COMPLIANCE TRACKING PROGRAM

Woolgoolga to Ballina

Wells Crossing to Glenugie – Six Monthly Construction and Pre-Operational Compliance Report

MAY 2020 – OCTOBER 2020

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Revision	Date	Description	Approval
0	30/04/2015	Woolgoolga to Ballina Stage 1 Compliance Tracking Program	
1	05/07/2019	Wells Crossing to Glenugie - Pre-Construction Compliance Report	
2	15/06/2020	Wells Crossing to Glenugie – First Six Monthly Construction Compliance Report	
3	9/11/2020	Wells Crossing to Glenugie –Six Monthly Construction Pre-Operational Compliance Report, October	

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Glossary / Abbreviations

ACA	ACCIONA Construction Australia (Lendlease Engineering)
ASS	Acid sulphate soils
CEMP	Construction Environmental Management Plan
Compliance audit	Verification of how implementation is proceeding with respect to a construction environmental management plan (CEMP) (which incorporates the relevant approval conditions).
CoA	Conditions of Approval
DPIE	Department of Planning, Industry and Environment
EA	Environmental Assessment
Ecological sustainable development	Using, conserving and enhancing the community's resources so that the ecological processes on which life depends are maintained and the total quality of life now and in the future, can be increased (Council of Australian Governments, 1992).
EPA	NSW Environment Protection Authority
ERG	Environmental Review Group – comprising representatives of TfNSW, Environmental Representative, Project delivery team, regulatory authorities (EPA, DPI – Fisheries Conservation and Aquaculture, NOW) and council (Clarence Valley Shire Council). The ERG will be maintained for the duration of the Project and will meet regularly and undertake environmental inspections. The role of the ERG is to provide proactive advice on environmental management issues and review the environmental performance of the Project.
EMM	Environmental Management Measures
EMS	Environmental Management System
Environmental aspect	Defined by AS/NZS ISO 14001:2004 as an element of an organisation's activities, products or services that can interact with the environment.
Environmental impact	Defined by AS/NZS ISO 14001:2004 as any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's environmental aspects.
Environmental incident	An unexpected event that has, or has the potential to, cause harm to the environment and requires some action to minimise the impact or restore the environment.
Environmental objective	Defined by AS/NZS ISO 14001:2004 as an overall environmental goal, consistent with the environmental policy, that an organisation sets itself to achieve.
Environmental policy	Statement by an organisation of its intention and principles for environmental performance.
Environmental target	Defined by AS/NZS ISO 14001:2004 as a detailed performance requirement, applicable to the organisation or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives.
Environmental Representative	A suitably qualified and experienced person independent of project design and construction personnel employed for the duration of construction. The principal point of advice in relation to all questions and complaints concerning environmental performance.
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPL	Environment Protection Licence

Minister, the	Minister for Planning
Non-compliance	Failure to comply with the requirements of the Project approval or any applicable license, permit or legal requirements.
Non-conformance	Failure to conform to the requirements of Project system documentation including this CEMP or supporting documentation.
OEH	Office of Environment and Heritage
OTT	Open to traffic
Project, the	Wells Crossing to Glenugie Upgrade
TfNSW	Transport for NSW
Secretary	Secretary of the NSW Department of Planning, Industry and Environment *(or delegate)*

1 Introduction

1.1 Project description

Transport for NSW (TfNSW) is upgrading the Pacific Highway between Woolgoolga and Ballina on the NSW North Coast. This is known as the Woolgoolga to Ballina Pacific Highway Upgrade Project. An overview of the project is shown in Figure 1-1.

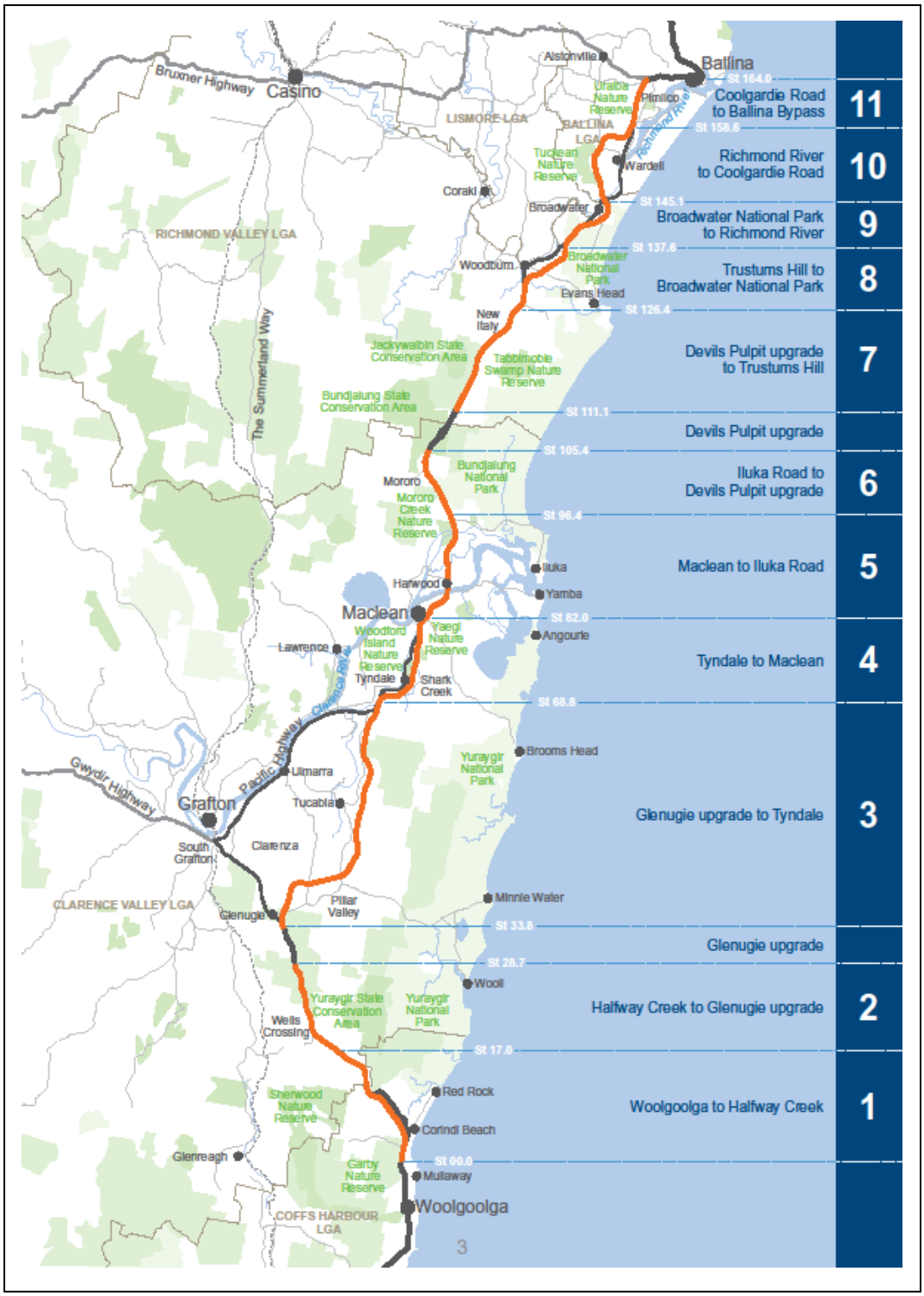

Figure 1-1 Woolgoolga to Ballina Pacific Highway Upgrade

The project upgrades around 155 kilometres of highway and represents the last priority (known as 'Priority 3' in the upgrade program) in achieving a four-lane divided road between Hexham and the NSW/Queensland Border. The project therefore forms a part of the overall upgrade program and when constructed, would complete the four-lane divided road program. It would be jointly funded by the NSW and Australian governments.

The Woolgoolga to Ballina project is Australia's largest regional infrastructure project and will duplicate about 155 kilometres to four-lane divided road. The project starts about six kilometres north of Woolgoolga (north of Coffs Harbour) and ends about six kilometres south of Ballina.

When complete, the project will:

- Reduce overall length from 180 kilometres to about 167 kilometres, saving about 13 kilometres in travel distance
- Allow for a higher posted speed limit of up to 110 km/h
- Reduce travel time from 130 minutes to about 105 minutes, saving 25 minutes
- Reduce crash rates by an expected 27 per cent due to divided carriageways
- Improve travel reliability through better flood immunity, fewer incidents and more readily available alternative routes.

Key features of the upgrade include:

- Duplication of 155 kilometres of the Pacific Highway to a motorway standard (Class M) or arterial road (Class A), with two lanes in each direction and room to add a third lane if required in the future
- Split-level (grade-separated) interchanges at Range Road, Glenugie, Tyndale, Maclean, Yamba / Harwood, Woombah (Iluka Road), Woodburn, Broadwater and Wardell
- Bypasses of South Grafton, Ulmarra, Woodburn, Broadwater and Wardell
- About 40 bridges over rivers, creeks and floodplains, including major bridges crossing the Clarence and Richmond rivers
- Fifty-five underpasses and bridges over and under the highway to maintain access to local roads that cross the highway
- Access roads to maintain connections to existing local roads and properties
- Structures designed to encourage animals over and under the upgraded highway where it crosses key animal habitat or wildlife corridors
- Rest areas located at about 50 kilometre intervals at Arrawarra, Pine Brush (Tyndale), and north of Mororo Road
- A heavy vehicle checking station near Halfway Creek.

The overarching Compliance Tracking Program for Stage 1 W2B, which included Section 2 (Halfway Creek to Glenugie), was approved by the Department of Planning & Environment on the 07/05/15.

The project is also approved under the Commonwealth Environment Protection and Biodiversity Act 1999 (012/6394 approval dated 14/08/14).

ACCIONA Construction Australia (ACA) has been engaged by TfNSW to complete the north bound section of Pacific Highway Upgrade between Wells Crossing and Glenugie (WC2G).

1.2 Staging

A Staging Report has been prepared and approved in accordance with the requirements of the NSW Condition of Approval A7 which states:

The Applicant may elect to construct and/or operate the SSI in stages. Where staging is proposed, the Applicant shall submit a Staging Report to the Secretary prior to the commencement of each proposed stage. The Staging Report shall provide details of:

(a) how the SSI would be staged, including general details of work activities associated with each stage and the general timing of when each stage would commence; and

(b) details of the relevant conditions of approval, which would apply to each stage and how these shall be complied with across and between the stages of the SSI.

Where staging of the SSI is proposed, these conditions of approval are only required to be complied with at the relevant time and to the extent that they are relevant to the specific stage(s).

The Staging Report as required by NSW approval condition A7 must be submitted to the Minister prior to the commencement of each of the proposed stage(s). In accordance with NSW approval condition A7 the Staging Report must outline how the proposal will be staged. The Staging Report must also outline the threatened species and communities, and migratory species impact in each stage.

The Staging Report describes the activities associated with the project stages and how compliance will be address across and between such stages.

TfNSW proposes to construct the W2B project in a number of stages. Given the nature of the project and range of procurement and delivery options involved, TfNSW has updated the staging report progressively as further details are confirmed.

An updated Staging Report (Rev 7) and Pre-Operational Compliance Report for the completed portions of Section 1 and Section 2 of the Woolgoolga to Ballina Upgrade were submitted to the Department of Planning and Environment on the 21/08/17, with an acknowledgement letter provided to TfNSW on the 05/10/17.

The Wells Crossing to Glenugie Project (WC2G) is the final component of Stage1, with the construction of two north bound lanes extending approximately 8 kilometres north from Wells Crossing, to the southern end of the existing Glenugie upgrade (Figure 1-2).

This final component of Stage 1 involves moving all northbound highway traffic from Wells Crossing onto the 8 kilometres of newly completed northbound lanes, with a posted speed limit of 110 kilometres/hour. The existing temporary 80 kilometre / hour northbound speed zone at the southern tie-in will remain in place for approximately 3 weeks after the opening of the new northbound lanes to allow some finishing works to be completed at this location.

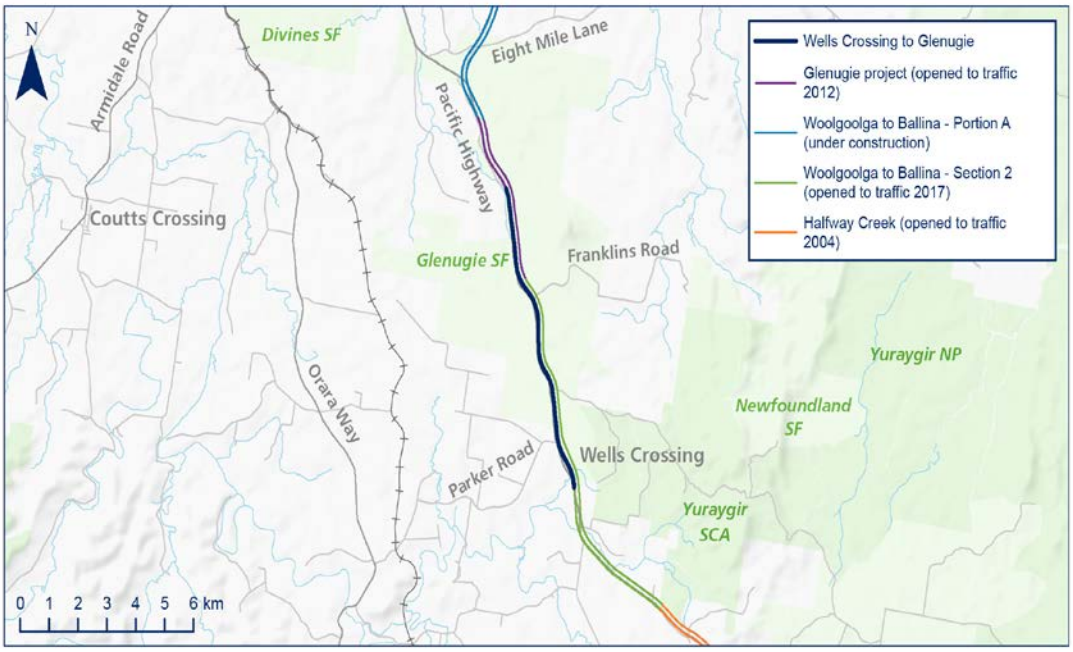

Figure 1-2: Wells Crossing to Glenugie Upgrade Project.

1.3 Purpose

The key objective of this report is to track compliance during the second 6 months of construction and pre-operational compliance of the WC2G Project against the requirements of the Minister's Conditions of Approval (MCoA D27), and in accordance with the W2B Stage 1 compliance tracking program that was approved on the 07/05/15.

2nd 6 monthly compliance report WC2G

This is the second six (6) monthly compliance tracking report (May 20 to Oct 20) for the Wells Crossing to Glenugie upgrade project (Section 2 & associated tie in works to Glenugie upgrade), with extent of the project highlighted above in Figure 1-2.

Pre-operational compliance report WC2G

In accordance with the requirements of MCoA D27(c), this pre-operational compliance report addresses the status of compliance with the Minister Conditions of Approval, including the revised Environmental Mitigation Measures.

This report addresses requirements that are relevant to WC2G Stage 1 of the W2B Project.

Appendix A lists the MCoA requirements and the Environmental Mitigation Measures.
Against each approval requirement or commitment, the report details:

- The status of compliance against the requirement.
- Comments for the requirement where relevant to Stage 1.

Some approval requirements or commitments are either not relevant, or extend beyond Stage 1 WC2G. Where this is the case, a note to that affect is provided.

The WC2G project is expected to be open to traffic in late November 2020, weather permitting.

1.4 Environmental management system overview

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

This six-monthly construction and pre-operational compliance report is separate to the CEMP, but is part of a suite of environmental management documents prepared for the Project.

1.5 Relevant documentation

Documentation relevant to the construction compliance tracking report includes:

- TfNSW, *Woolgoolga to Ballina. Upgrading the Pacific Highway. Environmental Assessment* (December 2012)
- TfNSW, *Woolgoolga to Ballina. Upgrading the Pacific Highway. Submissions and Preferred Infrastructure Report* (November 2013)
- New South Wales *Environmental Planning and Assessment Act 197*9 (SSI-4963), approval dated 24 June 2014
- Commonwealth *Environment Protection and Biodiversity Act 1999* (012/6394), approval dated 14 August 2014
- COMPLIANCE TRACKING PROGRAM Woolgoolga to Ballina – Stage 1 April 2015

1.6 Scope of the activities undertaken during the reporting period (May – Oct 2020)

Throughout the six-month reporting period, a range of works have occurred across the project. A summary of these activities is listed below.

Concrete Paving

- Concrete paving was completed during the reporting period, including the operation of concrete batch plant at 10 Parker Road (Ancillary Facility 2 5a).
- 1500T of recycled crushed glass was incorporated into the concrete pavements.

Drainage

- Work on box and pipe culverts and the Bebo Arch over Glenugie Creek were completed.
- All longitudinal and transverse drainage were complete.

Sediment Basins and Erosion/ Sediment Controls

- 8 licensed sediment basins have been in operation across the project and managed in accordance with the conditions of EPL21330.
- 4 sediment basins were decommissioned during the reporting period.
- EPA is regularly issued the licensed basin register by ACA.
- Progressive erosion and sedimentation control continue throughout the project.
- Operational basins have been constructed in accordance with the detailed design in 3 locations.

Environment Training

- Targeted Erosion and Sediment Control training delivered to the workforce by the Project Soil Conservationist
- Batch Plant Operation
- Paving and management of paving runoff control plans

Progressive rehabilitation

- Rehabilitation of construction works areas has been undertaken in accordance with the approved Urban Design and Landscape Plan progressively throughout the reporting period, with approximately 75% of all project areas stabilised prior to opening to traffic.

Fauna fencing / connectivity

- Fauna fencing is 90% complete.
- Fauna underpasses and fauna furniture are 95% complete.

Road Furniture and Line Marking

- Approximately 60% of the Project road furniture and line marking has been completed.

1.7 Performance of environmental controls

Erosion and Sediment Control

Progressive erosion and sediment control plans are continually implemented and updated by ACA in consultation with the Project Soil Conservationist and TfNSW. The Project Soil Conservationist continues to assist ACA by providing advice on erosion and sedimentation controls, particularly in sensitive areas. Engineers, environment personnel and foreman continue to work collaboratively in developing erosion and sediment control plans to ensure effective onsite implementation. A range of erosion and controls continue to be adopted, including the use of mulch throughout the project.

Notable items with respect to erosion and sediment control during the 6 monthly reporting period include:

- Installation of a high-efficiency basin with automatic flocculent dosing in the northernmost sediment basin.

- Progressive stabilisation of catchment areas and decommissioning of sediment basins.
- Gypsum dosing of sedimentation basin catchments and stormwater pit controls continues to be effective in achieving early flocculation.
- Ongoing use of vegetation mulch in erosion and sediment controls reducing waste production

Sediment Basins

Four (4) licensed basins are currently commissioned on the project.

Fauna

Roost exclusion (Large footed myotis) of the Bebo Arch has been monitored regularly throughout construction.

Fish and fauna passage connectivity structures and majority of fauna fencing have been completed.

Other measures implemented in order to mitigate impacts on fauna this period include:

- Temporary frog fence remained in place and maintained in order to minimise the risk of threatened frogs entering the work area until permanent fencing was completed. No threatened frog mortalities have been identified during construction.

Flora

12 individual *Bursaria cayzerae* were monitored for survival by Project Ecologist.

No unauthorised impacts to vegetation outside the clearing limits occurred.

Air Quality

Operation of crushing plant and equipment remained well managed until completion of crushing.

Stabilised haul roads and entry/exit points are also assisting with dust control as well as street sweepers at these locations. With primary focus during the reporting period being focused on the operation of the concrete batch plant and haulage of concrete to the paver.

Water generated from sedimentation basins and sediment traps has preferentially been reused as another source of dust suppression across the project.

Noise and Vibration

Attended noise monitoring has been completed for out of hours works and monthly noise monitoring, with results being consistent with the approved CNVMP and the Ancillary Facility Management Plan, including the establishment and operation of the concrete batch plant at Ancillary Facility S2 5a.

Waste

The waste hierarchy is continually being adopted onsite, specifically Reduce, Reuse, Recycle.
Where possible, waste reuse is prioritised onsite, particularly for surplus unsuitable soils, concrete, old asphalt pavements, steel and timber as this also has cost benefits. Waste oil and oily materials are transported to the project workshops and removed regularly by a local waste recycling operator. Purchasing materials which have a recycled content also occurs where possible.

Mulch is continually being used onsite site for erosion control and finishing works, which is working well.

Excess spoil generated during the construction of the Project has been utilised to construct a permanent batter widening within the road reserve adjacent to the former Hawthorn Close Ancillary Facility. Material placed as a permanent landscape mound outside the road reserve in this location will be certified ENM, and/or as agreed with TfNSW Property Section.

The Project has utilised recycled crushed glass (RCG) from Lismore City Council in over 12,800m^3 of lean mix concrete pavement placed over an eight-kilometre section. This equates to 1500 tonnes of crushed glass diverted from landfill (approximately 7.6 million bottles) and the equivalent saving of natural sand resources. The Project has also utilised RCG in heavily bound pavement, and within Asphalt pavements.

