it will be removed.	Pre-construction Construction	Pacific Complete Environment Manager Project Contractor Environment Representative	HH6
Biodiversity				
B1	Where feasible and reasonable, native vegetation forming part of the identified widened medians will not be disturbed for any ancillary construction purpose including access tracks, stockpiles, materials laydown and ancillary facilities.	Pre-construction Construction	Pacific Complete Environment Manager Pacific Complete Construction Lead Pacific Complete Site Environment Officer Project Contractor Environment Representative/ Project Engineer	SPIR B9

ID	Measure / Requirement	When to implement	Responsibility	Reference
B2	<ul> <li>The pre-clearing process will be consistent with Roads and Maritime <i>Biodiversity Guidelines: Protecting and Managing Biodiversity on RTA projects</i> (RTA, 2011a) and include:</li> <li>Pre-clearing surveys by an experienced ecologist for large bird nests, particularly for listed species such as the Black-necked Stork, Eastern Osprey, Square-tailed Kite and Little Eagle during the nesting and breeding season (July to December) and tree roosting (eg Southern Myotis) or cave dwelling bats in trees or existing culvert/bridge structures. If the species is present in or directly adjacent to the project footprint (including ancillary facilities), measures to manage any species be considered, if required.</li> <li>Mapping the location of any threatened flora and/or fauna species, Threatened Ecological Communities and habitat.</li> <li>Construction traffic will be restricted to defined access tracks, fenced prior to the start of construction and maintained until construction is complete.</li> </ul>	Pre-construction Construction	Pacific Complete Environment Manager Pacific Complete Site Environment Officer Project Contractor Environment Representative/ Project Engineer	SPIR B23
B3	Specific management measures will be implemented to limit impacts from stockpiling of material for bridgeworks at known and potential areas of Oxleyan Pygmy Perch during the spawning seasons of October to December in accordance with the Threatened Fish Management Plan.	Pre-construction Construction	Pacific Complete Environment Manager Pacific Complete Site Environment Office Project Contractor Environment Representative/ Project Engineer	SPIR B49
B4	Batch plants will be located at least 300 metres away from Oxleyan Pygmy Perch habitat where sediment erosion not runoff into waterways presents a threat to the Oxleyan Pygmy Perch due to the risk of high alkaline runoff).	Pre-construction Construction	Pacific Complete Environment Manager Pacific Complete Site Environment Office Project Contractor Environment Representative/ Project Engineer	SPIR B50
B5	Ancillary facilities will be located in cleared or sparsely treed portions of the ancillary facility sites, and avoid unnecessary clearing of native vegetation.	Pre-construction Construction	Pacific Complete Environment Manager Pacific Complete Site Environment Office Project Contractor Environment Representative/ Project Engineer	SPIR B51

ID	Measure / Requirement	When to implement	Responsibility	Reference
B6	Pathways to connectivity structures are not to be impeded by ancillary facilities, rest areas or service roads, or local roads (serving over 100 vehicles) that are realigned as part of the SSI or experience an increase in traffic volumes during operation of the SSI.	Pre-construction Construction	Pacific Complete Environment Manager Project Contractor Project Engineer/ Environment Representative	MCoA D2 (f)
B7	Where feasible and reasonable, stockpiles will be located above the 1:100 year flood level with appropriate management control measures in place such as bunding.	Construction	Pacific Complete Site Environment Office Project Contractor Environment Representative/ Project Engineer/ Foreman	SPIR B48
B8	The land on which ancillary facilities are located shall be rehabilitated to at least their pre-construction condition or better, unless otherwise agreed by the landowner.	Construction	Pacific Complete Environment Manager Project Contractor Project Engineer/ Environment Representative	MCoA B76
B9	<ul> <li>Ancillary facility - Section 3 Site 1:</li> <li>This compound site that was used for the Glenugie Upgrade and has been revegetated post-construction. A site inspection and survey is required prior to construction to determine its suitability for future use as an ancillary site.</li> <li>Avoid mature trees.</li> <li>Revegetation of the section of the site in the road reserve or the entire site (if practicable).</li> </ul>	Construction	Pacific Complete Environment Manager Project Contractor Project Engineer/ Environment Representative	B52d
B10	<ul> <li>Ancillary facility - Section 3 Site 1:</li> <li>This compound site that was used for the Glenugie Upgrade and has been revegetated post-construction. A site inspection and survey is required prior to construction to determine its suitability for future use as an ancillary site.</li> <li>Avoid mature trees.</li> <li>Revegetation of the section of the site in the road reserve or the entire site (if practicable).</li> </ul>	Construction	Pacific Complete Environment Manager Project Contractor Project Engineer/ Environment Representative	B52d
B11	Ancillary facility - Section 3 Site 2:	Construction	Pacific Complete Environment Manager	B52e

ID	Measure / Requirement	When to implement	Responsibility	Reference		
	<ul> <li>Provide a buffer of 50 metres minimum from creek and sediment fencing where required.</li> <li>Avoid mature trees.</li> <li>Revegetation of the section of the site in the road reserve or the entire site (if practicable).</li> </ul>		Project Contractor Project Engineer/ Environment Representative			
B12	<ul> <li>Ancillary facility - Section 3 Site 4:</li> <li>Ancillary site to be restricted to the western parts of the site adjoining Wooli Road.</li> <li>Vegetation in the road reserve along Wooli Road to be protected from disturbance.</li> <li>The population of the Slender Screw Fern plants is to be avoided.</li> <li>Existing trails or disturbed areas to be used for access to site. Bostock Road not to be used for access.</li> </ul>	Construction	Pacific Complete Environment Manager Project Contractor Project Engineer/ Environment Representative	B52f		
B13	<ul> <li>Ancillary facility - Section 3 Site 8:</li> <li>Identify and mark <i>Angophora robur</i> during pre-clearing and provide exclusion fencing.</li> </ul>	Construction	Pacific Complete Environment Manager Project Contractor Project Engineer/ Environment Representative	B52g		
B14	<ul> <li>Ancillary facility - Section 3 Site 9:</li> <li>Provide buffer to the surrounding forest.</li> <li>Identify and mark <i>Angophora robur</i> during pre-clearing and provide exclusion fencing</li> <li>Provide sediment fencing on eastern boundary where required.</li> <li>Avoid and buffer koala feed trees in the northwest corner of the site. Buffer required from edge of the forest to reduce edge effects, sediment fencing where required.</li> </ul>	Construction	Pacific Complete Environment Manager Project Contractor Project Engineer/ Environment Representative	B52h		
B15	<ul> <li>Ancillary facility - Section 5 Site 6:</li> <li>Consult with OEH on future use of this site post- construction, which may have offset potential with assisted regeneration and could be considered as a potential addition to Mororo Creek Nature Reserve</li> </ul>	Construction	Pacific Complete Environment Manager Project Contractor Project Engineer/ Environment Representative	B52i		

ID	Measure / Requirement	When to implement	Responsibility	Reference	
	Flag and buffer habitat patch on southern boundary.				
B16	Ancillary facility - Section 5 Additional site 9:	Construction	Pacific Complete Environment Manager	B52k	
	Provide buffer around Mororo Creek and sediment fencing to protect riparian areas		Project Contractor Project Engineer/ Environment Representative		
	Flag and buffer habitat patch on southern boundary				
B17	Ancillary facility - Section 6 Site 3a and 3b:	Construction	Pacific Complete Environment Manager	B52l	
	<ul> <li>Mark and avoid small dam in north-west corner of site and buffer activities from a large remnant patch adjoining to the north.</li> <li>Avoid scattered mature trees where possible.</li> </ul>		Project Contractor Project Engineer/ Environment Representative		
B18	Ancillary facility - Section 6 site 5:	Construction	Pacific Complete Environment Manager	B52m	
	<ul> <li>Site is currently being used as a compound site for the Devils Pulpit upgrade. On completion of construction for that project, the site would be stabilised with a quick growing cover crop to stabilise the site.</li> <li>A site inspection and survey is required prior to construction to confirm the suitability of the site.</li> <li>Site to be rehabilitated post- construction.</li> </ul>		Project Contractor Project Engineer/ Environment Representative		
B19	Ancillary facility - Section 7 Site 1:	Construction	Pacific Complete Environment Manager	B52n	
	<ul> <li>To be used for only low risk activities, no chemical or fuel storage on site.</li> </ul>		Project Contractor Project Engineer/ Environment Representative		
B20	Ancillary facility - Section 7 Site 2a and 2b:	Construction	Pacific Complete Environment Manager	B520	
	<ul> <li>To be used for only low risk activities, no chemical or fuel storage on site.</li> </ul>		Project Contractor Project Engineer/ Environment Representative		
B21	Ancillary facility - Section 7 site 3:	Construction	Pacific Complete Environment Manager	B52p	
	Provide sediment fencing along eastern boundary.		Project Contractor Project Engineer/ Environment Representative		

ID	Measure / Requirement	When to implement	Responsibility	Reference	
B22	Ancillary facility - Section 7 Site 4:	Construction	Pacific Complete Environment Manager	B52q	
	<ul> <li>Provide buffer of minimum 50 metres from the wetland on northern boundary and sediment fencing where required. Avoid tree removal where possible</li> </ul>		Project Contractor Project Engineer/ Environment Representative		
B23	Ancillary facility - Section 8 Site 2a, 2b and 2c:	Construction	Pacific Complete Environment Manager	B52r	
	<ul> <li>Recommend use for stockpile only, no chemical or fuel storage on site.</li> </ul>		Project Contractor Project Engineer/ Environment Representative		
B24	Ancillary facility - Section 8 Site 3:	Construction	Pacific Complete Environment Manager	B52s	
	<ul> <li>Provide bunding around the site. No chemical storage.</li> </ul>		Project Contractor Project Engineer/ Environment Representative		
B25	Ancillary facility - Section 9 Site 1:	Construction	Pacific Complete Environment Manager	B52t	
	<ul> <li>Provide buffer and sediment fencing at southern end.</li> <li>Provide sediment fencing at southern end of site, stockpiling only at northern half, no chemical storage</li> </ul>		Project Contractor Project Engineer/ Environment Representative		
B26	Ancillary facility - Section 9 site 2:	Construction	Pacific Complete Environment Manager	B52u	
	<ul> <li>Provide sediment fencing at southern end of site, stockpiling only at northern half, no chemical storage</li> </ul>		Project Contractor Project Engineer/ Environment Representative		
B27	Ancillary facility - Section 9 site 3:	Construction	Pacific Complete Environment Manager	B52v	
	<ul> <li>Provide sediment fencing at southern end of site, stockpiling only at northern half, no chemical storage</li> </ul>		Project Contractor Project Engineer/ Environment Representative		
B28	Ancillary facility - Section 10 site 1b:	Construction	Pacific Complete Environment Manager	B52w	
	• Revegetation of the section of the site in the road reserve or the entire site (if practicable).		Project Contractor Project Engineer/ Environment Representative		
B29	Ancillary facility - Section 10 site 3b:	Construction	Pacific Complete Environment Manager	B52x	
	Map and avoid strip of trees along northern boundary		Project Contractor Project Engineer/ Environment Representative		

ID	Measure / Requirement	When to implement	Responsibility	Reference		
B30	<ul> <li>Ancillary facility - Section 10 site 4:</li> <li>Revegetate site post-construction, focus on approaches to land bridge and avoid Arthraxon hispidus.</li> </ul>	Construction	Pacific Complete Environment Manager Project Contractor Project Engineer/ Environment Representative	B52y		
Urban desi	gn and landscape					
UD1	<ul> <li>Where required, typical landscape treatments for ancillary facilities in forest areas will include:</li> <li>Providing screen planting.</li> <li>Considering reinstatement of disturbed forest in heavily forested.</li> <li>Considering the importance of the visual landscape at each location and allowing restoration of important forest vegetation to prominent ridge lines or other landscape elements where feasible and reasonable.</li> <li>Negotiating with private landowners, as applicable, to determine future treatments for other non-forested ancillary facility locations.</li> <li>Re-grading disturbed areas to achieve a sustainable and functional landform.</li> <li>Stabilising all surfaces in accordance with good engineering and environmental practice.</li> </ul>	Construction	Project Contractor Environment Representative/ Project Engineer	SPIR UD8		
UD2	<ul> <li>Typical landscape treatments for ancillary facilities in agricultural areas will include:</li> <li>Considering returning remnant agricultural land to agricultural uses.</li> <li>Providing screen planting.</li> <li>Reinstating riparian vegetation through ancillary facilities, where practicable, in the open landscape.</li> <li>Considering the visual landscape at each ancillary facility and considering restoration of important forest vegetation to prominent ridge lines or other landscape elements where feasible and reasonable.</li> </ul>	Construction	Pacific Complete Site Environment Officer Project Contractor Environment Representative/ Project Engineer	SPIR UD9		

ID	Measure / Requirement	When to implement	Responsibility	Reference
	<ul> <li>Re-grading disturbed areas to achieve a sustainable and functional landform.</li> </ul>			
	<ul> <li>Stabilising all surfaces in accordance with good engineering and environmental practice.</li> </ul>			
Traffic and tra	ansport			
T&T1	Vehicle movement plans and haulage route plans will be prepared. Drivers will be briefed on these vehicle movement plans during project induction.	Construction	Project Contractor Project Engineer	SPIR T&T4
	Deliveries will be planned to occur outside peak traffic periods, where possible.			
	To minimise queuing of construction vehicles on the highway, site personnel will use two-way radios to call up haulage trucks from layover areas on a 'just in time' basis.			
T&T2	Pre-construction road dilapidation reports will be prepared for all roads likely to be used by construction traffic.	Pre-construction & construction	Pacific Complete Environment Manager Project Contractor Project Engineer	SPIR T&T6
	Post-construction road dilapidation reports will be prepared following the completion of construction for all roads assessed prior to construction.			
	Dilapidation resulting from construction activity will be repaired.			
	Copies of road dilapidation reports will be sent to the relevant roads authority.			
Noise & Vibra	ation			
NV1	Haulage routes will be located as far away as possible from residential receivers, where this is reasonable and feasible.	Construction	Project Contractor Project Engineer	SPIR CNV3

ID	Measure / Requirement	When to implement	Responsibility	Reference		
NV2	Truck movements will be restricted to identified haulage routes and the routes outlined in the Construction Traffic Management Plan.	Construction	Project Contractor Project Engineer	SPIR CNV9		
NV3	Where it has been identified as necessary (eg in response to community complaints), noise monitoring will be undertaken to check that the noise mitigation measures are effective.	Construction	Project Contractor Project Engineer	SPIR CNV10		
NV4	The use of temporary noise shielding will be considered at locations where substantial exceedances of noise criteria are predicted.	Construction	Project Contractor Project Engineer	SPIR CNV11		
NV5	Static noise sources, such as generators, pumps and lighting towers, will be located as far as possible from sensitive receivers.	Construction	Project Contractor Project Engineer	SPIR CNV12		
Land use						
LU2	Ongoing consultation will be undertaken with directly affected property owners during the detailed design phase to identify measures to mitigate potential impacts on the use and viability of land. This will relate to matters such as adjustments to fencing, access, farm infrastructure and relocation of impacted ancillary structures, as required.	Pre-construction	Pacific Complete Environment Manager	LU2		
LU1	Forestry Corporation of NSW will be able to harvest millable timber in affected State forests prior to works commencing. However, consideration will also be given to opportunities for the productive use of trees removed from non-State forest areas of the project, including ancillary facilities where necessary.	Construction	Pacific Complete Environment Manager Project Contractor Project Engineer	SPIR LU14		

# 6 Compliance management

## 6.1 Roles and responsibilities

Pacific Complete's (PC) organisational structure and roles and responsibilities is outlined in Section 4.3 of the Construction Environmental Management Plan (CEMP). Specific responsibilities for the implementation of environmental controls are detailed in the applicable site specific ancillary facility assessments.

# 6.2 Training

All personnel (including sub-contractors) are required to undergo site induction training for the development and operation of ancillary facilities. The induction training will address elements related to facility operations including:

- Existence and requirements of this plan
- Relevant legislation
- Site specific biodiversity issues
- Site specific heritage issues
- Site specific contaminated land issues
- Community expectations
- Traffic and access
- Noise minimisation
- Soil and water management
- Dust management.

Additional information on staff induction and training is outlined in Chapter 5 of the CEMP.

## 6.3 Monitoring and inspections

Ongoing monitoring will be undertaken by PC and construction contractors. Site specific monitoring requirements can be found in the ancillary facilities assessments.

If this plan and associated assessments have not been followed or implemented appropriately, as found during an inspection of the facility, a non-conformance will be raised. A program of works is to be submitted by the contractor prior to commencement of any works on site.

# 6.4 Auditing

Audits will be undertaken to assess the effectiveness of environmental controls, compliance with this plan, MCoA and other relevant approvals, licenses and guidelines.

An audit schedule will be developed for the project by the PC Environment Manager and will include internal and third party external audits.

Audit requirements are detailed in Section 8.3 of the CEMP.

# 6.5 Reporting

Reporting requirements and responsibilities are documented in Section 8.3 of the CEMP.

# 7 Review and improvement

### 7.1 Continuous improvement

Continuous improvement of this plan will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement.

The continuous improvement process will be designed to:

- Identify areas of opportunity for improvement of environmental management and performance.
- Determine the cause or causes of non-conformances and deficiencies
- Develop and implement a plan of corrective and preventative action to address any non-conformances and deficiencies
- Verify the effectiveness of the corrective and preventative actions
- Document any changes in procedures resulting from process improvement
- Make comparisons with objectives and targets.

## 7.2 AFMP update and amendment

The processes described in Chapter 8 and Chapter 9 of the CEMP may result in the need to update or revise this plan.

Any revisions to the AFMP will be in accordance with the process outlined in Section 1.6 of the CEMP.

A copy of the updated plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure – refer to Section 10.2 of the CEMP.

# Appendix A1

Location of ancillary facilities and proposed uses

				Identified		SPIR Proposed Use					Pacific Complete Propose Use							
				and assessed	Proposed						Material						Material	
				in the SPIR	boundary						storage						storage	
		Facility		(MCoA	changes from		Satellite			Stockpile	(laydown			Batch		Stockpile	(laydown	Approval
Facility No.	Lot ID	Name	Chainage	A2(d))?	SPIR?	compound	compound	Batch plant	Workshop	site	area)	compound	compound	plant	Workshop	site	area)	date
Portion A																		
				l							1							
Portion B								I	I	I	1		-	1	T	1	1	
Portion C																		
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															1			

# Appendix A2

Woolgoolga to Ballina Highway Upgrade – Ancillary descriptions and impact assessment

# Ancillary descriptions and impact assessment

In response to the submission of the Submissions /Preferred Infrastructure Report, the Department of Planning and Infrastructure requested further information to understand the impacts and mitigation associated with each of the ancillary facilities.

This report provides further details on those ancillary facilities identified in the Submissions/ Preferred Infrastructure Report (chapter 4) as suitable to use.

A table for each ancillary facility has been provided with:

- A description of the site and surrounds including environment, property details, station location, access and intended use.
- Assessment (including where relevant, mitigation measures) of any non-conformances with the standard conditions criteria (see below).
- A figure showing the ancillary facility with environmental constraints (NB: the legend for all figures is provided at the end of the document, due to its complexity).

The ancillary facilities are assessed against the locational criteria (see below) based on the extent identified in the EIS to provide an assessment consistent with that identified in the Submissions / Preferred Infrastructure Report. However, some ancillary facility extents have since been altered (shown in chapter 4 of the Submissions / Preferred Infrastructure Report) as a result of not meeting the locational criteria or through the assessment provided in the Submissions/ Preferred Infrastructure Report. This change in extent will reduce the identified impact. A statement is provided at the end of the assessment identifying any alteration and the benefits of the change. The change in ancillary facility extent is also shown in the constraints figure.

Information from this assessment has been obtained from specialist investigations undertaken in the EIS (including Working paper- Hydrology and flooding and Working paper- Biodiversity) and the Submissions/ Preferred Infrastructure Report (refer to Appendix D Aboriginal heritage Cultural Heritage Assessment Report, Appendix J Supplementary Biodiversity Assessment).

**NOTE:** This document only provides the assessment for those ancillary facilities deemed high priority due to construction and early works staging.

#### Department of Planning and Infrastructure standard conditions locational criteria

- a. Be located more than 50 metres from a waterway.
- b. Be located within or adjacent to land where the state significant infrastructure is being carried out.
- c. Have ready access to the road network.
- d. Be located to minimise the need for heavy vehicles to travel through residential areas.
- e. Be sited on relatively level land.
- f. Be separated from nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant).
- g. Not require vegetation clearing beyond that already required by the state significant infrastructure.
- h. Not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the state significant infrastructure.
- i. Not unreasonably affect the land use of adjacent properties.
- j. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.
- k. 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.

#### Section 1 site 1a (1)

#### Description

The ancillary facility is located between stations 2.5 and 3.4 across the following three properties to the north of Kangaroo Trail Road:

- Lot 51 DP 851056.
- Lot 11 DP 1152234.
- Lot 4 DP 806515.

This site is partially owned by RMS.

The site is situated mainly in areas cleared for agriculture, with and vegetated areas. Part of the site is owned by Coffs Harbour City Council for irrigation of water from the Sewerage Treatment plant to the south of Kangaroo Trail Road.

The site is located south of the Corindi River, however does not fall within the 100 year ARI flood event. The site is situated in an Aboriginal cultural place- a large area where there are thought to be historical burials.

The site is confined as much as possible to cleared areas. However, vegetation present around the site includes Blackbutt bloodwood dry heathy open forest on sandstones of the northern North Coast and Swamp Box swamp forest of the coastal lowlands of the North Coast (EEC). There are areas of secondary koala habitat near the project alignment.

There is a cluster of residences associated with Kangaroo Trail Road to the south east however, these are not within 200 metres of the site. On the ancillary facility, there is one residence.

Access to the property is via Kangaroo Trail Road. Access to the ancillary facility would be via Kangaroo Trail Road and the construction corridor.

Figure 1 shows the environmental constraints surrounding the ancillary facility site.

#### Ancillary facility uses

Main site compound (construction)

Batch plant (construction)

Plant workshop (construction)

Material storage (construction)

Stockpile site (construction)

#### Non-conformance with standard conditions locational criteria

H. Not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the state significant infrastructure

#### The site would impact on

- Taylors Run 2 (surface artefact scatter of low significance). The ancillary facility would directly impact on the entire recorded extent of the site and impact its heritage values.
- Taylors Run 1 (artefact scatter of low moderate significance). The ancillary facility would directly impact on the recorded extent of the site and impact its heritage values. The higher density area of the site is outside but immediately adjacent to the ancillary facility.
- WWC37 (artefact scatter of low significance). The ancillary facility would impact on the recorded extent of the site and impact its heritage values. This site would be impacted by the project and the ancillary facility, both impacts resulting in impact to the site and its heritage values.
- WWC39 (artefact scatter of moderate significance). This site is within the footprint area of two ancillary facilities. Site 1a would impact on the recorded extent of the site and impact to its heritage values.

#### **Mitigation measures**

Management measure AH14a provides management measures for ancillary facility Section 1 site 1a: For Taylors Run 2:

#### Section 1 site 1a (1)

- All previously recorded artefacts must be recovered and removed off-site, and passed to registered Aboriginal stakeholders for reburial or storage at a chosen location, subject to a care agreement being established.
- If the Aboriginal archaeological site is not to be impacted, an exclusion zone will be established as per management measure AH2.

For Taylors Run 3:

• Exclusion zones will be established as per management measure AH2.

For Taylors Run 1:

- The surface scatter portion of this Aboriginal archaeological site outside the proposed ancillary facility, will be avoided. An exclusion zone with a buffer of 15 metres of the surface artefact point will be established as per management measure AH2.
- Any ground disturbance impacts to the archaeological site in the ancillary facility, will require the top soil down to the sterile clay layer to be graded, stockpiled separately (within a portion of the ancillary facility area), and reinstated at the same area following completion of the activity.
- Any portions of the Aboriginal archaeological site not to be impacted will be protected by exclusion zones as per management measure AH2.

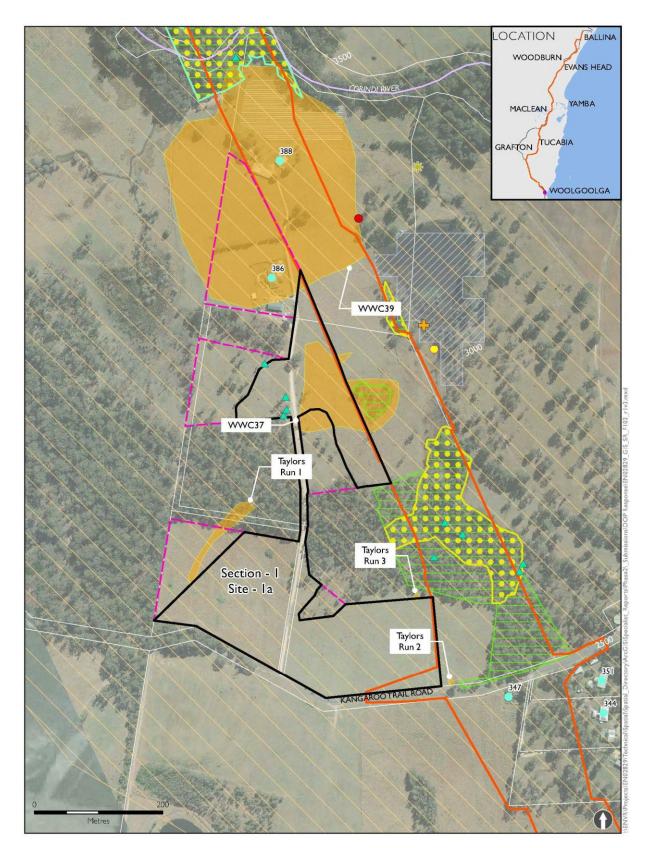
#### For WWC37 (22-1-0344):

- Within the Aboriginal archaeological site in the boundary of the project, after salvage activities, but before any other ground disturbance, the top soil down to the sterile day layer will be graded from the area, stockpiled separately and used in batters (not fill) of the road/bridge. This will be undertaken in consultation with the relevant registered Aboriginal stakeholders and will be engaged to direct this activity. In addition:
  - The salvage to be excavated by machine is 30 % of the Aboriginal archaeological site.
  - The older house nearest to the river within the Aboriginal archaeological site will be removed, with minimal ground disturbance, before salvage excavations being undertaken, so that this area may be targeted for a portion of the salvage.
  - Their nominated site officers are present during removal of the plastic covering the blueberry bush rows, to identify artefacts on the surface under the plastic an archaeologist will also be present to document finds.
  - All cultural material recovered will be subject to detailed analysis, which will be included in a technical report, including detailed discussion and interpretation.
  - Any portions of the Aboriginal archaeological site that are not to be impacted will be protected by exclusion zones as per management measure AH2.

#### Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of the ancillary facility has been altered to minimise impact on Aboriginal heritage and biodiversity constraints. The change in the extent of the site is shown in Figure 1.

Figure 1 Constraints map for ancillary facility section 1 site 1a



#### Section 1 site 2 (3)

#### Description

This site is located across two parcels of privately owned land, off Post Office Lane, Corindi between stations 5.2 and 5.4:

- Lot 1 DP 379009.
- Lot 11 DP 1110135.

The site is situated on cleared rural land. However, there are around nine residences with access from Post Office Lane.

The site is located south of Redbank Creek, and north of Cassons Creek. However, is located outside of the 100 year ARI flood level.

Surrounding vegetation consists of Blackbutt bloodwood dry heathy open forest on sandstones of the northern North Coast. This includes areas of habitat critical to the survival of Koalas. Areas of TEC including Swamp Sclerophyll and Subtropical coastal floodplain forest are present in the surrounds.

The property is accessed via Post Office Lane. The ancillary facility would be accessed either via Post Office Lane or from the construction corridor.

Figure 2 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There is one residence that is located within 200 metres and another two residences located around 200 metres away from the boundary of the site.

The noise assessment identified that noise from this ancillary facility would not result in an exceedance of the noise management level (NML) of 51 dBA.

However, these three residences (and another four residences on Post Office Lane have been earmarked for noise mitigation measures due to the impacts from the operational highway. Where required, at house treatments would be installed early in the construction of the project to provide noise mitigation during construction as well as operation.

H. Not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the state significant infrastructure

Heritage item Post Office Lane Stockyards, Corindi Beach is a local heritage item that is located north east of the ancillary facility. The ancillary facility is located outside of the curtilage of the heritage item and would avoid direct impact on the stockyards. However, there is the potential for physical damage to the stockyards if road construction machinery, vehicles or other activities accidentally occur outside the ancillary facility due to the close proximity of the heritage item.

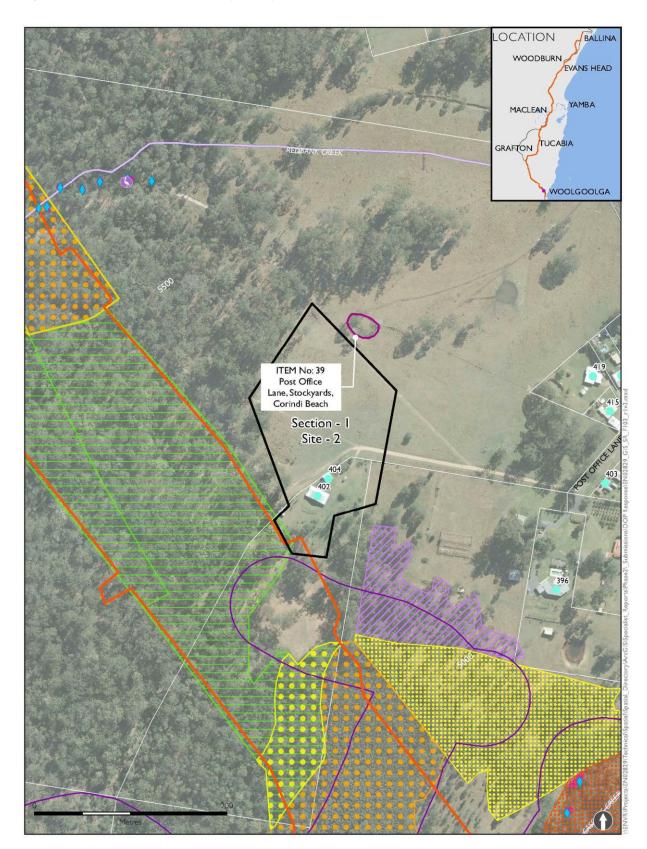
#### **Mitigation measures**

Management measure HH5 provides management measures to manage potential impact on heritage items from ancillary facility Section 1 site 2:

• At project section 1, site 2: a temporary barrier fence will be erected between item 39 and the ancillary site. The fence will remain in place until the conclusion of the use of the ancillary site at which time it will be removed.

Extent of ancillary facility

Figure 2 Constraints map for ancillary facility section 1 site 2.



#### Section 1 site 3 (4)

#### Description

The ancillary facility is located almost wholly within the project corridor. It is located on Lot 1102 DP 803773 between stations 7.4 and 7.6.

The site is situated on cleared land, however is surrounded by heavily vegetated land. Vegetation communities include Blackbutt bloodwood dry heathy open forest on sandstones of the northern North Coast and Swamp Box swamp forest of the coastal lowlands of the North Coast (EEC). Vegetation surrounding the site is considered to be habitat critical for the survival of koalas.

The site is currently rural residential, with surrounding lands being rural properties, predominantly forested lands. However, there are a few receivers east of the facility.

The property is currently accessed by Hawthorn Close, however, for the use as an ancillary facility, the site would be accessed via the construction corridor.

There is a farm dam located to the east of the site.

Figure 3 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Satellite compound (construction)

Batch plant (construction)

Plant workshop (construction)

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There is one residence that is located within 200 metres to the north of the site.

The noise assessment identified that noise from this ancillary facility would result in an exceedance of the noise management level (NML) of 51 dBA by around 4 dBA.

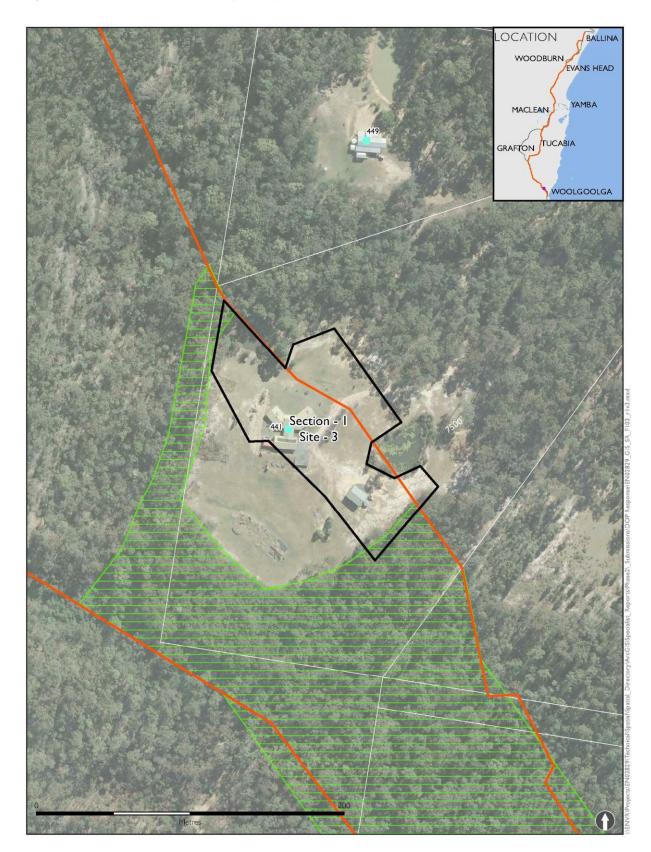
However, this residence has been earmarked for noise mitigation measures due to the impacts from the operational highway. Where required, at house treatments would be installed early in the construction of the project to provide noise mitigation during construction as well as operation.

**Mitigation measures** 

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

Extent of ancillary facility

Figure 3 Constraints map for ancillary facility section 1 site 3



#### Section 1 site 4b (6)

#### Description

This site is located adjacent to the Pacific Highway and Range Road intersection within the existing Pacific Highway road reserve, fully in the project boundary between stations 9.4 and 9.6. Surrounding land use is agricultural (blueberry farm) and rural forested lands.

The site is vegetated with Blackbutt bloodwood dry heathy open forest on sandstones of the northern North Coast and consists of habitat critical to the survival of koalas.

The ancillary facility is located away from residential receivers, with the only structures in proximity to the site being shed and farm infrastructure.

There is a registered Aboriginal heritage site located on the adjoining property around 150 metres south of the ancillary facility.

Access to the site is via the existing Pacific Highway. Access to the ancillary facility would be via the construction corridor.