Additionally, the Geofabrics Australia product Bidim Green has been used in permanent works. Bidim Green is a geofabric material made from Australian recycled plastic polymers, the Project has utilised 18,000m^2 of the product.

1.8 Project status prior to open to traffic

Landscaping

Landscaping works, including site stabilisation and planting has been completed in accordance with the approved UDLP. With 98% of all works completed prior to opening to traffic, the remaining works will be completed in areas of old road formation which require the mainline northbound carriageways to be open prior to works commencing.

Fencing

Fauna exclusion fencing in accordance with the approved Connectivity Strategy will be completed in all areas prior to operation with the exceptions of the following openings:

- Parker Rd 40 m at OTT
- Franklins Rd 80m at OTT
- Northern tie in 130m at OTT

These openings can only be completed after opening of the new northbound lanes to traffic, and the openings will be closed within 1 week of the new northbound carriageways being open to traffic (early December 2020).

Connectivity structures

All fauna connectivity structures will be completed in accordance with the approved W2G Fauna Connectivity Strategy Woolgoolga to Glenugie prior to opening to traffic, including the installation of all required fauna furniture, woody debris and mulched floors (dedicated underpasses only).

Water quality

Water quality and spill containment basins will be completed in accordance with the approved design prior to opening to traffic.

Road Furniture

Road furniture including signage, line marking and wire rope will be 98% complete prior to opening with the remaining items completed following closure of local road intersections (Franklins Road and Parkers Road).

2 Program Requirements

This construction compliance report has been prepared as a requirement of CoA D27, and specifically D27(c). The requirements, as stipulated by D27, are detailed below in Table 2-1.

Table 2-1 CoA requirements for the Compliance Tracking Program

CoA No.	Requirement	Reference
D27	The Applicant shall prepare and implement a **Compliance Tracking Program**, to track compliance with the requirements of this approval, prior to the commencement of construction and operate from the date of its	Approved by the Department of

	approval to a minimum of one year following commencement of operation, or as otherwise agreed by the Secretary. The Program shall be prepared for the approval of the Secretary, and include, but not necessarily be limited to:	Planning & Environment on the 07/05/15.
(a)	provisions for the notification of the Secretary prior to the commencement of construction and prior to the commencement of operation of the SSI (including prior to each stage, where works are being staged);	Section 2.1
(b)	provisions for periodic review of the compliance status of the SSI against the requirements of this approval;	Section 2.2
(c)	provisions for periodic reporting of compliance status to the Secretary, including a Pre-Construction Compliance Report, prior to the commencement of construction, and a Pre-Operation Compliance Report prior to the commencement of operation. These reports may be staged to suit the staged construction/operation of the SSI;	This Report.
(d)	a program for independent environmental auditing in accordance with ISO 19011:2003 - Guidelines for Quality and/or Environmental Management Systems Auditing;	Section 2.4
(e)	mechanisms for recording environmental incidents during construction and actions taken in response to those incidents;	Section 2.5
(f)	provisions for reporting environmental incidents to the Secretary and relevant public authorities during construction;	Section 2.6
(g)	procedures for rectifying any non-compliance identified during environmental auditing, review of compliance or incident management; and	Section 2.7
(h)	provisions for ensuring all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.	Section 2.8

2.1 Secretary notification

CoA D27 (a) requirement:

"provisions for the notification of the Secretary prior to the commencement of construction and prior to the commencement of operation of the SSI (including prior to each stage, where works are being staged)"

Construction commenced on Wells Crossing to Glenugie on 31/10/19. Following approval by the Secretary of the relevant CEMP, associated environmental plans and other relevant documentation required by the approval.

TfNSW advised the Secretary in writing prior to the commencement of construction on 22/10/2019.

2.2 Period compliance review

CoA D27 (b) requirement:

"provisions for periodic review of the compliance status of the SSI against the requirements of this approval"

TfNSW will review the status of compliance and submit periodic compliance reports to the Secretary as follows:

- Prior to the commencement of construction (Completed July 2019)

- Six months after the commencement of construction (completed April 2020) and then at six monthly intervals thereafter (this report)
- Prior to the commencement of operation (this report)

The compliance tracking tables (contained to Appendix A) form an integral part of this periodic review.

These tables establish a format for recording compliance and include:

- Description of the environmental obligation
- Status
- Responsibility
- Comments

This is the pre-operational compliance report and the second six monthly Compliance Tracking Report for the WC2G project for the reporting period of May 2020 to October 2020.

2.3 Period compliance reporting

CoA D27 (c) requirement:

"provisions for periodic reporting of compliance status to the Secretary, including a Pre-Construction Compliance Report, prior to the commencement of construction, and a Pre-Operation Compliance Report prior to the commencement of operation. These reports may be staged to suit the staged construction/operation of the SSI"

Appendix A of this report documents the second six months and pre-operational construction compliance status of the WC2G project.

At intervals prescribed in Section 2.2, the status of compliance will be reviewed and reported to the Secretary in the form of a Compliance Tracking Report. Compliance reports will typically include:

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

2.4 Independent environmental auditing

CoA D27 (d) requirement:

"a program for independent environmental auditing in accordance with ISO 19011:2003 - Guidelines for Quality and/or Environmental Management Systems Auditing"

An independent audit was undertaken by *DCLS International* on the 16/10/20 as part of a broader audit of the ACCIONA Construction Australia ISO 9001 & 14001 system compliance, the audit included an assessment against the approved CEMP and Subplans and Environmental Protection Licence Conditions. The audit identified 2 observations/opportunities for improvement. No non-conformities were identified.

The observations/opportunities were closed out following the audit.

2.5 Incident reporting and response

CoA D27 (e) requirement:

"mechanisms for recording environmental incidents during construction and actions taken in response to those incidents"

TfNSW Environmental Incident Classification and Reporting Procedure is implemented for all environmental incidents for the Project (V19 10/12/19). The full procedure is provided in Appendix A6 of CEMP.

Typically, environmental incidents will be notified verbally immediately and in writing within 1 hour of any incident occurring to the TfNSW Representative and the Environmental Representative. Incident reports will be provided to TfNSW Representatives and the Environmental Representative within 3 days of the incident occurring, including lessons learnt from each environmental incident and proposed measures to prevent the occurrence of a similar incident. All efforts will be undertaken immediately to avoid and reduce impacts of incidents and suitable controls put in place. Incidents will be close out as quickly as possible, taking all required action to resolve each environmental incident.

The following provides a summary of incidents during the reporting period:

Date	Incident ID	Description
1/05/2020	009	Placement of mulch at Hawthorn Close landscape mound.
14/05/2020	010	While sweeping Gate 11 a hydraulic hose on the street sweeper ruptured. Causing hydraulic oil to spill onto the acceleration lane of south bound traffic
22/06/2020	011	Shortly after being refuelled, the cement stabilisation pulveriser machine started operation. The start-up of the machine pressurises the diesel tank, which caused diesel to spill from the machine.
14/09/2020	012	Maintenance of stockpile controls.
13/10/2020	013	A hydraulic hose on a rubber tyre excavator ruptured. Causing hydraulic oil to spill onto the ground surface.
14/10/2020	014	A small amount of concrete material from a rigid twin steer tipper and was deposited at the intersection of Parker Rd and the Pacific Highway, within the Project Boundary.
22/10/2020	015	Hydraulic oil spill
26/10/2020	016	Hydraulic oil spill
26/10/2020	017	Dewatering not in accordance with the SWMP

No incidents that required notification to EPA or the Secretary occurred during the reporting period.

The EPA will be notified of any environmental incidents or pollution incidents on or around the site via the EPA Environment Line (telephone 131 555) in accordance with Part 5.7 of the *Protection of the Environment Operations Act 1997* (NSW) (POEO Act). The circumstances where this will take place include:

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

The Project team will maintain all records relating to environmental incidents. TfNSW Environment Branch will also provide assistance with maintaining records relating to environmental incidents.

2.6 Incident reporting to Secretary

CoA D27 (f) requirement:

"provisions for reporting environmental incidents to the Secretary and relevant public authorities during construction"

TfNSW will notify the Secretary and relevant public authorities of any incident with actual or potential significant off-site impacts on people or the biophysical environment within 24 hours of becoming aware of the incident. The Applicant shall provide full written details of the incident to the Secretary within seven days of the date on which the incident occurred. Significant off-site impacts on people or the biophysical environment is when:

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

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

There have been no incidents that require reporting to the Secretary during the reporting period.

2.7 Addressing non-compliance

CoA D27 (g) requirement:

"procedures for rectifying any non-compliance identified during environmental auditing, review of compliance or incident management"

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

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

Corrective/preventative actions will be entered into the contractor's quality system database and include detail of the issue, action required and timing and responsibilities. The record will be updated with date of close out and any necessary notes. The database will be reviewed regularly to ensure actions are closed out as required.

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

There were no non-compliances with the MCoA during the reporting period.

2.8 Employee inductions

CoA D27 (h) requirement:

"provisions for ensuring all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities"

Section 5.1 of the CEMP describes in detail how all personnel working on the Project are aware of their environmental obligations.

The Environmental Site Representative (or delegate) conducts the environmental component of the site inductions. The environmental component includes, but is not limited to, an overview of:

- Relevant details of the CEMP including purpose and objectives.
- Key environmental issues.
- Conditions of environmental licences permits and approvals.
- Specific environmental management requirements and responsibilities.

- Mitigation measures for the control of environmental issues.
- Incident response and reporting requirements.
- Information relating to the location of environmental constraints.

A record of all environment inductions will be maintained and kept on-site. To date, 691 individuals have been inducted to the Project.

3 Environmental Monitoring

Construction phase monitoring and testing has been undertaken by ACA for surface water quality, noise and dust in accordance with the CEMP during the reporting period. Surface & Groundwater monitoring has been undertaken during the reporting period in accordance with the approved water quality monitoring program. Monitoring results are provided in Appendix B. Further details on monitoring during the reporting period are provided below.

3.1 Water quality

Surface Water

ACA undertake monthly surface water quality monitoring at predetermined locations throughout the project, in accordance with the approved surface and ground water quality monitoring program. Two waterways are monitored at upstream and downstream locations. Water quality results from the reporting period are presented in Appendix B - Table B1. The monitoring results are uploaded onto the ACA environmental monitoring database and where required conveyed to NSW EPA in accordance with the Water Quality Monitoring Program. Water quality parameters include - pH, turbidity, temperature, dissolved oxygen, electrical conductivity and nutrients.

The following information provides a discussion on results presented in Appendix B:

- Overall, there appears to be minor differences between the upstream and downstream water quality with some exceptions.
- Variability in nutrients, pH, EC and Ammonia were observed SW10 and SW11 throughout the monitoring period, however identifiable contributions from the construction site were not observed.
- Rainfall during the period was 394.4mm.
- Controls are constantly monitored and reviewed as part of the rainfall inspection process, taking into account water quality results.

In relation to sediment basins, flocculation is being undertaken to ensure the discharge criteria is met, within or before the five (5) day discharge criteria. Results are provided to EPA in the EPL monthly reports. The use of gypsum at inlets and use of fine gypsum continues to assist in reducing timeframes for release of sediment basins. Early flocculation and release of basins has greatly assisted in reducing water quality impacts. Water quality monitoring results from the reporting period are presented in Appendix B - Table B1.

Ground Water

Monitoring of the Wells Crossing to Glenugie ground water monitoring bores (GWB 28, 29,30 & 31) was undertaken in June 2020 and September 2020. There were no groundwater quality results of interest during the reporting period. Water quality and level results from the reporting period are presented in Appendix B.

3.2 Noise monitoring

Relative to the other sections of the overall W2B Project, W2B2A has a small number of noise and vibration sensitive receivers. Along almost 8 kilometres of the project are 7 receivers identified within the 600 metre zone from the upgraded highway. This includes one commercial/non-residential receiver. Note also that there have been no noise complaints for the duration of construction to date.

The most significant noise monitoring events were focused around the operation of the concrete batch plant out of standard hours where it was confirmed that predicted noise impacts, as approved within the OOH Application were consistent with measured readings. Noise monitoring results from the reporting period are presented in Appendix B - Table B2.

3.3 Air quality

Monthly dust deposition monitoring occurred in accordance with the Construction Air Quality Management Plan at four locations across the project. The results of dust monitoring are compared to the prescribed dust criteria of 4g/m_2/month for the project (Refer Appendix B). In summary, dust results were not exceeded from May 2020 to October 2020. Air quality results from the reporting period are presented in Appendix B - Table B3.

Water carts, dust suppression on crushing units and the use of soil binder to stabilise areas are being implemented to reduce dust emissions across the project with good results. It should also be noted that there have not been any dust complaints for the mainline of the project during completion of high dust generating activities such as clearing, blasting and crushing.

3.4 Blast monitoring

Monitoring of all blasts occurred during the monitoring period in accordance with the Construction Blast Management Plan. Air blast overpressure and vibration monitoring is carried out by the blast contractor at the nearest sensitive receiver. A total of 3 blasts occurred during the period with no exceedances or community complaints. Blast monitoring results from the reporting period are presented in Appendix B - Table B4.

4 Environmental Complaints

During the six months reporting period, there has been no complaints relating to the WC2G Project.

Community consultation activities during the reporting period

ACA has undertaken the following consultation activities during the reporting period:

- Assisted TfNSW and local residents in discussions focused on operational aspects of the Project.
- Ongoing consultation in regard to temporary changes to traffic and property access.
- Notification for operational status is scheduled for distribution 2 weeks prior to opening of the Wells Crossing to Glenugie section of the Pacific Highway.

Feedback about the project from the local community has been generally positive

Appendix A

Compliance Tracking Tables

COMPLIANCE TRACKING - NSW CONDITIONS OF APPROVAL
Woolgoolga to Ballina SSI-4963

PART A - Administrative Conditions

6 Monthly Compliance Reporting April 2020

6 Monthly and Pre Operational Compliance Reporting October 2020

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	Contract Reference	Comment
OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT								
	A1	In addition to meeting the specific performance criteria established under this approval, the Applicant shall implement all feasible and reasonable measures to prevent and/or minimise any harm to the environment that may result from the construction or operation of the SSI.	✓	Pre-construction and Construction	RMS and Contractor	Compliant	G36.1.1, G36.2	This is addressed within the contract documents eg. CEMP/sub plans, design drawings specifications etc.
TERMS OF APPROVAL								
	A2	The Applicant shall carry out the SSI generally in accordance with the: (a) State significant infrastructure application SSI-4963; (b) Pacific Highway Upgrade Woolgoolga to Ballina Environmental Impact Statement Volumes 1A, 1B, 2, 3, 4A, 4B, 5, 6A, 6B, 6C, 7A, 7B and 8, prepared by Roads and Maritime Services, dated December 2012; (c) Pacific Highway Upgrade Woolgoolga to Ballina Submissions/Preferred Infrastructure Report Main Volume and Appendices, prepared by Roads and Maritime Services, dated November 2013; (d) Ancillary facility sites listed in Woolgoolga to Ballina Pacific Highway Upgrade - Ancillary descriptions and impact assessment, prepared by Roads and Maritime Services, dated 13 December 2013; (e) Connectivity structures listed in Woolgoolga to Ballina Alliance Update 20 Feb 2014 Structures Inventory (except Sections 1 and 2) and Woolgoolga to Glenugie Fauna Connectivity Tracking Register 11/02/2014, prepared by Roads and Maritime Services, and email correspondence from Roads and Maritime Services dated 14 March 2013; (f) Pacific Highway Upgrade Woolgoolga to Ballina: Utilities impact native vegetation (D00395_0102_Utilities Clearing Vegetation_v9), prepared by Roads and Maritime Services, dated 21 May 2014, and (g)Modification request and letter dated 17 November 2014 to modify the definition of construction under subclause f in relation to section 4 utility adjustments and replacement of all references to OEH with EPA; (h)Modification request and letter dated 24 September 2015 to modify the approval to capture additional works outside the project boundary that may impact on heritage items to require archaeological investigations (I)Modification request dated 1 December 2017 and accompanying environmental assessment, to modify the approval to realign the road between the Pacific Highway and Eight Mile Lane, Glenugie; and (j)conditions of this approval.	✓	Pre-construction, Construction and Operation	RMS and Contractor	Compliant	Specifications and drawings generally	Noted Works have been completed in accordance with the approval(s) and supporting documents. No non-compliances reported during the reporting period. Works have been completed in accordance with the approval(s), no non-compliances occurred during the reporting period.
	A3	If there is any inconsistency between the above documents, the more recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.	✓	Pre-construction, Construction and Operation	RMS and Contractor	Compliant		Noted
	A4	The Applicant shall comply with any reasonable requirement(s) of the Secretary arising from the Department of Planning and Environment's assessment of: (a) any strategies, plans, programs, reviews, audits. reports or correspondence that are submitted in accordance with this approval; and (b) the implementation of any actions or measures contained in these documents.	✓	Pre-construction and Construction	RMS and Contractor	Compliant		Noted
LIMITS OF APPROVAL								
	A5	This approval shall lapse 10 years after the date on which it is granted, unless the works the subject of this SSI approval are physically commenced on or before that date.	✓	Pre-construction	RMS	Compliant		The project has physically commenced. The Wells Crossing to Glenugie Section2 A Project commenced on 31st October 2019
STATUTORY REQUIREMENTS								
	A6	The Applicant shall ensure that all licences, permits and approvals are obtained as required by law and maintained as required throughout the life of the SSI. No condition of this approval removes the obligation for the Applicant to obtain, renew or comply with such licences, permits or approvals.	✓	Pre-construction, Construction and Operation	RMS and Contractor	Compliant	G36 Clause 3.2.2	Noted Licences are being obtained for the EPL and water use. EPL21330 has been obtained for the construction of the Wells Crossing to Glenugie Project. The license was issued on 24/10/2019. There is no requirement for the Project to access water that would require the issueing of a water access licence. EPL21330 remained in place throughout the reporting period.
STAGING								
	A7	The Applicant may elect to construct and/or operate the SSI in stages. Where staging is proposed, the Applicant shall submit a Staging Report to the Secretary prior to the commencement of each proposed stage. The Staging Report shall provide details of: (a) how the SSI would be staged, including general details of work activities associated with each stage and the general timing of when each stage would commence; and (b) details of the relevant conditions of approval, which would apply to each stage and how these shall be complied with across and between the stages of the SSI. Where staging of the SSI is proposed, these conditions of approval are only required to be complied with at the relevant time and to the extent that they are relevant to the specific stage(s).	✓	Pre-construction	RMS	Compliant		The Stage 1 Staging report was acknowledged by the Secretary on 30/04/20015. An updated Staging Report (Rev 7) and Pre-Operational Compliance Report for Section 1 and Section 2 of the Woolgoolga to Ballina Upgrade was submitted to Dept Planning on the 21/8/17 with aknowledgement letter recieved from Dept Planning on the 5/10/17.
SUBMISSION OF ANY STRATEGY, PLAN OR PROGRAM								
	A8	The Applicant shall ensure that any strategy, plan, program or other document required by the conditions of this approval and relevant to each stage (as identified in the Staging Report) is submitted to the Secretary no later than one month prior to the commencement of the relevant stage(s), unless otherwise agreed by the Secretary. Notes: • While any strategy, plan or program may be submitted on a progressive basis, the Applicant will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times; and • If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program shall clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.	✓	Pre-construction	RMS	Compliant	G36 Clause 3.1 HP	Noted
COMPLIANCE								

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	Contract Reference	Comment
	A9	The Applicant shall ensure that employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.	✓	Pre-construction, Construction and Operation	RMS and Contractor	Compliant	G36 Clause 3.5	Noted Licences are being obtained for the EPL and water use. EPL21330 has been obtained for the construction of the Wells Crossing to Glenugie Project. The license was issued on 24/10/2019. There is no requirement for the Project to access water that would require the issueing of a water access licence. EPL21330 remained in place throughout the reporting period.
	A10	The Applicant shall be responsible for environmental impacts resulting from the actions of all persons that it invites onto the site, including contractors, sub-contractors and visitors.	✓	Pre-construction, Construction and Operation	RMS and Contractor	Compliant	G36 Clause 1.1, 2, 3.5 & 3.10	This is addressed within the contract documents eg. CEMP/sub plans, EWMS, ESCPlans, specifications, contractors training /inductions toolboxes, Daily prestarts, etc. This is addressed within the contract documents eg. CEMP/sub plans, EWMS, ESCPlans, specifications, contractors training /inductions toolboxes, Daily prestarts, etc.
	A11	In the event of a dispute between the Applicant and a public authority, in relation to an applicable requirement in this approval or relevant matter relating to the SSI, either party may refer the matter to the Secretary for resolution. The Secretary's determination of any such dispute shall be final and binding on the parties.	✓	Pre-construction, Construction and Operation	RMS	Compliant		Noted
INCIDENT REPORTING								
	A12	The Applicant shall notify the Secretary and relevant public authorities of any incident with actual or potential significant off-site impacts on people or the biophysical environment within 24 hours of becoming aware of the incident. The Applicant shall provide full written details of the incident to the Secretary within seven days of the date on which the incident occurred. Note: • Where an incident also requires reporting to the EPA and/or OEH, the incident report prepared for the purposes of notifying the EPA and/or OEH would meet this requirement.	✓	Pre-construction, Construction and Operation	RMS and Contractor	Compliant	EPL requirement	This is addressed in RMS Specification G36 Clause 3.10, 4.14 Also addressed in the contractors CEMP and RMS environmental incident classification and reporting procedure. There have been no incidents that require notification to the Sectretary or any relevant public authority during the reporting period. There have been no incidents that require notificationto the Sectretary or any relevant public authority during the reporting period.
	A13	The Applicant shall meet the requirements of the Secretary or relevant public authority (as determined by the Secretary) to address the cause or impact of any incident, as it relates to this approval, reported in accordance with condition A12, within such period as the Secretary may require.	✓	Pre-construction, Construction and Operation	RMS and Contractor	Compliant		Noted.

COMPLIANCE TRACKING - NSW CONDITIONS OF APPROVAL
Woolgoolga to Ballina SSI-4963

PART B - Environmental Performance

6 Monthly Compliance Reporting April 2020

6 Monthly and Pre Operational Compliance Reporting October 2020

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	Contract Reference	Comment
	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; (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 (e) clearing of Koala (Phascolarctos cinereus) primary and secondary habitat shall be limited to a total area of 375 hectares.	✓	Pre-construction and Construction	RMS and Contractor	compliant	G36 Clause 4.8, 4.13, 4.15, G40 Clause 2.4	RMS and the Contractor shall ensure compliance with the approved clearing limits under the Planning Approval. Clearing of native vegetation has been minimised with a detailed design objective being to reduce impacts to any native vegetation, threatened species or EECs where ever feasible and reasonable. Clearing limits are clearly shown on relevant construction drawings and closely tracked throughout the project. Clearing limits may change slightly with more detailed assessment via the Consistency review / approval process. LLE and TfNSW worked collaboratively to minimise the Project clearing impacts through consultation with the Project ecologist vegetation removal around fauna connectivity structures has been minimised. The final Limit of Clearing is displayed on the Project Sensitive Area Plans. There has been no clearing of native vegetation for the construction of Ancillary Facilities. Minor clearing of planted screening trees was completed at the Ancillary Facility Located on Parker Rd, with the approval of the land owner. Clearing for the Project works was completed during the reporting period, with no unauthorised clearing. Any further proposed changes to the Limit of Clearing would be undertaken through the consistency review/approvals process. There has been no additional clearing of native vegetation during the reporting period.
	B2	Where feasible and reasonable, remnant vegetation shall be retained between the SSI boundary and the SSI footprint.	✓	Pre-construction and Construction	RMS and Contractor	compliant	G36 Clause 1.1 & 4.8, G40 Clause 2.4	Ancillary Facilities will be approved and managed in accodance with the Ancillary Facilities Management Plan Clearing of native vegetation has been minimised as far as possible, including the retention of vegetation between the SSI boundary and the SSI footprint. Refer to Sensitive Area Plans for W2B_2A. No additional clearing of native vegetation has been undertaken during the reporting period.
	B3	Native vegetation shall be established in or adjacent to disturbed areas within the SSI boundary to provide habitat for wildlife following the completion of construction in the vicinity of the disturbed area, consistent with the Urban Design and Landscape Plan required under condition D20.	✓	Construction and Operation	RMS and Contractor	compliant		Works shall be undertaken in accordance with the Urban Design and Landscape Plans. These works have not yet commenced during the reporting period. Landscaping works have commenced during the reporting period, with the procurement and establishment of landscaping undertaken in accordance with the approved UDLP. Mainline landscaping and revegetation works shall be completed prior to Operation of the project.
	B4	Light spill from the SSI shall be avoided on Pink Underwing Moth and Atlas Rainforest Ground Beetle habitat, where feasible and reasonable.		Pre-construction	RMS	Not Triggered		N/A
	B5	Prior to construction, pre clearing surveys and inspections for endangered and threatened species shall be undertaken. The surveys and inspections, and any subsequent relocation of species, shall be undertaken under the guidance of a suitably qualified ecologist and shall be in accordance with the methodology incorporated into the approved Construction Flora and Fauna Management Plan. All clearing of Koala habitat trees shall be undertaken in the presence of a Koala spotter.	✓	Construction	Contractor	compliant	G36 Clause 4.8, G40 Clause 2.4	Addressed in the CEMP / FFMP and RMS Specifications G36 and G40. Suitably Qualified Ecologist engaged by the Contractor to be present prior to commencement of all clearing in any area to complete inspections and complete checklist and also during clearing of any habitat trees in accordance with the Construction Flora and Fauna Management Plan. Sandpiper Ecological Surveys were engaged by Lendlease Engineering to fulfill the role of Project Ecologist. All required pre construction surveys were completed and are reported in the document : WC2G pre-construction report_20191016. Pre clearing surveys were completed by Sandpiper Ecological in accordance with the specific threatened species management plans and the CEMP and Subplans. These surveys are reported in the Post Clearing Report (Completed October 2020). No change in compliance status.

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	Contract Reference	Comment
	B6	Incidental or unanticipated threatened flora and fauna finds shall be immediately reported and clearing work stopped in the vicinity of the find to allow for an evaluation of an appropriate response in accordance with the Construction Flora and Fauna Management Plan.	✓	Construction	Contractor	compliant	G36 Clause 4.8, G40 Clause 2.4	Addressed in the CEMP / FFMP and RMS Specifications G36 and G40. There were no incidental or unexpected TS finds during the reporting period. Spotted tail quoll tracks were identified by Sandpiper Ecological Surveys inside the existing culvert at Glenugie Creek (under the northbound Pacific Highway) Prior to Christmas 2019. This was reported to NSW EPA during the February 2020 ERG. Following a routine site inspection on Tuesday 13th September 2020 NSW EPA identified a potential roadkill koala adjacent to the old entry to Bald Knob Tick Gate Road. On 24th September 2020 a koala was spotted by the construction team crossing the northbound lanes of the Pacific Highway. The koala climbed a tree in the retained vegetation between the north bound Pacific Highway and the WC2G Project Works. The Project team engaged the Project Ecologist to establish a pen trap at the base of the tree. However, the koala evaded the trap and escaped. Targetted searches on the night of 24/09/20 and the following day 25/09/2020 did not identify any sign of the koala. NSW EPA was notified at the time the koala was originally identified and consulted with throughout the attempted trapping and subsqequent surveys.
	B7	High risk construction activities in known Oxleyan Pygmy Perch habitat shall not be undertaken during the Oxleyan Pygmy Perch spawning period, or on days when the relevant Bureau of Meteorology site predicts a 90% chance of 10mm of rain or more, unless otherwise agreed by DPI (Fisheries).		Construction	Contractor	Not Triggered		N/A
	B8	Temporary bridge or arch structures in known Oxleyan Pygmy Perch habitat shall be used if the crossing is intended to be in place for more than 3 months, unless otherwise agreed by DPI (Fisheries)		Construction	Contractor	Not Triggered		N/A
	B9	Where temporary crossings in known Oxleyan Pygmy Perch habitat are proposed with culverts or pipes, the Applicant shall, in consultation with DPI (Fisheries): (a) determine the size of the culverts or pipes to facilitate fish passage; and (b) identify the minimum size of clean rock to be used to ensure that rock material will not wash into the waterway in periods of high flows. Temporary culvert or pipe crossings shall be removed prior to the start of the Oxleyan Pygmy Perch spawning period, unless otherwise agreed by DPI (Fisheries)		Construction	Contractor	Not Triggered		N/A
	B10	Subject to conditions B11 and B12, the Applicant shall revise the Connectivity Strategy identified in the documents listed in condition A2(e), based on the outcomes of the Mitigation Framework required by condition D1. Note: • The requirements for the Connectivity Strategy are contained in condition D2.	✓	Pre-construction	RMS	compliant		Connectivity Strategy was approved by DP&E on **11/5/15** and will be implemented to ensure compliance.
	B11	As part of detailed design, the Applicant shall further investigate design refinements for fauna crossings and associated exclusionary measures, between station 41.500 and station 80.000 to improve connectivity for the Coastal Emu, and in the proximity of station 96.000 and between station 137.800 and station 159.700 to improve connectivity for the Koala. Any changes to fauna crossings and exclusionary measures shall be included in the Connectivity Strategy required under condition D2.		Pre-construction	RMS	Not Triggered		N/A
	B12	Investigations into the location and design of connectivity structures, including but not limited to those identified in the documents listed under conditions A2(c) and A2(e), shall be undertaken during detailed design with the input of a suitably qualified and experienced ecologist. The investigations shall be undertaken in consultation with the OEH, DPI (Fisheries) and DoE and include workshops and on-site ground verification. The results of these investigations shall be detailed in the Connectivity Strategy required under condition D2.	✓	Pre-construction	RMS	compliant		Connectivity Strategy approved by DP&E on **11/5/15.** Required structures will be installed as per the Connectivity Strategy, if any issues are identified with structures during construction phase then consultation would be undertaken with the EPA and the ER to determine appropriate course of action.
	B13	The Applicant shall minimise riparian vegetation clearing during construction and undertake a targeted rehabilitation program post construction to restore in-stream and riparian habitat to at least the pre-construction condition or better, unless otherwise agreed by DPI (Fisheries). All areas disturbed by the SSI that are in the vicinity of known Oxleyan Pygmy Perch habitat waterways shall be stabilised prior to the Oxleyan Pygmy Perch spawning period, unless otherwise agreed by DPI (Fisheries)	✓	Construction	Contractor	compliant	G36 Clause 4.8, G40 Clause 2.4	Addressed in the CEMP / FFMP and RMS Specifications G36, R178, R179 and G40 to ensure compliance with MCoA B13. Prior to commencment of clearing and during clearing, TfNSW and LLE reviewed clearing in riparian zones and minimised vegetation clearing to the minimum required to construct the Project and provide compliance with the POEO Act (i.e. temporary sediment basins). No rehabilitation has occurred during the reporting period. Rehabilitation in accordance with the approved UDLP is being been completed during the reporting period.
	B14	The SSI shall be constructed with the aim of achieving the construction noise management levels detailed in the Interim Construction Noise Guideline (DECC, 2009). All feasible and reasonable noise mitigation measures shall be implemented and any activities that could exceed the construction noise management levels shall be identified and managed in accordance with the Construction Noise and Vibration Management Plan. Note: • The Interim Construction Noise Guideline identifies 'particularly annoying' activities that require the addition of 5dB(A) to the predicted level before comparing to the construction Noise Management Level.	✓	Construction	Contractor	compliant	G36 Clause 4.6	Addressed in the CEMP / NVMP and RMS Specification G36 to ensure compliance with MCoA B14. During the reporting period, the Project works have included vegetation clearing, bulk earthworks (including drill and blast) and culvert installation. Mitigation measures from table 9.1 of the approved Noise and VIbration Management Plan were implemented where required. Attended noise monitoring conducted during the period has confirmed actual construction phase noise levels is equal to or lower than the predicted noise levels within the NVMP. During the reporting period, the Project works have included bulk earthworks (including drill and blast), culvert installation, concrete paving, asphalting and finishing works. Mitigation measures from table 9.1 of the approved Noise and VIbration Management Plan were implemented where required. Attended noise monitoring conducted during the period has confirmed actual construction phase noise levels is equal to or lower than the predicted noise levels within the NVMP.
	B15	Construction activities associated with the SSI shall be undertaken during the following standard construction hours: (a) 7:00am to 6:00pm Monday to Friday, inclusive; and (b) 8:00am to 5:00pm Saturday; and (c) at no time on Sunday or public holidays.	✓	Construction	Contractor	compliant	G36 Clause 3.1, 3.6, 4.6, 4.7	Noted and addressed in the CEMP / NVMP and RMS Specification G36 to ensure compliance with MCoA B15. Construction activities have been undertaken during the standard construction hours, except where compliant with condition B16 and B17 during the reporting period. Construction activities have been undertaken during the standard construction hours, except where compliant with condition B16 and B17 during the reporting period.

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	Contract Reference	Comment
	B16	Construction works outside the standard construction hours may be undertaken in the following circumstances: (a) construction works that generate noise that is: (I) no more than 5 dB(A) above rating background level at any residence in accordance with the Interim Construction Noise Guideline (DECC, 2009); and (ii) no more than the noise management levels specified in Table 3 of the Interim Construction Noise Guideline (DECC 2009) at other sensitive receivers; or (b) for the delivery of materials required outside the standard construction hours by the NSW Police Force or other authorities for safety reasons; or (c) where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm; or (d) between 6.00am and 7.00am and 6.00pm and 7.00pm Monday to Friday (except public holidays) in sparsely populated areas (these construction hours may be reviewed and/or revoked by the Secretary in consultation with the EPA in the case of unresolved noise complaints); or (e) low noise impact activities and work between: (i) 6.00am and 7.00am Monday to Friday; and/or (ii) 6.00pm and 7.00pm Monday to Friday; or (f) works approved through an EPL; or (g) works approved by a Construction Environment Management Plan or Construction Noise and Vibration Management Plan for the SSI.	✓	Construction	Contractor	compliant	G36 Clause 3.1, 3.6, 4.6, 4.7	Addressed in the CEMP / NVMP and RMS Specification G36 to ensure compliance with the Condition of Approval. OOH works during the reporting period have been managed in accordance with the approved Noise and Vibration Management Plan and OOH works Procedure. During the reporting period all OOH works were compliant with condition B16 (a) (i) and completed in accordance with the Project Environmental Protection Licence. OOH works during the reporting period have been managed in accordance with the approved Noise and Vibration Management Plan and OOH works Procedure. During the reporting period all OOH works were compliant with condition B16 (a) (i) and completed in accordance with the Project Environmental Protection Licence.
	B17	Construction activities which cannot be undertaken during the standard construction hours for technical or other justifiable reasons (Out of Hours work) may be permitted outside the standard construction hours with the approval of the Environmental Representative. Out of Hours work shall be undertaken in accordance with an approved Construction Environment Management Plan or Construction Noise and Vibration Management Plan for the SSI, where that plan provides a process for the consideration of Out of Hours work. This consideration includes: (a) process for obtaining the Environmental Representative's approval for Out of Hours work; (b) details of the nature and need for activities to be conducted during the varied construction hours; (c) justifies the varied construction hours in accordance with the Interim Construction Noise Guideline (DECC, 2009); (d) provides evidence that consultation with potentially affected receivers and notification of the relevant council has been undertaken, that the issues raised have been addressed and all feasible and reasonable mitigation measures have been put in place; and (e) provides evidence of consultation with the EPA on the proposed variation in standard construction hours.	✓	Construction	Contractor	compliant	G36 Clause 3.1, 3.6, 4.6, 4.7	Addressed in the CEMP / NVMP and RMS Specification G36 to ensure compliance with MCoA B17. No works have required utilisiation of the technical justification during the reporting period. OOH Sawcutting of concrete pavement have been undertaken throughout the reporting period. These works were required due to technical reasons, OOH applications 012, 013 and 017 covered these works and were prepared and approved in accordance with the OOH Procedure detailed within the NVMP. Including approval by the ER.
	B18	Construction activities resulting in impulsive or tonal noise emission (such as rock breaking, rock hammering, pile driving) shall only be undertaken: (a) between the hours of 8:00am to 5:00pm Monday to Friday; (b) between the hours of 8:00am to 1:00pm Saturday; and (c) in continuous blocks not exceeding three hours each with a minimum respite from those activities and works of not less than one hour between each block. For the purposes of this condition 'continuous' includes any period during which there is less than a one hour respite between ceasing and recommencing any of the work the subject of this condition. The works subject to this condition may be undertaken in sparsely populated areas within the standard construction hours.	✓	Construction	Contractor	compliant	G36 Clause 3.1, 3.6, 4.6, 4.7	Addressed in the CEMP / NVMP and RMS Specification G36 to ensure compliance with MCoA B18. Project activities such as rock breaking have been undertaken during the hours specified by condition B18 where located in areas not defined as 'sparsely populated' i.e. Cut 2 and Cut 3. Other cuttings are located in sparesly populated areas and as such are undertaken during standard construction hours. Project activities such as rock breaking have been undertaken during the hours specified by condition B18 where located in areas not defined as 'sparsely populated' i.e. Cut 2 and Cut 3. Other cuttings are located in sparesly populated areas and as such are undertaken during standard construction hours.
	B19	The Applicant shall, where feasible and reasonable, limit high noise impact activities and work to the mid-morning and mid-afternoon periods, except in sparsely populated areas.	✓	Construction	Contractor	compliant	G36 Clause 3.1, 3.6, 4.6, 4.7	Addressed in the CEMP / NVMP and RMS Specification G36 to ensure compliance with MCoA B19. High noise impact activities have not been undertaken during the reporting period. High noise impact activities have not been undertaken during the reporting period.
	B20	The SSI shall be constructed with the aim of achieving the following construction vibration goals: (a) for structural damage to heritage structures, the vibration limits set out in the German Standard DIN 4150-3: Structural Vibration – Part 3 Effects of vibration on structures; (b) for damage to other buildings and/or structures, the vibration limits set out in the British Standard BS 7385-1:1990 – Evaluation and measurement of vibration in buildings—Guide for measurement of vibration and evaluation of their effects on buildings (and referenced in Australian Standard 2187.2 – 2006 Explosives – Storage and use – Use of explosives); and (c) for human exposure, the acceptable vibration values set out in Assessing Vibration: A Technical Guideline (Department of Environment and Conservation, 2006).	✓	Construction	Contractor	compliant	G36 Clause 3.1, 4.7	Addressed in the CEMP / NVMP and RMS Specification G36 to ensure compliance with the Condition of Approval. The Principal Contractor shall develop a Vibration and Air blast Management Sub-Plan to ensure compliance with the Condition of Approval. During the reporting period there have been no recorded exceedances of vibration targets as specified within the NVMP. Blast monitoring undertaken at the nearest sensitive receivers remains compliant with CNVMP and EPL limits (there has been no trigger for any blast). During the reporting period there have been no recorded exceedances of vibration targets as specified within the NVMP. Blast monitoring undertaken at the nearest sensitive receivers remains compliant with CNVMP and EPL limits (there has been no trigger for any blast).
	B21	Blasting associated with the SSI shall only be undertaken during the following hours: (a) 9:00am to 5:00pm, Monday to Friday, inclusive; (b) 9:00am to 1:00pm on Saturday; and (c) at no time on Sunday or public holidays. Blasting outside the above hours and in accordance with the standard construction hours where: (i) no sensitive receivers in sparsely populated areas would be impacted by blasting; or (ii) an agreement has been made with receivers within 200 metres of the blast zone to permit blasting in accordance with the standard construction hours. This condition does not apply in the event of a direction from the NSW Police Force or other relevant authority for safety or emergency reasons to avoid loss of life, property loss and/or to prevent environmental harm.	✓	Construction	Contractor	compliant	G36 Clause 3.1, 4.7	Addressed in the CEMP / NVMP and RMS Specification G36 to ensure compliance with the Condition of Approval. The Principal Contractor shall develop a Vibration and Air blast Management Sub-Plan to ensure compliance with the Condition of Approval. All blasts completed during the reporting period have been completed within the hours specified in condition B21. Details of blasts are provided in monthly reporting to TfNSW and NSW EPA. A blast conducted on 15/4/2020 triggered monitoring equipment at the nearest sensitive reciver, however was compliant with the criteria specifed in Table 1. All blasts completed during the reporting period have been completed within the hours specified in condition B21. Details of blasts are provided in monthly reporting to TfNSW and NSW EPA.