Figure 4 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Stockpile site (construction)

Standard conditions locational criteria

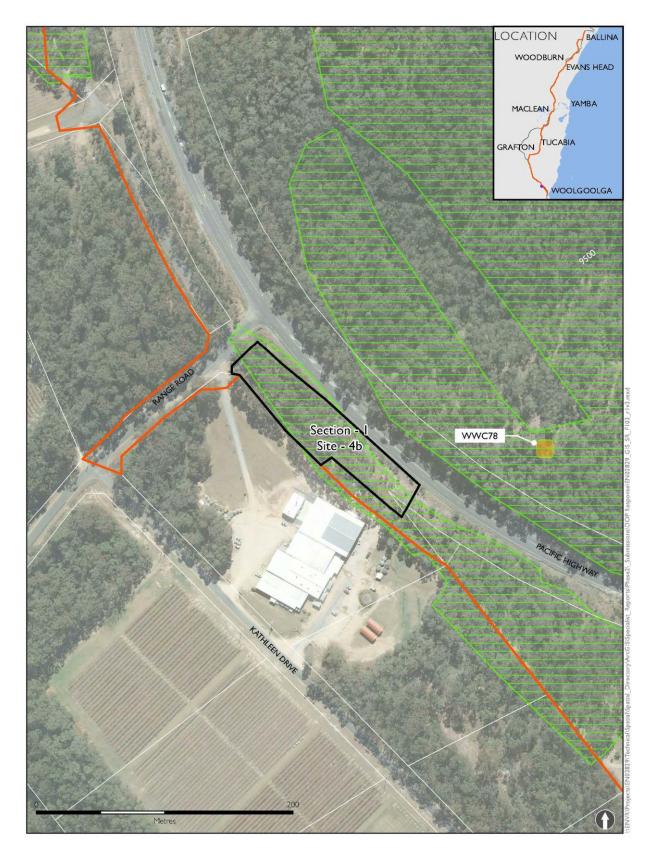
All criteria are met

**Mitigation measures** 

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

Extent of ancillary facility

Figure 4 Constraints map for ancillary facility section 1 site 4b



#### Section 2 site 1a (7)

#### Description

This ancillary facility is located on three privately owned properties, to the west of the project between stations 16.7 and 17.0:

- Lot 13 DP 879175.
- Lot 15 DP 879175.
- Lot 14 DP 879175.

And is partially within the project corridor.

The site is located on mostly cleared land with some scattered trees and a patch of vegetation on the eastern side (within the project boundary). However, there is little potential for fauna habitat. There is a farm dam located to the south west. Surrounding land is mostly rural vegetated land but also includes commercial land use and Yuraygir State Conservation Area.

There is one receiver on the site that would not be occupied during the use of the ancillary facility.

Access to the property is from the existing Pacific Highway. Access to the ancillary facility would be via the construction corridor.

Figure 5 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Main site compound (construction)

Batch plant (construction)

Plant workshop (construction)

Material storage (construction)

Stockpile site (construction)

Standard conditions locational criteria

All criteria are met

**Mitigation measures** 

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

#### Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of this ancillary facility has been altered to minimise impact on biodiversity constraints. The change in the extent of the site is shown in Figure 5.

#### Section 2 site 1b (8)

#### Description

This ancillary facility is situated on Lot 316 DP 1096092, behind the Halfway Creek service station, to the east of the project, between stations 17.1 and 17.4.

Site is partially vegetated. Vegetation consists of Blackbutt bloodwood dry heathy open forest on sandstones of the northern North Coast and Swamp Box swamp forest of the coastal lowlands of the North Coast (EEC). Numerous habitat trees are present within the vegetation.

The property is a commercial property, however surrounding land uses include rural residential, rural forested land and Yuraygir State Conservation Area.

There are a cluster of receivers located to the north of the site, both north and south of Lemon Tree Road.

The property is currently accessed from Lemon Tree Road. The ancillary facility would be accessed via the construction corridor.

Figure 5 shows the environmental constraints surrounding the ancillary facility site.

#### Ancillary facility uses

Main site compound (construction)

Batch plant (construction)

Plant workshop (construction)

Material storage (construction)

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There are two residences that are located within 300 metres to the north east of the site. The noise assessment identified that noise from this ancillary facility and Site 1c would result in an exceedance of the noise management level (NML) of 56 dBA by 19 dBA for one receiver and around 5 dBA for the other.

General measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

However, these residences have been earmarked for noise mitigation measures due to the impacts from the operational highway. Where required, at house treatments would be installed early in the construction of the project to provide noise mitigation during construction as well as operation.

H. Not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the state significant infrastructure

The site would impact on a modified tree (Lemon Tree Road 1). This site is entirely within the ancillary facility. The ancillary facility would impact the entire recorded extent of the site and its heritage values.

#### **Mitigation measures**

Management measure AH14d provides management measures to manage impacts to Aboriginal heritage item from ancillary facility Section 2 site 1b:

For Lemon Tree Road 1 (13-4-0180):

An exclusion zone will be established around this Aboriginal site as per management measure AH2.

Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of this ancillary facility has been altered to minimise impact on biodiversity and Aboriginal heritage constraints. The change in the extent of the site is shown in Figure 5.

#### Section 2 site 1c (9)

#### Description

This ancillary facility is located on Lot 13 DP 879175 and is situated wholly within the project boundary between stations 17.5 and 18.1. The site is located just north of the Lemon Tree Road intersection with the Pacific Highway.

The site is vegetated with Blackbutt bloodwood dry heathy open forest on sandstones of the northern North Coast and Swamp Box swamp forest of the coastal lowlands of the North Coast (EEC) and Swamp Mahogany swamp forest of the coastal lowlands of the North Coast (EEC). This comprises primary habitat for koalas. The threatened species, *Lindsaea incisa* occurs on the site.

The site is surrounding by vegetated land, with rural residential uses occurring on the other side of the highway. There are a cluster of receivers located to the north of the site, both north and south of Lemon Tree Road.

Access to the property is from the existing Pacific Highway. Access to the ancillary facility would be via the construction corridor.

Figure 5 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There are two residences that are located within 300 metres to the north east of the site.

The noise assessment identified that noise from this ancillary facility and Site 1c would result in an exceedance of the noise management level (NML) of 56 dBA by 19 dBA for one receiver and around 5 dBA for the other.

General measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

However, these residences have been earmarked for noise mitigation measures due to the impacts from the operational highway. Where required, at house treatments would be installed early in the construction of the project to provide noise mitigation during construction as well as operation.

#### **Mitigation measures**

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

#### Extent of ancillary facility

LOCATION BALLINA WOODBURN EVANS HEAD YAMBA MACLEAN GRAFTON TUCABIA WOOLGOOLGA IREE ROAD PACIFIC HIGHWAY Section - 2 Site - I c Lemon Tree Rd I 2 Section Site - Ib Section - 2 Site - la

Figure 5 Constraints map for ancillary facilities section 2 sites 1a, 1b and 1c

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#### Section 2 site 4 (12)

#### Description

The ancillary facility is located on Lot 51 DP 801481 and is located around 800 metres north of the Luthers Road intersection with the Pacific Highway between stations 21.7 and 22.2. This site is partially within the project corridor.

The site is on private rural property in a cleared field. Surrounding land uses include forested land and cleared rural land. There are some sensitive receivers located to the south west of the ancillary facility. The site is in an Aboriginal cultural heritage place (Corindi Beach corridors of movement).

Surrounding vegetation to the site includes Needlebark Stringybark/Scribbly Gum Forest on sandy soil and Blackbutt bloodwood dry heathy open forest on sandstones of the northern North Coast which is identified as habitat critical to the survival of koalas. The site is situated further south of a tributary of Halfway Creek.

Access to the property is via the existing Pacific Highway. Access to the ancillary facility would be via the construction corridor.

Figure 6 shows the environmental constraints surrounding the ancillary facility site.

#### Ancillary facility uses

Satellite compound (construction)

Material storage (construction)

Stockpile site (construction)

#### Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There is a residence located around 50 metres to the south of the site. The noise assessment has identified that there would be an exceedance of less than 1 dBA of the daytime NML of 56 dBA. General measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

H. Not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the state significant infrastructure

The site would impact on:

- Corindi Beach corridors of movement Aboriginal cultural place (Moderate significance). The site would partially
  impact this cultural place. This place is unavoidable as it traverses the region. The cultural heritage values and
  significance of this place would also be partially diminished by the ancillary facility, though the corridor of
  movement would not be severed.
- Wells Crossing Artefacts 1 Artefact scatter (Low significance). The ancillary facility would directly impact on the entire recorded extent of the site and impact its heritage values.

The constraints figure (Figure 1) shows the ancillary facility extent as well as where the facility has been altered to minimise impacts on constraints.

#### **Mitigation measures**

Management measure AH14f provides management measures to manage impacts to Aboriginal heritage items from ancillary facility Section 2, Site 4

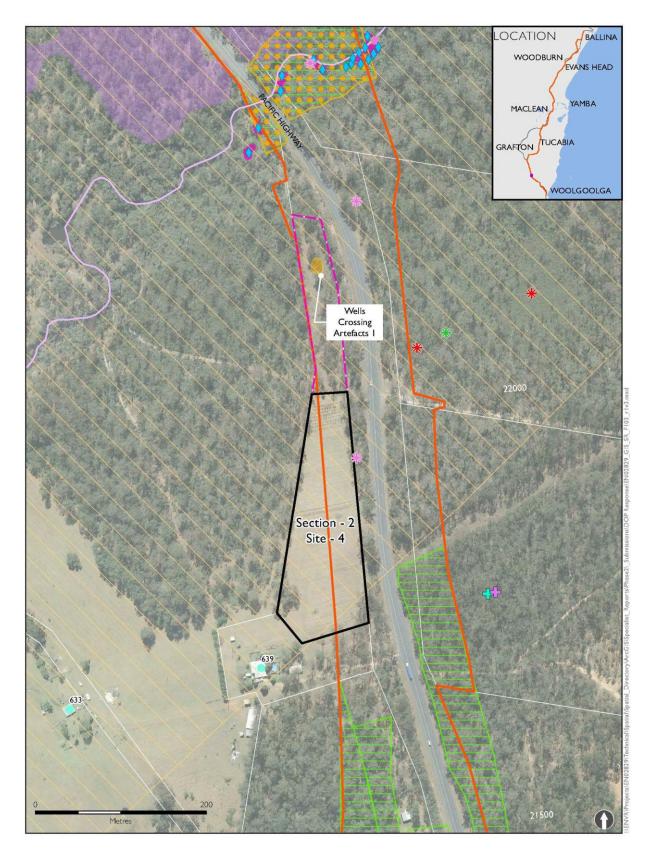
For Wells Crossing Artefacts 1 (13-4-0183):

• If this Aboriginal archaeological site is to be impacted, salvage excavation of the portion of the Aboriginal archaeological site to be impacted will be undertaken as detailed in the Ancillary facility and design change CHAR (Appendix D of the Submissions/ Preferred Infrastructure Report) and in consultation with RAPs.

#### Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of this ancillary facility has been altered to minimise impact on Aboriginal heritage constraints. The change in the extent of the site is shown in Figure 6.

Figure 6 Constraints map for ancillary facility section 2 site 4



#### Section 2 site 5a (13)

#### Description

This site is located on two privately owned properties (Lot 161 DP 736670, Lot 162 DP 736670) fronting onto Parker Road and the Pacific Highway between stations 23.5 and 23.8.

The site is mostly cleared, with some planted native vegetation. At the northern extent, there is a patch of native vegetation- Orange Gum open forest of the North Coast in low condition. There are also three *Eucalyptus tetrapleura* individuals along the boundary with the project boundary. To the north west of the site, there is a large dam.

Surrounding land uses include rural, rural residential, commercial and forested (including state forest) lands. Receivers are located to the west and south of the ancillary facility.

Access to the property is via Parker Road. Access to the ancillary facility would be via the construction corridor.

Figure 7 shows the environmental constraints surrounding the ancillary facility site.

#### Ancillary facility uses

Main site compound (construction)

Batch plant (construction)

Plant workshop (construction)

Material storage (construction)

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

# F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There are two residences that are situated within 100 metres of the ancillary facility. The noise assessment has indicated that there would be a large exceedance of the NML of 54 dBA. However, this would be due to the impacts from both Section 2 site 5a and 5b ancillary facilities. These exceedances would be in the order of 10-13dBA. General measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

#### **Mitigation measures**

No management measures specifically for this site are required to address the locational criteria.

#### Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of this ancillary facility has been altered to minimise impact on biodiversity constraints. The change in the extent of the site is shown in Figure 7.

#### Section 2 site 5b (14)

#### Description

This ancillary facility consists of three separate sites on Lot 111 DP 751368 (Newfoundland State Forest) located between stations 23.6 and 24.0. However this facility is located wholly within the project corridor (between the existing and proposed highway).

The land use surrounding the facility consists of state forest, and commercial activities to the west of the existing highway. Rural residential activities are also located to the west of the existing Pacific Highway.

The site is heavily vegetated with non-EEC native vegetation, including habitat critical to the survival for koalas. However, this would be cleared as a result of the project construction. There are no threatened flora species identified on site. However, 20 metres north of the site, there is a mapped area of *Eucalyptus tetrapleura*.

Access to the ancillary facility would be via the construction corridor.

Figure 7 shows the environmental constraints surrounding the ancillary facility site.

#### Ancillary facility uses

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There is one residence that is located around 200 metres from the site. The noise assessment has indicated that there would be a large exceedance of the NML of 54 dBA at this location. However, this would be due to the impacts from both Section 2 site 5a and 5b ancillary facilities. The exceedance would be in the order of 13dBA. General measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

H. Not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the state significant infrastructure

The site would impact on heritage site WWC139 (an artefact scatter of low significance). The ancillary facility would impact on the entire recorded extent of the site and impact its heritage values.

#### **Mitigation measures**

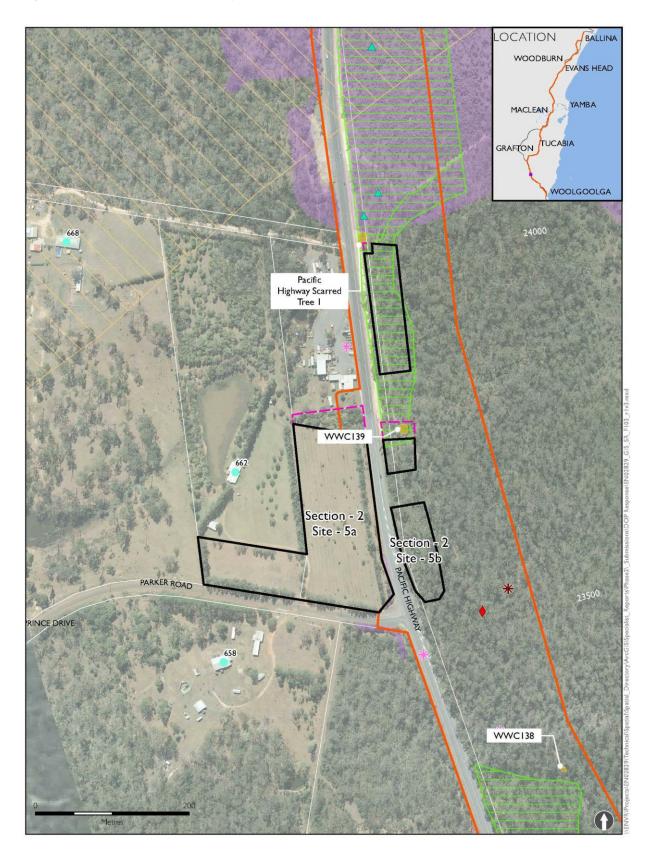
Management measure AH14g provides management measures for ancillary facility Section 2, Site 5b: For WWC139:

• The Aboriginal archaeological site that is not to be impacted will be protected by exclusion zones as per management measure AH2.

#### Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of the ancillary facility has been altered to minimise impact on Aboriginal heritage constraints. The change in the extent of the site is shown in Figure 7.

Figure 7 Constraints map for ancillary facilities section 2 sites 5a and 5b.



#### Section 2 site 6 (15)

#### Description

This site is located within the existing Pacific Highway road reserve and falls wholly within the project boundary between stations 25.7 and 25.9.

The site is in a cleared area that is currently a heavy vehicle inspection bay.

Landuse either side of the highway at this location consists of state forest. Vegetation is Spotted Gum-Squarefruited Ironbark Open Forest. No threatened flora species (including *Eucalyptus Tetrapleura*) are present in vicinity of the site.

Access to the ancillary facility would be via the construction corridor.

Figure 8 shows the ancillary facility extent and constraints surrounding the facility.

Ancillary facility uses

Stockpile site (construction)

Standard conditions locational criteria

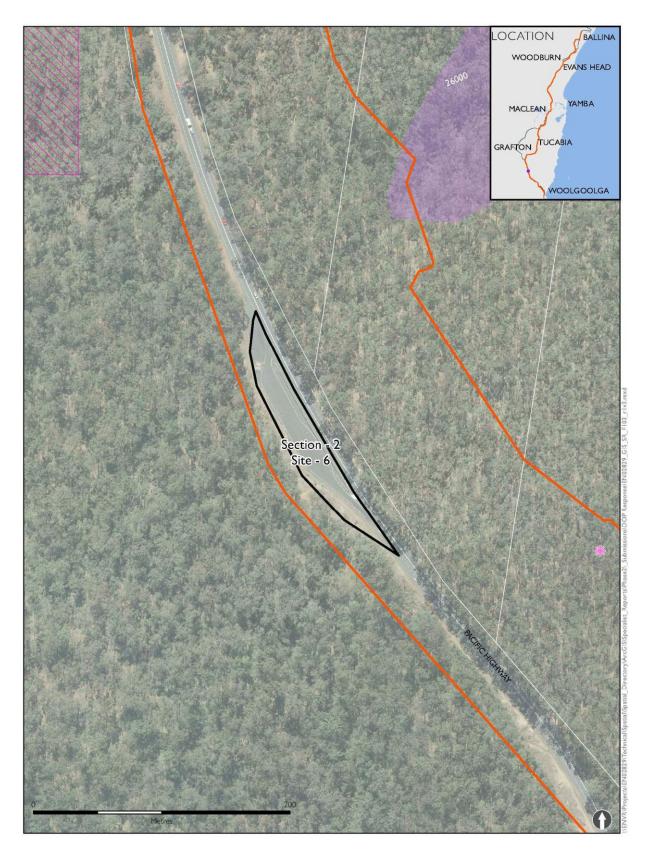
All criteria are met

**Mitigation measures** 

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

Extent of ancillary facility

Figure 8 Constraints map for ancillary facility section 2 site 6.



# Section 3 site 1 (16)

### Description

This site is located within former state forest (now the road reserve) between stations 34.3 and 34.5. This site was cleared for use as a construction compound for the Glenugie upgrade project.

Since the completion of the Glenugie upgrade, the site has been rehabilitated with indigenous species. Surrounding land uses include state forest and rural land uses. To the west of the project, there are rural residential properties. Native vegetation includes Spotted Gum- Grey ironbark-Pink Bloodwood open forest of the Clarence Valley lowlands of the North Coast.

Access to the site was from the Glenugie upgrade project. Access to the ancillary facility would be via the construction corridor.

Figure 9 shows the ancillary facility extent and constraints surrounding the facility.

Ancillary facility uses

Main site compound (construction)

Batch plant (construction)

Plant workshop (construction)

Material storage (construction)

Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

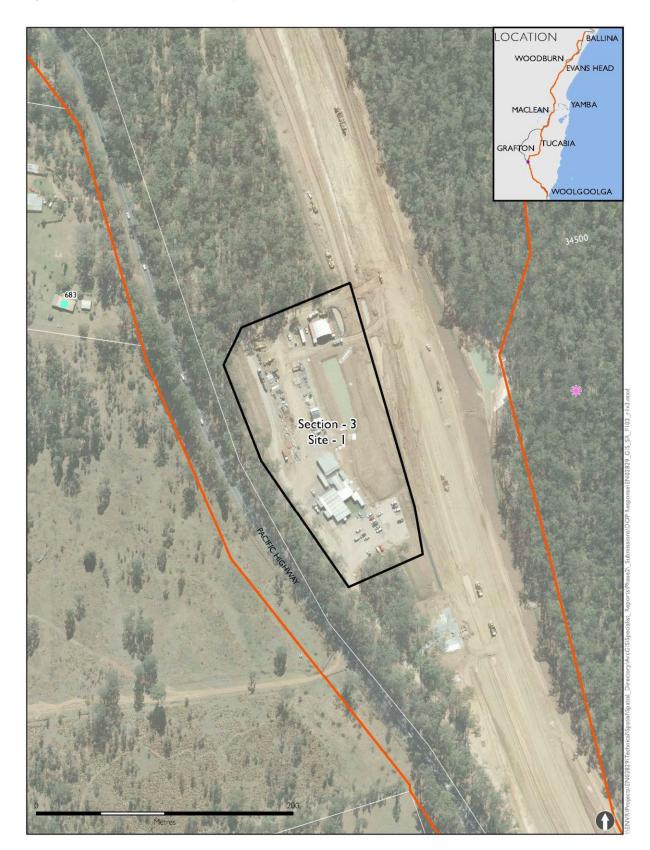
There is one residence that is around 130 metres to the west of the ancillary facility. The noise assessment has identified that there would not be an exceedance of the NML of 55dBA. However, general measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

### **Mitigation measures**

No management measures specifically for this site are required to address the locational criteria.

Extent of ancillary facility

Figure 9 Constraints map for ancillary facility section 3 site 1.



# Section 3 site 2 (17)

### Description

The site is located on mostly cleared rural land on properties to the south east of the project between stations 39.5 and 40.2:

- Lot 6 DP 793765.
- Lot 7 DP 793765.

The site is partially owned by RMS.

The site is located adjacent to an 11 cell culvert over a tributary of Glenugie Creek.

Surrounding vegetation includes Spotted Gum- Grey Ironbark- Pink Bloodwood open forest of the Clarence Valley lowlands of the North Coast and Swamp Box swamp forest of the coastal lowlands of the North Coast (EEC). Five habitat trees were identified on the site.

Surrounding land uses include forested lands and rural residential properties.

Access to the site would be via Old Six Mile Lane or from the construction corridor.

Figure 10 shows the ancillary facility extent and constraints surrounding the facility.

### Ancillary facility uses

Satellite compound (construction)

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

### A. Be located more than 50 metres from a waterway

The site is located at a small tributary crossing of the upgraded highway. The hydrology assessment undertaken as part of the EIS identified that this site would completely block the waterway and would cause substantial flood impacts without sufficient drainage through the site. It should be noted that this assumed this site would be built up above the 20 year ARI flood level.

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The site does fall within the 20 year ARI flood event of the Coldstream River, however, the site would be built up so the ground level is above the 20 year ARI flood level.

### Mitigation measures

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

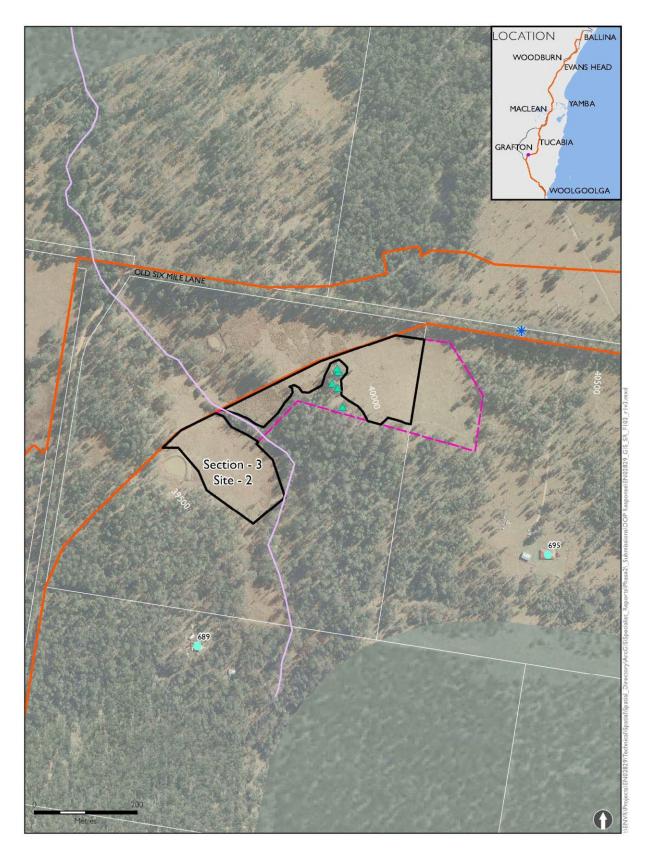
 Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

While erosion and sedimentation controls would be employed where required, at all ancillary facilities (refer to management measures SSW38- SSW40), at this ancillary facility, these controls would be focused around avoiding impacts to the tributary of Glenugie Creek.

### Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of this ancillary facility has been altered due to lack of property owner agreement and to avoid blockage of culverts. The change in the extent of the site is shown in Figure 10.

Figure 10 Constraints map for ancillary facility section 3 site 2.



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## Section 3 site 3a (18)

### Description

This site is located to the south of the highway alignment, partially within the project boundary on Lot 126 DP 751376 between stations 41.1 and 41.4.

The site is located along Avenue Road, Pillar Valley.

The site is mostly located on cleared rural land. A dam is located south of the site. Surrounding vegetation includes Spotted Gum- Grey Ironbark- Pink Bloodwood open forest of the Clarence Valley Iowlands of the North Coast and Swamp Box swamp forest of the coastal lowlands of the North Coast (TEC). This ancillary facility is within an emu connectivity zone.

Surrounding land uses consist of rural and rural residential land uses. A cluster of four rural residential properties are located south, south-west of the proposed facility.

Access to the property is via Old Six Mile Lane or Avenue Road. Access to the ancillary facility would be via Avenue Road or from the construction corridor.

Figure 11 shows the ancillary facility extent and constraints surrounding the facility.

# Ancillary facility uses

Satellite compound (construction)

Batch plant (construction)

Plant workshop (construction)

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There is one residence located around 200 metres from the site. The noise assessment identified that there would be an exceedance of the NML of 58 dBA of around 2dBA. General measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

### **Mitigation measures**

No management measures specifically for this site are required to address the locational criteria.

Extent of ancillary facility

# Section 3 site 3b (19)

### Description

The site is located along Avenue Road, Pillar Valley, located to the north of the highway alignment, partially within the project boundary on Lot 126 DP 751376 between stations 41.1 and 41.4.

The site is mostly located on cleared rural land. A farm dam is located in the middle of the site. Surrounding land uses consist of rural and rural residential land uses. A cluster of four rural residential properties are located south, south-west on the opposite side of the highway alignment.

This ancillary facility is within an emu connectivity zone.

Access to the property is via Avenue Road. Access to the ancillary facility would be via Avenue Road or from the construction corridor.

Figure 11 shows the ancillary facility extent and constraints surrounding the facility.

### Ancillary facility uses

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

H. Not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the state significant infrastructure

The ancillary facility would impact on an artefact scatter (WX2I Site 8) of low significance. The ancillary facility would impact on the entire recorded extent of the site and impact its heritage values.

### **Mitigation measures**

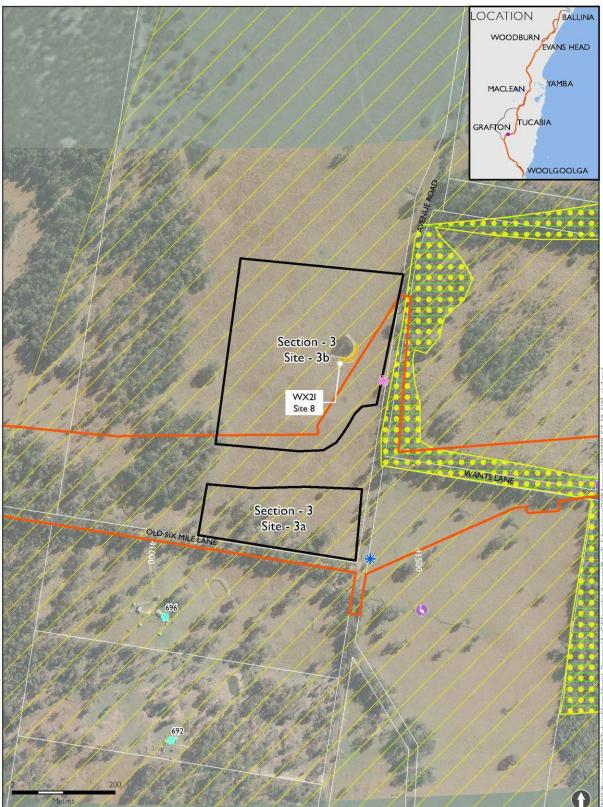
Management measure AH14h identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

For WX2I Site 8 (09-4-0108):

- All previously recorded artefacts will be recovered and removed off-site before construction, subject to a care agreement being established.
- All cultural material recovered will be subject to detailed analysis, which will be included in a technical report, including detailed discussion and interpretation.

### Extent of ancillary facility

Figure 11 Constraints map for ancillary facilities section 3 sites 3a and 3b.



# Section 3 site 4 (20)

### Description

This site is located adjacent to Wooli Road on property Lot 1 DP 606007 between stations 45.5 and 45.9.

The site is situated on cleared and vegetated land adjoining the construction corridor.

Vegetation on the site consists of Scribbly Gum, Needbark Stringybark heathy open forest of coastal lowlands of the northern North Coast. Around 10 habitat trees were identified on the site, with a number of individuals of the threatened species Angophora robur also identified. This ancillary facility is within an emu connectivity zone.

The site is in a quiet rural environment, with a low background noise level. Two residential receivers are located to the north east of the ancillary facility, with another four located south, on the opposite side of the project alignment.

Access to the property is via Wooli Road. Access to the ancillary facility would be via Wooli Road or the construction corridor.

Figure 12 shows the environmental constraints surrounding the ancillary facility site.

#### Ancillary facility uses

Satellite compound (construction)

Batch plant (construction)

Plant workshop (construction)

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There is one residence within 100 metres of the site. Due to the low noise background level, the NML for this area is 44dBA. The noise assessment identified that there would be a substantial exceedance of the NML by around 22dBA. General measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

G. Not require vegetation clearing beyond that already required by the state significant infrastructure

The site would require clearing including the removal of at least four individuals of the threatened species *Angophora robur* and numerous habitat trees as well as other native vegetation.

### **Mitigation measures**

No management measures specifically for this site are required to address the locational criteria.

A number of project management measures would be applicable to the use of this ancillary facility in relation to the clearing of vegetation. This includes:

Management measure B23 Preclearing surveys:

The pre-clearing process will be consistent with Roads and Maritime Biodiversity Guidelines: Protecting and Managing Biodiversity on RTA projects (RTA, 2011a) and include:

- Pre-clearing surveys by an experienced ecologist for large bird nests, particularly for listed species such as the Black-necked Stork, Eastern Osprey, Square-tailed Kite and Little Eagle during the nesting and breeding season (July to December) and tree roosting (eg Southern Myotis)or cave dwelling bats in trees or existing culvert/bridge structures. If the species is present in or directly adjacent to the project footprint (including ancillary facilities), measures to manage any species be considered, if required.
- Mapping the location of any threatened flora and/or fauna species, Threatened Ecological Communities and habitat.
- Construction traffic will be restricted to defined access tracks, fenced prior to the start of construction and maintained until construction is complete.

# Section 3 site 4 (20)

Management measure B25 Staged removal process:

• A staged habitat removal process will be implemented consistent with the Roads and Maritime Biodiversity Guidelines (RTA, 2011a).

Management measure B26 Re-use of woody debris and bushrock:

• Woody debris and bushrock will be re-used on site for habitat improvement where possible and will be detailed in the landscape management plan in accordance with the Roads and Maritime Biodiversity Guidelines (RTA, 2011a).

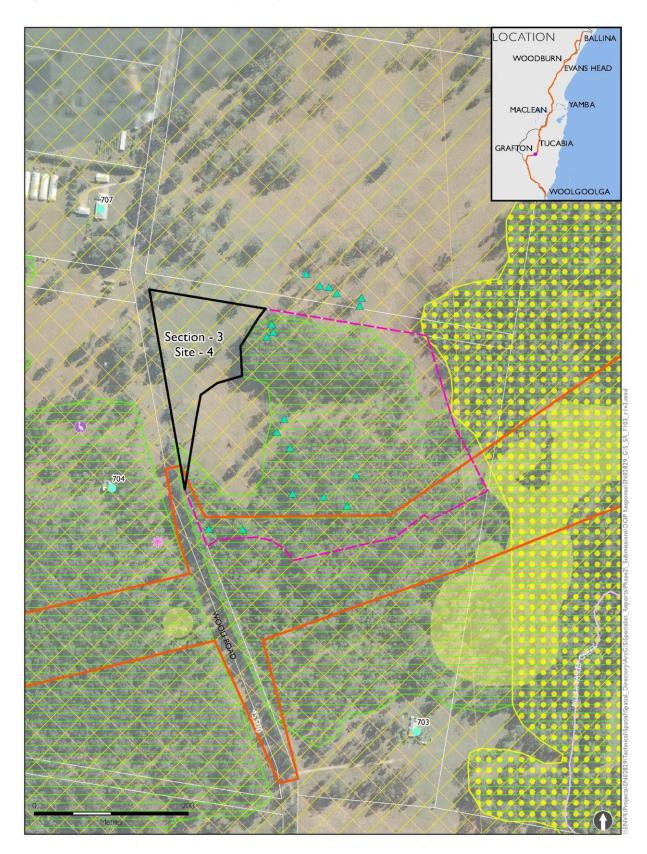
Management measure B32 Fauna handling:

• To prevent injury and mortality of fauna during the clearing of vegetation and drainage of farm dams, an experienced and licensed wildlife carer and/or ecologist will be present to capture and relocate fauna where required. Further details regarding fauna handling and vegetation clearing procedures are provided in the Roads and Maritime Biodiversity Guidelines (RTA, 2011a).

Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of this ancillary facility has been altered to avoid impacts to vegetation, threatened species and habitat trees. The changed extent is shown in Figure 12.

Figure 12 Constraints map for ancillary facility section 3 site 4.



# Section 3 site 5 (21)

### Description

This facility is located to the west of the construction corridor, located on Lot 27 DP 751378 between stations 49.4 and 49.6. Access to the property would be via Mitchell Road, although access to the ancillary facility would be from the construction corridor.

This site is within 100 metres of an unnamed creek, within a clearing. Land use around the site is rural, with no residences within one kilometre of the facility.

Vegetation surrounding the site is dry sclerophyll forest, which is habitat critical to the survival of koalas. It also contains area of the threatened species Angophora robur. There is some Subtropical Coastal Floodplain Forest on Coastal Floodplains TEC near the facility. This ancillary facility is within an emu connectivity zone.

Figure 13 shows the ancillary facility extent and constraints surrounding the facility.

### Ancillary facility uses

Satellite compound (construction)

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is located adjacent to the main channel of the small unnamed creek near Mitchell Road, and currently partially blocking a 6 cell culvert, and therefore a main flood flow path. The facility is likely to experience flooding, particularly during large events.