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	Contract Reference	Comment
	B22	The Applicant shall ensure that Air blast overpressure generated by blasting associated with the SSI shall not exceed the criteria specified in Table 1 when measured at the most affected residence or other sensitive receiver. Note • a sensitive site includes houses and low rise residential buildings, theatres, schools and other similar buildings occupied by people.	✓	Construction	Contractor	compliant	G36 Clause 3.1, 4.7, & R44 Clause 4.7	Addressed in the CEMP / NVMP and RMS Specification G36 to ensure compliance with the Condition of Approval. The Principal Contractor shall develop a Vibration and Air blast Management Sub-Plan to ensure compliance with the Condition of Approval. Details of blasts are provided in monthly reporting to TfNSW and NSW EPA. A blast conducted on 15/4/2020 triggered monitoring equipment at the nearest sensitive reciver, however was compliant with the criteria specifed in Table 1. A blast undertaken on 07/05/2020 triggered monitoring equipment at the nearest sensitive receiver , however was compliant with the criteria specified in Table 1.
	B23	The Applicant shall ensure that Ground vibration generated by blasting associated with the SSI shall not exceed the criteria specified in Table 2 and Table 3 when measured at the most affected residence or other sensitive receiver. Note • a sensitive site includes houses and low rise residential buildings, theatres, schools and other similar buildings occupied by people.	✓	Construction	Contractor	compliant	G36 Clause 3.1, 4.7 & R44 Clause 4.7	Addressed in the CEMP / NVMP and RMS Specification G36 to ensure compliance with the Condition of Approval. The Principal Contractor shall develop a Vibration and Air blast Management Sub-Plan to ensure compliance with the Condition of Approval**.** All blast monitoring completed during the reporting period (all blasts) has exceeded criteria while monitoring at the nearest sensitive receiver. Details of blasts are provided in monthly reporting to TfNSW and NSW EPA**.** All blast monitoring completed during the reporting period (all blasts) has not triggered while monitoring at the nearest sensitive receiver. Details of blasts are provided in monthly reporting to TfNSW and NSW EPA.
	B24	The blasting criteria specified in conditions B22 and/or B23 may be increased where the Applicant has obtained the written agreement of the relevant landowner to increase the criteria. In obtaining the agreement the Applicant shall make available to the landowner: (a) details of the proposed blasting program and justification for the proposed increase to blasting criteria including alternatives considered (where relevant); (b) the environmental impacts of the increased blast limits on the surrounding environment and most affected residences or other sensitive receivers including, but not limited to noise, vibration and air quality and any risk to surrounding utilities, services or other structures; and (c) the blast management and mitigation measures, and the procedures to be implemented to monitor blasting impacts. The Applicant shall provide a copy of the written agreement to the Secretary and the EPA, including details of the consultation undertaken (with clear identification of proposed blast limits and potential property impacts) prior to commencing blasting at the increased limits. Unless otherwise agreed by the Secretary, the following exclusions apply to the application of this condition: (a) Any agreements reached may be terminated by the landowner at any time should concerns about the increased blasting limits be unresolved. Should an agreement be terminated by a landowner, the Applicant shall not exceed the criteria specified in conditions B22 and/or B23 for future blasting at that receiver. (b) The blasting limit agreed to under any agreement for an occupied residential building can at no time exceed a maximum Peak Particle Velocity vibration level of 25 mm/s or maximum Air blast Overpressure level of 125 dBL.	✓	Construction	Contractor	compliant	G36 Clause 3.1, 4.7 & R44 Clause 4.7	Addressed in the CEMP / NVMP and RMS Specification G36 to ensure compliance with the Condition of Approval. The Principal Contractor shall develop a Vibration and Air blast Management Sub-Plan to ensure compliance with the Condition of Approval. Blasting crietria specified in conditions B22 and B23 have not been required to be increased during the reporting period. Blasting crietria specified in conditions B22 and B23 have not been required to be increased during the reporting period.
	B25	Wherever feasible and reasonable, piling activities shall be undertaken using quieter construction methods, such as bored piles or vibrated piles rather than impact or percussion piling methods.	✓	Construction	Contractor	Not Triggered	G36 Clause 4.7	There are no piling works required for the WC2G project
	B26	Prior to the use of the dynamic compaction construction method, the Applicant shall undertake an assessment of vibration generated by dynamic compaction on nearby sensitive receivers. Feasible and reasonable mitigation measures shall be implemented to minimise vibration impacts.	✓	Construction	Contractor	compliant	G36 Clause 4.7	Addressed in the CEMP / NVMP and RMS Specification G36 to ensure compliance with the Condition of Approval. The Principal Contractor shall develop a Vibration and Air blast Management Sub-Plan to ensure compliance with the Condition of Approval. There has been no dynamic compaction undertaken during the reporting period. There has been no dynamic compaction undertaken during the reporting period.
	B27	During construction, affected educational institutions shall be consulted and reasonable steps taken to ensure that noise generating construction works in the vicinity of affected buildings are not timetabled during examination periods where practicable, unless other reasonable arrangements to the affected institutions are made at no cost to the affected institution.		Construction	Contractor	Not Triggered	G36 Clause 4.7	Not applicable to the WC2G project
	B28	The SSI shall be designed and operated with the objective of not exceeding the road noise criteria outlined in the NSW Road Noise Policy (DECCW, 2011).	✓	Pre-construction and Construction	RMS	compliant		The Operational Noise Management Report (ONMR) was submitted to DP&E and approved on **2 June 2015**. The Section 1 and 2 Operational Noise Compliance report was submitted to Dept. Planning on the **2 Nov 2018.**
	B29	Where feasible and reasonable, operational noise mitigation measures shall be implemented at the start of construction (or at other times during construction) to minimise construction noise impacts.	✓	Pre-construction and Construction	RMS	compliant		As identified in the Section 1 and 2 Operational Noise Compliance report, it was determined that no receivers require noise treatment north of Wells Crossing.

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	Contract Reference	Comment
	B30	Except as may be expressly provided by an EPL, the Applicant shall comply with section 120 of the Protection of the Environment Operations Act 1997.	✓	Construction	Contractor	compliant	G36 Clause 3.2.2	Addressed in the CEMP /SWMP and RMS Specification G36 to ensure compliance with the Condition of Approval. Construction activities have been completed in accordance with the EPL issued to the Project (EPL21330) by NSW EPA. There have been no occasions, outside the permissions of the EPL, where s120 of the POEO Act have not been complied with during the reporting period. Construction activities have been completed in accordance with the EPL issued to the Project (EPL21330) by NSW EPA. There have been no occasions, outside the permissions of the EPL, where s120 of the POEO Act have not been complied with during the reporting period.
	B31	The hydrological and flooding impacts resulting from the SSI are to be assessed during detailed design against the 'Design Objectives for Flood Management' described in Section 2.1 of the EIS Working Paper – Hydrology and Flooding. This shall include assessment against the 'Flood Management Objectives' and the 'Other Flood Impact Considerations' as well as the other requirements of this section of the EIS. The hydrology assessment shall include the refinement of or development of new flood models (where required) for the 14 catchments investigated during the EIS. These models shall be operated for the same design floods considered in the EIS, as well as the 2000 year ARI and the probable maximum flood (PMF) design events.	✓	Pre-construction	RMS	compliant		Hydrological Mitigation Report for Corindi was submitted for approval to DP&E on **1/05/15**.
	B32	For the Corindi, Shark Creek and Farlows Flat areas, flooding and hydrological impacts resulting from existing highway infrastructure shall be assessed. As part of this assessment, flood models shall assess the impacts of recent highway upgrades in this area. Where the existing highway in these areas has resulted in adverse flooding and/or hydrological impacts, opportunities to reduce the quantum of these impacts shall be considered during the detailed design of the SSI, where feasible and reasonable.		Pre-construction	RMS	Not Triggered		Not applicable to the WC2G Project.
	B33	Where the objectives and considerations referred to in condition B31 cannot be complied with, the Applicant shall: (a) achieve compliance through modified embankment or drainage design. This might include new or duplicated drainage structures designed to minimise afflux and other impacts to waterways that traverse the road alignment, to the greatest extent practicable; or (b) achieve an acceptable level of mitigation of impacts through alternative design measures (e.g. raised access tracks) in consultation with the affected land-owner; or (c) reach agreement with affected landowners on impacts to property.	✓	Pre-construction	RMS and Contractor	Not Triggered		Hydrological Mitigation Report for Corindi was submitted for approval to DP&E on **1/05/15**.
	B34	Soil and water management measures consistent with Managing Urban Stormwater - Soils and Construction Vols 1 and 2, 4th Edition (Landcom, 2004) and Managing Urban Stormwater Soil and Construction Vols 2A and 2D Main Road Construction (Department of Environment and Climate Change, 2008) shall be employed during the construction of the SSI to minimise soil erosion and the discharge of sediment and other pollutants to land and/or water.	✓	Construction	Contractor	compliant	G36 Clause 4.1	Addressed in the CEMP /SWMP and RMS Specification G36 & G38 to ensure compliance with the Condition of Approval. Throughout the reporting period the works were completed in accordance with CPESC approved Progressive Erosion and Sediment Control Plans. In addition, the Project site is inspected fortnightly by the Project Soil Conservationist (Tim Elder - CPESC). Additional controls, rectifications and modifications are identified during these inspections and weekly LLE inspection with the required actions taken within specified timeframes. Throughout the reporting period the works were completed in accordance with CPESC approved Progressive Erosion and Sediment Control Plans. In addition, the Project site is inspected fortnightly by the Project Soil Conservationist (Tim Elder - CPESC). Additional controls, rectifications and modifications are identified during these inspections and weekly LLE inspection with the required actions taken within specified timeframes
	B35	Where available, and of appropriate chemical and biological quality, stormwater, recycled water or other water sources shall be used, where feasible and reasonable, in preference to potable water for construction activities, including concrete mixing and dust control.	✓	Construction	Contractor	compliant	G36 Clause 4.1	Addressed in the CEMP /SWMP and RMS Specification G36 & G38 to ensure compliance with the Condition of Approval. Stormwater re-use has been maximised during the reporting period. Sediment basins required for compliance with condition B34 have been designed with additional water holding capacity, this allows compliance with the EPL conditions (dewater within 5 days of rainfall) and maximised retention of stormwater for re-use in dust suppression and other construction related issues. The Project also has access to a large non-potable watersource located to the southern extent of the Project (Approved via an Environmental File Note). This water is transferred from the private property to a water holding basin on the Project for use in construction. It is also anticipated that this water source will be utilised for concrete batch plant operations. During the reporting period - sediment basin captured water was utilised for dust suppression during the reporting period. Water utilised in concrete production at the concrete batchplant was sourced from the non-potable water source approved for the Project.
	B36	All surface water and groundwater shall be adequately treated as far as is practicable, prior to entering the stormwater system to protect the receiving water source quality.	✓	Construction	Contractor	compliant	G36 Clause 4.1	Addressed in the CEMP /SWMP and RMS Specification G36 & G38 to ensure compliance with the Condition of Approval. Stormwater captured in sediment basins during the reporting period was treated and discharge in compliance with the conditions of the EPL issued to the Project. Groundwater interception did not occur during the reporting period. Stormwater captured in sediment basins during the reporting period was treated and discharge in compliance with the conditions of the EPL issued to the Project. Groundwater interception did not occur during the reporting period.

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	Contract Reference	Comment
	B37	Prior to the commencement of site preparation and excavation activities, or as otherwise agreed by the Secretary, in areas identified as having a moderate to high risk of contamination, a site audit shall be carried out by a suitably accredited contaminated site auditor. A Site Audit Report is to be prepared by the site auditor detailing the outcomes of Phase 2 contamination investigations within these areas. The Site Audit Report shall detail, where relevant, whether the land is suitable (for the intended land use) or can be made suitable through remediation. Where the investigations identify that the site is suitable for the intended operations and that there is no need for a specific remediation strategy, measures to identify, handle and manage potential contaminated soils, materials and groundwater shall be identified in the Site Audit Report and incorporated into the Construction Environmental Management Plan. Where the investigations identify that the site is suitable for the intended operations and that a remediation strategy is required, the Site Audit Report shall include a remediation strategy for addressing the site contamination, and how the environmental and human health risks will be managed during the disturbance, remediation and/or removal of contaminated soil or groundwater, and be incorporated into the Construction Environmental Management Plan. Where remediation is required, a Site Audit Statement(s) shall be prepared verifying that the site has been remediated to a standard consistent with the intended land use. Note • Terms used in this condition have the same meaning as in the Contaminated Land Management Act 1997.		Pre-construction and Construction	RMS and Contractor	compliant	G36 Clause 4.2, 4.11	Contamination investigations did not identify any moderate to high risk areas within the WC2G project. For Section 2, An additional area of potential contamination was investigated at 6 Mile Tick Gate by contamination specialists but no contamination was identified. During the reporting period there have been no further finds of potential or confirmed contamination. There were no finds of potential or confirmed contamination during the reporting period.
	B38	Watercourse crossings shall be designed and constructed in consultation with the DPI (Fisheries), EPA, NOW and DoE, and where feasible and reasonable, be consistent with the Guidelines for Controlled Activities Watercourse Crossings (Department of Water and Energy, February 2008), Why do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (Fairfull and Witheridge, 2003), Policy and Guidelines for Fish Friendly Waterway Crossings (NSW Fisheries, February 2004), and Policy and Guidelines for Fish Habitat Conservation and Management (DPI Fisheries, 2013). Where multiple cell culverts are proposed for crossings of fish habitat streams, at least one cell shall be provided for fish passage, with an invert or bed level that mimics watercourse flows.	✓	Pre-construction and Construction	RMS and Contractor	compliant	G36 Clause 4.13 G38 Clause 3.6	This is relevant to the construction of permanent crossings and where temporary crossings are proposed by the contractor. Significant consultation with agencies has occurred during detailed design for permanent crossings, and will also be undertaken during construction phase by the contractor. There are contact Specifications for the construction and maintenance of temporary waterway crossings. The CEMP and G36 & G38 also has specific requirements for the construction and maintenance of temporary waterway crossings. Temporary waterway crossings, and the construction of permanent waterway crossings such as box culverts have been completed during the reporting period. These works were completed in accordance with TfNSW Specifications, SWMP and Environmental Work Method Statements (EWMS), which were reviewed and endorsed by the Environmental Review Group - including DPI (Fisheries), EPA and the Environmental Representative. No construction of temporary or permanent waterway crossings occurred during the reporting period.
	B39	All crossings of known Giant Barred Frog habitat or waterways with the confirmed presence of the species shall be designed and constructed with bridges. Should the Applicant construct a crossing structure other than a bridge, the Applicant shall demonstrate maintained connectivity for the Giant Barred Frog upstream and downstream of that crossing for a monitoring period of three consecutive years, or such other period agreed by the Secretary in consultation with the OEH. Demonstration of maintained habitat connectivity shall: (a) be based on baseline data that confirms the presence, nature and distribution of Giant Barred Frog population using a survey methodology that has been endorsed by the OEH, and detailed in the Mitigation Framework required in condition D1, and an assessment of the connectivity of the crossing site prior to commencement; or, if adequate baseline data is not provided to the satisfaction of the Secretary, be based on the assumption of occurrence of a population on either side of the crossing site; and (b) be based on evidence that the Giant Barred Frog has remained present upstream and downstream of the crossing site for the monitoring period, with periodic monitoring to occur at least biannually. Should the results of any instance of periodic monitoring record an absence of the Giant Barred Frog, the Applicant shall be required to demonstrate that this change is not as a result of the SSI within one month of the completion of that instance of periodic monitoring, to the satisfaction of the Secretary. Should the Secretary not be satisfied that the change is not a result of the SSI, the SSI will be deemed as the cause of the impact and the Applicant shall offset the loss of the habitat in accordance with this approval.		Pre-construction	RMS	Not Triggered		Not applicable for the WC2G project
	B40	Unless otherwise agreed by DPI (Fisheries), all crossings of Class 1 watercourses in known Oxleyan Pygmy Perch habitat shall be designed and constructed with a bridge or arch structure and, where feasible and reasonable, no supporting structures shall be installed within affected waterways.		Pre-construction	RMS	Not Triggered		Not applicable for the WC2G project
	B41	Where an Oxleyan Pygmy Perch habitat waterway is realigned or its stream profile is changed, or an in-stream structure is installed in the waterway (both permanent and temporary construction structures), the Applicant shall ensure that the final design of that waterway does not result in water velocities exceeding 0.4 metres per second under normal flow conditions. The Applicant shall determine normal flow conditions to the satisfaction of DPI (Fisheries) through baseline monitoring of known Oxleyan Pygmy Perch habitat waterways.		Pre-construction	RMS	Not Triggered		Not applicable for the WC2G project
	B42	The Applicant shall ensure that the SSI does not increase the afflux of waterways with known Oxleyan Pygmy Perch habitat by more than the relevant flood management objective in the documents referred to in condition A2 for flood events up to the 1 in 100 year event.		Pre-construction	RMS	Not Triggered		Not applicable for the WC2G project
	B43	The Applicant shall investigate the removal of the proposed embankment at station 145.2 and its replacement with an extension of the Richmond River bridge. The investigation shall consider issues around hydrology and flooding (including meeting the flooding objectives for bridges), constructability, cost, funding arrangements and visual impacts. The investigation shall include consideration of other relevant environmental impacts (noise, heritage, biodiversity, traffic etc.) and consider any alternative options. A copy of the investigation shall be submitted to the Secretary prior to the commencement of any bridge approach or embankment works in the vicinity.		Pre-construction	RMS	Not Triggered		Not applicable for the WC2G project

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	Contract Reference	Comment
	B44	Prior to the commencement of construction affecting PAD site WWC Dirty Creek 1 and ancillary facilities at Section 4, Site 1; Section 4, Site 3; Section 7, Site 1; Section 10, Site 1a; and Section 11, Site 1a , the Applicant shall: (a) undertake field investigation, and where required, an archaeological investigation of the site(s) using a methodology generally consistent with testing undertaken for the Environmental Impact Statement, and prepared in consultation with the OEH (Aboriginal heritage) and the Registered Aboriginal Parties; and (b) prepare a report on the results of the archaeological investigation, including recommendations (such as further archaeological work) in consultation with the OEH and to the satisfaction of the Secretary, and shall include, but not necessarily be limited to: (i) consideration of measures to avoid or minimise disturbance to Aboriginal objects where objects of moderate to high significance are found to be present; (ii) recommendations for further investigations under condition B45 where impacts cannot be avoided; and (iii) details of management and mitigation measures to ensure there are no additional impacts due to pre-construction and construction activities; and (c) submit the report to the Registered Aboriginal Parties, the OEH (Aboriginal heritage) and the Secretary.		Pre-construction	RMS and Contractor	Not Triggered		Not applicable for the WC2G project
	B45	Prior to the commencement of construction activities affecting Aboriginal sites WWC39, WWC46, Tyndale 2 site, IR2W4, Site 11, E2/2, WWC37, Dubaljeen site (New Italy 1), The Gap Road 1, WX21 Site 8, Site 1, Site 2, Site 3 and Site 4 and sites recommended by condition B44 for further investigation, the Applicant shall: (a) develop a detailed salvage strategy, prepared in consultation with the OEH (Aboriginal heritage) and the Registered Aboriginal Parties. The salvage strategy shall be prepared to the satisfaction of the Secretary; and (b) undertake any further archaeological excavation works recommended by the results of the detailed salvage strategy. Within twelve months of completing the above work, unless otherwise agreed by the Secretary, the Applicant shall prepare a report containing the findings of the excavations, including artefact analysis and Aboriginal Site impacts Recording Forms (ASIR), and the identification of final storage location for all Aboriginal objects recovered (testing and salvage), in consultation with the Registered Aboriginal Parties, the OEH (Aboriginal heritage) and to the satisfaction of the Secretary. The report shall be submitted to the Registered Aboriginal Parties, the OEH (Aboriginal heritage) and the Secretary. Note: • Where archaeological testing has occurred as part of the environmental assessment and the results are included in the documents listed in condition A2, the sites tested shall be included in the final report prepared under condition B45.		Pre-construction	RMS	compliant		Salvage strategy approved by DP&E in late August 2014. All required salvage works for Section 2 have been undertaken prior to construction commencement.
	B46	Identified impacts to Aboriginal heritage, shall be minimised to the greatest extent practicable through both detailed design and construction, particularly with regard to the Aboriginal sites Gittoes Jali and the Melino site, and the Aboriginal culturally significant places identified as Corindi Massacres (section 1), Burials (section 1), Halfway Creek Ceremonial Site, Birrugan and Mindi spiritual sites (sections 1, 2, 5 and 10), Pillar Valley men's and women's sites, Place H, Place I and Place J. Where impacts are unavoidable, works shall be undertaken in accordance with the strategy outlined in the Construction Heritage Management Plan.	✓	Pre-construction and Construction	RMS and Contractor	compliant	G36 Clause 3.1, 4.9	The EA process and Detailed design has been undertaken with the objective to minimise to the greatest extent practicable impacts to Aboriginal heritage. Where impacts are unavoidable in construction, works would be undertaken in accordance with the strategy outlined in the Construction Heritage Management Plan. Aboriginal heritage sites within the Project boundary have remained protected during the reporting period, this includes the erection of environmentally sensitive area fencing and ongoing inspection to ensure measures are effective. There have been no unexpected finds of Aboriginal Heritage Items during the reporting period. Aboriginal heritage sites within the Project boundary have remained protected during the reporting period, this includes the erection of environmentally sensitive area fencing and ongoing inspection to ensure measures are effective. There have been no unexpected finds of Aboriginal Heritage Items during the reporting period
	B47	The Applicant shall not destroy, modify or otherwise physically affect Aboriginal sites WWC5, WWC7, WWC26, WWC92, WWC115, WWC139, Tyndale 1, Scarred/engraved Tree (section 7), C3/2/2, Saw Pit Creek / New Italy, Gittoes Jali 2, Cooks Hill, Broadwater, Law PAD, Law Scarred Tree, MST 3, C21, Melino Scarred Tree 4, MST 2, MST1, Rudgley Scarred Tree or Saezza 1.	✓	Pre-construction and Construction	RMS and Contractor	compliant	G36 Clause 3.1, 4.9	Relevant sites for WC2G have been identified within the contract documents, CEMP, design packages and sensitive area plans. Also captured within training packages and inductions for Principal contractor. WWC139 remained fenced off and excluded during the reporting period. WWC139 remained fenced off and excluded during the reporting period.
	B48	Prior to the commencement of construction affecting the Convent (12-14 Rivers Street), Harwood (item 21), the Applicant shall carry out further historical research and investigate the options for relocation of the convent building, in consultation with the Department of Planning and Environment and the OEH (Heritage Division), to the satisfaction of the Secretary.		Pre-construction	RMS	Not triggered		Not applicable for the WC2G project
	B49	Prior to the commencement of construction in proximity to the following heritage items: 21; 23 (Roder's well and orchard); 26; 28; 29; and 43, the Applicant shall complete all archival recordings, including photographic recording of these heritage items, unless otherwise agreed by the Secretary. The archival recording shall be undertaken by an experienced heritage consultant, in accordance with the Guidelines issued by the Heritage Council of NSW. The areas containing these items shall be clearly identified and/or fenced until the completion of the archival recordings. Within 6 months of completing the archival recording, the Applicant shall submit a report containing the archival and photographic recordings and the historical research, where required, to the Department of Planning and Environment, the Heritage Council of NSW, and the local library and the local Historical Society in the relevant local government area(s).		Pre-construction	RMS	Not Triggered		Not applicable for the WC2G project

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	Contract Reference	Comment
	B50	Prior to construction affecting the following heritage items: 7; 23 (Roder's well and orchard) and 28, the Applicant shall carry out further historical and physical archaeological investigations of these heritage items, in consultation with the Department of Planning and Environment and the OEH (Heritage Division), to the satisfaction of the Secretary. These investigations shall: (a) include archaeological investigations and excavation in accordance with the Heritage Council's Archaeological Assessments Guideline (1996) using a methodology prepared, in consultation with the OEH (Heritage Division), and to the satisfaction of the Secretary. The archaeological investigation shall be undertaken by an archaeological heritage consultant, whose appointment has been endorsed by the Secretary. The nomination for the Excavation Director shall demonstrate ability to comply with the Heritage Council's Criteria for the Assessment of Excavation Directors (July 2011); (b) provide for the detailed analysis of any heritage items discovered during the investigations; (c) include management options for these heritage items (including options for relocation and display); and (d) if the findings of the investigations are significant, provide for the preparation and implementation of a heritage interpretation plan. Within 12 months of completing the above work, unless otherwise agreed by the Secretary, the Applicant shall prepare a report containing the findings of the excavations, including artefact analysis, and the identification of a final repository for finds, prepared in consultation with the OEH (Heritage Division) and to the satisfaction of the Secretary. The report shall be submitted to the Department of Planning and Environment, the Heritage Council of NSW, and the local library and the local Historical Society in the relevant local government area(s). Note: • Where archaeological testing has occurred as part of the environmental impact assessment for the SSI and the results are included in the documents listed in condition A2, the sites tested shall still form part of the methodology and final report prepared for the non-Aboriginal archaeological investigation program.	✓	Pre-construction and Construction	RMS	compliant		For Item 7 (Service Station Complex, Halfway Creek) further investigations have been undertaken for historical and archaeological heritage items to determine if further action is required, prior to construction works in this area. Following is a brief summary of the European heritage site at Halfway Creek outside of the Matilda Service Station: • The area is thought to contain evidence of remains of the original coach way station such as post holes, footings etc. and the early coach road • Salvage excavation was required in an area immediately along the highway frontage of the existing buildings (see attached plan) to record any sub-surface remains present prior to construction commencing at this location • Salvage methodology submitted to agencies for review on 12 June 2015. • Salvage methodology was approved by the Secretary, DP&E on 8 July 2015 • Jacobs completed the archaeological excavation of historical heritage Item 7 – Service Station Complex, Halfway Creek, in accordance with the Minister's Conditions of Approval and the methodology approved by Department of Planning. • Archaeological excavation and recording of the site was undertaken by Dr Iain Stuart and Dr Karen Murphy on 14-15 July 2015. Excavation revealed several possible posthole features, a rectangular pit feature (possibly related to installation of a former tank or petrol bowser), multiple former road surfaces, and a timber feature in the southern corner of the excavation area close to the former restaurant building. The timber feature comprised two timber planks supported by a shorter cross beam. Given the lack of other features or postholes at that depth it appears unlikely this feature is related to the former coach station. It is more likely related to the former tank/petrol bowser as it was situated in line with the rectangular pit feature. No other evidence likely to be related to the coaching station was located or identified. No further archaeological excavation is required, and the site has been backfilled. • The physical investigations are now complete and as such, it is appropriate for construction works to proceed at the site.
	B51	The Applicant shall not destroy, modify or otherwise physically affect the heritage items listed in Table 5-1, Historic (non-Aboriginal) Heritage Assessment Working Paper and Table 3-38, Submissions/Preferred Infrastructure Report (RMS, November 2013).		Pre-construction and Construction	RMS and Contractor	compliant	G36 Clause 3.1, 4.10	Not applicable for the WC2G project
	B52	Identified impacts to heritage sites shall be minimised where feasible and reasonable through both detailed design and construction, particularly with regard to the historic site known as the North Coast Railway Branch Tramway, Glenugie. Where impacts are unavoidable, works shall be undertaken in accordance with the actions to manage heritage construction impacts required by condition D26(d) and under the guidance of an appropriately qualified heritage specialist.	✓	Pre-construction and Construction	RMS and Contractor	compliant	G36 Clause 4.10	Impacts to heritage sites have been minimised wherever possible during the detailed design process. For section WC2G, management and mitigation of these sites will be addressed within the Construction Heritage Management Plan Management and mitigation measures as identified within the CHMP were implemented throughout the reporting period. Management and mitigation measures as identified within the CHMP were implemented throughout the reporting period
	B53	This approval does not allow the Applicant to destroy, modify or otherwise physically affect human remains as part of the State Significant Infrastructure, except in accordance with an Unexpected Human Remains Procedure that has been approved by the Secretary.	✓	Construction	Contractor	compliant	G36 Clause 4.10	Noted. Addressed in the Construction Heritage Management Plan. All works shall be undertaken in accordance with the standard management procedure unexpected Heritage Items March 2015 (CHMP). If human remains are discovered as an unexpected find during the WC2G project then an Unexpected Human Remains Procedure shall be developed in accordance with B53A for the approval of the Secretary. There have been no findings of suspected human remains during the reporting period. There have been no findings of suspected human remains during the reporting period.
	B53A	An Unexpected Human Remains Procedure shall be prepared and implemented to guide the relocation of recovered human remains. The Unexpected Human Remains Procedure shall: a) be prepared in consultation with the RAPs; and b) meet the requirements of the OEH in relation to the National Parks and Wildlife Act 1974 and Guidelines for Management of Human Skeletal Remains (NSW Heritage Office, 1998b), and NSW Health in relation to the NSW Health Policy Directive – Exhumation of human remains (December, 2013).	✓	Pre-construction and Construction	RMS and Contractor	compliant		All works shall be undertaken in accordance with the standard management procedure unexpected Heritage Items March 2015 (CHMP). If human remains are discovered as an unexpeted find during the WC2G project, then an Unexpected Human Remains Procedure shall be developed in accordance with B53A for the approval of the Secretary. There have been no findings of suspected human remains during the reporting period. There have been no findings of suspected human remains during the reporting period.
	B54	The Applicant shall not destroy, modify or otherwise physically affect any heritage items outside the SSI footprint, unless otherwise agreed by the Secretary in accordance with condition B54A.	✓	Construction	Contractor	compliant		Noted, Addressed in the Construction Heritage Management Plan. All measures and controls identified in the CHMP were complied with during the reporting period. All measures and controls identified in the CHMP were complied with during the reporting period

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	Contract Reference	Comment
	B54A	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: 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.	✓	Construction	Contractor	compliant		Noted, Addressed in the Construction Heritage Management Plan. There have been no assessments undertaken that would trigger the requirement of condition B54A during the reporting period. There have been no assessments undertaken that would trigger the requirement of condition B54A during the reporting period.
	B55	The measures to protect heritage sites near or adjacent to the SSI during construction shall be detailed in the Construction Heritage Management Plan.	✓	Construction	Contractor	compliant	G36 Clause 4.10	Addressed in the Construction Heritage Management Plan.
	B56	The SSI shall be designed with the objective of minimising adverse changes to existing access arrangements and services for other transport modes and, where feasible and reasonable, facilitate an improved level of access and service to other transport modes comparable to or better than the existing situation.	✓	Pre-construction	RMS	compliant		This has been achieved and addressed during detailed design.
	B57	Safe pedestrian and cyclist access through or around worksites shall be maintained during construction. In circumstances where pedestrian and cyclist access is restricted due to construction activities, a satisfactory alternate route shall be provided and signposted.	✓	Construction	Contractor	compliant	G36 Clause 3.1 G10 Clause 2.5	Addressed via Traffic Management Plan and traffic control plans via compliance with G10 specification. This has been maintained during the reporting period. This has been maintained during the reporting period.
	B58	Construction vehicles (including staff vehicles) associated with the SSI shall be managed to: (a) minimise parking or queuing on public roads; (b) minimise idling and queuing in local residential streets where practicable; (c) minimise the use of local roads (through residential streets and town centres) to gain access to construction sites and compounds; and (d) adhere to the nominated haulage routes identified in the Construction Traffic Management Plan.	✓	Construction	Contractor	compliant	G36 Clause 3.1 G10 Clause 2.5	Addressed via Traffic Management Plan and traffic control plans via compliance with G10 specification. This will be achieved by providing ample parking on the construction site resulting in no parking on local roads or idling vehicles in this area. Haulage routes are via the Pacific Highway, with movements via site roads maximised to limit impact to Pacific Highway Traffic and associated safety risks with merging. No parking on local roads is required, queuing is minimal due to low traffic loads. No issues with the use of local raods have been identified during the reporting period, spoil haulage routes remain on the designated haul route - Pacific Highway. This condition has been complied with throughout construction , including this reporting period.
	B59	In relation to new or modified local road, parking, pedestrian and cycle infrastructure, the SSI shall, where feasible and reasonable, be designed: (a) in consultation with the relevant council; (b) take into consideration existing and future demand, road safety and traffic network impacts; (c) to meet relevant design, engineering and safety guidelines, including Austroads Guide to Traffic Engineering Practice; and (d) be certified by an appropriately qualified person that has considered the above matters.	✓	Pre-construction	RMS and Contractor	compliant	G36 Clause 3.1 G10 Clause 2.5	This has been achieved and addressed during detailed design.
	B60	The Applicant shall ensure that the SSI is designed to minimise land take impacts to surrounding properties (including agricultural properties) as far as feasible and reasonable, in consultation with the affected landowners.	✓	Pre-construction	RMS	compliant		This has been a consideration during the EA, concept design through to the detailed design and Implementation phase.
	B61	Where the viability of existing agricultural operations are identified to be impacted by the land requirements of the SSI, the Applicant shall, at the request of these landowners, employ a suitably qualified and experienced independent agricultural expert, whose appointment has been endorsed by the Secretary, to assist in identifying alternative farming opportunities for the land, including purchase of other residual land to enable existing agricultural activities to continue.	✓	Pre-construction	RMS	compliant		During the consultation process for the EIS/SPIR, and as required during the acquisition process, agricultural needs have been considered and addressed by design changes and/or compensation.
	B62	Unencumbered access to private property shall be maintained during construction unless otherwise agreed with the landowner in advance. A landowner's access that is physically affected by the SSI shall be reinstated to at least an equivalent standard, in consultation with the landowner.	✓	Construction	Contractor	compliant	G10 Clause 3.2	This will be achieved throughout construction and addressed via RMS Specification G10. Access to Private properties has been maintained throughout the reporting period, ongoing consultation with landowners is being undertaken to ensure construction impacts are minimised. Access to private properties has been mantained during the reporting period
	B63	The Applicant shall, in consultation with relevant landowners, construct the SSI in a manner that minimises intrusion and disruption to agricultural operations/activities in surrounding properties (e.g. stock access, access to farm dams, etc.), unless otherwise agreed by the landowner.	✓	Construction	Contractor	compliant	G10 Clause 3.2	This will be achieved throughout construction and addressed via RMS Specification G10. There have been no issues identified during the reporting period associated with agricultural operations. There have been no issues identified during the reporting period associated with agricultural operations.

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	Contract Reference	Comment
	B64	Any damage caused to property as a result of the SSI shall be rectified or the landowner compensated, within a reasonable timeframe, with the costs borne by the Applicant. This condition is not intended to limit any claims that the landowner may have against the Applicant.	✓	Construction	Contractor	compliant	G1, G10, G36	Pre-construction building condition inspections to be completed for all structures within the zones specified within Specification G36, with post construction inspections to be completed following construction. Any identified damage to be rectified. Pre-construction building condition assessments were undertaken in accordance with G36 in October 2019. No additional building condition surveys have been completed during the reporting period.
	B65	Where the SSI traverses a state forest, the Applicant shall, in consultation with the NSW Forestry Corporation, ensure that construction does not unduly disrupt existing forestry activities, access for fire fighting and access for other activities within state forests, unless otherwise agreed by the NSW Forestry Corporation.	✓	Construction	Contractor	compliant	G36 Clause 3.1, G22	Noted, the contractor shall ensure that construction does not unduly disrupt existing forestry activities, access for fire fighting and access for other activities within state forests, unless otherwise agreed by the NSW Forestry Corporation. There has been no disruptions to the operations of NSW Forestry Corporation uring the reporting period, ongoing consultation with the stakeholder will ensure this continues into the next reporting period. There have been no disruptions to Forestry operations during the reporting period.
	B66	The SSI shall be constructed in a manner that minimises dust emissions from the site, including wind-blown and traffic-generated dust and tracking of material onto public roads. All activities on the site shall be undertaken with the objective of preventing visible emissions of dust from the site. Should such visible dust emissions occur at any time, the Applicant shall identify and implement all feasible and reasonable dust mitigation measures, including cessation of relevant works, as appropriate, such that emissions of visible dust cease.	✓	Construction	Contractor	compliant	G36 Clause 4.1, 4.4	Addressed in Air Quality MP and construction mitigation measures used on site. Mitigation measures identified in the AQMP have been implemented effectively during the reporting period. Regular inspections are undertaken to ensure dust management is acceptable, and further controls are employed where required. AQMP has been implemented dring the reporting period. Due to the completion of concrete pavement and the pregressive stabilisation of batters, dust generation risk has been inherently reduced.
	B67	Dangerous goods, as defined by the Australian Dangerous Goods Code, shall be stored and handled strictly in accordance with: (a) all relevant Australian Standards; (b) for liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume, within the bund; and (c) the Environment Protection Manual for Authorised Officers: Bunding and Spill Management, technical bulletin (Environment Protection Authority, 1997). In the event of an inconsistency between the requirements listed from (a) to (c) above, the most stringent requirement shall prevail to the extent of the inconsistency.	✓	Construction	Contractor	compliant	G36 Clause 3.1 G36 Clause 4	Addressed in Waste and Energy MP. Dangerous goods are stored in accordance with condition B67, storage and handling of dangerous goods has been inspected and reported on regularly during the reporting period. Dangerous goods are stored in accordance with condition B67, storage and handling of dangerous goods has been inspected and reported on regularly during the reporting period.
	B68	Waste generated outside the site shall not be received at the site for storage, treatment, processing, reprocessing, or disposal on the site, except as expressly permitted by a licence or waste exemption under the Protection of the Environment Operations Act 1997, if such a licence is required in relation to that waste.	✓	Construction	Contractor	compliant	G36 Clause 4.11	Addressed in Waste and Energy MP. There has been no receival of waste from outside of the site during the reporting period. There has been no receival of waste from outside of the site during the reporting period.
	B69	The reuse and/or recycling of waste materials generated on site shall be maximised as far as practicable, to minimise the need for treatment or disposal of those materials off site.	✓	Construction	Contractor	compliant	G36 Clause 4.11	Addressed in Waste and Energy MP. Reuse of materials onsite has been maximised as far as practicable, this includes the extensive use of vegetation mulch in erosion and sediment control structures, the re-use of existing pavement in road construction activities and use of old fence posts as delineators within the Project car park. Material re-use onsite during the reporting period includes the use of vegetation mulch in ERSED controls, the use of site won verge and SMZ material and the use of composted mulch sourced from W2B Section 3 in landscaping works.
	B70	All liquid and/or non-liquid waste generated on the site shall be assessed and classified in accordance with Waste Classification Guidelines (Department of Environment, Climate Change and Water, 2009).	✓	Construction	Contractor	compliant	G36 Clause 4.11	Addressed in Waste and Energy MP. All waste transported off site is classified in accordance with the NSW Waste Classification Guidelines and is recorded on the Project waste register. All waste transported off site is classified in accordance with the NSW Waste Classification Guidelines and is recorded on the Project waste register.
	B71	All waste materials removed from the site shall only be directed to a waste management facility or premises lawfully permitted to accept the materials.	✓	Construction	Contractor	compliant	G36 Clause 4.11	Addressed in Waste and Energy MP. All waste is classified and disposed of in accordance with the POEO Act Waste Regulation, and a register is maintained (Waste Register). All waste is classified and disposed of in accordance with the POEO Act Waste Regulation, and a register is maintained (Waste Register).
	B72	Utilities, services and other infrastructure potentially affected by construction and operation shall be identified prior to construction to determine requirements for access to, diversion, protection, and/or support. Consultation with the relevant owner and/or provider of services that are likely to be affected by the SSI shall be undertaken to make suitable arrangements for access to, diversion, protection, and/or support of the affected infrastructure as required. The cost of any such arrangements shall be borne by the Applicant.	✓	Pre-construction and Construction	RMS and Contractor	compliant	G36 Clause 3.7 G10 Clause 2.5	This has been addressed during detailed design, and will continue to be managed during construction. There has been no disruption to services during the reporting period. There has been no disruption to services during the reporting period.

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	Contract Reference	Comment
	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: (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); (b) not impact on connectivity structures or vegetation leading to a connectivity structure; (c) be located within or adjacent to the SSI boundary; (d) have ready access to the road network; (e) be located in areas of low ecological significance and require no clearing of native vegetation; (f) be located more than 50 metres from threatened species and endangered ecological communities and their habitats; (g) be located on relatively level land; (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; (i) be above the 20 year ARI flood level unless a contingency plan to manage flooding is prepared and implemented; (j) have minor impacts on flood storage and not result in obstruction of floodplain flow or blockage of culverts and drains; (k) not unreasonably affect the land use of adjacent properties; (l) operate in accordance with the construction hours set out in conditions B15 and B16; (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 (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. The Applicant shall undertake an assessment of the facility against the above criteria in consultation with the relevant 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.	✓	Construction	Contractor	compliant	G36 Clause 4.15 G1 Clause 17 G2 Clause 16	Ancillary Facilities will be approved and managed in accodance with the Ancillary Facilities Management Plan Ancillary facilities at 10 Parker Road (Batch Plant, compound and laydown) and Reddiger Close (Main Compound) have been approved by the W2B ER via ancillary facility checklists during the reporting period. There have been no additional ancillary facilities approved during the reporting period.
	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 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: (a) details on the site location and access arrangements; (b) a description of the activities to be undertaken; (c) outcomes of the assessment of the site against the locational criteria set out in condition B73; (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; (e) details of the mitigation, monitoring and management procedures specific to the ancillary facility that would be implemented to minimise environmental impacts; and	✓	Construction	Contractor	compliant	G36 Clause 4.15 G1 Clause 17 G2 Clause 16	Ancillary Facilities will be approved and managed in accodance with the Ancillary Facilities Management Plan No previously un-identified ancillary facilities have been proposed during the reporting period. No previously un-identified ancillary facilities have been proposed during the reporting period.
	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.	✓	Construction	Contractor	compliant	G36 Clause 4.15 G1 Clause 17 G2 Clause 16	Ancillary Facilities will be approved and managed in accodance with the Ancillary Facilities Management Plan No previously un-identified ancillary facilities have been proposed during the reporting period. No previously un-identified ancillary facilities have been proposed during the reporting period.
	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.	✓	Construction	Contractor	compliant	G36 Clause 4.16	Ancillary Facilities will be approved and managed in accodance with the Ancillary Facilities Management Plan Pre construction land condition assessments have been completed on all ancillary sites and these sites will be managed to ensure compliance with condition B76 at completion of the Project. No new ancilary facilities established, or required pre-construction land condition assessments completed during the reporting period.
	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: (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 (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 condition B75. The relevant approval shall be obtained prior to the establishment of the ancillary facility.	✓	Construction	Contractor	compliant	G36 Clause 4.15, G1	Ancillary Facilities will be approved and managed in accodance with the Ancillary Facilities Management Plan There have been no proposed changes that would trigger action under condition B77. There have been no proposed changes that would trigger action under condition B77.
	B79	The Applicant shall ensure that material extracted from the borrow sites established for the SSI, is only used for the construction of the SSI subject to this approval, and no other sections of the Pacific Highway or other works.		Construction	Contractor	Not Triggered	R44 Clause 2.7	Not applicable for the WC2G project
	B80	The Applicant shall ensure that all plant and equipment used at the site is: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	✓	Construction	Contractor	compliant	G22 Clause 4.8.3	Noted, addressed in the CEMP, NVMP and AQMP. Mitigation measures identified within the CEMP and Subplans have been implemented during the reporting period. All plant and equipment is inspected prior to arriving to site and is regularly inspected during day to day operations to ensure compliance with condition B80. Inspections/review of plant and equipment as required by B80 have been completed during the reporting period.
	B81	The Applicant shall ensure that during the operation of the SSI, water quality risks to the Woodburn Borefield drinking water catchment are minimised to the satisfaction of Rous Water.		Operation	RMS	Not Triggered		Not applicable for the WC2G project