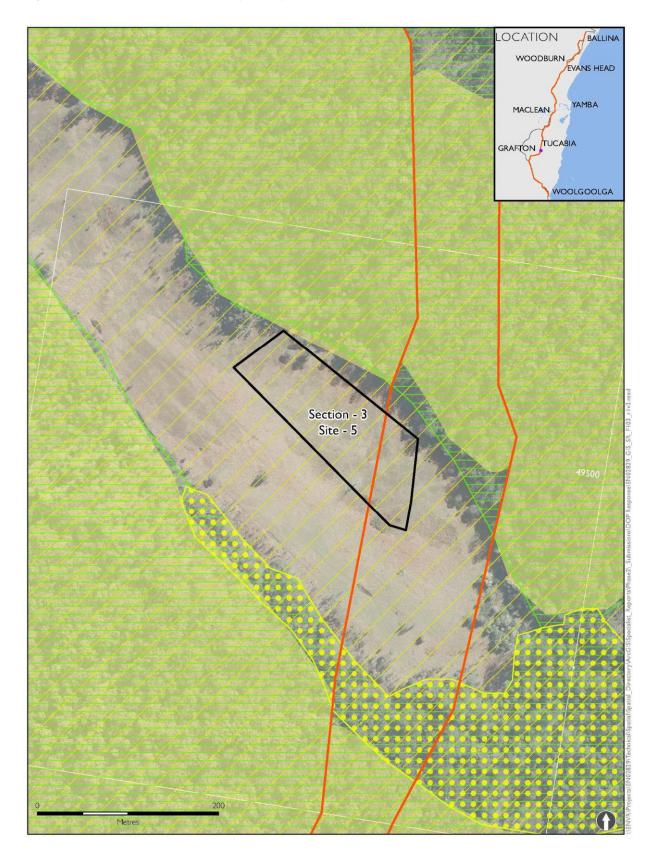
#### **Mitigation measures**

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

• Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

### Extent of ancillary facility

Figure 13 Constraints map for ancillary facility section 3 site 5.



# Section 3 site 6a (22)

### Description

The ancillary facility is located to the east of the construction corridor, south of Firth Heinz Road, although access to the ancillary facility would be from the construction corridor. This site is located between stations 51.4 and 51.5.

The site is situated across two lots: Lot 1 DP 254500 and Lot 168 DP 751365. The property contains cropping land, with a farm dam situated to the north of the site. Surrounding land use is rural with both forested lands and cropping lands.

This ancillary facility is within an emu connectivity zone.

Access to the site is via Firth Heinz Road. Access to the ancillary facility would be via the construction corridor.

Figure 14 shows the ancillary facility extent and constraints surrounding the facility.

Ancillary facility uses

Stockpile site (construction)

Standard conditions locational criteria

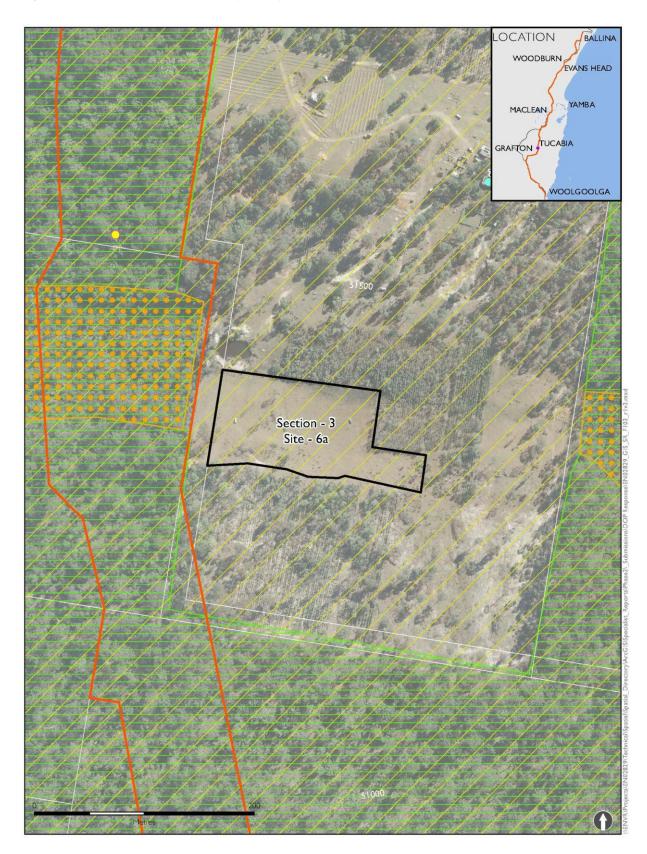
All criteria are met

**Mitigation measures** 

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

Extent of ancillary facility

Figure 14 Constraints map for ancillary facility section 3 site 6a.



## Section 3 site 6b (23)

### Description

The ancillary facility is located to the east of the construction corridor, on Lot 1 DP 400850. The property fronts onto Firth Heinz Road at station 62.0.

The site is on the former Tucabia landfill site. Surrounding land uses are rural with some rural residential properties associated with Firth Heinz Road and Mitchell Road.

Vegetation to the north of the site is dry sclerophyll forest, which is secondary koala habitat. An area to the north east of the site of the threatened species *Angophora robur*. This ancillary facility is within an emu connectivity zone.

Figure 15 shows the ancillary facility extent and constraints surrounding the facility.

Ancillary facility uses

Satellite compound (construction)

Non-conformance with standard conditions locational criteria

H. Not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the state significant infrastructure

The ancillary facility could result in indirect impacts to a Modified tree (Old Tucabia Dump 13-4-0184) of moderate significance. No direct impacts to this place are likely from the ancillary facility, as the tree and its canopy are located adjacent to the ancillary area boundary. However, the buffer area around the tree extends partially into the ancillary facility (about 20%), therefore there is the potential for indirect impact through interruption to the tree's root system.

#### **Mitigation measures**

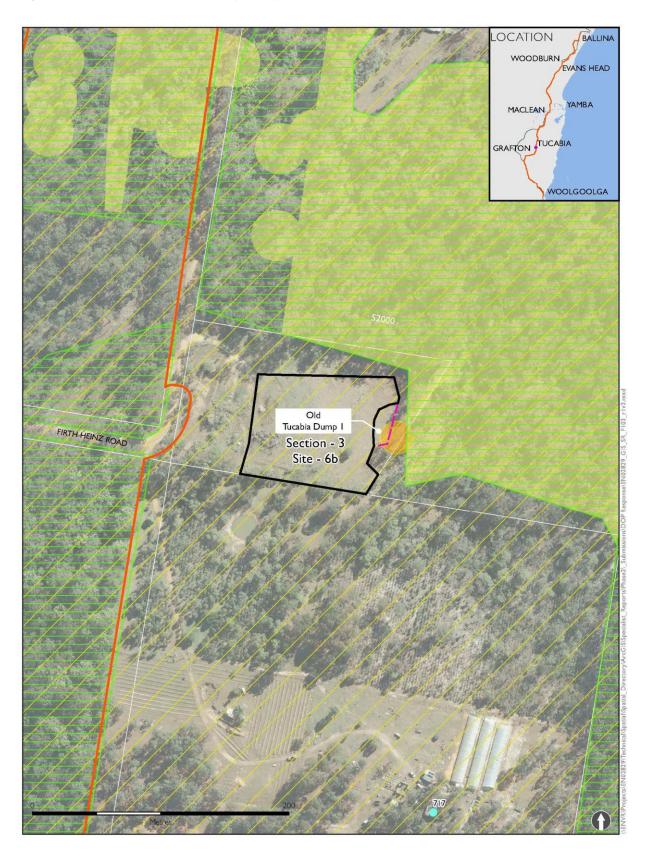
Management measure AH14i identifies mitigation to minimise impacts as a result of the use of the ancillary facility: For Old Tucabia Dump 1 (13-4-0184):

• An exclusion zone will be established at the boundary of the Aboriginal archaeological site (including a buffer based on the drip zone of the tree) as per management measure AH2.

#### Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of this ancillary facility has been altered to minimise impact on Aboriginal heritage constraints. The change in the extent of the site is shown in Figure 15.

Figure 15 Constraints map for ancillary facility section 3 site 6b.



# Section 3 site 7a (24)

### Description

The site is located to the east of the construction corridor on property Lot 83 DP 751365 between stations 55.5 and 55.9.

The site is heavily vegetated consisting of Scribbly Gum - Bloodwood Open Forest and Turpentine open forest both of which is classed as habitat critical to the survival for koalas. A patch of *Angophora robur* is situated in the northern portion of the site and individuals of *lindsaea incisa* located on the east of the site. However, the site is wholly within the project corridor and vegetation would be removed for construction. Further west of the site is a patch of TEC Swamp Sclerophyll Forest on Coastal Floodplains. This ancillary facility is within an emu connectivity zone.

Access to the site is via Bostock Road or from the construction corridor.

Figure 16 shows the ancillary facility extent and constraints surrounding the facility.

Ancillary facility uses

Stockpile site

Standard conditions locational criteria

All criteria are met

**Mitigation measures** 

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

Extent of ancillary facility

## Section 3 site 7b (25)

### Description

The site is located to the east of the construction corridor on properties: Lot 141 DP 751365 and Lot 142 DP 751365 between stations 56.1 and 56.3.

Vegetation surrounding the site consists of Turpentine open forest which is tertiary habitat for koalas. One habitat tree is present on the site. Access to the site is via Bostock Road along an existing access track. Either side of this access track, there is a population of *lindsaea incisa*. This ancillary facility is within an emu connectivity zone.

The area surrounding the site is rural, with forested land and some small quarry sites.

Access to the site and the ancillary facility is via a private access off Bostock Road.

Figure 16 shows the ancillary facility extent and constraints surrounding the facility.

Ancillary facility uses

Stockpile site (construction)

Standard conditions locational criteria

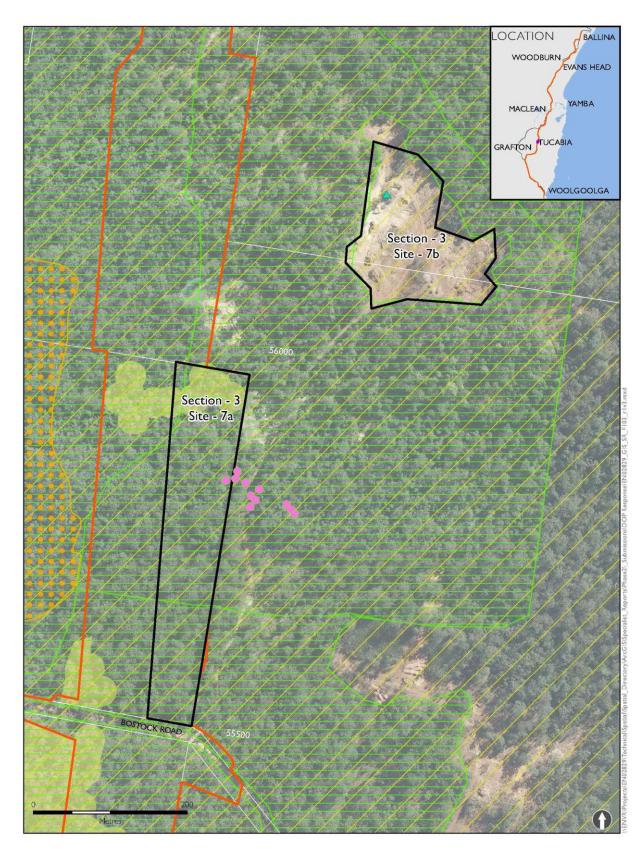
All criteria are met

**Mitigation measures** 

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

Extent of ancillary facility

Figure 16 Constraints map for ancillary facilities section 3 sites 7a and 7b.



# Section 3 site 9 (27)

### Description

This site is located between the project corridor and the Coldstream Road (between stations 62.0 and 62.9), opposite the Pine Brush State Forest on Lot 14 DP 820685. The site is in a quiet rural environment, with a low background noise level. Rural residential properties are associated with Tyndale- Tucabia Road, and Pine Brush State Forest is located on the opposite side of the project alignment.

The site is on cleared and vegetated areas, with a residence present on the site. Around the edges of the site, vegetation consists of Paperbark swamp forest of the coastal lowlands of the North Coast (TEC). Surveys also identified Koala scats in the north west corner of the site and Angophora robur individuals throughout the site.

Access to the site is from Tyndale-Tucabia Road, access to the ancillary facility would be via the construction corridor.

Figure 17 shows the ancillary facility extent and constraints surrounding the facility.

### Ancillary facility uses

Satellite compound (construction)

Batch plant (construction)

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There is one residence located about 160 metres away to the south west of the site on an adjoining property. The noise assessment identified that the site would result in an exceedance of the NML at this residence. The predicted noise level is estimated to be around 61 dBA, which is above the NML of 55 dBA. General measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

G. Not require vegetation clearing beyond that already required by the state significant infrastructure

The site would require clearing including the removal of a number of individuals of the threatened species Angophora robur and an area of Paperbark Swamp forest of the coastal lowlands of the North Coast (TEC) to the east of the site.

H. Not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the state significant infrastructure

The ancillary facility would impact on:

- An isolated artefact of low significance (Upper Coldstream 1). The ancillary facility would impact on 25% of the recorded extent of the site and impact its heritage values.
- A cultural place, the Tyndale corridors of movement of moderate- high significance. The cultural heritage values and significance of this place would be diminished by the impact. However, the route of this corridor of movement is not known, as this information appears to have been lost.

### **Mitigation measures**

Management measure AH14 identifies mitigation to minimise impacts as a result of the use of the ancillary facility: For Upper Coldstream 1 (13-4-0182):

- All previously recorded artefacts will be recovered and removed off-site, subject to a care agreement being established.
- Any portions of the Aboriginal archaeological site not to be impacted will be protected by exclusion zones as per management measure AH2.

A number of project management measures would be applicable to the use of this ancillary facility in relation to the clearing of vegetation. This includes:

Management measure B23 Preclearing surveys:

## Section 3 site 9 (27)

The pre-clearing process will be consistent with Roads and Maritime Biodiversity Guidelines: Protecting and Managing Biodiversity on RTA projects (RTA, 2011a) and include:

- Pre-clearing surveys by an experienced ecologist for large bird nests, particularly for listed species such as the Black-necked Stork, Eastern Osprey, Square-tailed Kite and Little Eagle during the nesting and breeding season (July to December) and tree roosting (eg Southern Myotis) or cave dwelling bats in trees or existing culvert/bridge structures. If the species is present in or directly adjacent to the project footprint (including ancillary facilities), measures to manage any species be considered, if required.
- Mapping the location of any threatened flora and/or fauna species, Threatened Ecological Communities and habitat.
- Construction traffic will be restricted to defined access tracks, fenced prior to the start of construction and maintained until construction is complete.

Management measure B25 Staged removal process:

• A staged habitat removal process will be implemented consistent with the Roads and Maritime Biodiversity Guidelines (RTA, 2011a).

Management measure B26 Re-use of woody debris and bushrock:

• Woody debris and bushrock will be re-used on site for habitat improvement where possible and will be detailed in the landscape management plan in accordance with the Roads and Maritime Biodiversity Guidelines (RTA, 2011a).

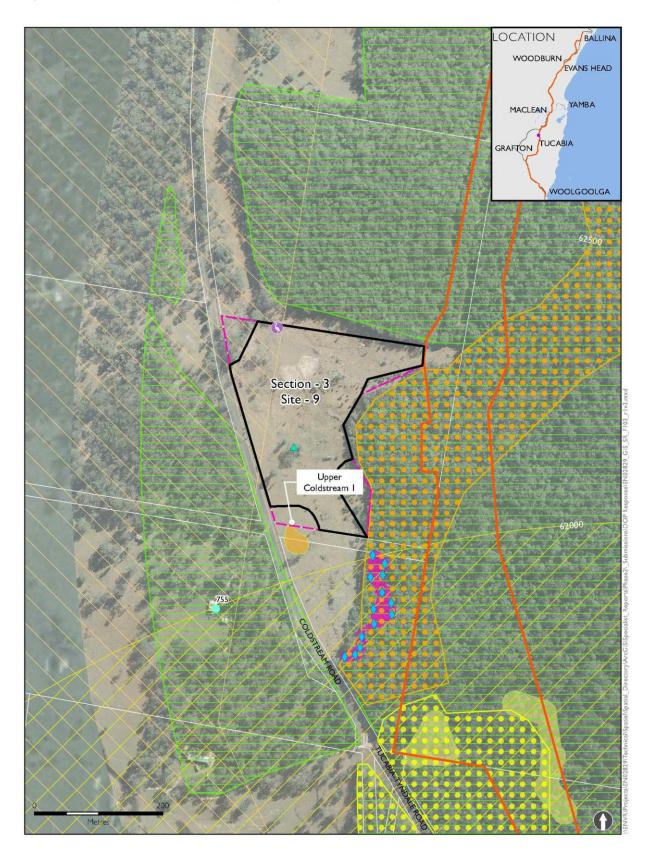
Management measure B32 Fauna handling:

To prevent injury and mortality of fauna during the clearing of vegetation and drainage of farm dams, an
experienced and licensed wildlife carer and/or ecologist will be present to capture and relocate fauna where
required. Further details regarding fauna handling and vegetation clearing procedures are provided in the
Roads and Maritime Biodiversity Guidelines (RTA, 2011a).

#### Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of this ancillary facility has been altered to minimise impact on biodiversity and Aboriginal heritage constraints. The change in the extent of the site is shown in Figure 17.

Figure 17 Constraints map for ancillary facility section 3 site 9.



## Section 3 site 10 (28)

### Description

The site is located on one privately owned and one RMS owned property, wholly within the project boundary, between stations 67.2 and 67.4:

- Lot 22 DP 1119114.
- Lot 2 DP 1163451.

The site is on predominantly cleared land near the township of Tyndale, bounded by the existing Pacific Highway and the project corridor. Access to the site is either from the existing highway or from Sheeys Lane.

The site is in the foothills of Bondi Hill. Vegetation near site includes Paperbark Swamp Forest (TEC) and Mixed Floodplain Forest. Threatened species Angophora robur are also present to the west of the site along the escarpment.

Surrounding landuses includes urban residential and commercial activities.

Figure 18 shows the ancillary facility extent and constraints surrounding the facility.

### Ancillary facility uses

Satellite compound (construction)

Batch plant (construction)

Plant workshop (construction)

Material storage (construction)

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

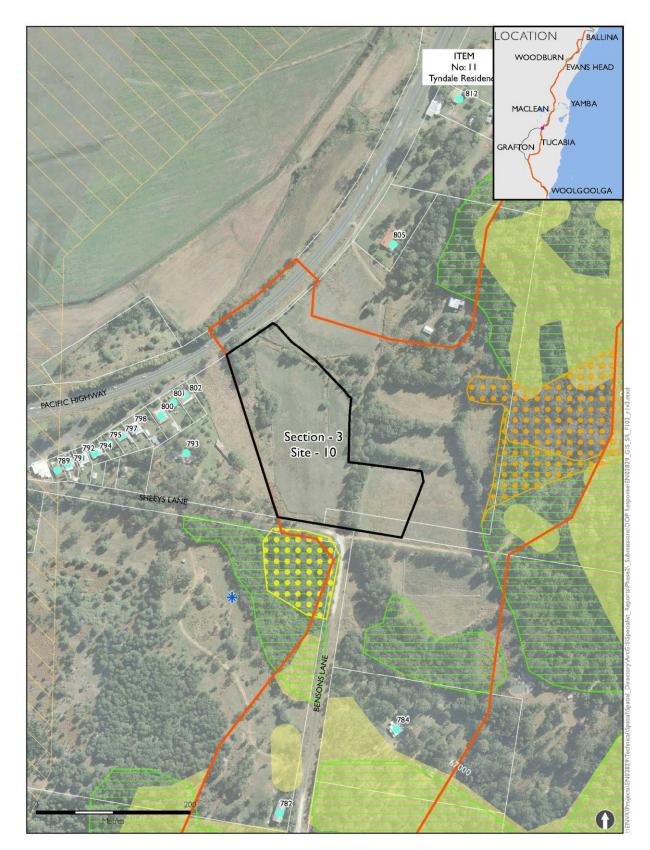
There are twelve residences within 300 metres of the site, associated with the township of Tyndale. A cluster of eleven residences are situated to the south of the site. The NML for these residences is 55 dBA. Four of these residences would have noise levels below the NML. The remaining eight residences would have exceedances of the NML by up to 12 dBA. However, the exceedance decreases, the further away from the site the property is. One residence is located to the north has a NML of 44 dBA and use of the ancillary facility could result in an exceedance of the NML by 12 dBA. General measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

### **Mitigation measures**

No management measures specifically for this site are required to address the locational criteria.

Extent of ancillary facility

Figure 18 Constraints map for ancillary facility section 3 site 10.



# Section 4 site 1 (29)

### Description

The site is located north of the interchange at Tyndale, north of the alignment. It is located on Lot 14 DP 805843- a mostly cleared agricultural property. However, there is some regenerating vegetation on site.

The site is surrounding predominantly by agricultural (sugar cane farming) activities and some rural residential properties. There are three residences that are over 250 metres away from the site boundary.

Vegetation to the south of the site is Subtropical Coastal Floodplain Forest (TEC).

Access to the property is via the existing Pacific Highway and a property access road. Access to the ancillary facility would be via the construction corridor.

Figure 19 shows the ancillary facility extent and constraints surrounding the facility.

Ancillary facility uses

Satellite compound (early works and construction)

Batch plant (construction)

Plant workshop (construction)

### Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There are three residences within 300 metres of the site. Two of these residences have been assessed as part of the project noise assessment (the other location is situated further than 600 metres from the project and could not be assessed).

The closest residence at around 250 metres away has a NML of 54dBA. Predicted noise levels as a result of the ancillary facility are expected to exceed the NML by around 5dBA. The other residence is located around 270 metres away, with a NML of 57dBA. This residence would not experience an exceedance in the NML as a result of the use of this facility.

General measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

However, it should be noted that the site is sufficiently large that the batch plant can be located on the site and be 300 metres from residences.

G. Not require vegetation clearing beyond that already required by the state significant infrastructure

The site would require removal of regenerating vegetation on the site. However the main patch of vegetation (Subtropical Coastal Floodplain Forest) to the south and west of the site would not be impacted by the ancillary facility.

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The site is partially located in low velocity backwater floodplain. The use and build up of the site to be above the 20 year ARI flood level would result in some removal of flood storage, but would only have minimal impacts.

### **Mitigation measures**

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

A number of project management measures would be applicable to the use of this ancillary facility in relation to the clearing of vegetation. This includes:

Management measure B23 Preclearing surveys:

The pre-clearing process will be consistent with Roads and Maritime Biodiversity Guidelines: Protecting and Managing Biodiversity on RTA projects (RTA, 2011a) and include:

• Pre-clearing surveys by an experienced ecologist for large bird nests, particularly for listed species such as the

## Section 4 site 1 (29)

Black-necked Stork, Eastern Osprey, Square-tailed Kite and Little Eagle during the nesting and breeding season (July to December) and tree roosting (eg Southern Myotis) or cave dwelling bats in trees or existing culvert/bridge structures. If the species is present in or directly adjacent to the project footprint (including ancillary facilities), measures to manage any species be considered, if required.

- Mapping the location of any threatened flora and/or fauna species, Threatened Ecological Communities and habitat.
- Construction traffic will be restricted to defined access tracks, fenced prior to the start of construction and maintained until construction is complete.

Management measure B25 Staged removal process:

• A staged habitat removal process will be implemented consistent with the Roads and Maritime Biodiversity Guidelines (RTA, 2011a).

Management measure B26 Re-use of woody debris and bushrock:

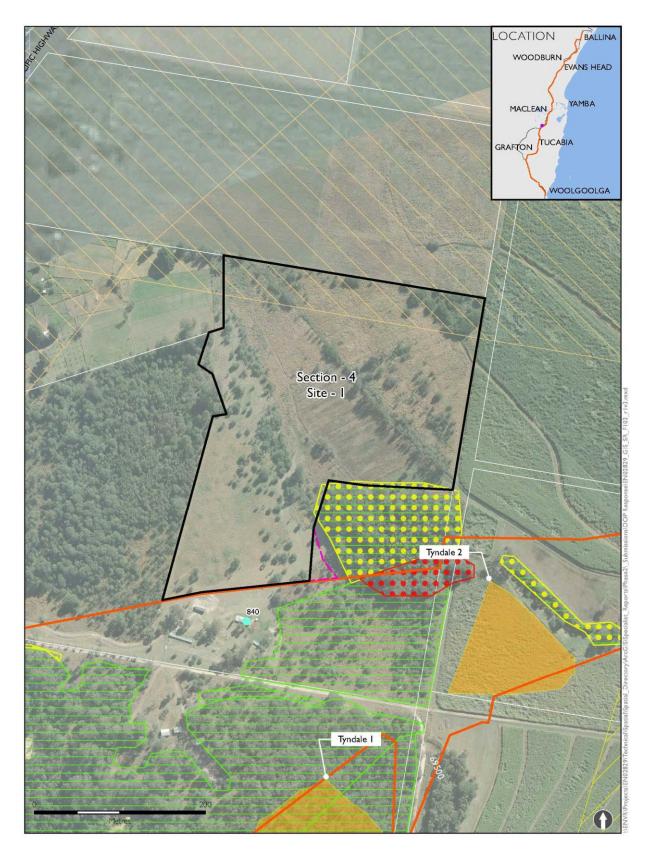
• Woody debris and bushrock will be re-used on site for habitat improvement where possible and will be detailed in the landscape management plan in accordance with the Roads and Maritime Biodiversity Guidelines (RTA, 2011a).

Management measure B32 Fauna handling:

• To prevent injury and mortality of fauna during the clearing of vegetation and drainage of farm dams, an experienced and licensed wildlife carer and/or ecologist will be present to capture and relocate fauna where required. Further details regarding fauna handling and vegetation clearing procedures are provided in the Roads and Maritime Biodiversity Guidelines (RTA, 2011a).

Extent of ancillary facility

Figure 19 Constraints map for ancillary facility section 4 site 1



## Section 4 site 2 (30)

### Description

The site is situated to the east of the construction corridor, south of Shark Creek. It is located on Lot 24 DP 1007618.

Site is currently used for sugar cane farming. The site is in close proximity to Lees Drain which is part of the sugar cane drainage network. Surrounding land use is agricultural (sugar cane farming) activity.

However, there is some regenerating and native vegetation is present to the east of the site, consisting of floodplain and swamp forest associated with the riparian area of Shark Creek.

Access is via a property access road from the existing Pacific Highway. Access to the ancillary facility would be via the construction corridor.

Figure 20 shows the ancillary facility extent and constraints surrounding the facility.

## Ancillary facility uses

Stockpile site (early works and construction)

Non-conformance with standard conditions locational criteria

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is located on the Shark Creek floodplain. The use of the facility would incur limited impact to regional flooding with some loss of flood storage but considerable impact to drainage as the site would block existing cane drains.

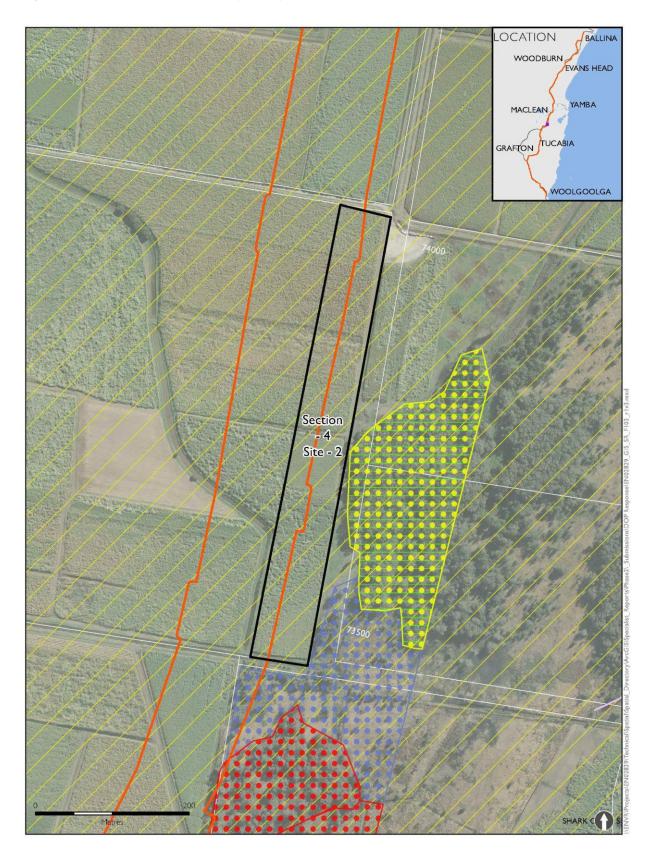
### Mitigation measures

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

• Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

### Extent of ancillary facility

Figure 20 Constraints map for ancillary facility section 4 site 2



# Section 4 site 3 (31)

### Description

The site is situated north of Shark Creek and south of Green Hill, to the west of the construction corridor between stations 75.5 and 75.7. The site is located on Lot 2 DP 751372 in a field used for sugar cane farming. Surrounding land use includes rural activities including sugar cane farming and forested lands. There are three residences located to the west of the alignment in the vicinity of the ancillary facility.

As the topography rises to the north and east to Green Hill, vegetation consists of dry sclerophyll forests. Areas include habitat critical to the survival of koalas. A patch of vegetation to the north east is the TEC Subtropical Coastal Floodplain Forest.

Access to the site is via Shark Creek Road. Access to the ancillary facility would be via this road or from the construction corridor.

Figure 21 shows the ancillary facility extent and constraints surrounding the facility.

### Ancillary facility uses

Satellite compound (construction)

Batch plant (construction)

Material storage (construction)

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There is one residence that is 200 metres away from the site. This residence has a NML of 57 dBA. The noise assessment identified that noise levels from the use of the ancillary facility would not exceed the NML. The site may be able to encompass a batch plant and be 300 metres from residences.

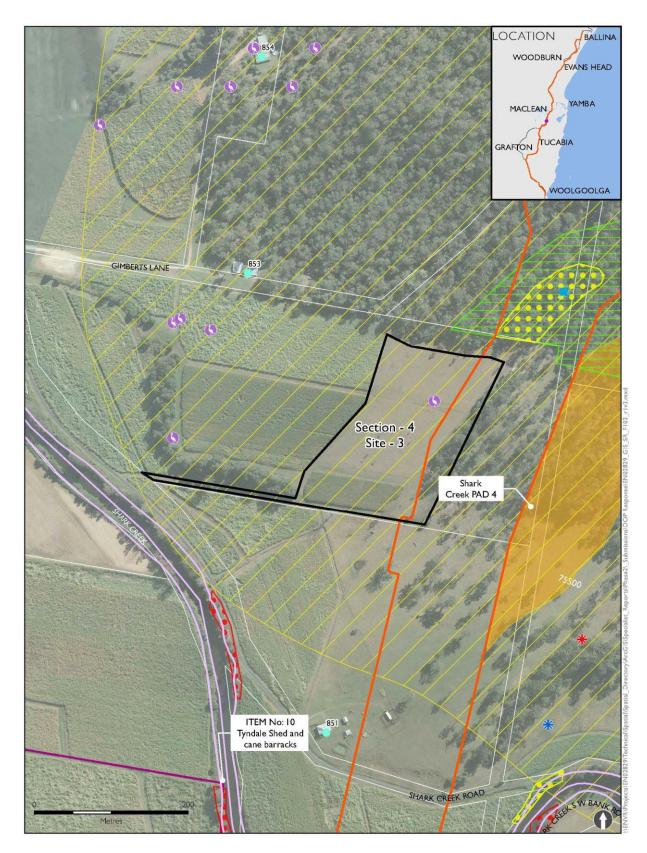
General measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

### **Mitigation measures**

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

Extent of ancillary facility

Figure 21 Constraints map for ancillary facility section 4 site 3



## Section 4 site 4a (32)

### Description

This site is situated to the south of McIntyres Lane on Lot 1 DP 327815, east of the project boundary between stations 76.8 and 77.0. The site is situated on relatively flat and cleared land.

Field surveys on the site has identified four habitat trees scattered through the site. The site is also situated in an area of emu connectivity. There is native vegetation to the east of the site but would not be directly impacted by the ancillary facility.

The land uses surrounding the site is rural agricultural (sugar cane farming) activities with rural residential properties further afield.

There is an Aboriginal heritage item north of McIntyres Lane but doesn't extend into the ancillary facility.

Access to the property is via McIntyres Lane. Access to the ancillary facility would also be via McIntyres Lane and the construction corridor.

Figure 22 shows the ancillary facility extent and constraints surrounding the facility.

### Ancillary facility uses

Main site compound (early works)

Stockpile site (construction)

Standard conditions locational criteria

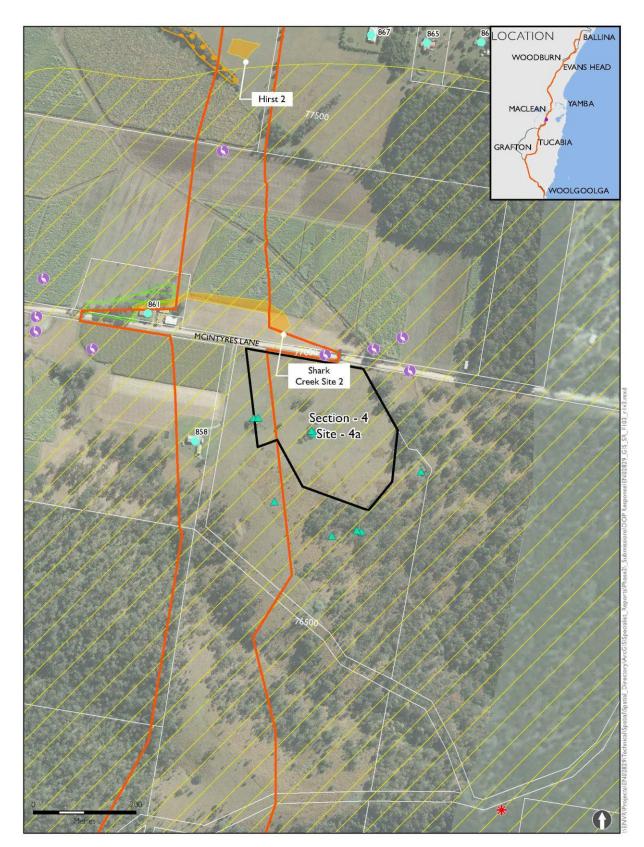
All criteria are met

**Mitigation measures** 

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

Extent of ancillary facility

Figure 22 Constraints map for ancillary facility section 4 site 4a



# Section 4 site 5 (35)

### Description

This ancillary facility is located to the east of the construction corridor on property Lot 16 DP 751372 between stations 78.15 and 71.4

The site is on a cleared paddock that could be used for sugar cane cropping. Surrounding the site, there is agricultural activities predominantly sugar cane cropping. There are some rural residential properties across the project alignment, with the rural residential community of Gulmarrad located around 500 metres to the east.

Remnant and planted native vegetation is present around the site. This vegetation is identified as habitat critical to the survival of koalas. Further south is a patch of Swamp Sclerophyll forest on coastal floodplain TEC.

Access to the site is via a property access track off Causley Lane.

Figure 23 shows the ancillary facility extent and constraints surrounding the facility.

## Ancillary facility uses

Stockpile site (early works and construction)

Non-conformance with standard conditions locational criteria

H. Not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the state significant infrastructure

This ancillary facility would impact on an artefact scatter of low significance (Hirst 3). The ancillary facility would impact on the recorded extent of the site and impact its heritage values.

### **Mitigation measures**

Management measure AH14m identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

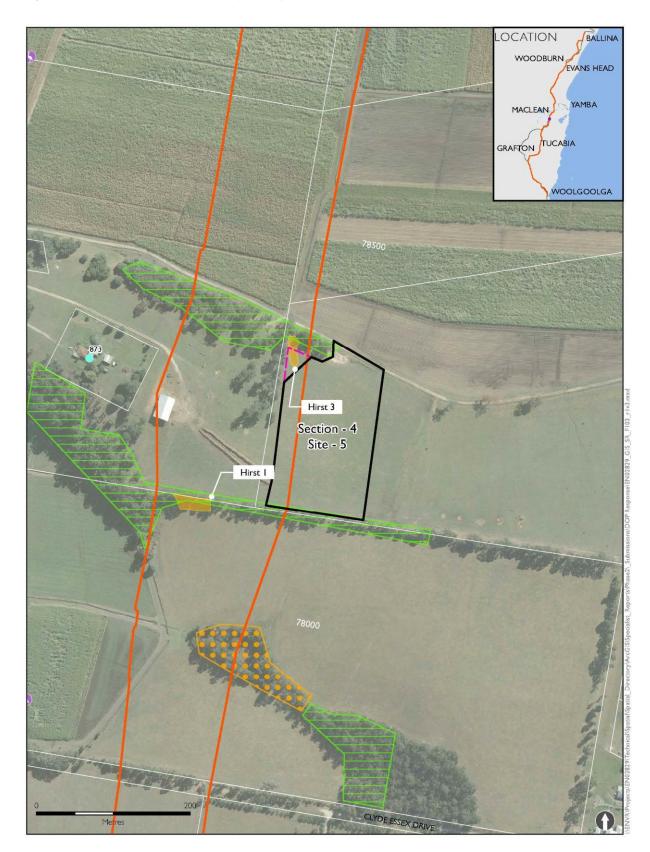
For Hirst 3:

- This Aboriginal archaeological site is to be avoided if possible unless agreement can be reached with the RAPs. An exclusion zone will be established as per management measure AH2.
- If agreement to use the site is reached with RAPs, salvage excavation of the portion of the Aboriginal archaeological site to be impacted will be undertaken as detailed in the Ancillary facility and design change CHAR (Appendix D of the Submissions/ Preferred Infrastructure Report) and in consultation with RAPs.

### Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of the ancillary facility has been altered to minimise impact on Aboriginal heritage constraints. The change in the extent of the site is shown in Figure 23.

Figure 23 Constraints map for ancillary facility section 4 site 5



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## Section 4 site 6 (36)

#### Description

The ancillary facility is located on Roads and Maritime owned properties adjacent to the existing Pacific Highway and the Clarence River between stations 79.5 and 80.0. The two lots are:

- Lot 10 DP 837655.
- Lot 2 DP 1149634.

Surrounding land uses are rural residential and agricultural activities. There are two residences located on the property that would not be occupied during use of the site as an ancillary facility. There is one residence located across the Clarence River that is situated 290 metres away from the site. A cane drain is located along the northern edge of the site.

To the east there is some remnant vegetation comprising of Swamp Oak Floodplain Forest on Coastal Floodplains TEC.

Access to the properties are via the existing Pacific Highway. Access to the ancillary facility would be via the existing Pacific Highway or via the construction corridor.

Figure 24 shows the ancillary facility extent and constraints surrounding the facility.

## Ancillary facility uses

Main site compound (construction)

Batch plant (construction)

Plant workshop (construction)

Material storage (early works and construction)

Stockpile site (early works and construction)

Non-conformance with standard conditions locational criteria

#### A. Be located more than 50 metres from a waterway.

The site is located (at its closest location) within 30 metres of the Clarence River South Arm, and a cane drain on the northern edge of the site. However, the site is sufficiently large that high risk activities (ie batch plants and material storage) could be kept 50 metres away from the Clarence River, and the cane drain (if required).

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There is one residence located across the Clarence River that falls within 300 metres of the ancillary facility. The use of the ancillary facility would result in a predicted noise level in excess of the NML. General measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

However, it should be noted that the site is sufficiently large that the batch plant can be located on the site and be 300 metres from residences.

# J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is immediately adjacent to the Clarence River South Arm channel. It is located in an area of potentially high flood conveyance and is likely to incur flood impacts during 20 year ARI flood events.

#### **Mitigation measures**

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

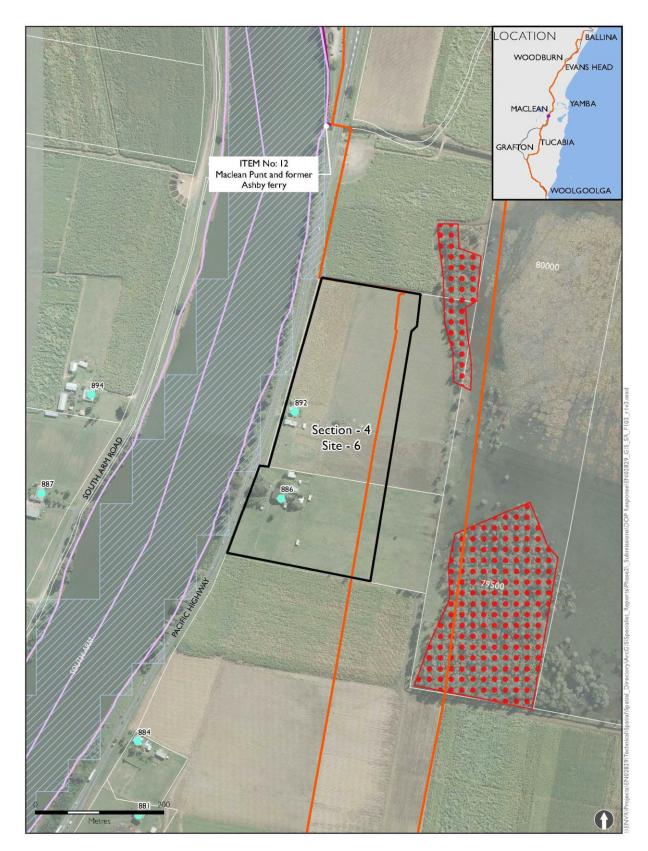
• Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

While erosion and sedimentation controls would be employed where required, at all ancillary facilities (refer to management measures SSW38- SSW40), at this ancillary facility, these controls would be focused around avoiding impacts to the Clarence River South Arm.

# Section 4 site 6 (36)

Extent of ancillary facility

Figure 24 Constraints map for ancillary facility section 4 site 6



## Section 4 site 7a (37)

#### Description

This site is situated east of Maclean on property Lot 4 DP 230180 between stations 80.5 and 80.8. While this property is currently privately owned, RMS would acquire the property for the project, and it would be contained entirely in the project corridor.

The site is on rural cleared land within the Chaselings Basins with only scattered trees. Vegetation to the north west of the project around Maclean and around to Maclean Pinnacle is habitat critical to the survival of koalas. Landuse around the site includes urban, rural-residential and agricultural activities. Residences around the site are associated with Maclean and Townsend.

Access to the properties is via Jubilee Street, Ti Tree Lane and Goodwood Street. Access to the ancillary facility would be via the construction corridor or from Goodwood Street.

Figure 25 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Stockpile sites (early works and construction)

Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

Three residences are located within 200 metres of the site. These residences would have noise levels from the ancillary facility than exceed the NML of 53dBA, up to 17 dBA above the criteria. Two of these residences have been identified for noise mitigation to minimise impacts from the operational highway. Where required, at house treatments would be installed early in the construction of the project to provide noise mitigation during construction as well as operation. During construction, general measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The site is mostly outside of the floodplain. Where it falls within the floodplain, building the site out of the 20 year ARI flood level would have a negligible impact.

**Mitigation measures** 

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

#### Extent of ancillary facility

While the extent of the site has not changed, as a result of a design refinement in the Submissions / Preferred Infrastructure Report, the shape of the ancillary facility may change, however, would remain inside of the project boundary.

## Section 4 site 7b(38)

#### Description

This site is situated wholly within the project boundary between stations 80.5 and 81.2, east of Maclean, across four lots:

- Lot 1 DP 116105.
- Lot 6 DP 230180.
- Lot 8 DP 800757.
- Lot 4 DP 230180.

While all these properties are privately owned, RMS would acquire most of the property for the project.

The site is on rural cleared land within the Chaselings Basins with only scattered trees. Vegetation to the north west of the project around Maclean and around to Maclean Pinnacle is habitat critical to the survival of koalas. Landuse around the site includes urban, rural-residential and agricultural activities. Residences around the site are associated with Maclean and Townsend.

Access to the properties is via Jubilee Street, Ti Tree Lane and Goodwood Street. Access to the ancillary facility would be via the construction corridor or from Goodwood Street.

Figure 25 shows the ancillary facility extent and constraints surrounding the facility.

### Ancillary facility uses

Stockpile site (early works and construction)

## Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

Eleven residences (excluding those residences that fall under the project alignment) would be within 200 metres of the site. These residences would have noise levels from the ancillary facility than exceed the NML of 52/ 53 dBA, up to 16/17 dBA above the criteria. The four closest residences to the project have been identified for noise mitigation measures to minimise impacts from the operational highway. Where required, at house treatments would be installed early in the construction of the project to provide noise mitigation during construction as well as operation. During construction, general measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is in an area of relatively low velocity backwater flooding. However, due to proximity to low point in Shark Creek embankment, experiences higher conveyance and drainage of the Shark Creek catchment during flooding than surrounding areas and therefore may incur some impacts to drainage and duration of inundation of the Shark Creek catchment during large floods.

#### Mitigation measures

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

• Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

#### Extent of ancillary facility

While the extent of the site has not changed, as a result of a design refinement in the Submissions / Preferred Infrastructure Report, the shape of the ancillary facility may change, however, would remain inside of the project boundary.

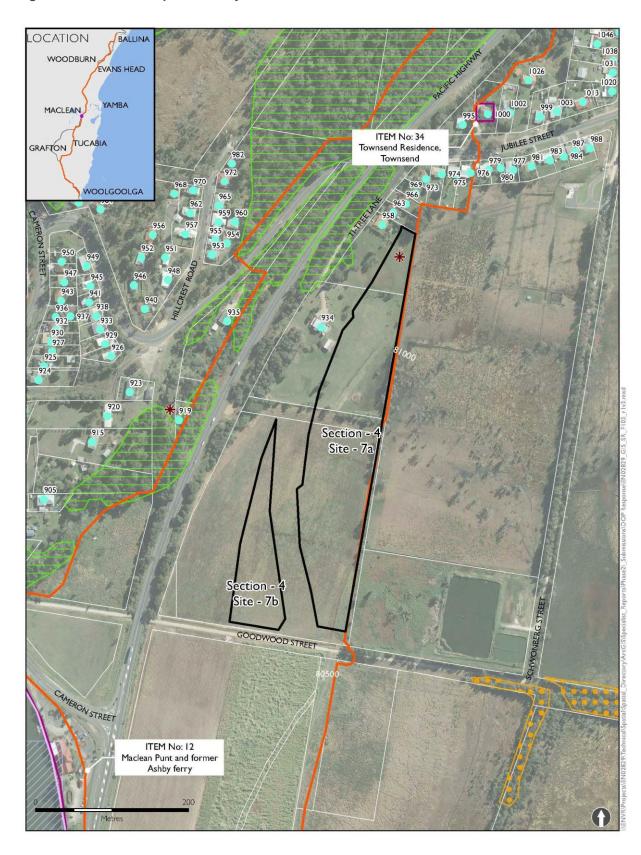


Figure 25 Constraints map for ancillary facilities section 4 sites 7a and 7b

## Section 5 site 1 (39)

#### Description

This site is situated between the highway and Farlows Lane at station 83.5. It is located across three land parcels, two owned by Roads and Maritime:

- Lot 501 DP 777505.
- Lot 4 DP 230182.
- Lot 5 DP 230182.

The site only consists of scattered trees (the majority to be removed to construct the project). However, opposite the highway from the site, is the Yaegl Nature Reserve that consists of the TEC Swamp sclerophyll forest on coastal floodplains that is also considered habitat critical to the survival of koalas. The nature reserve also consists of wetland systems.

It is a cleared parcel of land adjoining sugar cane farming and rural residential properties to the west of the site. It is at the base of Maclean Peak and within the Clarence River floodplain.

Access to the property is via Farlows Lane. Access to the ancillary facility would be via the construction corridor.

Figure 26 shows the ancillary facility extent and constraints surrounding the facility.

### Ancillary facility uses

Satellite compound (early works and construction)

Batch plant (construction)

Plant workshop (construction)

Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There are two residences to the west of the site that are within 200 metres. The noise assessment has identified that the use of this ancillary facility would not result in an exceedance of the NML.

However, general measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

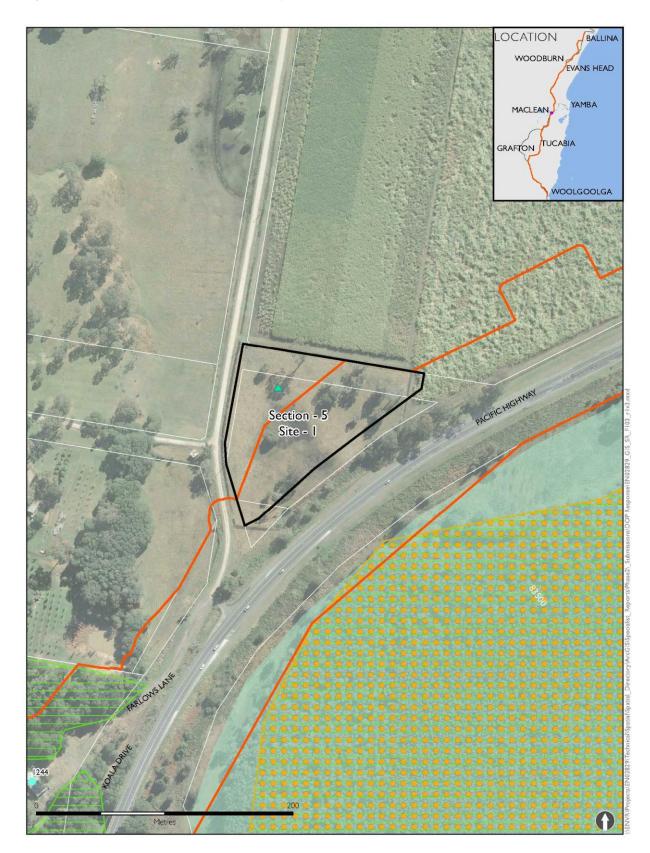
The ancillary facility is located in area of low velocity backwater flooding and due to building the site up above the 20 year ARI flood level. This ancillary facility would result in a minor loss of flood storage and impact.

#### Mitigation measures

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

#### Extent of ancillary facility

Figure 26 Constraints map for ancillary facility section 5 site 1



## Section 5 site 2a (40)

#### Description

The ancillary facility is located within the existing Pacific Highway road reserve between stations 85.8 and 86.0. This site is located to the west of the northbound on-ramp from Yamba Road onto the existing Pacific Highway (and Clarence River bridge). Access to the ancillary facility would be via this road.

The surrounding land uses include rural activities, urban residential and commercial concrete plant. Residential properties are located to the west of the site.

The site is situated within the Clarence River floodplain.

The site is cleared of vegetation. Vegetation to the south of the site consists of Swamp Oak Floodplain Forest on coastal floodplains TEC and Swamp Sclerophyll Forest on coastal floodplains TEC.

Figure 27 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Stockpile site (early works and construction)

Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There are seven residences to the north and west located within 200 metres of this site. As a result of noisy activities on ancillary facilities 2a, 2b (and potentially 2c and 2d), the noise assessment has identified that the three closest residences to the construction corridor would experience noise levels in excess of the NML (receivers 1270, 1271 and 1259).

General measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is adjacent to the southern bank of the main Clarence River channel in an area of high conveyance and moderate flow velocities during 20-year ARI floods and larger. May incur some flood impacts during large events.

#### **Mitigation measures**

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

 Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

#### Extent of ancillary facility

## Section 5 site 2b (41)

#### Description

This site is located to the east of the northbound on-ramp from Yamba Road onto the existing Pacific Highway (and Clarence River bridge). between stations 85.8 and 86.1. Access to the ancillary facility would be via this road or from Yamba Road.

The surrounding land uses include rural activities, urban residential and commercial concrete plant. Residential properties are located to the west of the site.

The site is situated within the Clarence River floodplain.

The site is cleared of vegetation. Vegetation to the south west of the site consists of Swamp Oak Floodplain Forest on coastal floodplains TEC and Swamp Sclerophyll Forest on coastal floodplains TEC.

Figure 27 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Main site compound (construction)

Batch plant (construction)

Plant workshop (construction)

Material storage (early works and construction)

Stockpile site (early works and construction)

Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There are seven residences to the north and west located within 300 metres of this site. As a result of noisy activities on ancillary facilities 2a, 2b (and potentially 2c and 2d), the noise assessment has identified that the three closest residences to the construction corridor would experience noise levels in excess of the NML (receivers 1270, 1271 and 1259).

General measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is located to the south of the Clarence River and if built up above the 20 year ARI flood level, it would be blocking the southern end of the Clarence River bridge upgrade adjacent to the main channel. It is in an area of high conveyance and moderate flow velocities during 20-year ARI floods and larger. Likely to incur considerable flood impacts if a large flood event was to occur during construction.

#### Mitigation measures

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

• Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

#### Extent of ancillary facility

## Section 5 site 2c (42)

#### Description

This site is located to the west of the southbound on-ramp from Yamba Road onto the existing Pacific Highway, at station 85.9. Access to the ancillary facility would be via this ramp or from Yamba Road.

The surrounding land uses include rural activities, urban residential and commercial concrete plant. Residential properties are located to the west and further east of the site. Two heritage residences to the east (James Creek Residence and Highfeld) are located to the east of the site.

The site is situated within the Clarence River floodplain, with James Creek located over 50 metres to the north.

The site is cleared of vegetation. Vegetation to the east and south of the site consists of Swamp Oak Floodplain Forest on coastal floodplains TEC and Swamp Sclerophyll Forest on coastal floodplains TEC.

Figure 27 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Stockpile site (early works and construction)

Non-conformance with standard conditions locational criteria

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is located adjacent to the southern bank of the main Clarence River channel in an area of high conveyance and moderate flow velocities during 20-year ARI floods and larger. The ancillary facility has a small area and minimal impact.

#### **Mitigation measures**

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

• Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

## Extent of ancillary facility

## Section 5 site 2d (43)

#### Description

This site is located to the west of the southbound on-ramp from Yamba Road onto the existing Pacific Highway between stations 85.95 and 86.2. It is located under the proposed new Clarence River bridge, wholly within the project boundary. Access to this ancillary facility would be via the southbound on- ramp or from Yamba Road

The surrounding land uses include rural activities, urban residential and commercial concrete plant. Residential properties are located to the west and further east of the site. Two heritage residences to the east (James Creek Residence and Highfeld) are located to the east of the site.

The site is situated within the Clarence River floodplain. James Creek is located further east.

The site is cleared of vegetation. Vegetation to the east of the site consists of Swamp Oak Floodplain Forest on coastal floodplains TEC.

Figure 27 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Main site compound (early works and construction (bridge compound))

Bridge material storage area (construction)

Non-conformance with standard conditions locational criteria

A Be located more than 50 metres from a waterway.

James Creek is located 35 metres from the site (at its closest location).

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There is one residences located to the west of the site (1271). As a result of noisy activities on ancillary facilities 2a, 2b (and potentially 2c and 2d), the noise assessment has identified that this residence would experience noise levels in excess of the NML (receivers 1270, 1271 and 1259).

General measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is adjacent to the southern bank of the main Clarence River channel in an area of high conveyance and moderate flow velocities during 20-year ARI floods and larger.

If the site is built up over the 20 year ARI flood level, it would be blocking the southern end of future Clarence River Bridge upgrade, and likely to incur considerable flood impacts during large events.

**Mitigation measures** 

While erosion and sedimentation controls would be employed where required, at all ancillary facilities (refer to management measures SSW38- SSW40), at this ancillary facility, these controls would be focused around avoiding impacts to James Creek.

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

• Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

Extent of ancillary facility

LOCATION BALLINA WOODBURN EVANS HEAD YAMBA MACLEAN GRAFTON TUCABIA WOOLGOOLGA ITEM No: 14 James Creek Residence ITEM No: 20 Harwood Bridge YAMBA ROAD 1265 1267 1269 1271 1268 1270 行ち 1 1263 1259 Section - 5 Site - 2d Section -Site -Section -5 Section - 5 Site - 2c Site - 2b ITEM No: 13 Residence, Highfield ES CREEK

Figure 27 Constraints map for ancillary facilities section 5 sites 2a, 2b, 2c and 2d

## Section 5 site 3a (44)

#### Description

This site is located on two privately owned properties between stations 87.0 and 87.3:

- Lot 1 DP 539563.
- Lot 11 DP 715303.

The site is wholly within the project boundary, located on a cleared, agricultural property. Adjoining land uses are associated with Harwood and include residences, Harwood Public School, community facilities and agricultural (sugar cane cropping).

The majority of the Harwood township is covered by the Harwood Heritage Conservation Area, and includes features such as the Harwood Convent, which is located south of the ancillary facility. The Harwood Tram tracks are another heritage listed item located to the west of the site.

The site is situated within the Clarence River floodplain, in a wetland area.

Access to the property is via Watts Lane. Access to the ancillary facility would be from the construction corridor.

Figure 28 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Main site compound (early works and construction (bridge compound))

Bridge material storage area (construction)

Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There are 43 residences located within 200 metres of the site and a school. These receivers are located in the noise catchment areas (NCAs) of 5-b, 5-c (east of the highway), 5-d and 5-e (west of the highway). The noise assessment calculated that as a result of the ancillary facilities 3a and 3b in this area, residences in NCA 5-b and 5-e (with a NML of 56 and 53 dBA respectively) would experience noise levels that were below the NMLs.

However, receivers in NCAs 5-c and 5-d would experience noise levels above the NML (53 dBA for both), with exceedances of over 2dBA for NCA 5-c and over 5 dBA for NCA 5-d.

General measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

# J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is adjacent to the northern bank of the main Clarence River channel in an area of high conveyance and moderate flow velocities during 20-year ARI floods and larger. The site would be partially buffered by the existing highway, but would be obstructing the northern end of the current and Clarence River Bridge upgrade.

Likely to incur substantial flood impacts during large events.

#### **Mitigation measures**

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

 Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

#### Extent of ancillary facility

## Section 5 site 3b (45)

#### Description

This site is located on two privately owned properties between stations 87.3 and 87.8:

• Lot 11 DP 715303.

The site is wholly within the project boundary, located on a cleared, agricultural property. Adjoining land uses are associated with Harwood and include residences, Harwood Public School, community facilities and agricultural (sugar cane cropping).

The majority of the Harwood township is covered by the Harwood Heritage Conservation Area, and includes features such as the Harwood Convent, which is located south of the ancillary facility. The Harwood Tram tracks are another heritage listed item located to the west of the site.

The site is situated within the Clarence River floodplain, in a wetland area.

Access to the property is via Watts Lane. Access to the ancillary facility would be from the construction corridor.

Figure 28 shows the ancillary facility extent and constraints surrounding the facility.

## Ancillary facility uses

Main site compound (construction)

Batch plant (construction)

Plant workshop (construction)

Materials storage (early works and construction)

Stockpile site (early works and construction)

Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

Around 50 residences are located within 300 metres of the site. These receivers are located in the noise catchment areas (NCAs) of 5-a, 5-b, 5-c (east of the highway), 5-d and 5-e (west of the highway).

The noise assessment calculated that as a result of the ancillary facilities 3a and 3b in this area, residences in NCA 5-b and 5-e (with a NML of 56 and 53 dBA respectively) would experience noise levels that were below the NMLs.

However, receivers in NCAs 5-a, 5-c and 5-d would experience noise levels above the NML (47 dBA for 5-a and 53 dBA for the remaining two NCAs), with exceedances of over 9dBA for NCA 5-a, 2dBA for NCA 5-c and over 5 dBA for NCA 5-d.

General measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is within the Clarence River floodplain, 20 year ARI flood event. Building up the site over the 20 year ARI flood level would totally obstruct the bridge at station 87.3, immediately north of the Clarence River Bridge. This would experience unacceptable and substantial upstream impacts during large events.

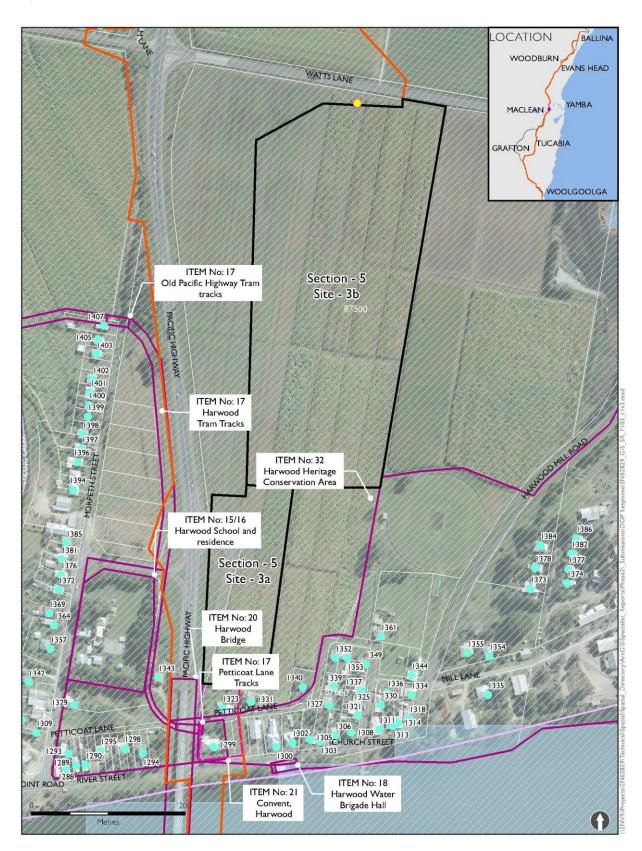
## **Mitigation measures**

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

• Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

#### Extent of ancillary facility

Figure 28 Constraints map for ancillary facilities section 5 sites 3a and 3b



## Section 5 site 4a (46)

#### Description

This ancillary facility is located to the north of Chatsworth Road, west of the construction corridor. It is located on property Lot 51 DP 825927 between stations 90.8 and 90.95.

The site is situated on Chatsworth Island within the Clarence River floodplain.

The property is currently used for sugar cane cropping, but would be entirely within the project boundary. Land use surrounding the site is agriculture- sugar cane cropping.

Access to the site is from Chatsworth Road. Access to the ancillary facility would be via the construction corridor.

Figure 29 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Satellite compound (construction)

Material storage (early works and construction)

Stockpile site (early works and construction)

Non-conformance with standard conditions locational criteria

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

Site completely obstructs 16-cell culvert on Chatsworth Island (corresponding culverts for Section 5 – Site 4b). Likely to incur moderate flood impacts during large events in comparison to project operational impacts.

#### **Mitigation measures**

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

• Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

Extent of ancillary facility

## Section 5 site 4b (47)

#### Description

This ancillary facility comprises of four small areas that are situated north and south of Chatsworth Road and would be wholly within the project boundary between stations 90.55 and 90.8. These parcels are located on:

- Lot 4 DP 789692.
- Lot 54 DP 825927.
- Lot 5 DP 247998.

The site is situated on Chatsworth Island within the Clarence River floodplain.

The property is currently used for sugar cane cropping, but would be entirely within the project boundary. Land use surrounding the site is agriculture- sugar cane cropping.

Access to the site is from Chatsworth Road. Access to the ancillary facility would be via the construction corridor.

Figure 29 shows the ancillary facility extent and constraints surrounding the facility.

## Ancillary facility uses

Stockpile site (early works and construction)

Non-conformance with standard conditions locational criteria

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

One of the two areas of the ancillary facility is located on Chatsworth Island in an area of low velocity floodplain. Building up the ancillary facility to over the 20 year ARI flood level, there would be some loss of flood storage, however, there would only be minimal impacts.

The area to the north of Chatsworth Road, being built up over the 20 year ARI flood level could obstruct a 16-cell culvert. Use of the ancillary facility is likely to incur moderate, flood impacts during large events in comparison to project operational impacts.

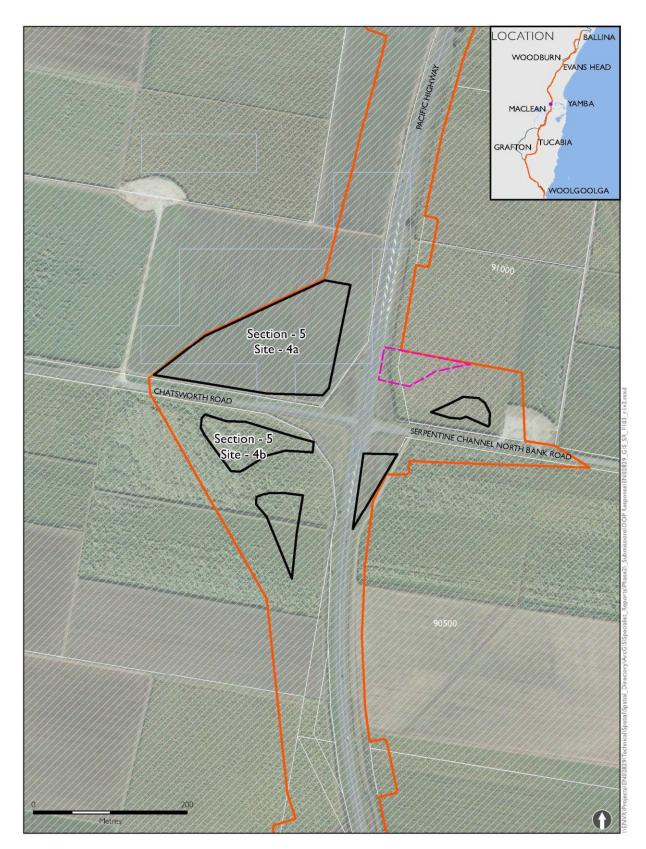
#### **Mitigation measures**

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

• Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

Extent of ancillary facility

Figure 29 Constraints map for ancillary facilities section 5 sites 4a and 4b



## Section 5 site 5a (48)

#### Description

This ancillary facility is located to the north of Carrols Lane, west of the construction corridor. It is located on property Lot 11 DP 1118364 between stations 93.3 and 93.48.

The site is located on Chatsworth Island within the Clarence River floodplain.

The property is currently used for sugar cane cropping. Surrounding land use is sugar cane cropping.

Access to the property is via Carrols Lane. Access to the ancillary facility would be via the construction corridor.

Figure 30 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Satellite compound (construction)

Material storage (early works and construction)

Stockpile site (early works and construction)

Non-conformance with standard conditions locational criteria

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility located in Chatsworth Island low velocity floodplain. The impacts associated with the use of the facility are consistent with project operational impacts.

#### **Mitigation measures**

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

Extent of ancillary facility

While the extent of the site has not changed, as a result of a design refinement in the Submissions / Preferred Infrastructure Report, the shape of the ancillary facility may change, however, would remain inside of the project boundary.

## Section 5 site 5b (49)

#### Description

This ancillary facility is situated south of Carrols Lane to the west of the project between stations 93.2 and 93.3. The property (Lot 3 DP 243978) is currently used for sugar cane cropping, with surrounding land use being used for the same purpose.

The site is located on Chatsworth Island within the Clarence River floodplain.

Access to the property is via Carrols Lane. Access to the ancillary facility would be via the construction corridor.

Figure 30 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Batch plant (construction)

Plant workshop (construction)

Stockpile site (early works and construction)

## Section 5 site 5b (49)

Non-conformance with standard conditions locational criteria

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is located in a Chatsworth Island low velocity floodplain. Building the site up above the 20 year ARI flood level would result in some removal of flood storage with minimal impacts.

#### **Mitigation measures**

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood
impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

#### Extent of ancillary facility

While the extent of the site has not changed, as a result of a design refinement in the Submissions / Preferred Infrastructure Report, the shape of the ancillary facility may change, however, would remain inside of the project boundary.

#### Section 5 site 5c (50)

#### Description

This ancillary facility is situated north of Carrols Lane to the east of the construction corridor between stations 93.3 and 93.4. The properties (Lot 63 DP 751373 and Lot 11 DP 1118364) are currently used for sugar cane cropping. Surrounding land use is sugar cane cropping.

The site is located on Chatsworth Island within the Clarence River floodplain.

Access to the property is via Carrols Lane. Access to the ancillary facility would be via the construction corridor.

Figure 30 shows the ancillary facility extent and constraints surrounding the facility.

## Ancillary facility uses

Stockpile site (early works and construction)

Non-conformance with standard conditions locational criteria

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is small however it would result in total obstruction of a small bridge on Chatsworth Island and would incur significant upstream impacts during large flood events.

#### **Mitigation measures**

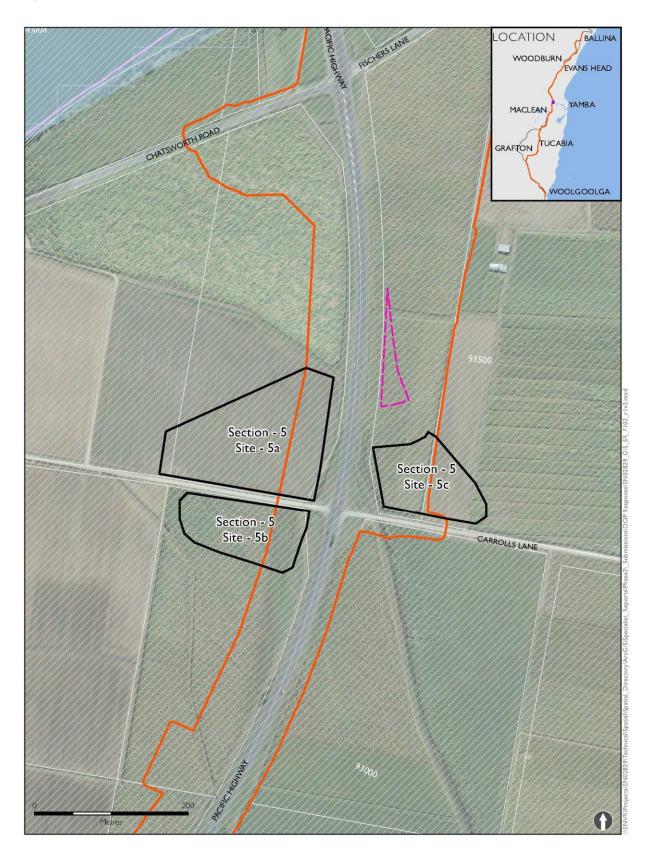
Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood
impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

Extent of ancillary facility

While the extent of the site has not changed, as a result of a design refinement in the Submissions / Preferred Infrastructure Report, the shape of the ancillary facility may change, however, would remain inside of the project boundary.