COMPLIANCE TRACKING - NSW CONDITIONS OF APPROVAL
Woolgoolga to Ballina SSI-4963

PART C - Community Information and Reporting

6 Monthly Compliance Reporting April 2020

6 Monthly and Pre Operational Compliance Reporting October 2020

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	ntract Refere	Comment
COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT								
	C1	Prior to the commencement of construction or as otherwise agreed by the Secretary, the Applicant shall prepare and implement a Community Communication Strategy to the satisfaction of the Secretary. The Strategy shall provide mechanisms to facilitate communication between the Applicant (and its contractor(s)), the Environmental Representative (see condition D22), the relevant council and community stakeholders (particularly adjoining landowners) on the construction environmental management of the SSI. The Strategy shall include, but not be limited to: (a) identification of stakeholders to be consulted as part of the Strategy, including affected and adjoining landowners; (b) procedures and mechanisms for the regular distribution of information to community stakeholders on construction progress and matters associated with environmental management; (c) the formation of community-based focus groups for key environmental management issues for the SSI. The Strategy shall provide detail on the structure, scope, objectives and frequency of the community-based focus groups; (d) procedures and mechanisms through which the community stakeholders can discuss or provide feedback to the Applicant and/or Environmental Representative in relation to the environmental management and delivery of the SSI; (e) procedures and mechanisms through which the Applicant can respond to enquiries or feedback from the community stakeholders in relation to the environmental management and delivery of the SSI; and (f) procedures and mechanisms that would be implemented to resolve issues/ disputes that may arise between parties on the matters relating to environmental management and the delivery of the SSI. This may include the use of an appropriately qualified and experienced independent mediator. Issues that shall be addressed through the Community Communication Strategy include (but are not necessarily limited to): (i) traffic management (including property access, pedestrian access); (ii) heritage matters; (iii) landscaping and urban design matters; (iv) construction staging, hours and activities; (v) noise and vibration mitigation and management; (vi) air quality and dust; (vii) water quality, hydrology and flooding matters; and (viii) biodiversity matters. The Applicant shall maintain and implement the Strategy throughout construction of the SSI.	✓	Pre-construction	RMS	Compliant	G36 Clause 3.7, 3.7.2, 3.7.4	An overarching Woolgoolga to Ballina Woolgoolga to Ballina Communication and Stakeholder Engagement Strategy approved by DoEP 12 May 2015. This Strategy will be implemented for the WC2G project. The followwing consultation activities have been completed: - notifications for commencment of works -ongoing consultation with landowners in regard to local and major road changes - notifications for out of hours works -notifications for property condition surveys - distribution of Project Update (April 2020) The following consultation activities have been completed during the reporting period: - consultation for operation of concrete batch plant outside standard hours -notification for works required outside of standard construction hours -notifications for traffic switches.
COMPLAINTS AND ENQUIRIES PROCEDURE								
	C2	Prior to the commencement of pre-construction and construction, or as otherwise agreed by the Secretary, the Applicant shall ensure that the following are available for community enquiries and complaints for the duration of construction: (a) a 24 hour telephone number(s) on which complaints and enquiries about the SSI may be registered; (b) a postal address to which written complaints and enquires may be sent; (c) an email address to which electronic complaints and enquiries may be transmitted; and (d) a mediation system for complaints unable to be resolved. The telephone number, the postal address and the email address shall be published in newspaper(s) circulating in the local area prior to the commencement of construction and prior to the commencement of operation. This information shall also be provided on the website (or dedicated pages) required by this approval.	✓	Pre-construction and Construction	RMS and Contractor	Compliant	G36 Clause 3.7.3	Completed : 1800 778 900, W2B@rms.nsw.gov.au postal address advertised and available on website - http://www.rms.nsw.gov.au/projects/northern-nsw/woolgoolga-to-ballina/index.html please refer to Woolgoolga to Ballina Communication and Stakeholder Engagement Strategy
	C3	Prior to the commencement of pre-construction and construction, or as otherwise agreed by the Secretary, the Applicant shall prepare and implement a Construction Complaints Management System consistent with AS 4269: Complaints Handling and maintain the System for the duration of construction and up to 12 months following completion of the SSI. Information on all complaints received, including the means by which they were addressed and whether resolution was reached, with or without mediation, shall be maintained in a complaints register and included in the construction compliance reports required by this approval. The information contained within the System shall be made available to the Secretary on request.	✓	Pre-construction and Construction	RMS and Contractor	Compliant	G36 Clause 3.7.3	Roads and Maritime has developed an overarching Woolgoolga to Ballina Construction Complaints Management System. Please refer to Woolgoolga to Ballina Communication and Stakeholder Engagement Strategy . The Complaint procedure is addressed in Section 6.3.2 of the CEMP.
PROVISION OF ELECTRONIC INFORMATION								
	C4	Prior to the commencement of pre-construction and construction, or as otherwise agreed by the Secretary, the Applicant shall establish and maintain a new website, or dedicated pages within an existing website, for the provision of electronic information associated with the SSI, for the duration of construction and for 12 months following completion of the SSI. The Applicant shall, subject to confidentiality, publish and maintain up-to-date information on the website or dedicated pages including, but not necessarily limited to: (a) information on the current implementation status of the SSI; (b) a copy of the documents listed in condition A2, and any documentation supporting modifications to this approval that may be granted from time to time; (c) a copy of this approval and any future modification to this approval; (d) a copy of each relevant environmental approval, licence or permit required and obtained in relation to the SSI; (e) a copy of each current strategy, plan, program or other document required under this approval; (f) the outcomes of compliance tracking in accordance with condition D27 of this approval; and (g) details of contact point(s) to which community complaints and enquiries may be directed, including a telephone number, a postal address and an email address.	✓	Pre-construction and Construction	RMS and Contractor	Compliant	G36 Clause 3.7.4	An overarching web site addressing all active project stages has been developed and remains active and updated. http://www.rms.nsw.gov.au/projects/northern-nsw/woolgoolga-to-ballina/index.html

COMPLIANCE TRACKING - NSW CONDITIONS OF APPROVAL
Woolgoolga to Ballina SSI-4963

PART D - Environmental Management, Reporting and Auditing

6 Monthly Compliance Reporting April 2020

6 Monthly and Pre Operational Compliance Reporting October 2020

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	Contract Reference	Comment
BIODIVERSITY MITIGATION FRAMEWORK								
	D1	The Applicant shall develop a framework for finalising mitigation measures for threatened species. This Mitigation Framework shall be developed by a suitably qualified and experienced ecologist in consultation with DPI (Fisheries), OEH and DoE, and submitted to the satisfaction of the Secretary prior to commencement of detailed design of the relevant stage, unless otherwise agreed by the Secretary. The Mitigation Framework shall detail the process for finalising the biodiversity strategies, plans and programs required under this approval. The Mitigation Framework shall include: (a) a description of the methodology of all proposed pre-construction species and habitat surveys, including surveys undertaken in the 2013-2014 spring and summer seasons and as otherwise required under this project approval, and with reference where relevant to compliance with relevant NSW and Commonwealth field survey methods and guidelines; (b) a summary of potential changes to the avoidance, mitigation and/or offset measures specified in the documents listed in condition A2, as justified by the results of surveys described in condition D1(a); (c) a summary of the potential avoidance, mitigation and/or offset measures for all species for which the proposed level of impact or mitigation required differs from that assessed in the documents listed in condition A2, including evidence that those measures would achieve the same or an improved biodiversity outcome; (d) provision for updating the relevant Threatened Species Management Plans required under condition D8; and (e) a schedule for submission of all biodiversity strategies, plans and programs required under this approval in accordance with the requirements for submission in the conditions below.	✓	Pre-construction	RMS	Compliant		The Mitigation Framework was approved by the Department of Planning & Environment on the **8/5/15.**
	D2 (a)-(g)	The Applicant shall prepare and implement a Connectivity Strategy, to be submitted and approved by the Secretary prior to the commencement of construction. The strategy shall describe the rationale for, and final design and location of, fauna connectivity structures for the SSI and shall demonstrate the effectiveness of connectivity measures for the species targeted for the crossing. The Strategy shall be developed from the draft Connectivity Strategy in the documents listed in condition A2 in consultation with the OEH, DPI (Fisheries) and DoE, to the satisfaction of the Secretary. The Strategy shall include: (a) details of all crossings for terrestrial and aquatic fauna, including but not limited to land bridges, bridge, arch and culvert crossings, and crossings for arboreal fauna; (b) justification for the location and design, and spacing of the connectivity structures, with reference to relevant State and Commonwealth threatened species guidelines and the results of on-ground surveys as required by D2(d); (c) demonstration of the effectiveness of the connectivity structures (including exclusionary fencing) in terms of location, design and number of connectivity structures to mitigate impacts to the relevant threatened species, and that the crossings: (i) maintain or improve connectivity and movement pathways; (ii) reduce the risk of mortality for threatened species; (iii) are located at locations, at sufficient frequency along the alignment, based on the ecological requirements of the targeted species, including but not limited to home range size, movement patterns, and habitat use; (d) the results of surveys undertaken to determine the habitat, species movement patterns, distribution of species to confirm the design and location; (e) consideration of connectivity under the existing highway, service roads and local roads (servicing over 100 vehicles per day); (f) commitment that pathways to connectivity structures are not to be impeded by ancillary facilities, rest areas or service roads, or local roads (servicing over 100 vehicles per day) that are realigned as part of the SSI or experience an increase in traffic volumes during operation of the SSI; (g) commitment to implement the landscaping of vegetation leading to connectivity structures;	✓	Pre-construction and Construction	RMS	Compliant		The Connectivity Strategy was approved by the Department of Planning & Environment on the **11/5/15.**This document forms part of the FFMP for WC2G.
	D2 (h)-(m)	(h) a fencing strategy, describing the location, design and length of fencing, which must extend beyond the edges of habitat for threatened species; (i) the maintenance of connectivity measures and fencing for the life of the impact of the action, including the timing and frequency; (j) an assessment of the flooding risk for proposed structures, and measures to confirm and provide for flood immunity of those structures in light of this assessment. The agreement of the OEH on flood immunity levels shall be obtained prior to the commencement of construction of the relevant stage; (k) commitment that all bridges in identified wildlife corridors, or adjacent to threatened species habitat, or are likely to provide connectivity for threatened species based on surveys undertaken in accordance with the Mitigation Framework required in condition D1, shall provide a minimum three metre wide dry passage from toe of the scour protection to the top of the bank, with natural substrate and refuge features. Where this criteria cannot be achieved and with the agreement of the OEH, consideration shall be given to the use of suitable materials in, and the final form of, the scour protection to provide for the safe and effective passage of fauna; (l) detailed consideration of the effects of connectivity structures on the maintenance or improvement of population viability and gene flow; and (m) incorporate the outcomes of the Mitigation Framework required under condition D1. Unless connectivity measures can be demonstrated to be effective at successfully mitigating the barrier and fragmentation impact to relevant species, in accordance with the requirements of the construction flora and fauna management plan required under condition D26(e), and threatened species management plans required under conditions D8 and D9, the residual impact to connectivity shall be offset. Where the location and/or design of connectivity structures has changed from that identified in the documents listed under conditions A2(c) and A2(e), the Strategy shall demonstrate how the new location and/or design would result in an improved biodiversity outcome. The Strategy shall clearly identify how the connectivity structures will work in conjunction with other biodiversity measures, such as complementary fauna exclusion fencing measures and the regeneration/replanting of native vegetation, to be implemented for the SSI. The Applicant shall demonstrate to the satisfaction of the Secretary how public authority comments on the Strategy have been addressed. The Strategy may be submitted in stages to suit the staging of the SSI.	✓	Pre-construction	RMS	Compliant		The Connectivity Strategy was approved by the Department of Planning & Environment on the 11/5/15.This document forms part of the FFMP for WC2G.
BIODIVERSITY OFFSET STRATEGY								

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	Contract Reference	Comment
	D3	The Applicant shall prepare and implement a Biodiversity Offset Strategy to outline how the ecological values lost as a result of the SSI will be offset in perpetuity. The Strategy shall be developed from the draft Biodiversity Offset Strategy in the documents listed in condition A2, in consultation with the OEH, DPI (Fisheries) and DoE, to the satisfaction of the Secretary. Unless otherwise agreed to by the OEH, DPI (Fisheries) and DoE, offsets shall be provided on a like-for-like basis and at a minimum ratio of 4:1 for native vegetation (including salt marsh) impacted by the SSI or as required by the Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy (Commonwealth of Australia 2012) and Offsets Assessment Guide (Commonwealth of Australia 2012), whichever is the greater. The Strategy shall include, but not necessarily be limited to: (a) the objectives and outcomes that would be sought through a biodiversity offset package, including to achieve a neutral or net beneficial outcome for all threatened species and endangered ecological communities likely to be impacted directly or indirectly during both the construction and operation of the SSI; (b) confirmation of the vegetation type/habitat (in hectares) to be cleared and their condition, and the size of offsets required (in hectares); (c) details of the available offset measures that have been selected to compensate for the loss of existing native vegetation (including mangroves, salt marsh and riparian vegetation), threatened and vulnerable species and Endangered Ecological Communities and their habitats, and identification of potential offset sites; (d) consideration of contingency measures for offsets to address potential changes to impacted areas as a result of detailed design changes; (e) a process for addressing and incorporating offset measures arising from changes in biodiversity impacts (where these changes are generally consistent with the biodiversity impacts identified for the SSI in documents listed under condition A2), including: (i) changes to the SSI footprint due to detailed design; (ii) changes to predicted impacts as a result of changes to mitigation measures; (iii) the identification of additional species/habitat through pre-clearance surveys and construction; and (iv) additional impact associated with the establishment of ancillary facilities; (f) the decision-making framework that would be used to select the final suite of offset measures to achieve the objectives and outcomes established within the Strategy, including the ranking of offset measures; and (g) options for securing and management of biodiversity offsets in perpetuity. The Applicant may elect to satisfy the requirements of this condition by identifying a suitable offset strategy which addresses impacts from multiple Pacific Highway Upgrade projects within the North Coast bioregion. Any such strategy, including an agreement made with OEH and DoE, shall be approved by the Secretary within a timeframe agreed to by the Secretary. The Biodiversity Offset Strategy shall be submitted to, and approved by, the Secretary prior to the commencement of construction work that would result in the disturbance of the relevant existing ecological communities, threatened species, or their habitat, unless otherwise agreed by the Secretary.	✓	Pre-construction and Construction	RMS	Compliant		The offset strategy was developed by RMS in consultation with the Environment Protection Agency, Department of Primary Industries (Fishing and Aquaculture) and the Commonwealth Department of the Environment and Energy. The Biodiversity Offset Strategy was approved by the Department of Planning & Environment on the 6/1/16 The Biodiversity Offset Strategy was approved by the Department of the Environment the 7/1/16
	D4	Prior to the commencement of construction work that would result in the disturbance of the relevant existing ecological communities, threatened species, or their habitat, unless otherwise agreed by the Secretary, the Applicant shall submit for the approval of the Secretary, the offset sites for the species listed under condition D4(a). The selection of the offset sites should be undertaken in consultation with the OEH, DPI (Fisheries) and DoE. Submission of the offset sites for approval shall be accompanied by: (a) details of offset sites to compensate the impacts on: (i) Koala populations in Coolgardie/Bagotville, Broadwater and Woombah/Iluka; (ii) Moonee Quassia (Quassia sp. Moonee Creek); (iii) Sandstone Rough–Barked Apple (Angophora robur); (iv) Singleton Mint Bush (Prostanthera cineolifera); and (v) Lowland Rainforest in Sub-tropical Australia; (b) a map that defines the locations and boundaries of the sites; (c) demonstration, through ground trothing survey or an alternative method(s), the adequacy of the site(s), in terms of habitat suitability and presence of the relevant species, to offset the impacts of the SSI; (d) consideration of how the offsets achieve the outcomes required by the Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy to the satisfaction of DoE; and (e) details of how the offset sites would be secured and managed in perpetuity.	✓	Pre-construction and Construction	RMS	Compliant		The offset strategy was developed by RMS in consultation with the Environment Protection Agency, Department of Primary Industries (Fishing and Aquaculture) and the Commonwealth Department of the Environment and Energy. The Biodiversity Offset Strategy was approved by the Department of Planning & Environment on the 6/1/16 The Biodiversity Offset Strategy was approved by the Department of the Environment the 7/1/16
BIODIVERSITY OFFSET STRATEGY								
	D5 (a)-(g)	The Applicant shall prepare and implement (following approval) a Biodiversity Offset Package, within twenty-four months of approval of the Biodiversity Offset Strategy, or as otherwise agreed by the Secretary. The package shall detail how the ecological values lost as a result of the SSI will be offset. The Biodiversity Offset Package shall be prepared in consultation with the OEH, DPI (Fisheries) and DoE, for the approval of the Secretary, and shall (unless otherwise agreed by the Secretary) include, but not necessarily be limited to: (a) the identification of the extent and types of habitat that would be lost or degraded as a result of the final design of the SSI; (b) the objectives and biodiversity outcomes to be achieved; (c) details of the final suite of the biodiversity offset measures selected and secured in accordance with the Biodiversity Offset Strategy including the identification of all offset sites, including, offset attributes, shapefiles, textual descriptions and maps that clearly define the location, boundaries of the offset areas; (d) an assessment demonstrating how the offset area(s) achieve the outcomes required by the Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy and user guide to the written satisfaction of DoE; (e) the management and monitoring requirements for compensatory habitat works and other biodiversity offset measures proposed to ensure the outcomes of the package are achieved, including: (i) the monitoring of the condition of species and ecological communities at offset locations; (ii) the methodology for the monitoring program(s), including the number and location of offset monitoring sites, and the sampling frequency at these sites; (iii) provisions for the annual reporting of the monitoring results for a set period of time as determined in consultation with the OEH, DPI (Fisheries) and DoE; and (iv) the monitoring and reporting on the effectiveness of these measures, and progress against the performance and completion criteria; (f) the results of targeted field surveys within the offset sites (undertaken at any ecologically appropriate time of the year) to assess and describe habitat suitability, presence/absence of threatened species and ecological communities and an assessment of the baseline population; (g) a description of the current quality (prior to any management activities) of the offset area(s);	✓	Pre-construction and Construction	RMS	Compliant		A Biodiversity Offset Package was submitted to DoEE on 15 December 2017. Comments were received on the Package on 27 November 2018. During 2019 TfNSW addressed the comments received and undertook a final property vegetation surveys to address some shortfalls. TfNSW resubmitted the Package to DoEE on 29 May 2020. TfNSW is having monthly meetings with the Post Approvals team as part of their review of the Package.