Figure 30 Constraints map for ancillary facilities section 5 sites 5a, 5b and 5c



## Section 5 site 6 (51)

#### Description

This ancillary facility is located to the west of the interchange at Woombah between stations 95.5 and 96.0. The site is located on Lot 11 DP 777988.

Access to the site is via the existing Pacific Highway or Banana Road. Access to the ancillary facility would be via the construction corridor.

The site is currently rural land. Surrounding land use includes rural residential activities, forest lands and the adjoining Mororo Creek Nature Reserve.

The site consists of an area of regenerating Swamp Sclerophyll Forest, however, is predominantly low, grazed paddock. Swamp sclerophyll forest is also present in the adjacent Mororo Creek Nature Reserve, where habitat critical to the survival of koalas is also present. Field investigations identified koala scats on the boundary with the Nature Reserve.

Figure 31 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Satellite compound (construction)

Material storage (construction)

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

H. Not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the state significant infrastructure

The ancillary facility would directly impact on an artefact scatter (Mororo Creek 2) of Low-moderate significance. This site would impact on less than 5% of the recorded extent of the site, with minimal impact to its heritage values.

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is located on breakout channel during large floods in Mororo Creek catchment. Building up the site above the 20 year ARI flood event would result in substantial impacts to caneland to the north.

#### Mitigation measures

Management measure AH14o identifies mitigation to minimise Aboriginal heritage sites:

For Mororo Creek 2:

• This Aboriginal archaeological site within the ancillary facility location will be avoided. An exclusion zone at least five metres outside the boundary of the Aboriginal archaeological site will be established as per management measure AH2.

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

 Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

#### Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of this ancillary facility has been altered to minimise impact on biodiversity and Aboriginal heritage constraints. The change in the extent of the site is shown in Figure 31.

## Section 5 Additional site 9 (N/A)

#### Description

This ancillary facility is located to the west of the interchange at Woombah between stations 94.9 and 95.5, adjacent to section 5 site 6. The site is located on Lot 8 DP 777988.

The site is currently rural land. Surrounding land use includes rural residential activities, forested land and the adjoining Mororo Creek Nature Reserve. Rural residential activities are located on the opposite side of the highway, around Iluka Road.

The site consists of an area of regenerating Swamp Sclerophyll Forest, however, is predominantly low, grazed paddock. Swamp sclerophyll forest is also present in the adjacent Mororo Creek Nature Reserve, where habitat critical to the survival of koalas is also present. Field investigations identified koala scats on the boundary with the nature reserve.

Mororo Creek runs through the ancillary facility, with a riparian zone comprising Swamp Sclerophyll Forest (TEC), however remainder of site mostly cleared.

Access to the site is via the existing Pacific Highway. Access to the ancillary facility would be via the construction corridor.

Figure 31 shows the environmental constraints surrounding the ancillary facility site.

#### Ancillary facility uses

Main site compound (construction)

Batch plant (construction)

Plant workshop (construction)

Material storage (construction)

Non-conformance with standard conditions locational criteria

A Be located more than 50 metres from a waterway.

Mororo Creek runs through the ancillary facility.

H. Not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the state significant infrastructure

The ancillary facility would impact on two heritage items:

- An artefact scatter (Mororo Creek 1) of Low-moderate significance. The ancillary facility would impact on 80% of the recorded extent of the site and impact its heritage values.
- An artefact scatter (Mororo Creek 2) of Low-moderate significance. The ancillary facility would impact on 90% of the recorded extent of the site and impact its heritage values.

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

Mororo Creek runs through the ancillary facility and would be subject to flooding in large Mororo Creek catchment flood event. Could result in moderate hydrological impacts.

#### **Mitigation measures**

The following management measures (AH14n and AH14o) identify specific mitigation to minimise impacts as a result of the use of the ancillary facility:

For Mororo Creek 1:

• This Aboriginal archaeological site within the ancillary facility location will be avoided. An exclusion zone at least five metres outside the boundary of the Aboriginal archaeological site will be established as per management measure AH2.

For Mororo Creek 2:

• This Aboriginal archaeological site within the ancillary facility location will be avoided. An exclusion zone at least five metres outside the boundary of the Aboriginal archaeological site will be established as per

## Section 5 Additional site 9 (N/A)

management measure AH2.

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

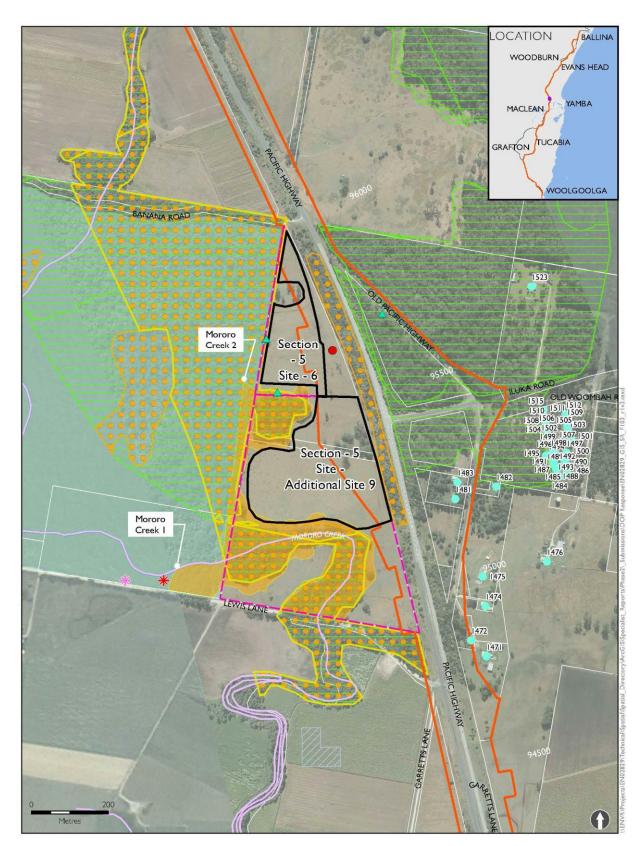
• Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

While erosion and sedimentation controls would be employed where required, at all ancillary facilities (refer to management measures SSW38- SSW40), at this ancillary facility, these controls would be focused around avoiding impacts to Mororo Creek.

## Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of this ancillary facility has been altered to minimise impact on biodiversity and Aboriginal heritage constraints. The change in the extent of the site is shown in Figure 31.

Figure 31 Constraints map for ancillary facilities section 5 Site 6 and Additional site 9.



## Section 6 site 1 (52)

#### Description

This ancillary facility is located east of the project opposite Mororo Road with access off the existing Pacific Highway between stations 98.1 and 98.4. The site is situated in part on the former highway road reserve and it is entirely owned by Roads and Maritime. It comprises properties:

- Lot 21 DP 836263.
- Lot 20 DP 836263.
- Lot 22 DP 836263.

Surrounding land uses include agriculture (sugar cane cropping), state forest and the adjoining Bundjalung National Park. There is one residence located to the west of the project at this location (over 200 metres away from the facility).

The site is heavily vegetated with remnant and regrowth dry open forest, with a section in the northern portion of the site identified as habitat critical to the survival of koalas. As a result of the design refinement 'Cutting at Mororo Road', this vegetation falls within the clearing boundary of the project.

Surrounding vegetation (in the national park) includes dry sclerophyll forest identified as habitat critical to the survival of koalas. Patches of the vegetation within the national park from part of the State Heritage listed item High Conservation Value Old Growth Forest.

Access to the site is via the existing Pacific Highway. Access to the ancillary facility would be via the construction corridor.

Figure 32 shows the environmental constraints surrounding the ancillary facility site.

Ancillary facility uses

Stockpile site (construction)

Standard conditions locational criteria

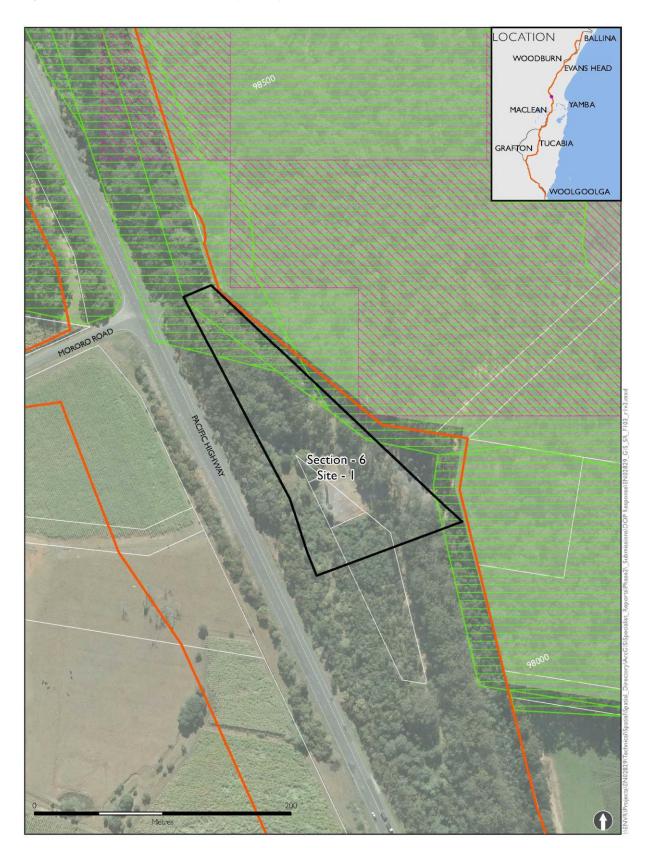
All criteria are met

**Mitigation measures** 

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

Extent of ancillary facility

Figure 32 Constraints map for ancillary facility section 6 site 1.



## Section 6 site 2 (53)

#### Description

This ancillary facility is located to the east of the project between stations 100.1 and 100.6. It is located on Lot 24 DP 836263 in an area of road reserve owned by Roads and Maritime. The ancillary facility is located where a rest area is proposed to be built as part of the project.

The site is heavily vegetated, vegetation includes an area of TEC- Subtropical Coastal Floodplain forest. All vegetation on the site is identified as habitat critical to the survival of koalas. However, this would be removed as a result of the project.

Surrounding land uses include rural forested lands and the adjoining Bundjalung National Park.

Within the national park, patches of vegetation from part of the State Heritage listed item High Conservation Value Old Growth Forest.

Access to the site is via the existing Pacific Highway. Access to the ancillary facility would be via the construction corridor.

Figure 33 shows the ancillary facility extent and constraints surrounding the facility.

## Ancillary facility uses

Main site compound (construction)

Batch plant (construction)

Plant workshop (construction)

Material storage (construction)

Standard conditions locational criteria

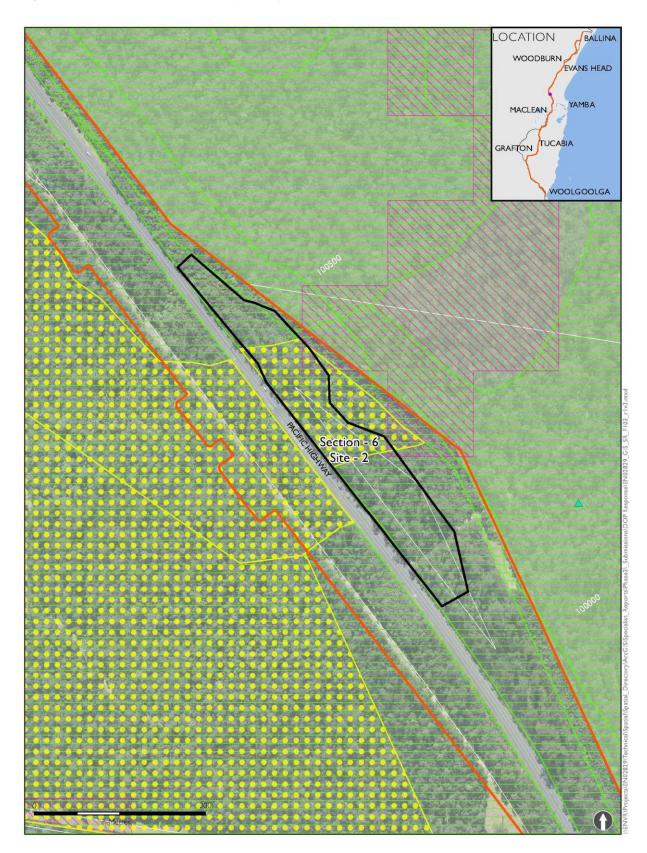
All criteria are met

**Mitigation measures** 

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

Extent of ancillary facility

Figure 33 Constraints map for ancillary facility section 6 site 2.



## Section 6 site 3a (54)

#### Description

This site is located partially within the project boundary between 103.0 and 103.8 across two properties- one rural and the other rural residential. Details of the properties are: Lot 30 DP 716639 and Lot 50 DP 700711. The south east corner of the site is adjacent to a tributary of Tabbimoble Creek.

Scattered trees across the site consist of regenerating swamp sclerophyll forest, with habitat trees present. Surrounding land use is rural including agriculture (sugar cane cropping) and forested lands. There is one residence located on the ancillary facility site.

Access to the site is via the existing Pacific Highway. Access to the ancillary facility will be via the construction corridor.

Figure 34 shows the ancillary facility extent and constraints surrounding the facility.

Ancillary facility uses

Satellite compound (construction)

Batch plant (construction)

Plant workshop (construction)

Material storage (construction)

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

A Be located more than 50 metres from a waterway.

The ancillary facility is located adjacent to a tributary of Tabbimoble Creek. However, the site is sufficiently large to locate activities at a distance greater than 50 metres.

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There is a residence located around 70 metres to the north of the site. The noise assessment has identified that there would be an exceedance of around 28 dBA of the daytime NML of 54 dBA. General measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration. However, it should be noted that the site is sufficiently large that activities can be located on the site and be 200 metres from the residence.

G. Not require vegetation clearing beyond that already required by the state significant infrastructure

The site would require removal of regenerating Swamp Box swamp forest of the coastal lowlands of the North Coast (TSC Act listed TEC). Habitat trees are present on the site.

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The site is adjoining a tributary of Tabbimoble Creek to the south and east of the site. Only the outer reaches of the site fall within the Tabbimoble Creek floodplain with minor impacts from a 20 year ARI flood event.

#### **Mitigation measures**

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood
impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

A number of project management measures would be applicable to the use of this ancillary facility in relation to the clearing of vegetation. This includes:

Management measure B23 Preclearing surveys:

The pre-clearing process will be consistent with Roads and Maritime Biodiversity Guidelines: Protecting and

## Section 6 site 3a (54)

Managing Biodiversity on RTA projects (RTA, 2011a) and include:

- Pre-clearing surveys by an experienced ecologist for large bird nests, particularly for listed species such as the Black-necked Stork, Eastern Osprey, Square-tailed Kite and Little Eagle during the nesting and breeding season (July to December) and tree roosting (eg Southern Myotis) or cave dwelling bats in trees or existing culvert/bridge structures. If the species is present in or directly adjacent to the project footprint (including ancillary facilities), measures to manage any species be considered, if required.
- Mapping the location of any threatened flora and/or fauna species, Threatened Ecological Communities and habitat.
- Construction traffic will be restricted to defined access tracks, fenced prior to the start of construction and maintained until construction is complete.

Management measure B25 Staged removal process:

• A staged habitat removal process will be implemented consistent with the Roads and Maritime Biodiversity Guidelines (RTA, 2011a).

Management measure B26 Re-use of woody debris and bushrock:

• Woody debris and bushrock will be re-used on site for habitat improvement where possible and will be detailed in the landscape management plan in accordance with the Roads and Maritime Biodiversity Guidelines (RTA, 2011a).

Management measure B32 Fauna handling:

To prevent injury and mortality of fauna during the clearing of vegetation and drainage of farm dams, an
experienced and licensed wildlife carer and/or ecologist will be present to capture and relocate fauna where
required. Further details regarding fauna handling and vegetation clearing procedures are provided in the
Roads and Maritime Biodiversity Guidelines (RTA, 2011a).

While erosion and sedimentation controls would be employed where required, at all ancillary facilities (refer to management measures SSW38- SSW40), at this ancillary facility, these controls would be focused around avoiding impacts to the tributary of Tabbimoble Creek.

Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of this ancillary facility has been altered to minimise impact on the tributary of Tabbimoble Creek and due to access restrictions. The change in the extent of the site is shown in Figure 34.

## Section 6 site 3b (55)

#### Description

This ancillary facility is located wholly within the project boundary between stations 102.85 and 103.35. This site is located on Lot 51 DP 700711 and Lot 52 DP 700711, comprising a section of the former highway and parcel of land within the former road reserve.

Adjoining land uses include agriculture (sugar cane cropping) and forested lands.

The ancillary facility is vegetated, with vegetation bordering on the existing Pacific Highway consisting of Swamp Sclerophyll Forest TEC. However, the majority of the vegetation would be cleared as a result of the project. Remaining area to be used would not involve the removal of large trees.

Access to the site is via the existing Pacific Highway. Access to the ancillary facility will be via the construction corridor.

Figure 34 shows the ancillary facility extent and constraints surrounding the facility.

Ancillary facility uses

Stockpile site (construction)

## Section 6 site 3b (55)

Non-conformance with standard conditions locational criteria

A Be located more than 50 metres from a waterway.

The ancillary facility is located adjacent to a tributary of Tabbimoble Creek.

G. Not require vegetation clearing beyond that already required by the state significant infrastructure

The site would require removal of vegetation, including areas of Swamp Sclerophyll Forest TEC and habitat trees.

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The site is adjoining a tributary of Tabbimoble Creek to the south and east of the site. Only the outer reaches of the site fall within the Tabbimoble Creek floodplain with minor impacts from a 20 year ARI flood event.

#### **Mitigation measures**

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood
impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

A number of project management measures would be applicable to the use of this ancillary facility in relation to the clearing of vegetation. This includes:

Management measure B23 Preclearing surveys:

The pre-clearing process will be consistent with Roads and Maritime Biodiversity Guidelines: Protecting and Managing Biodiversity on RTA projects (RTA, 2011a) and include:

- Pre-clearing surveys by an experienced ecologist for large bird nests, particularly for listed species such as the Black-necked Stork, Eastern Osprey, Square-tailed Kite and Little Eagle during the nesting and breeding season (July to December) and tree roosting (eg Southern Myotis) or cave dwelling bats in trees or existing culvert/bridge structures. If the species is present in or directly adjacent to the project footprint (including ancillary facilities), measures to manage any species be considered, if required.
- Mapping the location of any threatened flora and/or fauna species, Threatened Ecological Communities and habitat.
- Construction traffic will be restricted to defined access tracks, fenced prior to the start of construction and maintained until construction is complete.

Management measure B25 Staged removal process:

• A staged habitat removal process will be implemented consistent with the Roads and Maritime Biodiversity Guidelines (RTA, 2011a).

Management measure B26 Re-use of woody debris and bushrock:

• Woody debris and bushrock will be re-used on site for habitat improvement where possible and will be detailed in the landscape management plan in accordance with the Roads and Maritime Biodiversity Guidelines (RTA, 2011a).

Management measure B32 Fauna handling:

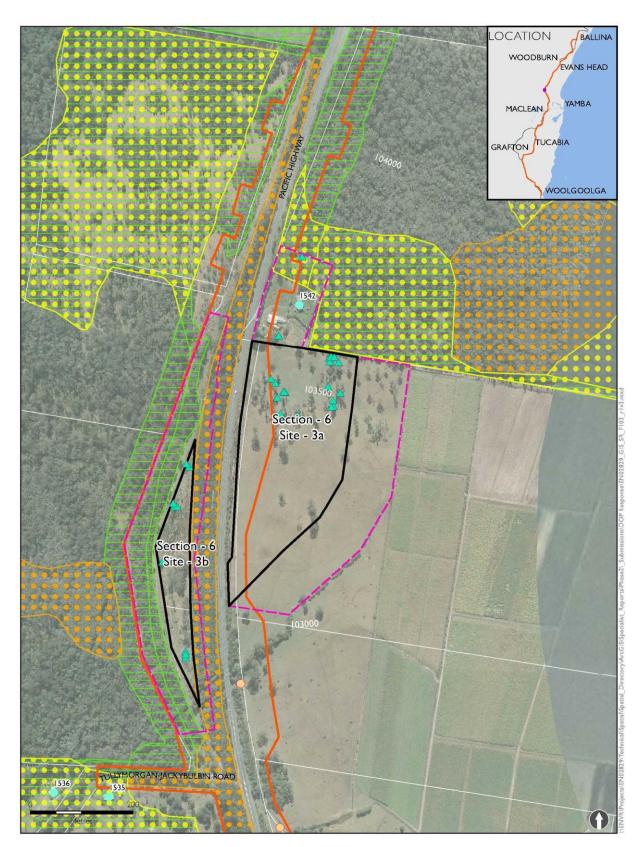
To prevent injury and mortality of fauna during the clearing of vegetation and drainage of farm dams, an
experienced and licensed wildlife carer and/or ecologist will be present to capture and relocate fauna where
required. Further details regarding fauna handling and vegetation clearing procedures are provided in the
Roads and Maritime Biodiversity Guidelines (RTA, 2011a).

While erosion and sedimentation controls would be employed where required, at all ancillary facilities (refer to management measures SSW38- SSW40), at this ancillary facility, these controls would be focused around avoiding impacts to the tributary of Tabbimoble Creek.

## Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of this ancillary facility has been altered to minimise impact on biodiversity constraints. The change in the extent of the site is shown in Figure 34.

Figure 34 Constraints map for ancillary facilities section 6 sites 3a and 3b.



## Section 6 site 4 (56)

#### Description

This ancillary facility is wholly within the project boundary on properties Lot 10 DP 716638 and Lot 1 DP 1134934. One of the lots is currently part of the Devils Pulpit State Forest. This section of property has been acquired as part of the Devils Pulpit project.

Part of the site has been cleared for the Devils Pulpit project while the remainder would be cleared as part of the construction for the Woolgoolga to Ballina project. Surrounding vegetation includes the TEC Subtropical coastal floodplain forest.

Surrounding land uses includes Devils Pulpit State Forest, Bundjalung National Park and rural activities. Part of the vegetation within the national park and within the ancillary facility is listed on the State Heritage Register as part of the High Conservation Value Old Growth Forest.

Access to the site is via the existing Pacific Highway, with access to the ancillary facility being from the construction corridor.

Figure 35 shows the ancillary facility extent and constraints surrounding the facility.

## Ancillary facility uses

Stockpile site (construction)

Standard conditions locational criteria

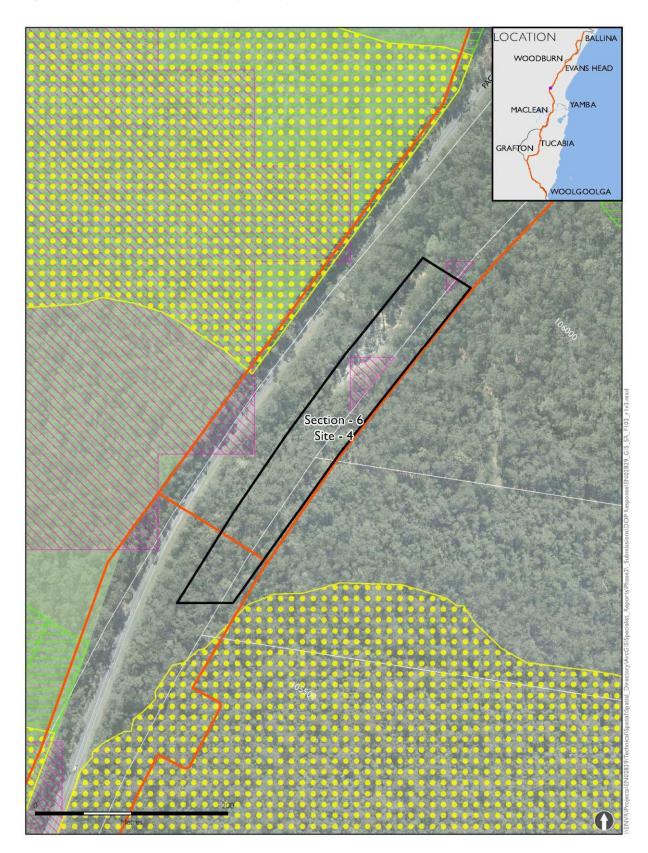
All criteria are met

**Mitigation measures** 

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

Extent of ancillary facility

Figure 35 Constraints map for ancillary facility section 6 site 4.



## Section 6 site 5 (57)

### Description

This site is located within the Devils Pulpit upgrade project boundary (and now part of the road reserve) with the vegetation removed by the construction of the Devils Pulpit upgrade project. It is located within the median between the service road and the upgraded highway between stations 108.1 and 108.5.

Surrounding vegetation includes the TEC Swamp Sclerophyll Forest on coastal floodplains.

Adjoining land uses includes state forest, national park and rural activities.

Access to the site is via the existing Pacific Highway (to become the local service road). Access to the ancillary facility would be the same.

Figure 36 shows the ancillary facility extent and constraints surrounding the facility.

Ancillary facility uses

Stockpile site (construction)

Standard conditions locational criteria

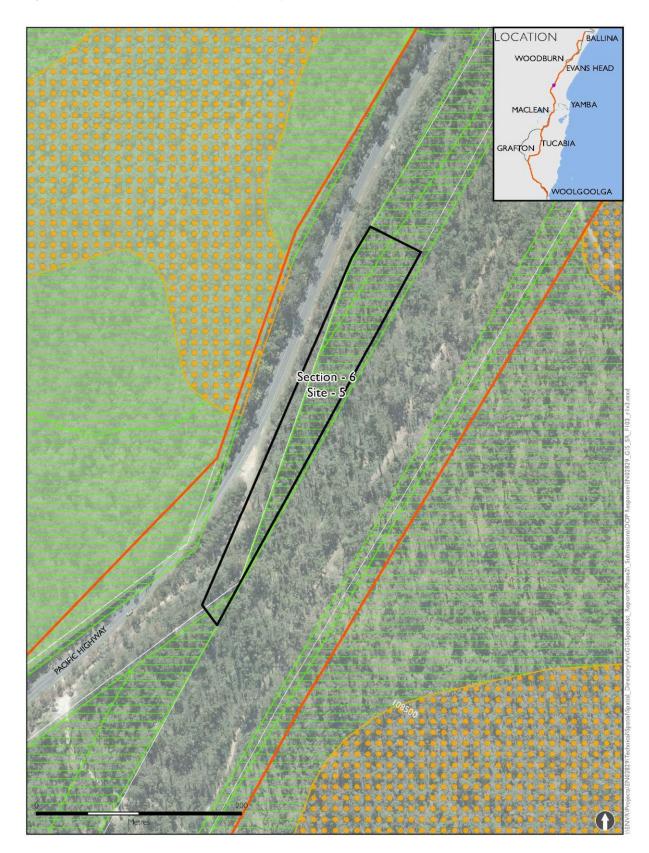
All criteria are met

**Mitigation measures** 

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

Extent of ancillary facility

Figure 36 Constraints map for ancillary facility section 6 site 5.



## Section 7 site 1 (58)

### Description

The ancillary facility is located to the east of the project, between stations 109.9 and 110.15. It is located across two properties Lot 7301 DP 1143242 and Lot 1 DP 796808, partially owned by Roads and Maritime.

The site is predominantly cleared, however there is two patches of vegetation present. The site sufficiently large that no vegetation would need to be removed. Vegetation to the north of the site includes the TEC Swamp Sclerophyll Forest on coastal floodplains.

Access to the site is from the existing highway and access to the ancillary facility would be via the construction corridor.

Surrounding land uses are rural, with both cleared and forested lands. There is one residence located on the opposite side of the highway.

Figure 37 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Main site compound (construction)

Batch plant (construction)

Plant workshop (construction)

Material storage (construction)

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

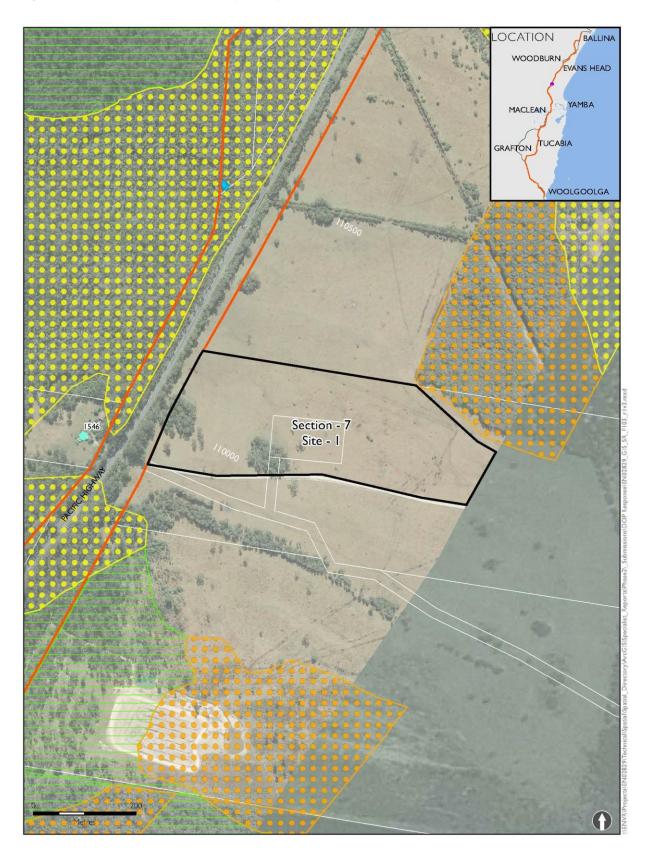
There is one residence about 130 metres from the site, across the Pacific Highway. However, it should be noted that the site is sufficiently large that the batch plant can be located on the site and be 300 metres from residences.

**Mitigation measures** 

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

Extent of ancillary facility

Figure 37 Constraints map for ancillary facility section 7 site 1.



## Section 7 site 2a (59)

### Description

This ancillary facility is situated wholly within the project boundary between stations 114.1 and 114.3. The site is located in properties Lot 11 DP 755610 and Lot 12 DP 1166109, being partially owned by Roads and Maritime.

The site is heavily vegetated with dry sclerophyll forest identified as habitat critical to the survival of koalas, however this vegetation would be removed as a result of the construction of the project.

Access is via the existing highway, and access to the ancillary facility would be from the construction corridor.

An unnamed waterway is located over 50 metres south of the ancillary facility. This waterway is identified as being Oxleyan Pygmy Perch habitat.

Land use around the site is state forest and rural forested lands.

Figure 38 shows the ancillary facility extent and constraints surrounding the facility.

Ancillary facility uses

Stockpile site (construction)

Standard conditions locational criteria

All criteria are met

**Mitigation measures** 

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

Extent of ancillary facility

### Section 7 site 2b (60)

### Description

This ancillary facility is situated wholly within the project boundary between stations 114.1 and 114.3. The site is located in properties Lot 11 DP 755610 and Lot 12 DP 1166109, being partially owned by Roads and Maritime.

The site is heavily vegetated with dry sclerophyll forest, however this vegetation would be removed as a result of the construction of the project.

Access is via the existing highway or Serendipity Road, and access to the ancillary facility would be from the construction corridor.

Land use around the site is state forest and rural forested lands.

Figure 38 shows the ancillary facility extent and constraints surrounding the facility.

Ancillary facility uses

Main site compound (construction)

Standard conditions locational criteria

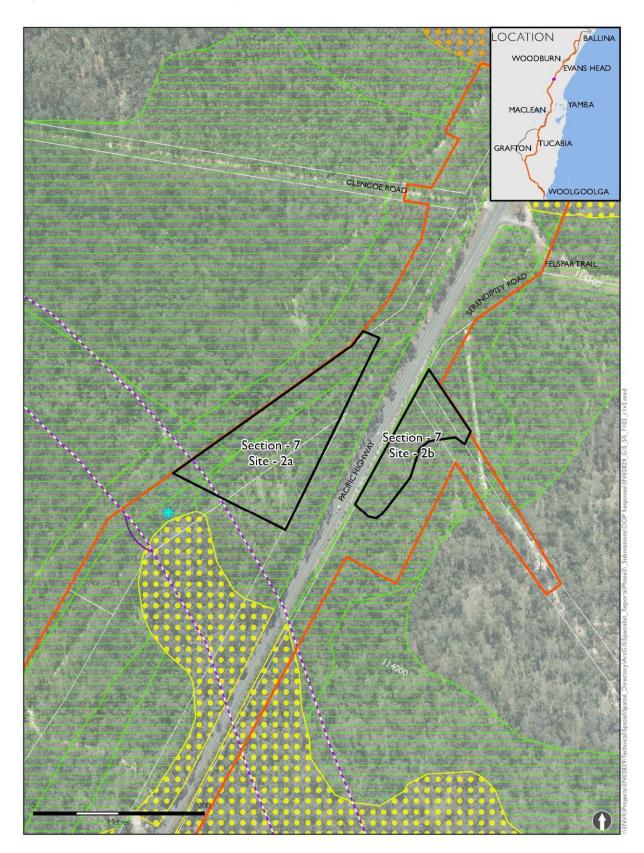
All criteria are met

**Mitigation measures** 

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

Extent of ancillary facility

Figure 38 Constraints map for ancillary facilities section 7 sites 2a and 2b.



## Section 7 site 3 (61)

### Description

The ancillary facility is located on the eastern side of the project between stations 121.35 and 121.7. The site is located on properties: Lot 20 DP 1156333 and Lot 21 DP 1156333. Access is from the existing highway, with access to the ancillary facility from the construction corridor.

The site is predominantly cleared with only a few habitat trees present. No threatened flora species were identified on the site. The threatened flora species *Maundia triglochinoides* was detected east of the site. Vegetation to the south of the site is identified as habitat critical to the survival of koalas.

Surrounding land use includes rural cleared and forested land and commercial activities (New Italy Museum and café). There are a few rural residential properties associated with New Italy, to the west of the project in this location.

Figure 39 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Satellite compound (construction)

Batch plant (construction)

Plant workshop (construction)

Material storage (construction)

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

A Be located more than 50 metres from a waterway.

The site boundary is located around 30 metres from a tributary of Oakey Creek. The site is sufficiently large that activities could be kept 50 metres away from the waterway.

H. Not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the state significant infrastructure

The ancillary facility would have a direct impact on an artefact scatter (New Italy 1 (Dubaijeen Site)) of moderate significance. The ancillary facility would impact on 90% of the recorded extent of the site and impact to its heritage values.

#### **Mitigation measures**

Management measure AH14q identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

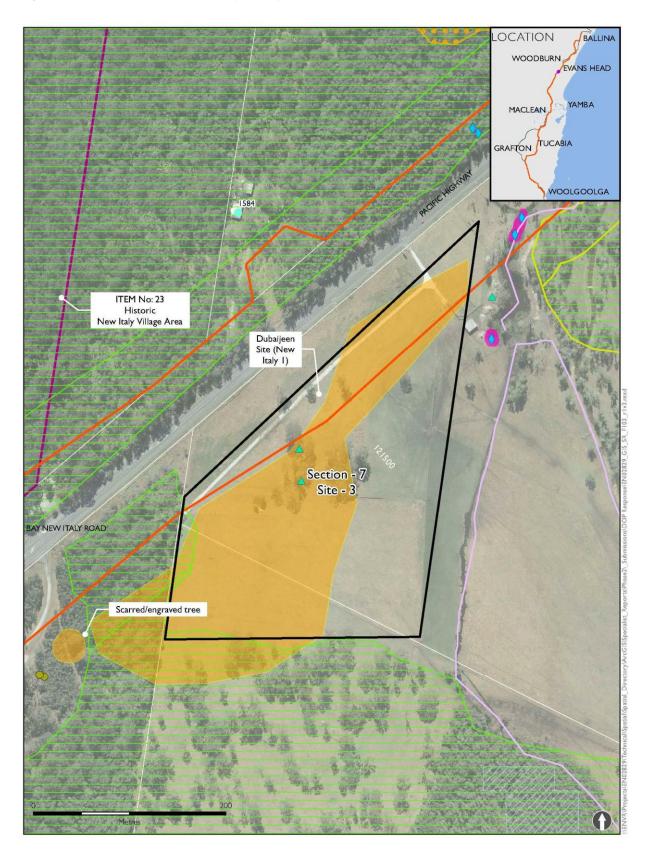
For Dubaijeen Site (New Italy 1):

- Salvage excavation of the portion of the Aboriginal archaeological site to be used will be undertaken as detailed in the Ancillary facility and design change CHAR (Appendix D of the Submissions/ Preferred Infrastructure Report) and in consultation with RAPs. The excavations apply to the portion of the site that be impacted by the project as well as the ancillary facility.
- Any portions of the Aboriginal archaeological site that are not to be impacted will be protected by exclusion zones as per management measure AH2.

While erosion and sedimentation controls would be employed where required, at all ancillary facilities (refer to management measures SSW38- SSW40), at this ancillary facility, these controls would be focused around avoiding impacts to the tributary of Oakey Creek.

### Extent of ancillary facility

Figure 39 Constraints map for ancillary facility section 7 site 3.



## Section 7 site 4 (62)

### Description

This ancillary facility is located to the west of the project alignment between stations 125.25 and 125.55. The site is located on Lot 10 DP 1108270.

The site is sparsely vegetated with Coastal floodplain sedgelands, rushlands and forblands (TSC Act listed TEC) and Red Mahogany open forest of the coastal lowlands of the North Coast. The site is sufficiently large enough that vegetation would not be removed. Denser vegetation cover is present north of the site and is associated with wetlands/ swamp.

The surrounding land uses are rural and rural residential. A cluster of residences are located north of the ancillary facility.

Access to the site is from the existing highway, with access to the ancillary facility to be from the construction corridor.

Figure 40 shows the ancillary facility extent and constraints surrounding the facility.

### Ancillary facility uses

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

H. Not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the state significant infrastructure

The ancillary facility would impact on an artefact scatter (The Gap Rd 1) of low-moderate significance. The ancillary facility would impact on the entire recorded extent of the site and impact to its heritage values.

#### Mitigation measures

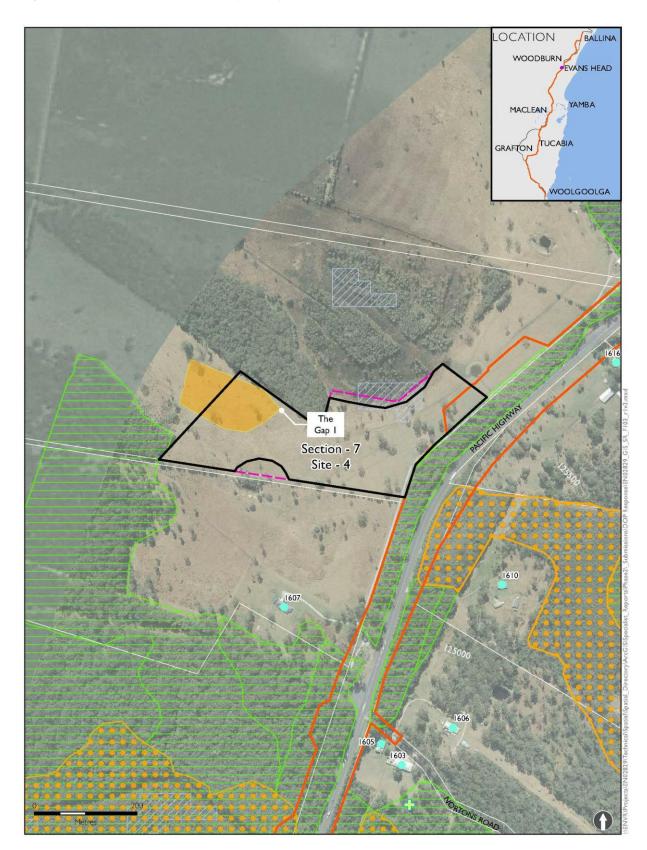
Management measure AH14r identifies mitigation to minimise impacts as a result of the use of the ancillary facility: For The Gap Rd 1(13-1-0194):

- If impact to The Gap Rd 1 is necessary, salvage excavation of the portion of the Aboriginal archaeological site to be impacted will be undertaken as detailed in the Ancillary facility and design change CHAR (Appendix D of the Submissions/ Preferred Infrastructure Report) and in consultation with RAPs.
- Any portions of the Aboriginal archaeological site that are not to be impacted will be protected by exclusion zones will be established as per management measure AH2.

### Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of the ancillary facility has been altered to minimise impact on biodiversity constraints. The change in the extent of the site is shown in Figure 40.

Figure 40 Constraints map for ancillary facility section 7 site 4.



## Section 8 Site 1 (63)

#### Description

The ancillary facility is located to the south of Tuckombil Canal between stations 129.7 and 130.1 to the west of the project. Site is in cleared paddock used for cattle grazing on Lot 13 DP 864108 and Lot 12 DP 864108.

The site has little vegetation, however, to the south is a patch of Swamp Sclerophyll Forest on Coastal Floodplains (TEC). The site is sufficiently large that vegetation would not need to be removed. A farm dam is also located within the site.

Access to the site is via the existing highway. Access to the ancillary facility would be from the construction corridor.

Surrounding land uses consist of rural and rural residential properties, with more urban residential associated with Woodburn located west of the existing Pacific Highway.

#### Ancillary facility uses

Main site compound (early works and construction)

Batch plant (construction)

Plant workshop (construction)

Material storage (construction)

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

A. Be located more than 50 metres from a waterway.

The site boundary is located around 30 metres from Tuckombil Canal. However, the site is sufficiently large that activities could be kept 50 metres away from the waterway.

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There are six residences located south west of the ancillary facility that are within 200 metres from the site. The noise assessment identified that at all these receivers, the noise levels as a result of the use of the ancillary facility would not exceed the relevant NML criteria of 55 dBA.

However, general measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

It should be noted that the site is sufficiently large that the batch plant can be located on the site and be 300 metres from residences.

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is located in Lower Richmond river floodplain. Building up the facility above the 20 year ARI flood level would incur some loss of flood storage and minor obstruction to Tuckombil Canal floodplain flow.

### **Mitigation measures**

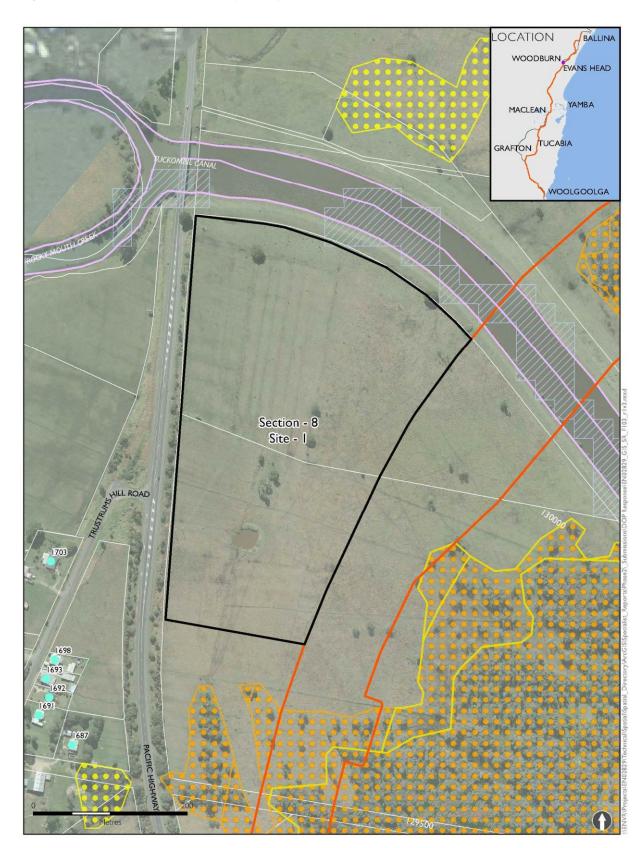
While erosion and sedimentation controls would be employed where required, at all ancillary facilities (refer to management measures SSW38- SSW40), at this ancillary facility, these controls would be focused around avoiding impacts to Tuckombil Canal.

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

Extent of ancillary facility

Figure 41 Constraints map for ancillary facility section 8 site 1



### Section 8 Site 2a (64)

### Description

This ancillary facility is located to the south east of the project, south of Woodburn- Evans Head Road between stations 131.2 and 132.1. The ancillary facility is across four properties:

- Lot 1 DP 834562.
- Lot 100 DP 1121862.
- Lot 2 DP 541041.
- Lot 2 DP 631993.

The site is on mostly cleared land, however, there is a small strip of Swamp Sclerophyll forest TEC. There is an area of vegetated land to the south of the site.

The site is partially used for sugar cane cropping and rural residential activities. Surrounding land use is rural including sugar cane cropping and forms part of the Rous Water Woodburn Sands bore field catchment. A number of residences are located north of the ancillary facility, associated with Woodburn Evans Head Road.

Access to the site is from Woodburn Evans Head Road. Access to the ancillary facility would be via the construction corridor.

Figure 42 shows the ancillary facility extent and constraints surrounding the facility.

### Ancillary facility uses

Main site compound

Material storage

Stockpile site

Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There is one residence located east of the ancillary facility that is within 200 metres from the site (another two properties with residences to the west are also identified for use as ancillary facilities). The noise assessment identified that this receiver the noise levels would not exceed the relevant NML criteria of 50 dBA. However, general measures would be employed to minimise impacts on residences as detailed in Appendix I of

the Working paper- Noise and vibration. It should be noted that the site is sufficiently large that the batch plant can be located on the site and be 300

metres from residences.

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is located in Lower Richmond floodplain. The location would incur blockage of culverts across the project and would incur substantial upstream flood impacts.

#### **Mitigation measures**

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

 Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

#### Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of the ancillary facility has been altered to minimise impact on biodiversity constraints. The change in the extent of the site is shown in Figure 42.

## Section 8 Site 2b (65)

### Description

This ancillary facility is located to the west of the project, south of Woodburn- Evans Head Road between stations 131.85 and 132.1. The ancillary facility is on Lot 1 DP 834562, owned by Roads and Maritime.

The site is on mostly cleared land with a small area of Paperbark swamp forest of the coastal lowlands of the North Coast. A residence is also located on the site.

Surrounding land use is rural including sugar cane cropping, with some patches of vegetation north east and south east of the ancillary facility, comprising TEC swamp sclerophyll forest and swamp oak floodplain forest. The site is also located on part of the Rous Water Woodburn Sands bore field catchment.

Access to the site is from Woodburn Evans Head Road. Access to the ancillary facility would be via the construction corridor.

Figure 42 shows the ancillary facility extent and constraints surrounding the facility.

### Ancillary facility uses

Main site compound (construction)

Batch plant (construction)

Plant workshop (construction)

Non-conformance with standard conditions locational criteria

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is located in the Lower Richmond floodplain. The site would incur blockage of culverts across the project and would incur substantial upstream flood impacts.

### **Mitigation measures**

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

• Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

Extent of ancillary facility

### Section 8 Site 2c (66)

### Description

This ancillary facility is located to the west of the project, north of Woodburn- Evans Head Road at station 132.1. The ancillary facility is on Lot 1 DP 705502, owned by Roads and Maritime. A residence is located on the site.

The site is on cleared land. Some patches of vegetation are located north east and south east of the ancillary facility, comprising TEC swamp sclerophyll forest and swamp oak floodplain forest. The site is also located on part of the Rous Water Woodburn Sands bore field catchment.

Surrounding land use is rural including sugar cane cropping and forms part of the Rous Water Woodburn Sands bore field catchment. A number of residences are located north of the ancillary facility, associated with Woodburn Evans Head Road.

Access to the site is from Woodburn Evans Head Road. Access to the ancillary facility would be via the construction corridor.

Figure 42 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is located in the Lower Richmond floodplain. The site would incur partial blockage of culverts across the project.

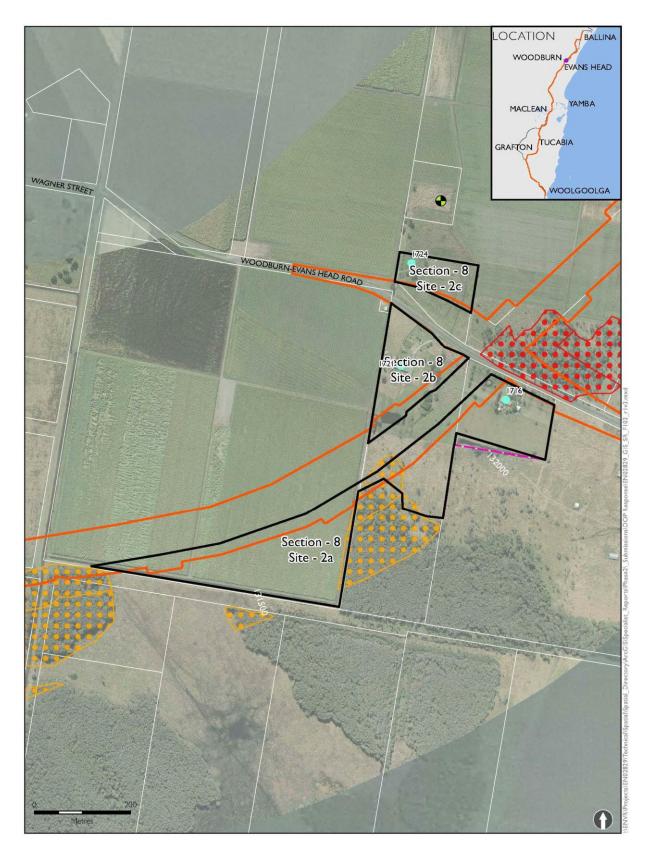
### Mitigation measures

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

• Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

Extent of ancillary facility

Figure 42 Constraints map for ancillary facilities section 8 sites 2a, 2b and 2c.



## Section 8 Site 3 (67)

### Description

This ancillary facility is located to the east of the project, between stations 134.8 and 135.1. The ancillary facility is on Lot 104 DP 755624, owned by Roads and Maritime.

Vegetation to the south of the site consists of the TEC swamp oak floodplain forest. Further west of the ancillary facility is located an unnamed waterway that contains known Oxleyan Pygmy Perch habitat.

The site is partially used for sugar cane cropping. Surrounding land use is rural including sugar cane cropping, forested land or national park.

Access to the site is via the Pacific Highway and a private property access. Access to the ancillary facility would be via the construction corridor.

Figure 43 shows the ancillary facility extent and constraints surrounding the facility.

### Ancillary facility uses

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is located in Lower Richmond backwater floodplain. Some removal of flood storage with minimal impacts.

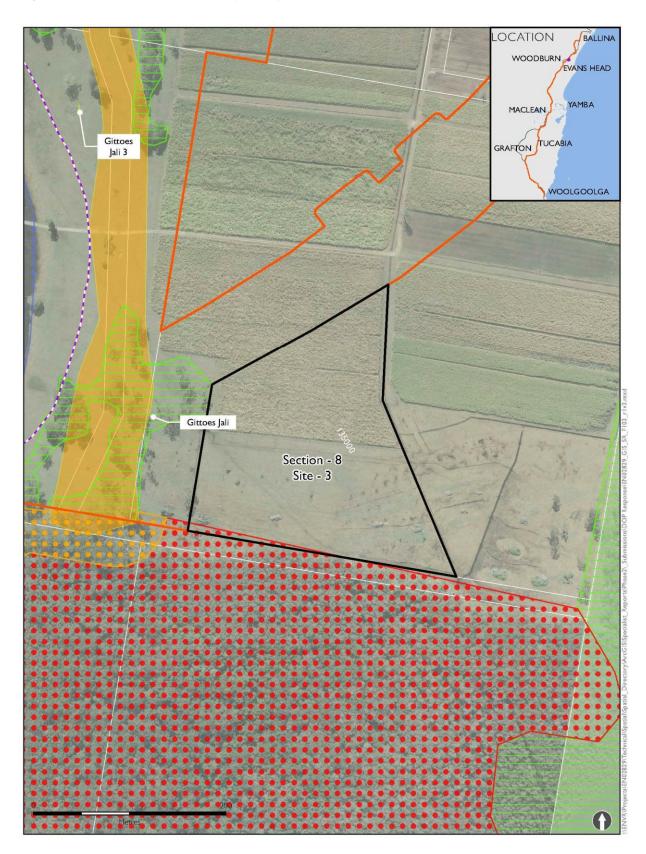
### **Mitigation measures**

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

• Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

#### Extent of ancillary facility

Figure 43 Constraints map for ancillary facility section 8 site 3.



## Section 9 Site 1 (68)

### Description

This ancillary facility is located to the west of the project, between stations 136.7 and 137.1. The ancillary facility is on Lot 133 DP 839607 and Lot 1 DP 1033046.

The site is on mostly cleared land, with patches of Swamp Oak Floodplain Forest TEC.

Surrounding land use is rural including cropping, forested land or national park.

Access to the site is via the Pacific Highway. Access to the ancillary facility would be via the construction corridor or via the existing highway.

Figure 44 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Main site compound (construction)

Batch plant (construction)

Plant workshop (construction)

Material storage (construction)

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is located in Lower Richmond floodplain. The site would incur some removal of flood storage and minor flood impacts.

#### **Mitigation measures**

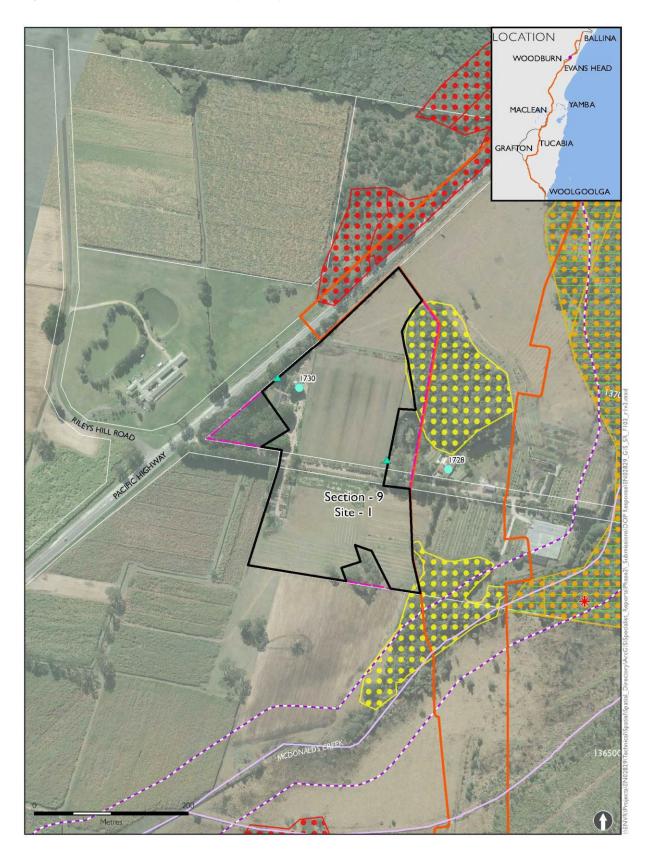
Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

• Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

### Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of the ancillary facility has been altered to minimise impact on biodiversity constraints. The change in the extent of the site is shown in Figure 44.

Figure 44 Constraints map for ancillary facility section 9 site 1.



## Section 9 site 2 (69)

### Description

This ancillary facility is located to the east of the project, between stations 137.3 and 137.8. The ancillary facility is on Lot 1 DP 618666 which is owned by Roads and Maritime.

The site is on sparsely vegetated land, consisting of Swamp Box swamp forest of the coastal lowlands of the North Coast (TSC Act listed TEC). Surrounding vegetation includes Swamp sclerophyll and swamp oak forest TECs.

Surrounding land use is rural including cropping, forested land or national park.

MacDonalds Creek runs to the south west of the site. This creek has known habitat for the threatened fish species Oxleyan Pygmy Perch.

Access to the site is via the Pacific Highway. Access to the ancillary facility would be via the construction corridor.

Figure 45 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Satellite compound (construction)

Material storage (construction)

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

A Be located more than 50 metres from a waterway.

The ancillary facility is located within 20 metres (at its closest location) of Macdonalds Creek. However, the site is sufficiently large to locate activities at a distance greater than 50 metres.

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There is one receiver located within 100 metres of the ancillary facility. This receiver would have an exceedance of the NML criteria of 52 dBA by around 8 dBA. However, this receiver is on the same Roads and Maritime property and may not be occupied.

G. Not require vegetation clearing beyond that already required by the state significant infrastructure

The site would require removal of regenerating Swamp Box swamp forest of the coastal lowlands of the North Coast (TSC Act listed TEC).

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is located in Lower Richmond floodplain. The site would incur some removal of flood storage and minor flood impacts.

#### **Mitigation measures**

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

• Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

A number of project management measures would be applicable to the use of this ancillary facility in relation to the clearing of vegetation. This includes:

Management measure B23 Preclearing surveys:

The pre-clearing process will be consistent with Roads and Maritime Biodiversity Guidelines: Protecting and Managing Biodiversity on RTA projects (RTA, 2011a) and include:

• Pre-clearing surveys by an experienced ecologist for large bird nests, particularly for listed species such as the

### Section 9 site 2 (69)

Black-necked Stork, Eastern Osprey, Square-tailed Kite and Little Eagle during the nesting and breeding season (July to December) and tree roosting (eg Southern Myotis) or cave dwelling bats in trees or existing culvert/bridge structures. If the species is present in or directly adjacent to the project footprint (including ancillary facilities), measures to manage any species be considered, if required.

- Mapping the location of any threatened flora and/or fauna species, Threatened Ecological Communities and habitat.
- Construction traffic will be restricted to defined access tracks, fenced prior to the start of construction and maintained until construction is complete.

Management measure B25 Staged removal process:

• A staged habitat removal process will be implemented consistent with the Roads and Maritime Biodiversity Guidelines (RTA, 2011a).

Management measure B26 Re-use of woody debris and bushrock:

• Woody debris and bushrock will be re-used on site for habitat improvement where possible and will be detailed in the landscape management plan in accordance with the Roads and Maritime Biodiversity Guidelines (RTA, 2011a).

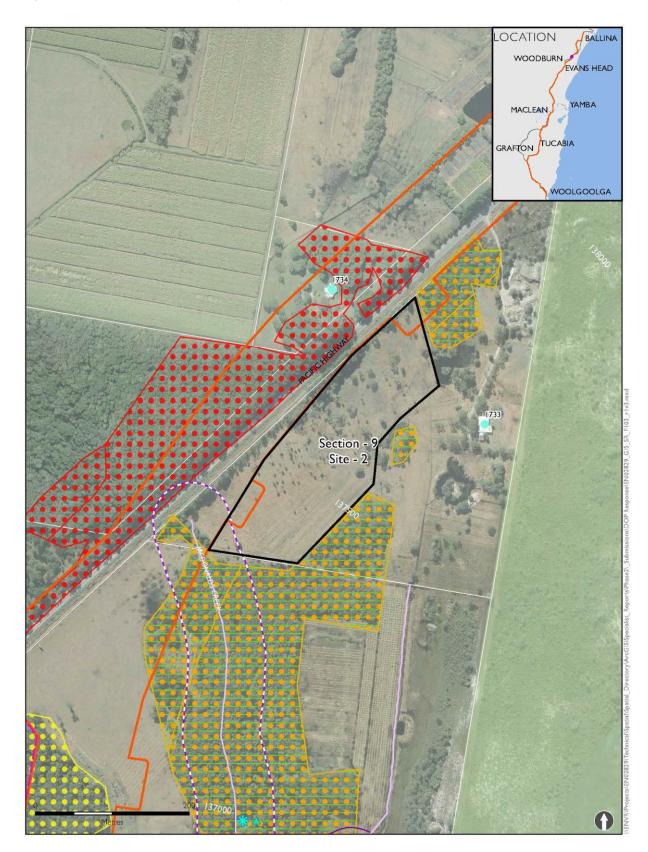
Management measure B32 Fauna handling:

• To prevent injury and mortality of fauna during the clearing of vegetation and drainage of farm dams, an experienced and licensed wildlife carer and/or ecologist will be present to capture and relocate fauna where required. Further details regarding fauna handling and vegetation clearing procedures are provided in the Roads and Maritime Biodiversity Guidelines (RTA, 2011a).

While erosion and sedimentation controls would be employed where required, at all ancillary facilities (refer to management measures SSW38- SSW40), at this ancillary facility, these controls would be focused around avoiding impacts to MacDonalds Creek.

#### Extent of ancillary facility

Figure 45 Constraints map for ancillary facility section 9 site 2.



## Section 9 site 3 (70)

### Description

This ancillary facility is located south of the interchange at Broadwater, east of the township of Broadwater, between stations 142.2 and 142.7.

The site is located on four properties, part of which are owned by Roads and Maritime:

- Lot 4 DP 1142669.
- Lot 8 DP 1142669.
- Lot 9 DP 1142669.
- Lot 2 DP 1145721.

The site is predominantly cleared, with the site bounding a farm dam with remnant Swamp Oak Floodplain Forest (TSC Act listed TEC). The area around the site is mostly rural land use, with residences being concentrated to the west, associated with the township of Broadwater.

There are two heritage items of local significance located to the south west of the site (Cemetery Reserve and Maloney property).

Access to the property ia via Cooks Street or Broadwater Evans Head Road. Access to the ancillary facility would be via the construction corridor.

Figure 46 shows the ancillary facility extent and constraints surrounding the facility.

Ancillary facility uses

Main site compound (construction)

Batch plant (construction)

Plant workshop (construction)

Material storage (construction)

Stockpile sites (construction)

Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There are eleven residences within 200 metres of the ancillary facility. The noise assessment has identified that nine of these receivers would experience noise levels in excess of the NML criteria by up to 3 dBA.

However, all eleven residences have been earmarked for noise mitigation measures due to the impacts from the operational highway. Where required, at house treatments would be installed early in the construction of the project to provide noise mitigation during construction as well as operation.

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is located in Lower Richmond floodplain. The site would incur some removal of flood storage and minor flood impacts.

**Mitigation measures** 

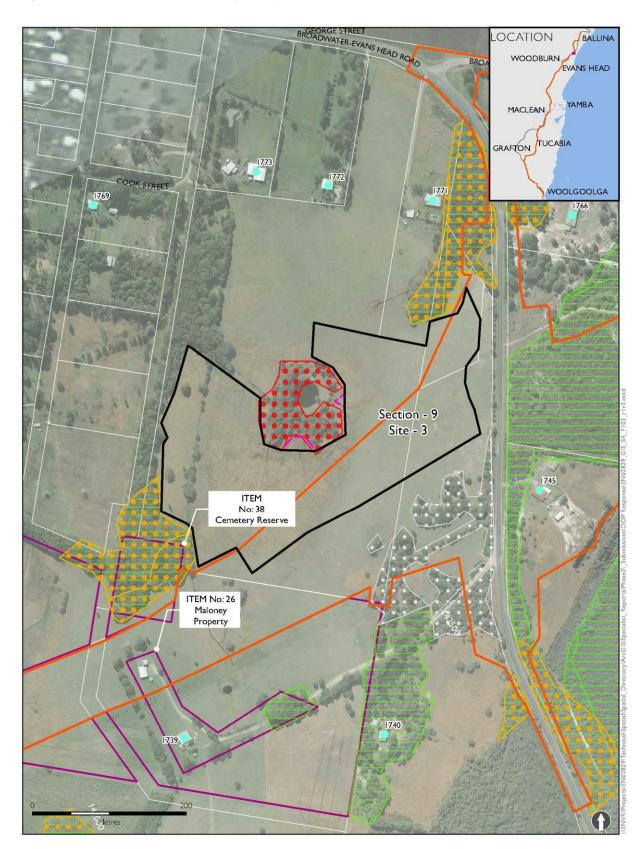
Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

• Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of this ancillary facility has been altered to minimise impact on biodiversity constraints. The change in the extent of the site is shown in Figure 46.

Figure 46 Constraints map for ancillary facility section 9 site 3.



## Section 10 site 1a (71)

#### Description

This ancillary facility is located to the south of Richmond River on Lot 6 DP 1043232 between stations 145.3 and 145.5. The site is wholly within the project boundary.

The site is currently being used for sugar cane cropping. Surrounding land uses include sugar cane cropping and rural residential activities.

To the south east of the site is an area of heritage items- both Aboriginal and non-Aboriginal items, associated with the Byrne property.

Access to the property is via the existing Pacific Highway. Access to the ancillary facility would be via the existing Pacific Highway or the construction corridor.

Figure 47 shows the ancillary facility extent and constraints surrounding the facility.

### Ancillary facility uses

Bridge compound (construction)

Batch plant (construction)

Bridge material storage (construction)

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is located in Lower Richmond backwater floodplain. Building up the site to above the 20 year ARI flood level, would only have minimal impact.

### **Mitigation measures**

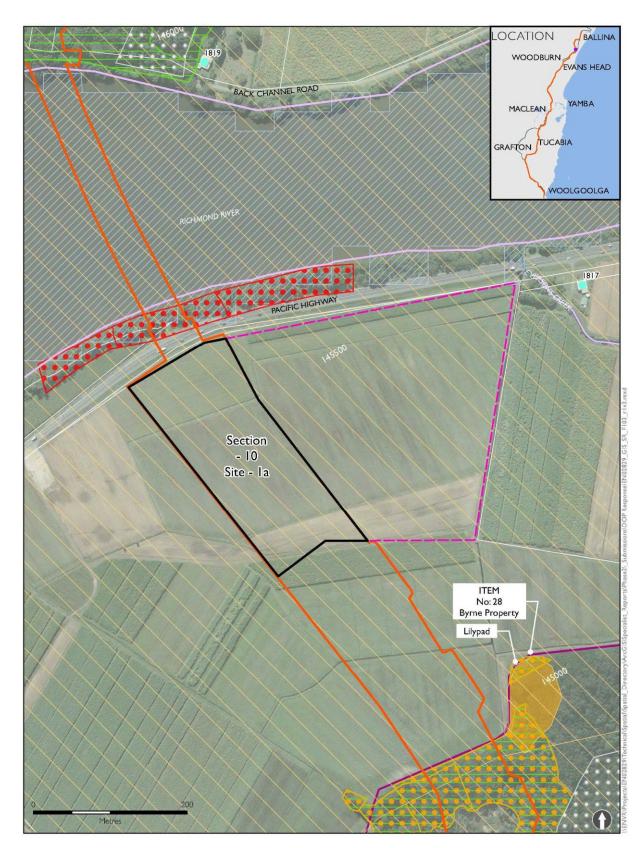
Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

• Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

#### Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of this ancillary facility has been altered due to access restrictions. The change in the extent of the site is shown in Figure 47.

Figure 47 Constraints map for ancillary facility section 10 site 1a.



## Section 10 site 1b (72)

### Description

This ancillary facility is located to the north of the Richmond River, west of the project between stations 146.2 and 146.4. It is situated on property Lot 22 DP 755691.

The site is predominantly cleared, with vegetation bordering the site to the north. Vegetation to the east is habitat critical to the survival of koalas, however, this falls within the project boundary and would be removed. A patch of Swamp oak floodplain forest TEC is located adjacent to the Richmond River. A small drainage line is located to the south west of the site.

A number of Aboriginal heritage items/ sites are located east of the ancillary facility.

Surrounding land use includes agriculture- sugar cane cropping and rural forested lands. There are no rural residential properties in proximity of the ancillary facility.

Access to the property is via Back Channel Road. Access to the ancillary facility would be via Back Channel Road or the construction corridor.

Figure 48 shows the ancillary facility extent and constraints surrounding the facility.

### Ancillary facility uses

Bridge compound (construction)

Bridge material storage (construction)

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is located in Lower Richmond backwater floodplain. Building up the site to above the 20 year ARI flood level, would only have minimal impact.

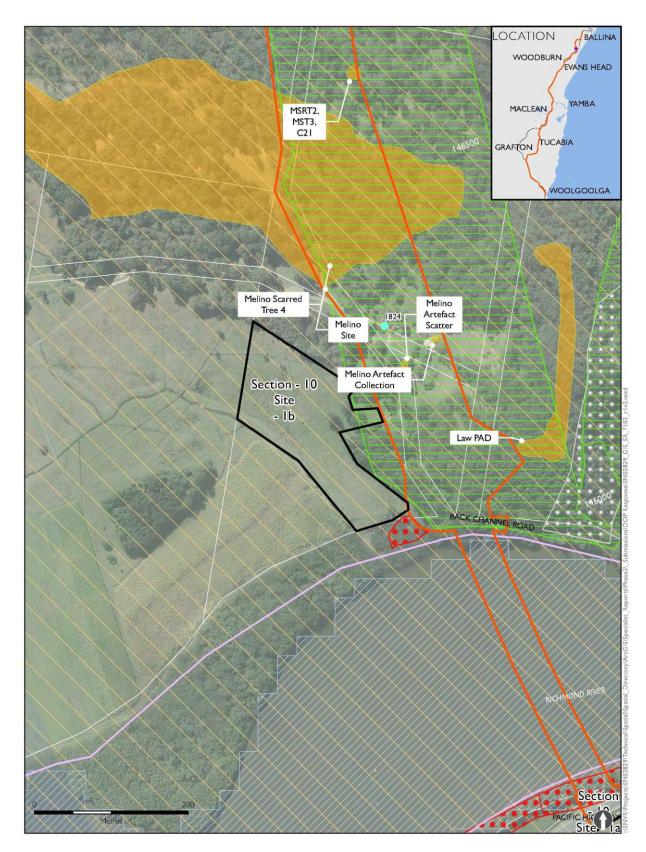
### **Mitigation measures**

Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood
impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

Extent of ancillary facility

Figure 48 Constraints map for ancillary facility section 10 site 1b.



## Section 10 site 2 (73)

### Description

This ancillary facility is located to the west of the project, in a quarry site (Lot 3 DP 619233) between stations 147.8 to 148.1.

The site is cleared of vegetation with surrounding land uses consisting of rural and quarrying activities. Surrounding vegetation consists of habitat critical to the survival of koalas.

Access to the property is via Old Bagotville Road. Access to the ancillary facility would be via Old Bagotville Road and the construction corridor.