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	Contract Reference	Comment
	D5(h)-(m)	(h) targeted management actions, regeneration and/or revegetation strategies to be undertaken on the offset area(s) to improve the ecological quality of these areas for the relevant species and communities; (i) clear performance objectives for management actions that will enable maintenance and enhancement of habitat within the offset area, as well as contribute to the better protection of individuals and/or populations of the relevant species; (j) performance and completion criteria for evaluating the management of the offset area, including contingency actions, criteria for triggering contingency actions and a commitment to the implementation of these actions in the event that performance objectives are not met; a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria; (k) timing and responsibilities for the implementation of the provisions of the Biodiversity Offset Package and achieving performance objectives; (l) details of who would be responsible for monitoring, reviewing, and implementing the Biodiversity Offset Package; and (m) a description of funding arrangements or agreements including work programs and responsible entities. Land offsets shall be consistent with the Principles for the use of Biodiversity Offsets in NSW. Any land offset shall be enduring and be secured by a conservation mechanism which protects and manages the land in perpetuity. Where land offsets cannot solely achieve compensation for the loss of habitat, additional measures shall be provided to collectively deliver an improved or maintained biodiversity outcome for the region. The Biodiversity Offset Package shall include details of the offset sites approved under condition D4, and timeframe for the delivery of the offset sites. Where monitoring required under conditions D8 and/or D9 indicates that biodiversity outcomes are not being achieved, remedial actions. as approved by the Secretary, shall be undertaken to ensure that the objectives of the Biodiversity Offset Package are achieved. The requirements of the Biodiversity Offset Package shall be implemented by the responsible parties according to the timeframes set out in the Biodiversity Offset Package, unless otherwise agreed by the Secretary. Note: • If an offset site proposed as a part of the Biodiversity Offset Strategy or Biodiversity Offset Package is already required to be protected as a result of a separate approval, only the management actions which can be demonstrated to be additional to those required for the separate approval, can be considered as an offset for this project in accordance with the EPBC Act Environmental Offsets Policy 2012 (or subsequent published revisions).	✓	Pre-construction and Construction	RMS	Compliant		A Biodiversity Offset Package was submitted to DoEE on 15 December 2017. Comments were received on the Package on 27 November 2018. During 2019 TfNSW addressed the comments received and undertook a final property vegetation surveys to address some shortfalls. TfNSW resubmitted the Package to DoEE on 29 May 2020. TfNSW is having monthly meetings with the Post Approvals team as part of their review of the Package.
	D6	Prior to the commencement of construction of the relevant stage that would result in the disturbance of native vegetation (or as otherwise agreed by the Secretary), the Applicant shall prepare and implement a Nest Box Plan to provide replacement hollows for displaced fauna. The Plan shall be prepared in consultation with the OEH and to the satisfaction of the Secretary. The Plan shall be prepared by a suitably qualified and experienced ecologist and detail the number and type of nest boxes to be installed, which shall be justified based on the number and type of hollows removed (based on pre clearing surveys), the density of hollows in the area to be cleared and in adjacent areas, and the availability of adjacent food resources. The Plan shall also provide details of maintenance protocols for the nest boxes installed including responsibilities, timing and duration.	✓	Pre-construction and Construction	RMS and Contractor	Compliant	G36	The Nest Box Plan for W2B Section 2 was approved by the Department of Planning & Environment on the **17/2/15.** An addendum to the Section 2 Nest box plan was included in the FFMP (Appendix A) for the WC2G project. 70 % of the required nest boxes for the WC2G project shall be installed prior to the commencement of clearing in accordance with eh approved nest box plan. 70% of required nest boxes were installed prior to clearing. The 100% nest box figure will be determined following finalisation of the post clearing report and the required additional nest boxes will be installed accordingly. Post clearing report has been finalised and TfNSW has installed nest boxes/chainsaw hollows as required to meet the 100% HBT impact.
BIODIVERSITY TRANSLOCATION STRATEGY								
	D7	The Applicant shall prepare and implement a Flora Translocation Strategy to determine the feasibility and potential efficacy of translocation measures (as identified in the threatened species management plans required under condition D8), prior to the commencement of construction work that would result in the disturbance of threatened flora species for which translocation is proposed. The Strategy shall be prepared by a suitably qualified and experienced ecologist, in consultation with the OEH and DoE, and to the satisfaction of the Secretary. The Strategy shall include: (a) a feasibility assessment of timeframe and staging requirements, availability of expertise, risk effectiveness analysis and availability/suitability of translocation sites; (b) detail of species specific information on the proposed methods of, and discussion of results of past recorded responses to, translocations; (c) a framework for the translocation process applicable to each affected species; and (d) consideration of appropriate compensatory habitat in the Biodiversity Offsets Package required under condition D5 where translocation is not reasonable or feasible.	✓	Pre-construction	RMS	Compliant		The Flora Translocation Strategy for Sections 1 & 2 was approved by the Department of Planning & Environment on the **12/5/15,** and included in the CEMP / FFMP for WC2G.
BIODIVERSITY THREATENED SPECIES MANAGEMENT PLANS								
	D8 (a)-(h)	The Applicant shall prepare and implement Threatened Species Management Plans to detail how impacts of the SSI will be minimised and managed specifically for each species identified as significantly impacted in the documents listed in condition A2 or in accordance with condition D1. The Plans shall be developed from the draft Threatened Species Management Plans included in the documents listed in condition A2(c) (subject to condition D9), in consultation with OEH, DPI (Fisheries) and DoE, and to the satisfaction of the Secretary, and shall include but not necessarily be limited to: (a) demonstration that adequate surveys have been undertaken to assess the impacts of the SSI with reference to the Mitigation Framework developed under condition D1, including baseline data collected from surveys, undertaken by a suitably qualified and experienced ecologist on threatened species and ecological communities within all habitat areas to be cleared of vegetation for the SSI, that are likely to contain these species and that are likely to be adversely impacted by the SSI (as determined by a suitably qualified expert). The data shall address the densities, distribution, habitat use and movement patterns of these species; (b) identification of potential impacts on each species; (c) details of and demonstrated effectiveness of the proposed avoidance and mitigation and management measures to be implemented for each threatened species including measures to at least maintain habitat values of habitat areas compared to baseline data and maintain connectivity for the relevant species; (d) an adaptive monitoring program to assess the use of the mitigation measures identified in conditions B10 and D2. The monitoring program shall nominate appropriate and justified monitoring periods, performance parameters and criteria against which effectiveness of the mitigation measures will be measured and include operational road kill and fauna crossing surveys to assess the use of fauna crossings and exclusion fencing implemented as part of the SSI; (e) monitoring methodology for threatened flora and fauna adjacent to the SSI footprint, (f) goals and performance indicators to measure the success of mitigation measures, which shall be specific, measurable, achievable, realistic and timely (SMART), and be compared against baseline data; (g) methodology for the ongoing monitoring of road kill, the species densities, distribution, habitat use and movement patterns, and the use of fauna crossings during construction and operation of the SSI, including the proposed timing, and duration of that monitoring; (h) provision for the assessment of monitoring data to identify changes to habitat usage and whether this can be attributed to the SSI;	✓	Pre-construction and Construction	RMS and Contractor	Compliant		The Threatened Flora Management Plan for Sections 1 & 2 was approved by the Department of Planning & Environment on the **5/5/15.** The Threatened Mammal Management Plan for Sections 1 & 2 was approved by the Department of Planning & Environment on the **12/5/15.** The Threatened Frog Management Plan was approved by the Department of Planning & Environment on the **7/5/15.** The Threatened Glider Management Plan was approved by the Department of Planning & Environment on the **5/5/15.** The Threatened Bat Management Plan for Sections 1 & 2 was approved by the Department of Planning & Environment on the **29/9/14.** The Koala Management Plan for Sections 1 & 2 was approved by the Department of Planning & Environment on the **11/5/15.** These documents form part of the FFMP for WC2G. The requirements under the relevant threatened species management plans were implemented and complied with during the reporting period . The requirements under the relevant threatened species management plans were implemented and complied with during the reporting period .

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	Contract Reference	Comment
	D8 (i)-(l)	(i) details of contingency measures that would be implemented in the event of changes to habitat usage patterns, entities, distribution, and movement patterns attributable to the construction or operation of the SSI, based on adequate baseline data; (j) mechanisms for the monitoring, review and amendment of these plans; (k) provision for ongoing monitoring during operation of the SSI (for operation/ongoing impacts) until such time as the use and effectiveness of mitigation measures can be demonstrated to have been achieved over a minimum of three successive monitoring periods, unless otherwise agreed by the Secretary in consultation with the OEH, DPI (Fisheries) and DoE; and (l) provision for annual reporting of monitoring results to the Secretary and the OEH, DPI (Fisheries) and DoE, or as otherwise agreed by those agencies. In developing the Plans, the Applicant shall demonstrate to the satisfaction of the Secretary and DoE, how the public authorities and expert reviewer recommendations provided for each draft plan in the documents listed in condition A2(c) have been addressed, including detailed justification of any variance from the recommendations of the expert reviewer of the management plans, including analysis of potential risk to the threatened species. The Plans must be submitted and approved by the Secretary prior to commencement of construction of the relevant stages of the action, and implemented prior to commencement of construction of the relevant stages, unless otherwise agreed by the Secretary.	✓	Pre-construction and Construction	RMS and Contractor	Compliant		The Threatened Flora Management Plan for Sections 1 & 2 was approved by the Department of Planning & Environment on the **5/5/15.** The Threatened Mammal Management Plan for Sections 1 & 2 was approved by the Department of Planning & Environment on the **12/5/15.** The Threatened Frog Management Plan was approved by the Department of Planning & Environment on the **7/5/15.** The Threatened Glider Management Plan was approved by the Department of Planning & Environment on the **5/5/15.** The Threatened Bat Management Plan for Sections 1 & 2 was approved by the Department of Planning & Environment on the **29/9/14.** The Koala Management Plan for Sections 1 & 2 was approved by the Department of Planning & Environment on the **11/5/15.** These documents form part of the FFMP for WC2G. The requirements under the relevant threatened species management plans were implemented and complied with during the reporting period . The requirements under the relevant threatened species management plans were implemented and complied with during the reporting period.
	D9 (a)-(c)	As part of the Threatened Species Management Plans required under condition D8, the Applicant shall prepare and implement a Koala Management Plan to demonstrate the ongoing survival of the Koala populations at Coolgardie/Bagotville, Broadwater and Woombah/Iluka. The Plan shall be prepared by a suitably qualified and experienced species expert and shall include, but not necessarily be limited to: (a) results of detailed surveys to determine: (i) the population status of the Coolgardie/Bagotville, Broadwater and Woombah/Iluka Koala populations; (ii) habitat use and movement patterns of Koala populations within five kilometres of the proposed upgrade, or such area as determined by the independent ecologist; and (iii) habitat areas likely to be fragmented by the SSI; including the results of SPOT assessment and radio tracking. The results and adequacy of surveys shall be verified by an independent suitably qualified and experienced ecologist with appropriate qualifications and experience in Koala and road ecology. Where appropriate, the Applicant may vary the required area of survey specified under condition D9(a)(ii) to the satisfaction of the independent ecologist; (b) a detailed assessment of the impacts to the Koala populations based on the survey results required by condition D9(a), including population impacts and the identification of habitat likely to be fragmented and/or isolated as a result of the SSI; (c) a detailed description, including the location and design, of all proposed avoidance and mitigation measures;		Pre-construction	RMS	Compliant		Not applicable for WC2G project.
	D9 (d)	(d) justification that the location and design of mitigation measures: (i) have been designed with the objective of no Koala road kill from the commencement of construction of the SSI. In the event that a Koala is injured or killed during construction or operation, this shall be reported on the Applicant's website within 24 hours of this occurring, and the record shall remain available for a period of at least five years, unless otherwise agreed by the Secretary; (ii) include permanent fencing of the entire SSI for the length of the distribution of the Coolgardie/Bagotville, Broadwater and Woombah/Iluka populations and for two kilometres beyond the distribution of the Coolgardie/Bagotville, Broadwater and Woombah/Iluka population, following the highway or to the nearest natural barrier to Koala movement (e.g. river), after baseline surveys are complete in accordance with condition D9(a) and prior to operation; (iii) result in the complete, safe crossing of fauna crossings by the Koala. Fauna crossings shall be provided at a sufficient frequency to ensure that habitat connectivity is maintained or improved from pre-construction conditions, as determined by the independent ecologist and agreed by OEH; (iv) provide sufficient opportunities for species dispersal and re-colonisation as determined by the independent ecologist and OEH; (v) are in areas that, and are at a sufficient frequency to, achieve (i) - (iv), based on site specific information contained in the survey results required by condition D9(a) and the ecological requirements of the Koala, including but not limited to home range size, local movement patterns and habitat use, in accordance with the advice of the independent ecologist and OEH; (vi) all koala underpass structures shall have a minimum height and width of 2.4 metres and a maximum length of 40 metres, or a minimum height and width of 3 metres and a maximum length of 50 metres. The underpass/culvert entrance shall be located at ground level, and no higher in the fill. Structures that provide passage over the road shall have a minimum width of 30 metres and shall be treated with contiguous habitat features; (vii) provide passage for Koalas under or over the existing highway (where the existing highway forms part of the SSI) and service roads or local roads (servicing over 100 vehicles per day); (viii) effectively minimise the risk of predation from dogs in both dedicated and combined crossings; (ix) provide dry passage for dedicated fauna crossings and for combined fauna crossings to the satisfaction of OEH and DoE, at a flood immunity level determined in accordance with condition D2(c)(j); (x) provide habitat linkages to crossing structures from adjacent Koala habitat; and (xi) ensures that pathways to connectivity structures are not impeded by ancillary facilities, rest areas, service roads or local roads;		Pre-construction	RMS	Compliant		Not applicable for WC2G project.

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	Contract Reference	Comment
	D9 (e)-(i)	(e) if the mitigation measures discussed in condition D9(d) cannot be demonstrated to be effective to the satisfaction of the Secretary, in consultation with OEH and DoE, provision for the Plan to be revised to include the design and construction of a minimum of one dedicated underpass or land bridge every 500 metres. Underpass structures shall have a minimum height and width of three metres and a maximum length of 50 metres. (f) provision for the installation and vegetation planting of fauna overpasses prior to the commencement of construction; (g) a revegetation strategy to be implemented to increase connectivity adjacent to the SSI and leading to crossing locations, and the provision of vegetation planting on land bridges, to ensure the establishment of the vegetation prior to the commencement of construction; (h) details of the proposed monitoring methodology to ensure the effectiveness of the mitigation measures and the ongoing survival of the Coolgardie/Bagotville, Broadwater and Woombah/Iluka Koala populations. Monitoring shall: (i) include goals that demonstrate the mitigation measures are effective, including clear objectives, milestones, performance measures, corrective actions, and thresholds for corrective actions, and timeframes for completion; (ii) occur until such time as the mitigation measures are demonstrated to be effective for three consecutive monitoring periods, or as agreed by the Secretary, to the satisfaction of the independent ecologist and OEH; and (iii) for the purposes of the Coolgardie/Bagotville population, consider the results of the surveys undertaken in the Koala habitat and population assessment: Ballina Shire Council LGA (Biolink Ecological Consultants Pty Ltd, November 2013) in determining the baseline population; (i) where the results of monitoring undertaken in accordance with condition D9(h) suggests that the mitigation measures are ineffective or changes to the population have occurred, the Applicant shall provide the Secretary, within one month of recording the changes, the corrective actions that have been implemented or proposed to be implemented, or a procedure for demonstrating that this change is not a result of the SSI. Should the Applicant be unable to demonstrate to the satisfaction of the Secretary that any change to the population is not attributable to the SSI, the SSI shall be deemed as the cause of the impact and the Applicant shall, within one month of these findings, provide, to the satisfaction of the Secretary, in consultation with the OEH and DoE, the proposed corrective actions to address the impacts of the SSI. Any required corrective actions shall include, but not necessarily be limited to: (i) installation of further crossings or modifications to existing crossings and the provision of evidence of the complete, safe crossing of these fauna crossings by the Koala. Any additional crossings shall be provided at a sufficient frequency to ensure that habitat connectivity is maintained or improved from pre-construction conditions, within two years of their installation; and (ii) reassessment of all revegetation areas and frequent reporting and maintenance including addressing failures;			RMS	Compliant		Not applicable for WC2G project.
	D9 (j)-(k)	(j) if the measures in condition D9(i) cannot be demonstrated to be successful within one year of their implementation, procedure for the submission of further offsets in accordance with conditions D5 and D6(j), to be provided within one year of these findings. Further offsets may include: (i) the legal protection and conservation management of additional areas of existing habitat that actively regenerated and secured into conservation management; and/or (ii) strategic revegetation of cleared areas to improve connectivity; and/or (iii) development of a supplementary feeding program and/or breeding program; and/or (iv) development of a long term predator control program; and (k) evidence of consultation with species experts, OEH and DoE in addressing the requirements of this condition, and demonstration of how comments provided by the species experts, OEH and DoE, as a result of this consultation, have been addressed. The Koala Management Plan shall be submitted and approved by the Secretary prior to the commencement of construction of the relevant stages of the SSI. The approved Koala Management Plan shall be implemented prior to the commencement of construction of the relevant stages.		Pre-construction	RMS	Compliant		Not applicable for WC2G project.
NOISE AND VIBRATION LAND USE SURVEY								
	D10	Prior to the commencement of construction, the Applicant shall undertake a land use survey to identify areas that are sensitive to construction vibration and construction ground-borne noise impacts. The results of the survey shall be incorporated into the Construction Noise and Vibration Management Plan.	✓	Pre-construction and Construction	RMS & Contractor	Compliant	G36 Clause 4.6, 4.7	A survey has been undertaken for WC2G to identify areas that are sensitive to construction vibration and construction ground-borne noise impacts. The results of these survey have be incorporated into the Construction Noise and Vibration Management Plan for WC2G.
NOISE AND VIBRATION OPERATIONAL NOISE REVIEW								
	D11	The Applicant shall prepare a review of the operational noise mitigation measures proposed to be implemented for the SSI, within six months of commencing construction, unless otherwise agreed by the Secretary. The review shall be prepared in consultation with the EPA, to the satisfaction of the Secretary. The review may be submitted in stages to suit the staged construction of the SSI and shall: (a) confirm the operational noise predictions of the SSI based on detailed design. This operational noise assessment shall be based on an appropriately calibrated noise model (which has incorporated additional noise monitoring, where necessary for calibration purposes); (b) review the suitability of the operational noise mitigation measures identified in the documents listed in condition A2. The review shall take into account the detailed design of the SSI and, where feasible and reasonable, and where necessary, refine the proposed measures with the objective of meeting the criteria outlined in the NSW Road Noise Policy (Department of Environment, Climate Change and Water, 2011), based on the operational noise performance of the SSI predicted under (a) above; and (c) where necessary, investigate additional feasible and reasonable noise mitigation measures to achieve the criteria outlined in the NSW Road Noise Policy (DECCW, 2011).	✓	Pre-construction and Construction	RMS	Compliant		The Operational Noise Management Report (ONMR) was submitted to DP&E and approved on 2 June 2015. The Section 1 and 2 Operational Noise Compliance report was submitted to Dept. Planning on the 2 Nov 2018. As highlighted in the Section 1 and 2 Operational Noise Compliance report, no receivers north of f Wells Crossing require noise treatment. Post completion of the WC2G project, an Addendum to the Section 1 and 2 Operational Noise Compliance report will be completed to verify the outcomes in the report north of Wells Crossing. Post completion of the WC2G project, an Addendum to the Section 1 and 2 Operational Noise Compliance report will be completed to verify the outcomes in the report north of Wells Crossing.
WATER QUALITY MONITORING PROGRAM								
	D12	The Applicant shall prepare and implement a Water Quality Monitoring Program, to monitor the construction and operation impacts of the SSI on surface and groundwater quality and resources and wetlands, prior to construction. The Program shall be prepared in consultation with the OEH, EPA, DPI (Fisheries), NOW, DoE and Rous Water (in relation to the Woodburn borefields), to the satisfaction of the Secretary, and shall include but not necessarily be limited to: (a) identification of surface and groundwater quality monitoring locations (including watercourses, waterbodies and SEPP14 wetlands) which are representative of the potential extent of impacts from the SSI; (b) the results of any groundwater modelling undertaken; (c) identification of works and activities during construction and operation of the SSI, including emergencies and spill events, that have the potential to impact on surface water quality of potentially affected waterways and known Oxleyan Pygmy Perch habitat; (d) development and presentation of parameters and standards against which any changes to water quality will be assessed, having regard to the Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000 (Australian and New Zealand Environment Conservation Council, 2000) or relevant baseline data; (e) representative background monitoring of surface and groundwater quality parameters for a minimum of twelve months (considering seasonality) prior to the commencement of construction, to establish baseline water conditions, unless otherwise agreed by the Secretary; (f) a minimum monitoring period of three years following the completion of construction or until the affected waterways and/or groundwater resources are certified by an independent expert as being rehabilitated to an acceptable condition. The monitoring shall also confirm the establishment of operational water control measures (such as sedimentation basins and vegetation swales); (g) contingency and ameliorative measures in the event that adverse impacts to water quality are identified; and (h) reporting of the monitoring results to Department of Planning and Environment, OEH, EPA, DPI (Fisheries), NOW, DoE and Rous Water (in relation to the Woodburn borefields).	✓	Pre-construction, Construction and Operation	RMS	Compliant	G36 Clause 4.1, 4.3 G38 Clause 2.3, 3.6	The Water Quality Monitoring Program for Sections 1 & 2 was approved by the Department of Planning & Environment on the **8/5/15.** The approved WQMProgram forms part of the WC2G Soil and water management plan and will be implemented as required to ensure compliance. The WQMP has been implemented through ought the reporting period, the contractor has been responsible for surface water quality monitoring. One minor non-conformance occurred during the reporting period, this resulted from a failure to collect enough of a sample for TSS for SW11 and SW10 US/DS on 6th March 2020. This has been addressed through the issuing of a non-conformance report (NCR) to TfNSW. The WQMP has been implemented throughout the reporting period, the contractor has been responsible for surface water quality monitoring and TfNSW has undertaken groundwater monitoring. No non compliances with the WQMP have been identified.
HYDROLOGICAL MITIGATION REPORT								