Figure 49 shows the ancillary facility extent and constraints surrounding the facility.

Ancillary facility uses

Stockpile site (construction)

Standard conditions locational criteria

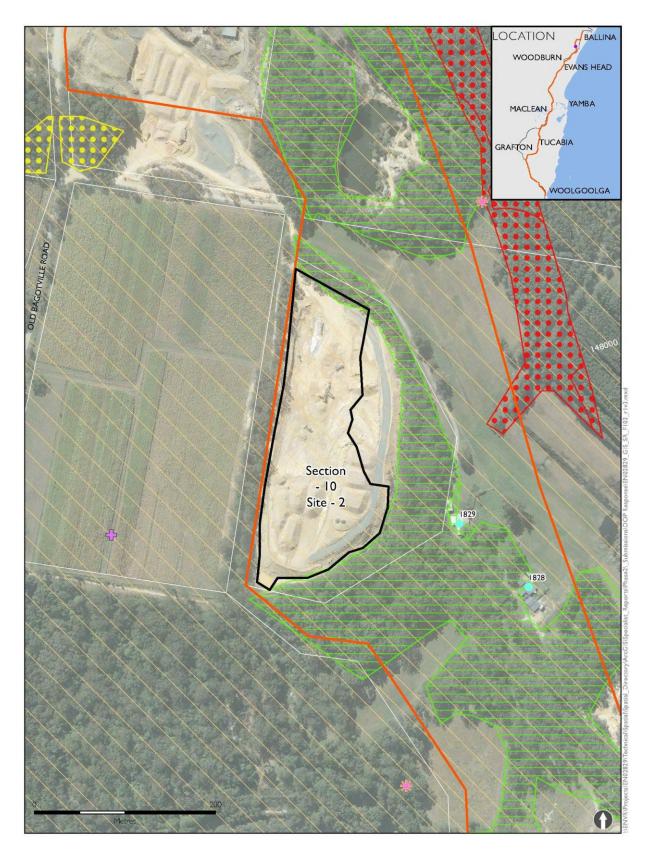
All criteria are met

**Mitigation measures** 

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

Extent of ancillary facility

Figure 49 Constraints map for ancillary facility section 10 site 2.



## Section 10 site 3a (74)

### Description

The ancillary facility is located to the west of the project between stations 152.1 to 152.5 on part of the Lumley Hill borrow site (Lot 158 DP 755731), to the south of Wardell Road.

The site is predominantly deared, with any clearing to be undertaken as a result of the project. Vegetation near the site includes Swamp sclerophyll forest TEC.

Surrounding land uses are rural and rural residential. Rural residential properties are located around Wardell Road, most situated north of the ancillary facility. There is an Aboriginal and non-Aboriginal heritage site to the east of the site- Wardell scarred trees and the Meerschaum Vale brickworks.

Access to the property is via Wardell Road. Access to the ancillary facility would be via Wardell Road and the construction corridor.

Figure 50 shows the ancillary facility extent and constraints surrounding the facility.

Ancillary facility uses

Batch plant (construction)

Plant workshop (construction)

Material storage (construction)

Stockpile site (construction)

Standard conditions locational criteria

All criteria are met

**Mitigation measures** 

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

Extent of ancillary facility

## Section 10 site 3b (75)

### Description

The ancillary facility is located to the west of the project between stations 152.5 to 152.7 on part of the Lumley Hill borrow site (Lot 3 DP 707736), to the south of Wardell Road. This property including the residence would be acquired to construct the project.

The site is predominantly deared, with any clearing to be undertaken as a result of the project. Vegetation near the site includes Swamp sclerophyll forest TEC.

Surrounding land uses are rural and rural residential. Rural residential properties are located around Wardell Road, most situated north of the ancillary facility. There is an Aboriginal and non-Aboriginal heritage site to the east of the site- Wardell scarred trees and the Meerschaum Vale brickworks.

Figure 50 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Satellite compound (construction)

Material storage (construction)

Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There are two residences that are within 200 metres of the site. The noise assessment identified that these receivers would have noise levels that exceeded the NML criteria of 43 dBA. These exceedances would be around 6 to 18 dBA.

However, these two residences have been earmarked for noise mitigation measures due to the impacts from the operational highway. Where required, at house treatments would be installed early in the construction of the project to provide noise mitigation during construction as well as operation.

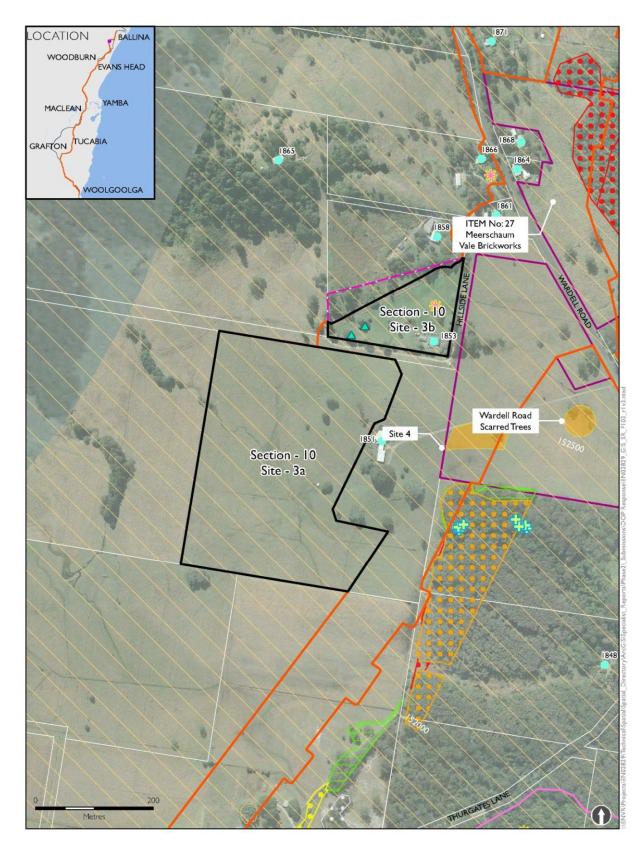
#### **Mitigation measures**

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

#### Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of this ancillary facility has been altered to minimise impact on biodiversity constraints. The change in the extent of the site is shown in Figure 50.

Figure 50 Constraints map for ancillary facilities section 10 sites 3a and 3b.



## Section 10 site 4 (76)

#### Description

This ancillary facility is located to the south of the project between stations 156.0 to 156.5 on Roads and Maritime owned property (Lot 51 DP 1120710).

The site is devoid of vegetation, but is grassed, with some areas of the threatened species Hairy Joint Grass. Vegetation near the site consists of Subtropical Coastal Floodplain Forest TEC.

Land use of the site is rural, with surrounding land use consisting of rural and rural residential activities. Nearby residences are associated with the suburb of Meridian Heights, north of the facility.

The site contains a heritage item- Drainage channels, Coolgardie.

Access to the property is from Kays Road. Access to the ancillary facility would be via the construction corridor.

Figure 51 shows the ancillary facility extent and constraints surrounding the facility.

### Ancillary facility uses

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

H. Not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the state significant infrastructure

This ancillary facility would impact on a heritage item (Drainage channels, Coolgardie) that has local significance. This could be directly impacted through infilling, or through accidental collapse due to machinery, vehicles, stockpiling or other activities occurring in close proximity to, on or over the drainage channel.

#### **Mitigation measures**

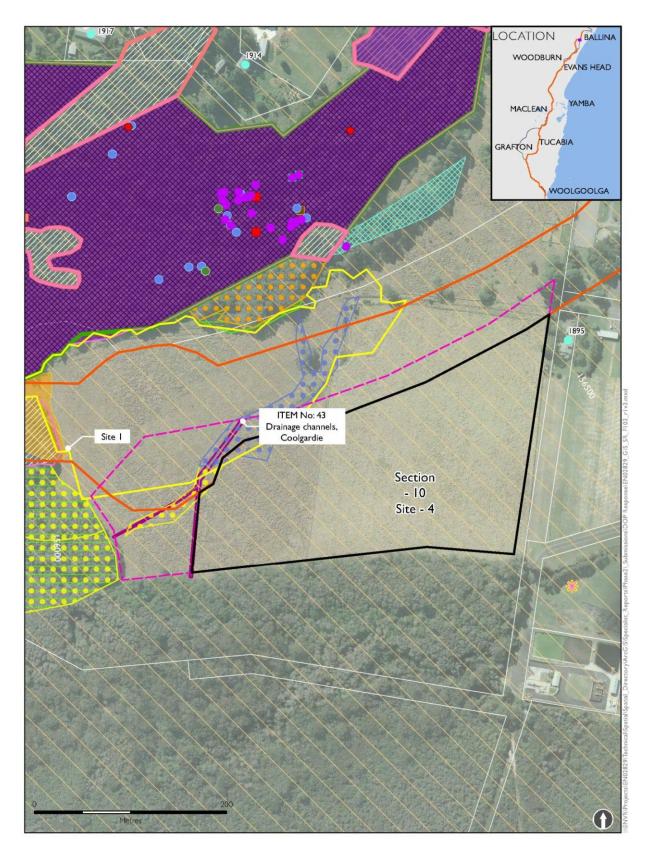
Management measure HH6 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

• At project section 10, site 4: a temporary barrier fence will be erected to protect the drainage channel that is not directly impacted by the project (item 43). The fence will remain in place until the conclusion of the use of the ancillary site at which time it will be removed.

### Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of this ancillary facility has been altered due to a design refinement and to minimise impact on historical heritage and biodiversity constraints. The change in the extent of the site is shown in Figure 51.

Figure 51 Constraints map for ancillary facility section 10 site 4.



#### Section 10 site 5 (77)

#### Description

This ancillary facility is located to the west of the project between stations 156.0 to 156.5 west of the interchange at Coolgardie. It is located on the property Lot 61 DP 1088684.

The site is devoid of vegetation, however, is bordered by the critically endangered Lowland Rainforest of Subtropical Australia listed on the EPBC Act and known habitat of the Pink Underwing Moth.

Land use around the site consists of rural and rural residential activities. Nearby residences are located to the west associated with Meridian Heights and east in Pimlico.

Access to the site is via Coolgardie Road. Access to the ancillary facility would be via Coolgardie Road.

Figure 52 shows the ancillary facility extent and constraints surrounding the facility.

Ancillary facility uses

Satellite compound (construction)

Batch plant (construction)

Plant workshop (construction)

#### Non-conformance with standard conditions locational criteria

F. Be separated from nearest residences by at least 200 metres (or at least 300 metres from a temporary batching plant)

There are three residences located within 300 metres of the ancillary facility. The noise assessment has identified that there would be exceedances at two of these receivers, up to 13 dBA.

General measures would be employed to minimise impacts on residences as detailed in Appendix I of the Working paper- Noise and vibration.

H. Not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the state significant infrastructure

This ancillary facility would directly impact on an artefact scatter (Rudgley Site 1) of low significance. The ancillary facility would impact about 90% of the site and have a moderate impact to its heritage values.

**Mitigation measures** 

Management measure AH14t identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

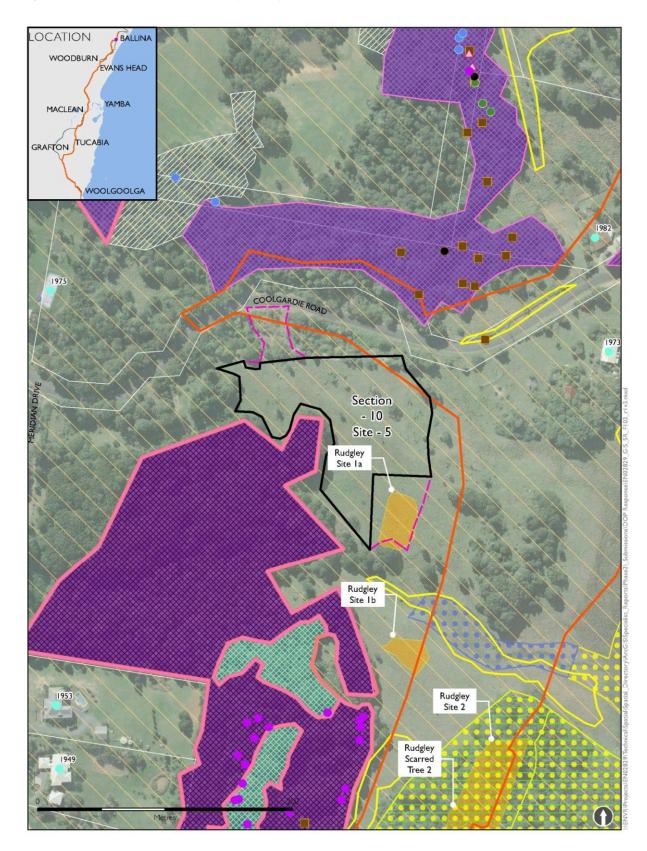
For Rudgley Site 1 (04-4-0167):

- This Aboriginal archaeological site will be avoided, where practical, using an exclusion zone as per management measure AH2.
- If avoidance is not possible, salvage excavation of the portion of the Aboriginal archaeological site to be impacted will be undertaken as detailed in the Ancillary facility and design change CHAR (Appendix D of the Submissions/ Preferred Infrastructure Report) and in consultation with RAPs.
- Any portions of the Aboriginal archaeological site that are not to be impacted will be protected by exclusion zones as per management measure AH2.

#### Extent of ancillary facility

As a result of the assessment undertaken for the Submissions / Preferred Infrastructure Report, the extent of this ancillary facility has been altered to minimise impact on Aboriginal heritage and biodiversity constraints. The change in the extent of the site is shown in Figure 52.

Figure 52 Constraints map for ancillary facility section 10 site 5.



#### Section 11 site 1a (79)

#### Description

This ancillary facility is located south of McAndrews Lane, Pimlico to the west of the project between stations 159.4 to 159.8. The facility is located on Lot 5 DP 22326.

The sites are being used for sugar cane cropping and is devoid of vegetation. Surrounding land use is agriculturesugar cane cropping. However, there is some remnant native vegetation located within the existing road reserve, south and north of the site. Vegetation consists of some threatened ecological communities including Swamp Oak floodplain forest, Subtropical Coastal Floodplain forest on coastal floodplains and Swamp Sclerophyll Forest.

Access to the site is from McAndrews Lane. Access to the ancillary facility will be from the construction corridor.

Figure 53 shows the ancillary facility extent and constraints surrounding the facility.

Ancillary facility uses

Main site compound (early works and construction)

Batch plant (construction)

Plant workshop (construction)

Stockpile site (construction)

Non-conformance with standard conditions locational criteria

H. Not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the state significant infrastructure

Unknown- sugar cane cropping prevented visibility of ground surface during field investigations.

#### **Mitigation measures**

Management measure AH14v provides management measures for this ancillary facility:

• The ground will be inspected for any Aboriginal archaeological material by an archaeologist and registered Aboriginal stakeholders during and following clearing activities. Any archaeological material will be recorded, removed from the Aboriginal archaeological site, and a suitable location for the material determined in consultation with the stakeholders. An AHIMS record will be submitted for any finds and any locations where the material is to be stored – unless reburied on or near Aboriginal archaeological site, establishing a care agreement will also be necessary.

Extent of ancillary facility

There has been no change to the extent of the ancillary facility.

#### Section 11 site 1b (80)

#### Description

This ancillary facility comprises three small areas located north and south of McAndrews Lane/Whytes Lane, Pimlico. The facility is located across four properties between stations 159.55 and 160.0:

- Lot 4 DP 811816.
- Lot 187 DP 755731.
- Lot 141 DP 755731.
- Lot 11 DP 1137966

The sites are being used for sugar cane cropping and is devoid of vegetation. Surrounding land use is agriculturesugar cane cropping. However, there is some remnant native vegetation located within the existing road reserve, south and north of the site. Vegetation consists of some threatened ecological communities including Swamp Oak floodplain forest, Subtropical Coastal Floodplain forest on coastal floodplains and Swamp Sclerophyll Forest.

Access to the site is from McAndrews Lane. Access to the ancillary facility will be from the construction corridor.

#### Section 11 site 1b (80)

Figure 53 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Stockpile site (construction)

Standard conditions locational criteria

All criteria are met

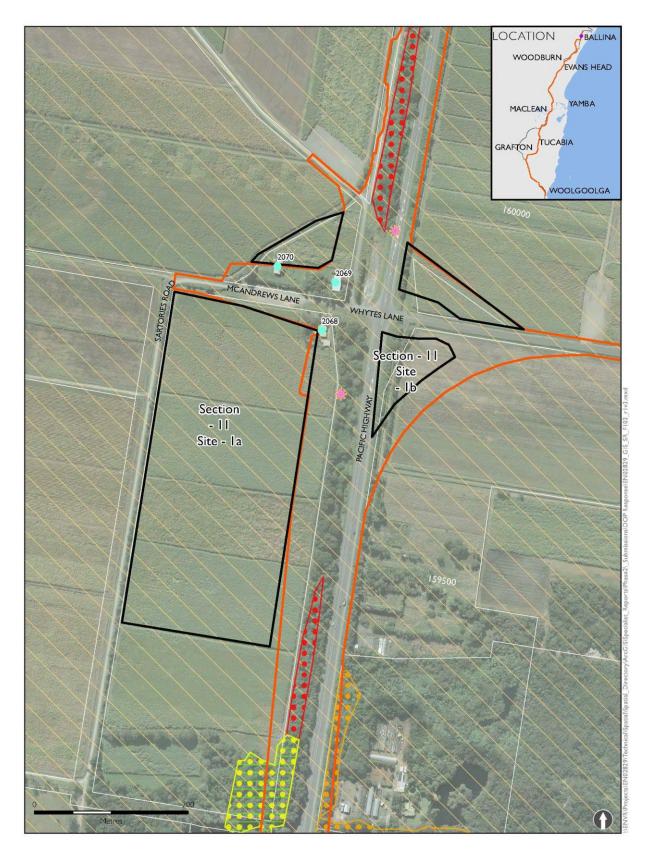
**Mitigation measures** 

No specific mitigation measures are required to mitigate any non-conformances with the locational criteria.

#### Extent of ancillary facility

There has been no change to the extent of the ancillary facility.

Figure 53 Constraints map for ancillary facilities section 11 sites 1a and 1b



#### Section 11 site 2 (81)

#### Description

This ancillary facility is located at the northern extent of the project, located to the west of Pimlico Road between stations 163.6 and 164.2. The facility is located on Lot 3 DP 1131590 and is wholly within the project corridor.

The site is part of the existing highway road reserve and is being used for sugar cane cropping. Surrounding land use is agriculture- sugar cane cropping. However, there is some remnant native vegetation located within the existing road reserve, south and north of the site. Vegetation consists of the threatened ecological communities including Swamp Oak floodplain forest.

Duck Creek is located further east of the ancillary facility, with the site situated in the Lower Richmond River catchment.

Access to the site is via Pimlico Road. Access to the ancillary facility would be from the construction corridor.

Figure 54 shows the ancillary facility extent and constraints surrounding the facility.

#### Ancillary facility uses

Satellite compound (construction)

Batch plant (construction)

Plant workshop (construction)

Material storage (early works and construction)

Stockpile site (early works and construction)

Non-conformance with standard conditions locational criteria

J. Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

The ancillary facility is located in front of a major drainage section of the highway, consisting of several large banks of culverts. Due to the raising of the ancillary facility to be above the 20 year ARI flood level, the location is considered unable to accommodate a construction site without unacceptable impacts to flooding.

#### **Mitigation measures**

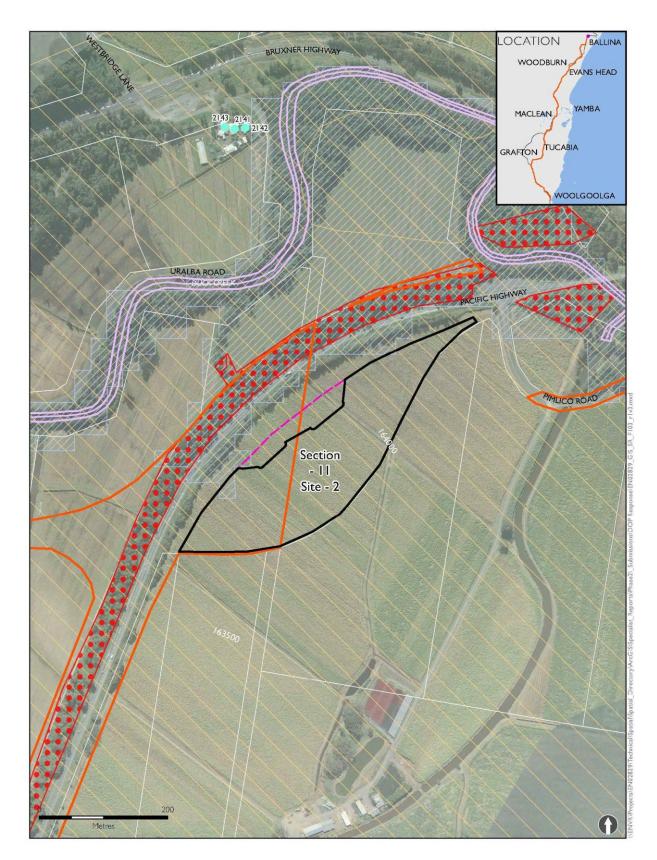
Management measure HF22 identifies mitigation to minimise impacts as a result of the use of the ancillary facility:

• Recommendations made in Table 8-8 of Working paper – Hydrology and flooding to minimise the flood impacts of ancillary facilities will be considered in the final location and layout of ancillary facilities.

#### Extent of ancillary facility

The extent of the ancillary facility has been altered to factor in basins that need to be incorporated into the design and to provide access for water flow through the proposed culverts under the highway. The change in the extent of the site is shown in Figure 54.

Figure 54 Constraints map for ancillary facility section 11 site 2



### Figure legend

	Revised ancillary facility extent	Threater	ned Flora	Noise	
	EIS ancillary extent	÷	Oberonia titania	٠	Receiver location
	The project	÷	Prostanthera palustris		
			Quassia sp. Moonee Creek	Heritage	2
0	Emu Atlas data records (1980-2012)	-	Eleocharis tetraquetra		Non Aboriginal heritage item
+	Giant Barred Frog		Lindsaea incisa		Confirmed Aboriginal heritage site
÷	Green-thighed Frog		Grevillea quadricauda		Aboriginal Heritage area
÷	Olongburra Frog		Melaleuca irbyana	_	ITEM No: 33 - State Heritage Register
÷	Wallum Froglet	٠	Cyperus aquatilis		High Conservation Value Old Growth Fo
÷	Squirrel Glider	٠	Olax angulata		
<b>-</b>	Yellow-bellied Glider	$\triangle$	Acronychia sp.	Water	
•	Wallum Froglet		Phaius australis	•	Rous water bore
•	Cattle Egret	٠	Maundia triglochinoides (individuals)	U	DECCW designated wetland that
*	Koala Atlas sightings		Arthraxon hispisdus		is not nationally recognised
*	Oxleyan Pygmy Perch survey records		Maundia triglochinoides (population)		Nationally important wetland
*	Brush-tailed Phascogale		Prostanthera cineolifera		(Directory of Important Wetlands)
*	Eastern Bentwing-bat		Eucalyptus tetrapleura	Landuse	
*	Little Bentwing-bat		Angophora robur		National Park
*	Long-nosed Potoroo	Threater	ned rainforest plants		Nature Reserve /
*	Rufous Bettong		Acalypha sp. Big Scrub		State Conservation Area
*	Southern Myotis		(A. eremorum in NSW)		
*	Spotted-tailed Quoll		Archidendron hendersonii		
Ŧ	P imperialis southern	•	Archidendron muellerianum		
	subsp. ANIC 3333	-	Belvisia mucronata		
	Nurus atlas	•	Cryptocarya foetida		
			Davidsonia johnsonii		
		•	Endiandra hayesii		
	Habitat tree	•	Endiandra muelleri subsp. bracteata		
	Key fish habitat channels	•	Geijera paniculata		
auna c	connectivity structures		Macadamia tetraphylla		
	Dedicated Arboreal		Ochrosia moorei		
			Streblus pendulinus		
_	K CLUDY ADALOD		Syzygium hodgkinsoniae		
	Key fish habitat (NSW DPI)		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
	Emu connectivity zone	Rainfo			
	Habitat critical to the survival of koalas (EPBC Act)		Littoral Rainforests and Coastal Vine Thick	ets	
	Oxleyan Pygmy Perch habitat (targeted surveys)		Littoral Rainforest (NSW TSC Act)		
la h 'ta t	Oxleyan Pygmy Perch habitat (NSW DPI)		Lowland Rainforest on Coastal Floodplain		
aoitat	for Giant Barred Frog		Lowland Rainforest of Subtropical Australi	ia (EPBC Act	)
_	Known	Threa	tened ecological communities		
	Moderate		Freshwater Wetlands on Coastal Floodpla	lins	
	Low		Forest Red Gum - Swamp Box of the Clar	rence Valley	lowlands
Atlas Ra	ainforest Ground Beetle habitat			th Coast D'	version
	Known habitat	600	Coastal Cypress Pine Forest in NSW Nor (Endangered, TSC Act)	in Coast Bio	pregion
	Potential habitat		Subtropical Coastal Floodplain Forest on (	Coastal Floo	dplains
Pink Ur	nderwing Moth habitat		Swamp Oak Floodplain Forest on Coastal (Endangered, TSC Act)	Floodplains	
	Known habitat for Phyllodes imperialis		Swamp Sclerophyll Forest on Coastal Floo	odplains	
XXXX	Potential Phyllodes imperialis habitat no host plant			3 	
	Potential Phyllodes imperialis habitat no nost plant		Paperbark swamp forest of the coastal		
	rotertuar rightoocs imperions habitat with host plant		Iowlands of the North Coast (EEC, TSC A	(ct)	
Pink L In	nderwing Moth host plant		C D C C C C C C C C C C C C C C C C C C		
Pink Ur	nderwing Moth host plant Carronia multisepalea		Swamp Box swamp forest of the coastal lowlands of the North Coast (EEC,TSC A Blackbutt, bloodwood dry heathy open fo		

## Appendix B1

Minor ancillary facility checklist template

## Minor ancillary facility checklist

### 1. Criteria for minor ancillary facilities

Chapter 4 of the Ancillary Facilities Management Plan (CAFMP) outlines the procedure for the approval of ancillary facilities.

As outlined in the procedure, this minor ancillary facility checklist is to be used for minor construction related ancillary facilities including minor site sheds, lunch sheds and portable toilets. These facilities will be located in accordance with the criteria listed in Table 1 and submitted to the Pacific Complete Environment Manager for approval prior to installation. Once approved they will be included on the register contained in Appendix A.

Table 1 Criteria for minor ancillary facilities

Table 1 Criteria for mino	r ancillary facilities	
Site Name		
Portion		
Chainage		

Criteria	Compliant (Y) Yes (N) No	Comments
Located within an active construction zone within the approved project boundary.		
Have minimal amenity impacts to surrounding residences, with consideration to matters such as noise and vibration impacts, traffic and access impacts, dust and odour impacts, and visual (including light spill) impacts.		
Have minimal impact in respect to waste management, and no impacts on flora and fauna, soil and water, and heritage beyond those approved for the project.		

Criteria	Compliant (Y) Yes (N) No	Comments
Have environmental and amenity impacts that can be managed through the implementation of environmental measures detailed in the construction environmental management plan for the project.		

A locational map including site layout and environmental constraints is attached in Appendix A.

Site name

### 2. Mitigation measures

If the above criteria is not satisfied, add addition mitigation measures to the below table.

Table 2 Site specific mitigation measures additional to the CEMP

	Measure/Requirement	Responsibility	Timing/ frequency	Reference
INSERT TO	PIC			
	Insert mitigation measure			

### 3. Certification

This minor ancillary facility checklist provides a true and fair review of the proposed activity for Woolgoolga to Ballina Pacific Highway upgrade project.

Signed		
Name		
Position	Pacific Complete Portion Engineer	Date
Signed		
Name		
Position	Pacific Complete Environment Team	Date

## Appendix A

Locational map including site layout and environmental constraints

## Appendix B2

Ancillary facility checklist template

## Ancillary facility checklist

### 1 Introduction

Chapter 4 of the Ancillary Facilities Management Plan (AFMP) outlines the process for the approval of ancillary facilities.

As outlined in the process, this ancillary facility checklist is to be used for ancillary facilities that were identified in the Submission/ Preferred Infrastructure Report (SPIR) – Ancillary descriptions and impact assessment (listed under MCoA A2(d)), and comply with the approved usage, boundary layout and all applicable safeguards.

### 2 Minister's conditions of approval

The MCoAs relevant to this checklist are listed in Table 2-1. A cross reference is also included to indicate where the condition is addressed in this checklist.

MCoA No.	Condition Requirements	Document Reference
D21	The Applicant shall prepare and implement an <b>Ancillary</b> <b>Facilities Management Plan</b> to detail the management of ancillary facilities associated with the SSI. The Plan shall be prepared in consultation with the EPA, OEH, DPI (Fisheries), DoE, and the relevant council, and to the satisfaction of the Environmental Representative, and shall include, but not necessarily be limited to:	
	<ul> <li>(a) a description of the ancillary facility (including a site layout plan), its components and details of the existing environment on and in the vicinity of the site;</li> </ul>	Chapter 3
	<ul> <li>(b) details of the activities to be carried out at the facility, including the hours of operation, staging of operation and predicted date of commissioning;</li> </ul>	
	<ul> <li>(c) a description of the plant, equipment and materials to be used and/or stored on the site, including dangerous and hazardous goods;</li> </ul>	Section 4.2
	(d) details of the light and heavy construction vehicle movements to and from each facility, including site access and route(s) to be used during the establishment and operation of the facility, and an assessment of potential construction traffic impacts on the local road network and access tracks	Chapter 5
	(e) a summary of the potential environmental impacts associated with the construction and operation of the facility;	Chapter 6

Table 2-1 Conditions of approval relevant to the ancillary facility	y memo

MCoA No.	Condition Requirements	Document Reference
	(f) demonstrate compliance with the locational and environmental criteria in condition B73(a)-B73(n)	Chapter 7
	(g) details of the mitigation, monitoring and management procedures specific to the facility that would be implemented to minimise environmental and amenity impacts or, where this is not possible, feasible and reasonable measures to offset these impacts;	Chapter 8
	<ul> <li>(h) a description of how the management and mitigation measures set out in the documents listed in condition A2 will be implemented on the site, and if not, justification for such decisions particularly on those sites assessed as having a high risk of flood impacts;</li> </ul>	Chapter 8
	<ul> <li>(i) an assessment of alternative site layouts where either noise management levels are predicted to be exceeded and acoustic treatment of residences is not proposed, or where such treatment is proposed (consequent to the operational impacts of the SSI) but will not be provided prior to establishment of an ancillary facility;</li> </ul>	Chapter 9
	<ul> <li>(j) a cumulative noise impact statement for the ancillary facility addressing the worst-case cumulative noise impacts resulting from the concurrent operation of the site (including construction traffic movements to and from the site), nearby construction works within the SSI corridor and any other nearby construction activities associated with other road upgrade projects;</li> </ul>	Chapter 10
	<ul> <li>(k) identification of the timing for the completion of activities at the facility and how the site will be decommissioned (including any necessary rehabilitation); and</li> </ul>	Chapter 11
	(I) mechanisms for the monitoring, review and amendment of this plan.	Chapter 12
	The plan shall be approved by the Environmental Representative prior to the establishment of the ancillary facilities described therein. In considering the approval of the plan, the Environmental Representative shall take into account the Applicant's response to public authority and council comments on the plan.	
	The Applicant may prepare a separate plan for the facility or include multiple sites within a single or multiple management plans.	

### 3 Site description

a) A description of the ancillary facility, its components and details of the existing environment on and in the vicinity of the site. Locational map with layout and environmental constraints is to be included in Appendix A.

### Table 3-1 Site description

Item	Description
Facility Number	
Chainage	
Location	
Lot ID	
Size	

### 4 Activities and equipment

### 4.1 Activities

b) Details of the activities to be carried out at the facility, including the hours of operation, staging of operation and predicted date of commissioning.

### 4.2 Plant, equipment and materials

c) A description of the plant, equipment and materials to be used and/or stored on the site, including dangerous and hazardous goods.

### Table 4-1 Plant, equipment and materials to be used/stored on the site

Plant	Equipment	Materials	

### 5 Vehicle movement

d) Details of the light and heavy construction vehicle movements to and from each facility, including site access and route(s) to be used during the establishment and operation of the facility, and an assessment of potential construction traffic impacts on the local road network and access tracks.

### 6 Environmental impacts

e) A summary of the potential environmental impacts associated with the construction and operation of the facility.

### Table 6-1 Potential environmental impacts

Issue	Impact

### 8 Compliance with B73

f) Demonstrate compliance with the locational and environmental criteria in condition B73(a)—B73(n).

### Table 8-1 Compliance with B73

Requirement	Compliant	Comments
	(Y) Yes	
	(N) No	
Located more than 50 metres from		
a waterway (100 metres from a		
State Environmental Planning		
Policy No.14 wetland or known		
Oxleyan Pygmy Perch habitat		
waterway)		
Not impact on connectivity		
structures or vegetation leading to a		
connectivity structure		
Be located within or adjacent to the		
SSI boundary		
Have ready access to the road		
network.		
Be located in areas of low		
ecological significance and require		
no clearing of native vegetation		
Be located more than 50m from		
threatened species and endangered		
ecological communities		
Be located on relatively level land		
Be separated from the nearest		
residences by at least 200 metres		
(or at least 300 metres for a		
temporary batching plant) and		
comply with construction noise		
management levels at sensitive		
receivers.		
Be above the 20 year ARI flood		
level unless a contingency plan to		
manage flooding is prepared and		
implemented.		
Have minor impacts on flood		
storage and not result in obstruction		
of floodplain flow or blockage of		
culverts and drains		
Not unreasonably affect the land		
use of adjacent properties		
Operate in accordance with the		
construction hours set out in		
conditions B15 and		
B16 Drovide oufficient erector the		
Provide sufficient area for the		
storage of material to minimise, to		
the greatest extent practical, the number of deliveries required		
outside standard construction		
hours.		
Be located in areas of low heritage		
conservation significance (including areas identified as being of		
Aboriginal cultural value) and not		
impact on heritage sites beyond		
those already impacted by the SSI.		
inose alleady impacted by the SSI.		

### 9 Mitigation, monitoring and management

- g) Details of the mitigation, monitoring and management procedures specific to the facility that would be implemented to minimise environmental and amenity impacts or, where this is not possible, feasible and reasonable measures to offset these impacts
- h) a description of how the management and mitigation measures set out in the documents listed in condition A2 will be implemented on the site, and if not, justification for such decisions particularly on those sites assessed as having a high risk of flood impacts

#### Table 9-1 Site specific mitigation measures additional to the CEMP

	Measure/Requirement	Responsibility	Timing/ frequency	Reference
INSERT TOPIC				
	Insert mitigation measure			

### **10** Alternative site layout

 An assessment of alternative site layouts where either noise management levels are predicted to be exceeded and acoustic treatment of residences is not proposed, or where such treatment is proposed (consequent to the operational impacts of the SSI) but will not be provided prior to establishment of an ancillary facility

### 11 Cumulative noise impact statement

j) A cumulative noise impact statement for the ancillary facility addressing the worst-case cumulative noise impacts resulting from the concurrent operation of the site (including construction traffic movements to and from the site), nearby construction works within the SSI corridor and any other nearby construction activities associated with other road upgrade projects.

### 12 Completion and decommissioning

 Identification of the timing for the completion of activities at the facility and how the site will be decommissioned (including any necessary rehabilitation).

### 13 Monitoring, review and amendments

I) Mechanisms for the monitoring, review and amendment of this plan.

### **14 Certification**

This ancillary facility checklist provides a true and fair review of the proposed activity for Woolgoolga to Ballina Pacific Highway upgrade project.

Signed		
Name		
Position	Pacific Complete Portion Engineer	Date
Signed		
Name		
Position	Pacific Complete Environment Team	Date

## Appendix A

Locational map including site layout and environmental constraints.

## Appendix B

Noise contour map from cumulative noise assessment

## Appendix B3

Major ancillary facilities assessment template



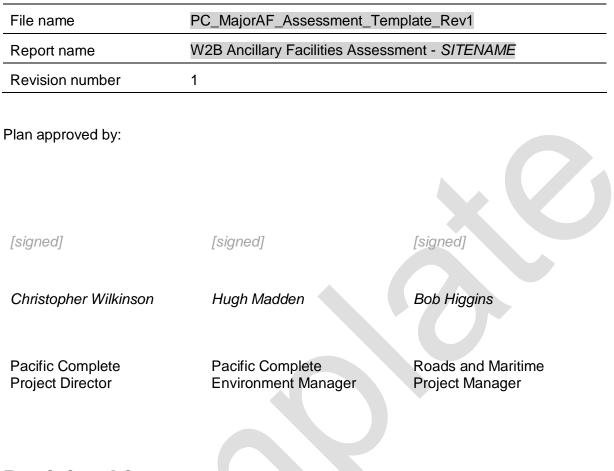


# MAJOR ANCILLARY FACILITIES ASSESSMENT

INSERT SITE NAME

Woolgoolga to Ballina (section 3 to 11) Pacific Highway Upgrade

## **Document control**



## **Revision history**

Revision	Date	Description	Approval
0			
1			
2			

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# **Glossary / Abbreviations**

CAFMP	Construction Ancillary Facilities Management Plan
CEMP Construction Environmental Management Plan	
EIS	Environmental Impact Statement
EP&A Act	Environmental Planning and Assessment Act 1979
EPBC Act Environmental Protection and Biodiversity Conserva 1999	
ER	Environmental Representative
EWMS Environmental Work Method Statements	
MCoA Minister's Conditions of Approval	
OEH	Office of Environment and Heritage
Project, the	The Woolgoolga to Ballina Project (Sections 3 to 11)
PC	Pacific Complete
Secretary	Secretary of the Department of Planning and Environment
SPIR	Submission / Preferred Infrastructure Report
RMS, Roads and Maritime	Roads and Maritime Services

3

# 1 Introduction

# 1.1 Background

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

The Woolgoolga to Ballina Pacific Highway Upgrade (the project) involves upgrading approximately 155 kilometres (km) of highway to four-lane dual-carriageway road between Woolgoolga (north of Coffs Harbour) and Ballina (near the NSW/Queensland border) on the NSW north coast. The project bypasses the towns of Grafton, South Grafton, Ulmarra, Woodburn, Broadwater and Wardell. The project will include road duplication, alignment modification and new road sections. Once complete, the project will create a four-lane divided road, with two lanes in each direction. It would also allow for the road's upgrade in the future to a six-lane divided highway.

The Woolgoolga to Ballina Project was declared critical State significant infrastructure under section 115V of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and was assessed under Part 5.1 of the EP&A Act. Following preparation and exhibition of the environmental impact statement and response to submissions the project was approved by the NSW Government on 24 June 2014.

The project has also been subject to approval under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The Woolgoolga to Ballina Project was declared by the Commonwealth Minister for Sustainability, Environment, Water, Populations and Communities to be a controlled action under this Act on 20 June 2012. Approval was granted on 26 June 2014.

The project will be delivered by the Pacific Complete, appointed as the Delivery Partner (DP). Pacific Complete (PC) comprises Laing O'Rourke Australia Construction Pty Ltd and Parsons Brinckerhoff Australia Pty Limited working in close collaboration with Roads and Maritime Services (Roads and Maritime).

# **1.2** Environmental management systems overview

The Construction Environmental Management Plan (CEMP) describes the overall system for environmental management. That system forms part of the environmental management framework being delivered by Pacific Complete (PC) in partnership with Roads and Maritime. The CEMP includes the Ancillary Facilities Management Plan which outlines the Pacific Complete approach to management and ancillary facilities, and the relevant approval pathways for these sites.

This Ancillary Facilities Assessment (AFA) assesses the proposed *INSERT NAME OF ANCILLARY FACILITY* located within Section *INSERT* of the Approved Project; referred to herein as the Proposal. The purpose of this ancillary facilities assessment is to:

- Describe the Proposal relative to the approved project.
- Assess the environmental risks associated with undertaking the Proposal confirming it is of minimal environmental impact.
- Assess the proposed ancillary facility against the project approval requirements.
- Determine the appropriate approval pathway for the proposed ancillary facility.

# 2 The Proposal

### 2.1 The W2B Project

The Pacific Highway Upgrade: Woolgoolga to Ballina Project (W2B) commences at the northern end of the Sapphire to Woolgoolga upgrade of the Pacific Highway and ends at the Ballina Bypass project in the north. The Approved Project comprises eleven upgrade sections and would involve upgrading about 155 kilometres of highway including:

- Section 1: Woolgoolga to Halfway Creek.
- Section 2: Halfway Creek to Glenugie upgrade.
- Section 3: Glenugie upgrade to Tyndale.
- Section 4: Tyndale to Maclean.
- Section 5: Maclean to Iluka Road, Woombah.
- Section 6: Iluka Road to Devils Pulpit.
- Section 7: Devils Pulpit upgrade to Trustums Hill.
- Section 8: Trustums Hill to Broadwater National Park.
- Section 9: Broadwater National Park to Richmond River.
- Section 10: Richmond River to Coolgardie Road, Wardell.
- Section 11: Coolgardie Road to Ballina bypass.

The upgrade does not include the Glenugie and Devils Pulpit sections of highway but does include the tie-ins to those areas.

The Glenugie upgrade to Tyndale (Section 3) is approximately 35 kilometres long. Section 3 ties into the northern end of the Glenugie upgrade located just south of Eight Mile Lane, within Glenugie State Forest. This section involves constructing a new section of highway east of the existing Pacific Highway.

# 2.2 INSERT NAME OF ANCILLARY FACILITY

#### 2.2.1 Need

#### 2.2.2 Location and setting

MCoA D21 (a) a description of the ancillary facility (including a site layout plan), its components and details of the existing environment on and in the vicinity of the site.

#### 2.2.3 Activities and equipment

MCoA D21 (b) details of the activities to be carried out at the facility, including the hours of operation, staging of operation and predicted date of commissioning.

(c) a description of the plant, equipment and materials to be used and/or stored on the site, including dangerous and hazardous goods.

#### Table 2-1 Plant, equipment and materials to be used/stored on the site

Plant	Equipment	Materials

#### 2.2.4 Vehicle movement

MCoA D21 (d) details of the light and heavy construction vehicle movements to and from each facility, including site access and route(s) to be used during the establishment and operation of the facility, and an assessment of potential construction traffic impacts on the local road network and access tracks.

# 3 Statutory and planning framework

# 3.1 NSW Environmental Planning and Assessment Act (EP&A Act)

The Woolgoolga to Ballina Project was declared critical State significant infrastructure under section 115V of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and was assessed under Part 5.1 of the EP&A Act.

An environmental impact statement (EIS) was prepared to support the project application (Roads and Maritime, December 2012). The application was made under Part 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). Before approving the application, the project EIS was publically displayed for 60 days between December 2012 and February 2013, inclusively. The exhibition generated 145 submissions, which were responded to in a joint Response to Submissions Report and Preferred Infrastructure Report (SPIR) issued in November 2013. The project was approved by the NSW Government on 24 June 2014.

Ancillary facilities are defined in the SSI-4963 approval as:

Temporary facility for construction, including for example an office and amenities compound, construction compound, batch plant (concrete or bitumen), material crushing and screening, materials storage compound, maintenance workshop, testing laboratory or material stockpile area.

Note: Where a stockpile management protocol has been approved by the Secretary for the SSI, material stockpile areas are not considered to be ancillary facilities.

MCoA#	Condition of Approval	Where addressed
MCoA A	2	
A2	The Applicant shall carry out the SSI generally in accordance with the:	AFMP
	(d) Ancillary facilities sites listed in Woolgoolga to Ballina Pacific Highway Upgrade - Ancillary descriptions and impact assessment, prepared by Roads and Maritime Services, dated 13 December 2013	
MCoA B1		
B1	The clearing of native vegetation shall be minimised with the objective of reducing impacts to any threatened species or EECs where feasible and reasonable, consistent with the following:	
	(a) clearing of native vegetation shall be limited to a total area of 931.7 hectares, within the SSI boundary defined in the document referred to in condition A2(c), subject to condition B1(b);	
	(b) clearing of native vegetation for ancillary facilities specified in the document referred to in condition A2(d) and outside the SSI boundary defined in the document referred to in condition A2(c) shall be limited to 4.75 hectares;	

#### Table 3-1 Minister's Conditions of Approval

	(c) clearing of threatened ecological communities shall be limited	
	to the areas specified in Table 6-1 (under the column titled: Revised—direct impact (hectares)) of Appendix J of the document referred to in condition A2(c), subject to condition B1(d);	
	(d) clearing of the Littoral Rainforest in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions shall be limited to a total area of 0.5 hectares; and	
	(a) clearing of Koala (Phascolarctos cinereus) primary and secondary habitat shall be limited to a total area of 375 hectares.	
MCoA B	54A	
	The Applicant may undertake archaeological investigations at sites outside the SSI boundary where the following works associated with the construction of the highway are proposed:	Chapter 5
	(i) ancillary sites that do not meet the criterion set out in condition B73; or	
	(ii) utilities or services, or	
	(iii) access and service roads and driveways; or	
	(iv) or similar works required for the project that are located within 5 metres of the SSI boundary (with the exception of drainage works in flood prone areas where such activities can be investigated within 20 metres of the SSI boundary).	
	These investigations are permitted where this is required to assess the potential Aboriginal and non-Aboriginal archaeological impacts of the ancillary facility or other works on previously unidentified heritage sites, provided:	
	(a) any archaeological investigations undertaken under this condition shall be consistent with the requirements in condition B44 for Aboriginal heritage and condition B50 for non-Aboriginal heritage and with the Construction Heritage Management Plan or a methodology prepared to the satisfaction of the Secretary in consultation with OEH; and	
	(b) the results of any relevant archaeological investigations undertaken under this condition shall be consistent with the reporting requirements of condition B45 for Aboriginal heritage and condition B50 for non-Aboriginal heritage, and for ancillary sites, be described in the assessment of the ancillary facility required under conditions B74 and B75.	
MCoA B	73	
B73	The sites for ancillary facilities that are associated with the construction of the SSI and that have not been identified and assessed in the documents listed in condition A2 shall:	Chapter 5

Pacific Highway Upgrade – Woolgoolga to Ballina (section 3-11) INSERT SITE NAME - Ancillary Facilities Assessment

	B73(a)	Be located more than 50 metres from a waterway (100 metres for a State Environmental Planning Policy No. 14 wetland or known Oxleyan Pygmy Perch habitat waterway).	Chapter 5
B73(b) Not impact on connectivity connectivity structure.		Not impact on connectivity structures or vegetation leading to a connectivity structure.	Chapter 5
	B73(c)	Be located within or adjacent to the SSI boundary.	Chapter 5
	B73(d)	Have ready access to the road network.	Chapter 5
	B73(e)	Be located in areas of low ecological significance and require no clearing of native vegetation.	Chapter 5
	B73(f)	Be located more than 50 m from threatened species and endangered ecological communities and their habitats.	Chapter 5
	B73(g)	Be located on relatively level land.	Chapter 5
	B73(h)	Be separated from the nearest residences by at least 200 metres (or at least 300 m for a temporary batching plant) and comply with construction noise management levels at sensitive receivers.	Chapter 5
	B73(i)	Be above the 20 year ARI flood level unless a contingency plan to manage flooding is prepared and implemented.	Chapter 5
	B73(j)	Have minor impacts on flood storage and not result in obstruction of floodplain flow or blockage of culverts and drains.	Chapter 5
	B73(k)	Not unreasonably affect the land use of adjacent properties.	Chapter 5
	B73(l)	Operate in accordance with the construction hours set out in conditions B15 and B16.	Chapter 5
	B73(m)	Provide sufficient area for the storage of material to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours.	Chapter 5
	B73(n)	Be located in areas of low heritage conservation significance (including areas identified as being of Aboriginal cultural value) and not impact on heritage sites beyond those already impacted by the SSI.	Chapter 5
	MCoA B74		
	B74	Ancillary facilities that have not been previously identified and assessed in the documents listed in condition A2, and do not meet the criteria set out under condition B73, shall be approved by the Environmental Representative prior to its establishment. In obtaining this approval, the Applicant shall consult with the relevant public authority(s) and the relevant council, and demonstrate to the satisfaction of the Environmental Representative, how the potential environmental impacts can	Chapter 5
-			

Pacific Highway Upgrade – Woolgoolga to Ballina (section 3-11) INSERT SITE NAME - Ancillary Facilities Assessment

		be mitigated and managed to acceptable standards. The outcomes of the assessment shall be documented in a report and include, but not necessarily be limited to:		
		<ul> <li>a) details on the site location and access arrangements;</li> <li>b) a description of the activities to be undertaken;</li> <li>c) outcomes of the assessment of the site against the locational criteria set out in condition B73;</li> <li>d) an assessment of the environmental impacts on the site and the surrounding environment, including, but not limited to noise, vibration, air quality, traffic and access during site establishment and operation, flora and fauna, heritage, erosion and sedimentation, water quality and light spill;</li> <li>e) details of the mitigation, monitoring and management procedures specific to the ancillary facility that would be implemented to minimise environmental impacts; and</li> <li>f) demonstrated overall consistency with the approved SSI (including impacts identified in the documents listed in condition A2).</li> </ul>		
	МСоА В	J		
	B75	Notwithstanding condition B74, ancillary facilities that that have not been previously identified and assessed in the documents listed in condition A2 and result in additional impacts to biodiversity, heritage, flooding and noise beyond those approved for the SSI, shall be approved by the Secretary prior to their establishment. In order to obtain this approval, the Applicant shall undertake an assessment of the ancillary facility in accordance with condition B74 and forward a copy of the assessment report to the Secretary, as part of the approval submission, at least one month prior to the establishment of the facility.	Chapter 5	
	MCoA B76			
	B76	The land on which ancillary facilities are located shall be rehabilitated to at least their pre-construction condition or better, unless otherwise agreed by the landowner.	Chapter 7	
	MCoA B			
	B77	<ul> <li>Where changes are made to the boundary or use of an ancillary facility, including facilities identified in the documents listed in condition A2, the Applicant shall assess the facility against the criteria set out in condition B73. If the ancillary facility site:</li> <li>a) does not meet the criteria set out under condition B73 the Applicant shall seek the approval of the Environmental Representative in accordance with condition B74; or</li> <li>b) results in impacts to biodiversity, heritage, flooding and noise beyond those approved for the SSI, the Applicant shall seek the approval of the Secretary in accordance with</li> </ul>	Chapter 5	
-	Da alfi a Hi ahar	condition B75.		

	The relevant approval shall be obtained prior to the establishment of the ancillary facility.	
MCoA D	21	
D21	The Applicant shall prepare and implement an <b>Ancillary</b> <b>Facilities Management Plan</b> to detail the management of ancillary facilities associated with the SSI. The Plan shall be prepared in consultation with the EPA, OEH, DPI (Fisheries), DoE, and the relevant council, and to the satisfaction of the Environmental Representative, and shall include,	AFMP – subject to separate MCoA.
	but not necessarily be limited to:	Chapter 2
	(a) a description of the ancillary facility (including a site layout plan), its components and details of the existing environment on and in the vicinity of the site;	Chapter 2
	(b) details of the activities to be carried out at the facility, including the hours of operation, staging of operation and predicted date of commissioning;	Chapter 2 Chapter 2
	(c) a description of the plant, equipment and materials to be used and/or stored on the site, including dangerous and hazardous goods;	
	(d) details of the light and heavy construction vehicle movements to and from each facility, including site access and route(s) to be used during the establishment and operation of the facility, and an assessment of potential construction traffic impacts on the local road network and access tracks;	Chapter 2 Chapter 4
	(e) a summary of the potential environmental impacts associated with the construction and operation of the facility;	Chapter 5
	(f) demonstrate compliance with the locational and environmental criteria in condition B73(a)—B73(n);	Chapter 6
	(g) details of the mitigation, monitoring and management procedures specific to the facility that would be implemented to minimise environmental and amenity impacts or, where this is not possible, feasible and reasonable measures to offset these impacts;	Chapter 6
	(h) a description of how the management and mitigation measures set out in the documents listed in condition A2 will be implemented on the site, and if not, justification for such decisions particularly on those sites assessed as having a high risk of flood impacts;	
	(i) an assessment of alternative site layouts where either noise management levels are predicted to be exceeded and acoustic treatment of residences is not proposed, or where such treatment is proposed (consequent to the operational impacts of the SSI) but will not be provided prior to establishment of an ancillary facility;	Section 4.4
	(j) a cumulative noise impact statement for the ancillary facility addressing the worst-case cumulative noise impacts resulting	Section 4.4

traffic movements to and fi works within the SSI corria	tion of the site (including construction rom the site), nearby construction lor and any other nearby construction other road upgrade projects;	
	ng for the completion of activities at e will be decommissioned (including on); and	Chapter 7 AFMP
(I) mechanisms for the mol this plan.	nitoring, review and amendment of	
facilities described therein. plan, the Environmental Re	d by the Environmental e establishment of the ancillary In considering the approval of the epresentative shall take into account o public authority and council	
	e a separate plan for the facility or n a single or multiple management	AFMP

Site compounds are required for facilities such as offices, parking, lunchrooms and toilets. Each portion will require at least one main site compound and a number of satellite compounds. These compounds may be co-located with other facilities such as batch plants, plant workshops, stockpile locations and material storage locations. All site compounds would be fenced for security and safety purposes.

Bridge compounds will be required near the construction of major bridge including the Clarence River and Richmond River. Compounds may also be required near interchanges and overpasses.

### 3.2 Environment Protection and Biodiversity Conservation Act 1997 (EPBC Act)

The Approved Project was referred to the Commonwealth Minister for Sustainability, Environment, Water, Population and Communities (now the Department of the Environment) on 20 June 2012, in accordance with the requirements of the EPBC Act. The Minister confirmed the project would be a controlled action requiring assessment and approval.

The Commonwealth Minister determined that the preparation and submission of the Project EIS was an accredited assessment process for the purpose of the Commonwealth approval. A separate environmental assessment for the EPBC approval was therefore not required. However, a separate Commonwealth approval for the project was provided as the Approved Project is a controlled action.

Consultation between the NSW Department of Planning and Environment and the Commonwealth Department of the Environment (DoE) determined environmental assessment requirements for the project; issued on 11 July 2012. The specific matters required to be assessed were addressed in the Project EIS.

The Minister's decision was received on 14 August 2014 subject to a number of conditions being met.

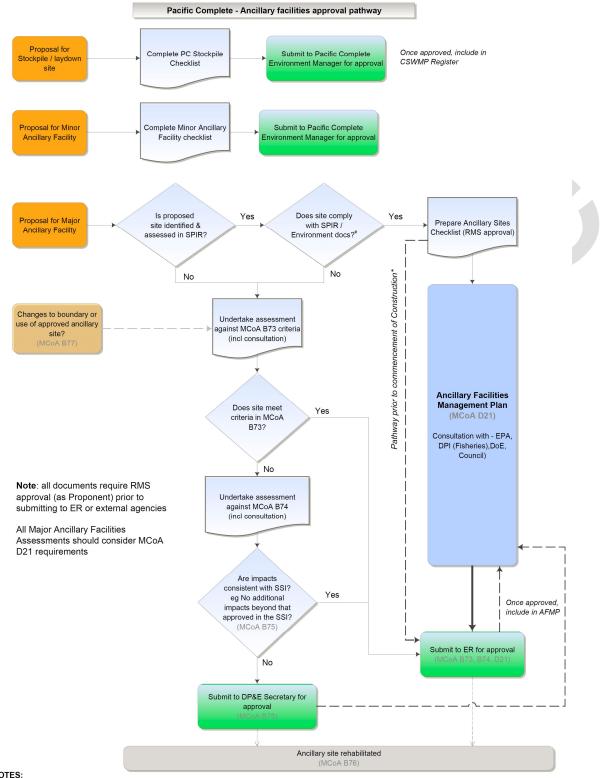
Table 3-2 below addresses those EPBC conditions relevant to the proposed ancillary facility in the context of the Approved Project, and where they are addressed in this report.

Table 3-2 Relevant EPBC approval requirements

#	EPBC Condition of Approval	Where addressed
EPBC (	CoA 2	
2	<ul> <li>In order to minimise impacts to threatened species and communities, and migratory species, the approval holder must:</li> <li>a) Adhere to the clearance limits outlined in the NSW Approval condition B1.</li> <li>b) Undertake pre-clearance surveys in accordance with NSW approval condition B5.</li> <li>c) Undertake all soil and water management measures in accordance with NSW approval condition B34.</li> <li>d) Design and construct any additional ancillary facilities in accordance with the requirements of NSW approval condition B73 to ensure that no impacts occur to threatened species and communities, and migratory species or their habitat.</li> </ul>	
EPBC (	CoA 14	
14	In order to minimise impacts to threatened species and communities, and migratory species, the approval holder must develop and implement all Frameworks, Strategies, Plans or Programs, in accordance with the following NSW approval conditions: (h) The Ancillary Facilities Management Plan required by NSW	
	approval condition D21.	

# 3.3 Ancillary facility assessment approval pathway

The approval pathway for ancillary sites for the Project under the SSI-4963 project approval and EPBC Ministers Decision is outlined in the Ancillary Facilities Management Plan (AFMP) prepared to satisfy MCoA D21 and summarised in Figure 3-1 below.



#### NOTES:

#### Rehabilitation / Restoration of sites

Notwithstanding requirements of MCoA B76, all sites on RMS owned land to be managed in accordance with RMS Procedure - Management of Wastes on RMS Land (G36 Clause 4.15).

\*Archaeological assessment
- Ancillary Sites that are identified in the SPIR <u>have not been salvaged</u>. Sites will have to be salvaged prior to any use.

- MCoA B78 details process to follow for archaeological investigations at Ancillary Facility Assessments for sites that dont meet MCoA B73

#### Figure 3-1 Approval pathway

Pacific Highway Upgrade - Woolgoolga to Ballina (section 3-11) **INSERT SITE NAME - Ancillary Facilities Assessment** 

# 4 Environmental assessment of the proposed ancillary facility

An assessment of the proposed *INSERT NAME* ancillary facility has been undertaken to compare the environmental impacts of the ancillary facility relative to the environmental impacts of the Approved Project.

MCoA D21 (e) a summary of the potential environmental impacts associated with the construction and operation of the facility;

### 4.1 Hydrology and flooding

INSERT DETAILS

### 4.2 Biodiversity

INSERT DETAILS

### 4.3 Geology and soils

INSERT DETAILS

### 4.4 Noise

MCoA D21 (j) a cumulative noise impact statement for the ancillary facility addressing the worst-case cumulative noise impacts resulting from the concurrent operation of the site (including construction traffic movements to and from the site), nearby construction Hazard and risk.

MCoA D21 (i) an assessment of alternative site layouts where either noise management levels are predicted to be exceeded and acoustic treatment of residences is not proposed, or where such treatment is proposed (consequent to the operational impacts of the SSI) but will not be provided prior to establishment of an ancillary facility;

### 4.5 Traffic, transportation and access

INSERT DETAILS

### 4.6 Land use and property

INSERT DETAILS

### 4.7 Heritage

INSERT DETAILS

### 4.8 Landscape and visual impacts

INSERT DETAILS

### 4.9 Air quality

INSERT DETAILS

### 4.10 Utilities and resources

INSERT DETAILS

# 4.11 Matters of National Environmental Significance

Factor	Impact
Any impact on a World Heritage property?	Nil
Any impact on a National Heritage place?	Nil
Any impact on a wetland of international importance?	Nil
Any impact on a listed threatened species or communities?	Nil
Any impacts on listed migratory species?	Nil
Any impact on a Commonwealth marine area?	Nil
Does the proposal involve a nuclear action (including uranium mining)?	Nil
Additionally, any impact (direct or indirect) on Commonwealth land?	Nil

# 5 Assessment against approval criteria

This section outlines an assessment of the proposed ancillary site against the MCoA criteria details in Section 3 above.

The ancillary facility locational and environmental criteria assessment for the proposed ancillary facility site in relation to CoA B73, B74, B75, and B76 is provided in Table 3-1.

MCoA D21 (f) demonstrate compliance with the locational and environmental criteria in condition B73(a)—B73(n);

#### Table 5-1 Ancillary Sites MCoA compliance.

СоА	Condition	Comment	Compliance
B73			
B73(a)	Be located more than 50 metres from a waterway (100 metres for a <i>State Environmental Planning Policy No. 14</i> wetland or known Oxleyan Pygmy Perch habitat waterway).		Compliant / Non- Compliant (select one)
B73(b)	Not impact on connectivity structures or vegetation leading to a connectivity structure.	INSERT DETAILS	Compliant / Non- Compliant (select one)
B73(c)	Be located within or adjacent to the SSI boundary.	INSERT DETAILS	Compliant / Non- Compliant (select one)
B73(d)	Have ready access to the road network.	INSERT DETAILS	Compliant / Non- Compliant (select one)
B73(e)	Be located in areas of low ecological significance and require no clearing of native vegetation.	INSERT DETAILS	Compliant / Non- Compliant (select one)
B73(f)	Be located more than 50 m from threatened species and endangered ecological communities and their habitats.	INSERT DETAILS	Compliant / Non- Compliant (select one)

СоА	Condition	Comment	Compliance
B73(g)	Be located on relatively level land.	INSERT DETAILS	Compliant / Non- Compliant (select one)
B73(h)	Be separated from the nearest residences by at least 200 metres (or at least 300 m for a temporary batching plant) and comply with construction noise management levels at sensitive receivers.		Compliant / Non- Compliant (select one)
B73(i)	Be above the 20 year ARI flood level unless a contingency plan to manage flooding is prepared and implemented.	INSERT DETAILS	Compliant / Non- Compliant (select one)
B73(j)	Have minor impacts on flood storage and not result in obstruction of floodplain flow or blockage of culverts and drains.	INSERT DETAILS	Compliant / Non- Compliant (select one)
B73(k)	Not unreasonably affect the land use of adjacent properties.	INSERT DETAILS	Compliant / Non- Compliant (select one)
B73(l)	Operate in accordance with the construction hours set out in conditions B15 and B16.	INSERT DETAILS	Compliant / Non- Compliant (select one)
B73(m)	Provide sufficient area for the storage of material to minimise, to the greatest extent	INSERT DETAILS	Compliant / Non- Compliant (select one)

Pacific Highway Upgrade – Woolgoolga to Ballina (section 3-11) INSERT SITE NAME - Ancillary Facilities Assessment

СоА	Condition	Comment	Compliance
	practical, the number of deliveries required outside standard construction hours.		
B73(n)	Be located in areas of low heritage conservation significance (including areas identified as being of Aboriginal cultural value) and not impact on heritage sites beyond those already impacted by the SSI.	INSERT DETAILS	Compliant / Non- Compliant <mark>(select one</mark> )
B75			
B75	Does the ancillary facility proposed result in additional impacts to biodiversity, heritage, flooding, and noise beyond those approved for the SSI?	<ul> <li>Yes – additional impacts identified; or</li> <li>No – no additional impacts identified.</li> </ul>	Compliant / Non- Compliant <mark>(select one</mark> )
EPBC 2	2		
2	<ul> <li>In order to minimise impacts to threatened species and communities, and migratory species, the approval holder must:</li> <li>a) Adhere to the clearance limits outlined in the NSW Approval condition B1.</li> </ul>	INSERT DETAILS	Compliant / Non- Compliant <mark>(select one</mark> )
	b) Undertake pre-clearance surveys in accordance with NSW approval condition B5.	INSERT DETAILS	Compliant / Non- Compliant (select one)

СоА	Condition	Comment	Compliance
	c) Undertake all soil and water management measures in accordance with NSW approval condition B34.	INSERT DETAILS	Compliant / Non- Compliant (select one)
EPBC 1	<ul> <li>d) Design and construct any additional ancillary facilities in accordance with the requirements of NSW approval condition B73 to ensure that no impacts occur to threatened species and communities, and migratory species or their habitat.</li> </ul>	INSERT DETAILS	Compliant / Non- Compliant (select one)
14	In order to minimise impacts to threatened species and communities, and migratory species, the approval holder must develop and implement all Frameworks, Strategies, Plans or Programs, in accordance with the following NSW approval conditions: (h) The Ancillary Facilities Management Plan required by NSW approval condition D21.		Compliant / Non- Compliant (select one)

# 6 Mitigation, monitoring and management

MCoA D21 (g) Details of the mitigation, monitoring and management procedures specific to the facility that would be implemented to minimise environmental and amenity impacts or, where this is not possible, feasible and reasonable measures to offset these impacts

MCoA D21 (h) description of how the management and mitigation measures set out in the documents listed in condition A2 will be implemented on the site, and if not, justification for such decisions particularly on those sites assessed as having a high risk of flood impacts

#### Table 6-1 Site specific mitigation measures additional to the CEMP

	Measure/Requirement	Responsibility	Timing/ frequency	Reference
INSERT TO	PIC		1	
	Insert mitigation measure			

# 7 Completion and decommissioning

(k) identification of the timing for the completion of activities at the facility and how the site will be decommissioned (including any necessary rehabilitation); and

# 8 Consultation

Consultation for the Approved Project began in 2004. The consultation is detailed in Chapter 7 of the Project EIS and may be conceptualised as three phases of consultation for the Approved Project; prior to the EIS, during the EIS and future consultation required.

# 8.1 Community

Community consultation was undertaken as part of the EIS process for the Approved Project. Various sectors of the community and stakeholders were consulted during this process. Community concerns were addressed in the SPIR prepared for the Approved Project.

Consultation A Communications and Stakeholder Engagement Strategy has been developed to provide an approach to stakeholder and community communications in accordance with the requirements of MCoA C1. The strategy identifies opportunities for providing information and consulting with the community and stakeholders during the construction phase of the work. The strategy defines:

- The engagement groups
- The key messages of the work
- The range of tools that will be used to interact with community and stakeholders
- The complaints management system
- Protocols, roles and responsibilities.

Communication tools defined in the strategy include:

- Community brochure
- Community update
- Letters
- Project website (www.rms.nsw.gov.au/projects/northern-nsw/woolgoolga-to-ballina /)
- Press advertising
- Media release
- Traffic alert
- Static information display
- SMS alerts
- Staffed information display
- Face-to-face meetings
- Woolgoolga to Ballina project information centre
- Community focus groups
- 1800 number (1800 778 900) and project email (W2B@rms.nsw.gov.au)
- Mapping tools.

#### INSERT SPECIFIC CONSULTATION REQUIREMENTS FOR PROPOSAL

### 8.2 Government agencies

A copy of this Ancillary Facilities has been provided to the following authorities for review and comment:

- Environmental Protection Authority (EPA)
- Department of Primary Industry Fisheries (DPI Fisheries)
- Department of Planning and Environment
- INSERT NAME Council.
- Project Environmental Representative

Comments received from agencies are summarised in Table 8-1 and detailed in Appendix C. Table 8-1 Agency comments

Agency	Comments	Where addressed

# 9 Consistency assessment

Table 9-1 below details presents three questions that assist RMS in determining whether the proposed activity can be considered consistent with the Minister's approval.

Table 9-1 Consistency question	ons
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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?	INSERT DETAILS	Yes / No
Q2) Is the modification such a radical transformation of the project as a whole, as to be, in reality, an entirely new project?	INSERT DETAILS	Yes / No
Note: If answered Yes, a new project application may be required.		
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.	INSERT DETAILS	Yes / No

# **10Conclusion**

This Ancillary Facilities Assessment has considered the proposed ancillary facilities in terms of consistency against the project approval conditions.

Further to the details provided in Section 5 above, the proposed ancillary facilities has been assessed against the following checklist of relevant MCoA requirements.

Q1) Is the proposed ancillary facility identified and assessed in the SPIR and MCoA approval documents A2?
<ul> <li>Yes – Submit to Pacific Complete / RMS for Approval</li> <li>No – Got to Q2</li> </ul>
Q2) Has the proposed site has been assessed against the criteria outlined in MCoA B73
☐ Yes – Go to Q3
No – document to be resubmitted with assessment against MCoA B73
Comments:
Q3) Is the proposed site compliant with all the MCoA B73 criteria?
Yes – Document to be submitted to ER for Approval No – Go to Q4)
Comments: INSERT DETAILS OF ANY NON-COMPLIANCE

Q4) Has the proposed site has been assessed against the criteria outlined in MCoA B74

Yes – Go to C	25.
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No – document to be resubmitted with assessment against MCoA B73

Q5) Are environmental impacts considered consistent with the approved project?

Yes – Document to be submitted to ER for Approval

🛛 No - Go to Q6

Q6) Does the Ancillary Facility result in additional impacts to biodiversity, heritage, flooding and noise beyond those approved for the SSI?

Yes – Document to be submitted to Secretary of DP&E for Approva	al
No – Go to Q5	

# **11 Certification**

# **Certification - Author**

This Ancillary Facilities Assessment provides a true and fair review of the proposed activity for Woolgoolga to Ballina Pacific Highway upgrade project.

Signed		
Name		
Position	Date	

# **Certification – Pacific Complete**

I have reviewed this Ancillary Facilities Assessment and based on this information believe it provides a true and fair review of the proposed activity for Woolgoolga to Ballina Pacific Highway upgrade project.

Signed			
Name		Date	
Position	Pacific Complete Construction		
Signed			
Name		Date	
Position	Pacific Complete Environment Manager		

# **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.

The proposal as described in required to be submitted to:

The project Environmental Representative for Approval

The Secretary of Department of Planning and Environment for approval

Name	
Position	RMS Environmental Manager Pacific Highway
Date	
Name	
Position	RMS Pacific Highway General Manager
Date	

# Appendix A

Environment Constraints Map

# Appendix B

Noise contour map from cumulative noise assessment

# Appendix C

Agency comments