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	Contract Reference	Comment
	D13	The Applicant shall prepare and implement a Hydrological Mitigation Report for properties where flooding and/or hydrological impacts are predicted to exceed the relevant flood management objective in the documents listed in condition A2 as a result of the SSI. The Report shall be prepared by a suitably qualified expert and be based on detailed surveys (e.g. floor levels) and associated assessment of potentially flood affected properties in the Corindi, Clarence and Richmond river floodplains. The Report shall: (a) identify properties in those areas likely to have an increased/exacerbated impact and detail the predicted impact; The types of impacts to be considered include all those examined in the EIS including but not limited to changes in flood levels and velocities, alteration to drainage, reduction in flood evacuation access or capability, impacts on infrastructure, impacts on stock and agriculture, and impacts to the environment; (b) identify mitigation measures to be implemented to address these impacts; (c) identify measures to be implemented to minimise scour and dissipate energy at locations where flood velocities are predicted to increase as a result of the SSI and cause localised soil erosion and/or pasture damage; (d) be developed in consultation with the relevant council, NSW State Emergency Service and directly-affected landowners; (e) identify operational and maintenance responsibilities for items (a) to (c) inclusive; and (f) refer to the assessments described in conditions B31 and B32. The report may be submitted in stages to suit the staged construction of the SSI. Construction shall not commence within those areas likely to have altered flood conditions until such time as works identified in the hydrological mitigation report have been completed, unless otherwise agreed by the Secretary.		Pre-construction	RMS	Not Triggered		The Hydrological Mitigation Report for Corindi was submitted for approval to DP&E on 1/05/15. Not applicable for the WC2G project.
	D14	Based on the mitigation measures identified in condition D13, the Applicant shall prepare and implement a final schedule of feasible and reasonable flood mitigation measures proposed at each directly-affected property in consultation with the landowner. The schedule shall be provided to the relevant landowner(s) prior to the implementation/construction of the mitigation works, unless otherwise agreed by the Secretary. A copy of each schedule of flood mitigation measures shall be provided to the Department of Planning and Environment and the relevant council prior to the implementation/construction of the mitigation measures on the property.		Pre-construction	RMS	Not Triggered		Not applicable to the WC2G project.
	D15	The Applicant shall employ a suitably qualified and experienced independent hydrological expert, whose appointment has been endorsed by the Secretary, to deal with all hydrological matters and assist landowners in negotiating feasible and reasonable mitigation measures.	✓	Pre-construction	RMS	Not Triggered		WMAWater Pty Ltd has been appointed as Independent Hydrological Expert for the Woolgoolga to Ballina Project to comply the requirements of Condition D15 on 30 April 2015.
	D16	The Applicant shall provide feasible and reasonable assistance to the relevant council and/or NSW State Emergency Service, to prepare any new or necessary update(s) to the relevant plans and documents in relation to flooding, to reflect changes in flooding levels, flows and characteristics as a result of the SSI.	✓	Pre-construction	RMS	Not Triggered		Noted, and will be undertaken as required.
TRANSPORT AND ACCESS.								
	D17	The Applicant shall prepare and implement a Signage Policy to addresses the impact of towns (South Grafton, Ulmarra, Tyndale, Woodburn, Broadwater and Wardell) which are bypassed by the SSI, at least six months prior to operation, unless otherwise agreed by the Secretary. The Policy shall be prepared in consultation with the relevant council and to the satisfaction of the Secretary. The Policy shall be consistent with the Guide: Signposting (RTA July 2007), Tourist Signposting guide (RMS and Destination NSW 2012) and provide for signage that: (a) provides information on the range of services available within the bypassed towns of South Grafton. Ulmarra, Tyndale, Woodburn, Broadwater and Wardell; and (b) informs motorists of routes through the bypassed towns that may be taken as an alternative to the highway. The Policy may be submitted in stages to suit the staged construction of the SSI.	✓	Pre-construction	RMS	Compliant		The Signage Policy and Business Access Strategy were approved by the Secretary on the 26/11/18.
	D18	The Applicant shall prepare and implement a Business Access Strategy to address changes to access to businesses along the highway, at least six months prior to operation. The Strategy shall be prepared in consultation with the relevant council, business owners and the New Italy Museum and to the satisfaction of the Secretary. Note • The Applicant may incorporate the requirements of this condition into the Signage Policy for the SSI under condition D17.	✓	Construction	RMS	Open		The Signage Policy and Business Access Strategy were approved by the Secretary on the 26/11/18.
ROAD DILAPIDATION								
	D19	Upon determining the haulage route(s) for construction vehicles associated with the SSI, and prior to construction, an independent and qualified expert shall prepare a Road Dilapidation Report. The Report shall assess the current condition of the road and describe mechanisms to restore any damage that may result due to its use by traffic and transport related to the construction of the SSI. The Report shall be submitted to the relevant council for review prior to the commencement of haulage. Following completion of construction, a subsequent Report shall be prepared to assess any damage to the road that may have resulted from the construction of the SSI. Measures undertaken to restore or reinstate roads affected by the SSI shall be undertaken in a timely manner, in accordance with the reasonable requirements of the relevant council, and at the full expense of the Applicant. Note: • Nothing in this condition restricts the Applicant commencing adjustments and minor upgrades to the existing road network to cater for construction traffic and installation of temporary project signage prior to the commencement of construction.	✓	Pre-construction and Construction	Contractor	Compliant	G10 Clause 7.1	In accordance with RMS Specification G10, the contractor is required to undertake this survey prior to commencing works on the site. Once completed the road dilapidation report for WC2G shall be forwarded to RMS and Clarence Council. Road dilapidation surveys were completed prior to haulage by an independent and qualified expert. The road dilapidation surveys have been provided to Clarence ValleyCouncil
URBAN DESIGN AND LANDSCAPING								
	D20 (a)-(d)	The Applicant shall prepare and implement an Urban Design and Landscape Plan prior to the commencement of permanent built works and/or landscaping, unless otherwise agreed by the Secretary, to present an integrated landscape and design for the SSI. The Plan shall be prepared in accordance with the Roads and Maritime Services urban design and visual guidelines, the design principles outlined in the EIS, and the revegetation principles outlined in the EIS Working Paper—Biodiversity. The Plan shall be prepared by an appropriately qualified expert in consultation with the relevant council and community, to the satisfaction of the Secretary. The Plan shall include, but not necessarily be limited to: (a) identification of design principles and standards based on: (i) local environmental values, (ii) heritage values; (iii) urban design context; (iv) sustainable design and maintenance; (v) community amenity and privacy; (vi) relevant design standards and guidelines; and (vii) the urban design objectives outlined in Section 4.2 of the EIS Working Paper—Urban Design Landscape Character and Visual Impact; (b) the location of existing vegetation and proposed landscaping (including use of indigenous and endemic species where possible). Details of species to be replanted/revegetated shall be provided, including their appropriateness to the area and habitat for threatened species; (c) a description of locations along the corridor directly or indirectly impacted by the construction of the SSI (e.g. temporary ancillary facilities, access tracks, watercourse crossings, etc.) and details of the strategies to progressively rehabilitate regenerate and/or revegetate the locations with the objective of promoting biodiversity outcomes and visual integration; (d) take into account appropriate roadside plantings and landscaping in the vicinity of heritage items and ensure no additional heritage impacts;	✓	Pre-construction and Construction	RMS and Contractor	Compliant		For sections 1 & 2, an Urban Design and Landscape Plan that addresses this condition has been submitted and approved by the Department of Planning & Environment on the **8/5/15** The approved Urban design and Landscape Plan will be implemented for the WC2G project. Landscape procurement, including seed supply and contractors has commenced during the reporting period. No physical landscaping has occurred. Landscaping, in the form of hydromulching and landscape planting has commenced during the reporting period. Landscape design is in accordance with the UDLP. Prior to opening to traffic all mainline landscaping will be completed.

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	D20 (e)-(k)	(e) a description of disturbed areas (including borrow sites) and details of the strategies to progressively rehabilitate, regenerate and/or revegetate these areas, including clear objectives and timeframes for rehabilitation works, procedures for monitoring success of regeneration or revegetation, and corrective actions should regeneration or revegetation not conform to the objectives adopted; (f) location and design treatments for any associated footpaths and cyclist elements, and other features such as seating, lighting (in accordance with AS 4282-1997 Control of the Obtrusive Effect of Outdoor Lighting), fencing, materials and signs; (g) an assessment of the visual screening effects of existing vegetation and the proposed landscaping and built elements. Where properties have been identified as likely to experience high visual impact as a result of the SSI and high residual impacts are likely to remain, the Applicant shall, in consultation with affected landowners, identify opportunities for providing at-property landscaping to further screen views of the SSI. Where agreed with the landowner, these measures shall be implemented during the construction of the SSI; (h) graphics such as sections, perspective views and sketches for key elements of the SSI, including, but not limited to built elements of the SSI; (i) strategies for progressive landscaping and other environmental controls such as erosion and sedimentation controls, drainage and noise mitigation; (j) monitoring and maintenance procedures for the built elements, rehabilitated vegetation and landscaping (including weed control). including performance indicators, responsibilities, timing and duration and contingencies where rehabilitation of vegetation and landscaping measures fail; and (k) evidence of consultation with the relevant council and community on the proposed urban design and landscape measures prior to its finalisation. The Plan may be submitted in stages to suit the staged construction program of the SSI.	✓	Pre-construction and Construction	RMS and Contractor	Compliant		For sections 1 & 2, An Urban Design and Landscape Plan that addresses this condition has been submitted and approved by the Department of Planning & Environment on the **8/5/15** The approved Urban design and Landscape Plan will be implemented for the WC2G project. Landscape procurement, including seed supply and contractors has commenced during the reporting period. No physical landscaping has occurred Landscaping, in the form of hydromulching and landscape planting has commenced during the reporting period. Landscape design is in accordance with the UDLP. Prior to opening to traffic all mainline landscaping will be completed.
ANCILLARY FACILITIES								
	D21	The Applicant shall prepare and implement an Ancillary Facilities Management Plan 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: (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; (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; (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; (e) a summary of the potential environmental impacts associated with the construction and operation of the facility; (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; (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; (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; (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 (l) mechanisms for the monitoring, review and amendment of this plan. 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.	✓	Pre-construction and Construction	RMS and Contractor	Compliant	G1 Clause 1.17, G36 Clause 4.15	The AFMPlan forms part of the CEMP for the WC2G project. The document is based on the AFMP for W2B Sections 3-11 that was prepared in consultation with EPA, OEH, DPI (Fisheries), DoE, and the relevant council, and to the satisfaction of the Environmental Representative Implementation of Ancillary Facilities for he WC2G project will be in accordance with the AFMPLan and approved by the ER or the Secretary dependant on the relevant approval pathway triggered for each proposed Ancillary Facility. Ancillary facilities approved for the WC2G Project during the reporting period include; - Concrete batch plant, laydown and compound at 10 Parker Road - Main compound at Reddiger close, Halfway Creek These facilities are compliant with the AFMP and the A2d document, and have been approved by the Environmental Representative. No new ancillary facilities established during the reporting period.
BORROW SITES								
	D22	The Applicant shall prepare and implement a Borrow Sites Management Plan, to manage the construction, operation and rehabilitation of the borrow sites used to source construction material for the SSI, prior to the commencement of construction at the borrow sites, or as otherwise agreed by the Secretary. The Plan shall be prepared in consultation with the EPA, OEH and DPI (Fisheries) and to the satisfaction of the Secretary, and shall include, but not necessarily be limited to: (a) details of construction/extraction methods and activities carried out at the borrow site; (b) management and mitigation measures to be used to minimise surface and groundwater impacts, Aboriginal and non-Aboriginal heritage, air quality, noise and vibration, biodiversity and visual impacts; (c) consultation with sensitive receivers; and (d) details of the rehabilitation of the borrow site, including future landform and use of the borrow site, landscaping and revegetation, and measures that would be implemented to minimise or manage the ongoing environmental effects of the site. The Plan shall demonstrate that the construction and operation of the Lang Hill borrow site has no adverse impact on the known Oxleyan Pygmy Perch habitat waterway.		Construction	Contractor		R44 Clause 1.5 G36 Clause 3	No borrow sites are currently proposed for Stage 1.
ENVIRONMENTAL REPRESENTATIVE								
	D23	Prior to the commencement of construction of the SSI, or as otherwise agreed by the Secretary, the Applicant shall nominate for the approval of the Secretary a suitably qualified and experienced Environmental Representative(s) that is independent of the design and construction personnel. The Applicant shall employ the Environmental Representative(s) for the duration of construction, or as otherwise agreed by the Secretary. The Environment Representative(s) shall: (a) be the principal point of advice in relation to the environmental performance of the SSI; (b) monitor the implementation of environmental management plans and monitoring programs required under this approval and advise the Applicant upon the achievement of these plans/programs; (c) have responsibility for considering and advising the Applicant on matters specified in the conditions of this approval, and other licences and approvals related to the environmental performance and impacts of the SSI; (d) ensure that environmental auditing is undertaken in accordance with the Applicant's Environmental Management System(s); (e) be given the authority to approve/reject minor amendments to the Construction Environment Management Plan. What constitutes a "minor" amendment shall be clearly explained in the Construction Environment Management Plan; (f) be given the authority to approve/reject Out of Hours Works in accordance with condition B17. These works shall be conducted in accordance with the Out of Hours Works Protocol (OOHW Protocol) required in accordance with condition D26(vi); (g) be given the authority to approve/reject ancillary facilities in accordance with conditions B73 and B74 and the Ancillary Facilities Management Plans under condition D21; (h) be given the authority and independence to require reasonable steps be taken to avoid or minimise unintended or adverse environmental impacts, and failing the effectiveness of such steps, to direct that relevant actions be ceased immediately should an adverse impact on the environment be likely to occur; and (i) be consulted in responding to the community concerning the environmental performance of the SSI where the resolution of points of conflict between the Applicant and the community is required	✓	Pre-construction	RMS	Compliant		Murray Curtis from ERM is the Environmental Representatives that has been appointed for the W2B Project. Back up ER's have also been approved by the Department of Planning and Environment.

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	D24	The Environmental Representative shall prepare and submit to the Secretary a monthly report on the Environmental Representative's actions and decision on matters specified in condition D23 for the preceding month. The reports shall be submitted for the duration of construction of the SSI, unless otherwise agreed by the Secretary.	✓	Pre-construction and Construction	ER	Compliant		Noted
CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN								
	D25 (a)-(c)	The Applicant shall prepare and implement (following approval) a Construction Environmental Management Plan for the SSI, prior to the commencement of construction, or as otherwise agreed by the Secretary. The Plan shall be prepared in consultation with the EPA, OEH, DPI (Fisheries), NOW and DoE and outline the environmental management practices and procedures that are to be followed during construction, and shall be prepared in consultation with the relevant government agencies and in accordance with the Guideline for the Preparation of Environmental Management Plans (Department of Infrastructure, Planning and Natural Resources, 2004). The Plan shall include, but not necessarily be limited to: (a) a description of activities to be undertaken during construction of the SSI (including staging and scheduling); (b) statutory and other obligations that the Applicant is required to fulfil during construction, including approvals, consultations and agreements required from authorities and other stakeholders under key legislation and policies; (c) a description of the roles and responsibilities for relevant employees involved in the construction of the SSI, including relevant training and induction provisions for ensuring that employees, including contractors and sub-contractors, are aware of their environmental and compliance obligations under these conditions of approval;	✓	Pre-construction and Construction	RMS and Contractor	Compliant	G36 Clause 3.1	Utilising the previously approved Section 2 CEMP (approved 4 June 2015), a Construction Environmental Management Plan for the WC2G project has been developed and was submitted for the approval of the Secretary on the 21 June 2019.
	D25 (d)	(d) an environmental risk analysis to identify the key environmental performance issues associated with the construction phase and details of how environmental performance would be managed and monitored to meet acceptable outcomes, including what actions will be taken to address identified potential adverse environmental impacts (including any impacts arising from the staging of the construction of the SSI). In particular, the following environmental performance issues shall be addressed in the Plan: (v) measures to monitor and manage dust emissions including dust from stockpiles, blasting, traffic on unsealed public roads and materials tracking from construction sites onto public roads; (vi) measures to minimise hydrology impacts, including measures to stabilise bed and bank structures as required; (vii) measures for the handling, treatment and management of contaminated materials; (viii) measures to monitor and manage waste generated during construction including but not necessarily limited to: general procedures for waste classification, handling, reuse, and disposal; use of secondary waste material in construction wherever feasible and reasonable; procedures or dealing with green waste including timber and mulch from clearing activities; and measures for reducing demand on water resources (including potential for reuse of treated water from sediment control basins); (ix) measures to monitor and manage spoil, fill and materials stockpile sites including details of how spoil, fill or material would be handled, stockpiled, reused and disposed in a Stockpile Management Protocol. The Protocol shall include details of the locational criteria that would guide the placement of temporary stockpiles, and management measures that would be implemented to avoid/minimise amenity impacts to surrounding residents and environmental risks (including surrounding water courses). Stockpile sites that affect heritage, threatened species, populations or endangered ecological communities require the approval of the Secretary, in consultation with the EPA, OEH and DPI (Fisheries); (x) measures to monitor and manage hazard and risks including emergency management and management measures to address potential risks to the Woodburn borefield drinking water catchment. These measures shall be developed in consultation with Rous Water; (xi) the issues identified in condition D26; (xii) details of community involvement and complaints handling procedures during construction, consistent with the requirement of conditions C1 to C4; (xiii) details of compliance and incident management consistent with the requirements of condition D27; and (xiv) procedures for the periodic review and update of the Construction Environmental Management Plan and Plans required under condition D26, as necessary (including where minor changes can be approved by the Environmental Representative). The Plan shall be submitted for the approval of the Secretary no later than one month prior to the commencement of construction, or as otherwise agreed by the Secretary. The Plan may be prepared in stages, however, construction works shall not commence until written approval of the relevant stage has been received from the Secretary. The approval of a Construction Environmental Management Plan does not relieve the Applicant of any requirement associated with this SSI approval. If there is an inconsistency with an approved Construction Environmental Management Plan and the conditions of this SSI approval, the requirements of this SSI approval shall prevail.	✓	Pre-construction and Construction	RMS and Contractor	Compliant	G36 Clause 3.1	Utilising the previously approved Section 2 CEMP (approved 4 June 2015), a Construction Environmental Management Plan for the WC2G project has been developed and was submitted for the approval of the Secretary on the 21 June 2019.
	D26 (a)	As part of the Construction Environmental Management Plan for the SSI, the Applicant shall prepare and implement: (a) a Construction Noise and Vibration Management Plan to detail how construction noise and vibration impacts will be minimised and managed. The Plan shall be developed in consultation with the EPA and shall be consistent with the guidelines contained in the Interim Construction Noise Guidelines (DECC, 2009) and shall include, but not necessarily be limited to: (i) identification of sensitive receivers and relevant construction noise and vibration goals applicable to the SSI stipulated in this approval; (ii) details of construction activities and an indicative schedule for construction works; including the identification of key noise and/or vibration generating construction activities (based on representative construction scenarios, including at ancillary facilities) that have the potential to generate noise and/or vibration impacts on surrounding sensitive receivers, particularly residential areas; (iii) identification of feasible and reasonable measures proposed to be implemented to minimise and manage construction noise and vibration impacts (including construction traffic noise impacts); (iv) procedures and mitigation measures to ensure relevant vibration and blasting criteria are achieved, including a suitable blast program, applicable buffer distances for vibration intensive works, use of low-vibration generating equipment/vibration dampeners or alternative construction methodology, and pre- and post-construction dilapidation surveys of sensitive structures where blasting and/or vibration is likely to result in damage to buildings and structures (including surveys being undertaken immediately following a monitored exceedance of the criteria); and (v) a description of how the effectiveness of these actions and measures would be monitored during the proposed works, clearly indicating how often this monitoring would be conducted, the locations where monitoring would take place, how the results of this monitoring would be recorded and reported, and, if any exceedance is detected, how any non-compliance would be rectified; (vi) an out-of-hours work (OOHW) protocol for the assessment, management and approval of works outside of standard construction hours as defined in condition B15, including a risk assessment process under which the Environmental Representative may approve out-of-hour construction activities. The OOHW protocol shall detail standard assessment, mitigation and notification requirements for high and low risk out-of-hour works, consultation procedures with the EPA, the relevant council and affected landowners; (i) procedures for notifying sensitive receivers of construction activities that are likely to affect their noise and vibration amenity, as well as procedures for dealing with and responding to noise complaints; (vii) a program for construction noise and vibration monitoring clearly indicating monitoring frequency, location, how the results of this monitoring would be recorded and, procedures to be followed where exceedances of relevant noise and vibration goals are detected; and (viii) mechanisms for the monitoring, review and amendment of this plan.	✓	Pre-construction and Construction	Contractor	Compliant	G10 Clause 3, 4.8, 4.9 & 4.10 G36 Clause 3.1 G38 Clause 2	Utilising the previously approved Section 2 CEMP (approved 4 June 2015), a Construction Environmental Management Plan for the WC2G project has been developed and was submitted for the approval of the Secretary on the 21 June 2019. has been each package of works under Stage 1, prior to the commencement of construction. Mitigation measures identified in the approved NVMP have been implemented throughout the reporting period. Mitigation measures identified in the approved NVMP have been implemented throughout the reporting period.

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	Contract Reference	Comment
	D26 (b)	(b) a Construction Traffic and Access Management Plan to manage construction traffic and access impacts of the SSI. The Plan shall be developed in consultation with the relevant council and shall include, but not necessarily be limited to: (i) identification of construction traffic routes and construction traffic volumes (including heavy vehicle/spoil haulage) on these routes; (ii) details of vehicle movements for construction sites and site compounds including parking, dedicated vehicle turning areas, and ingress and egress points; (iii) identification of construction impacts that could result in disruption of traffic, public transport, pedestrian and cycle access, property access, including details of oversize load movements; (iv) details of management measures to minimise traffic impacts, including temporary road work traffic control measures, onsite vehicle queuing and parking areas and management measures to minimise peak time congestion and measures to ensure safe pedestrian and cycle access; (v) details of measures to manage traffic movements, parking, loading and unloading at ancillary facilities during out-of-hours work; (vi) a response plan which sets out a proposed response to any traffic, construction or other incident; and (vii) mechanisms for the monitoring, review and amendment of this plan.	✓	Pre-construction and Construction	Contractor	Compliant	G10 Clause 3, 4.8, 4.9 & 4.10 G36 Clause 3.1 G38 Clause 2	Utilising the previously approved Section 2 CEMP (approved 4 June 2015), a Construction Environmental Management Plan for the WC2G project has been developed and was submitted for the approval of the Secretary on the 21 June 2019. Mitigation measures identified in the aporovedTAMP have been implemented throughout the reporting period. Mitigation measures identified in the aporovedTAMP have been implemented throughout the reporting period.
	D26 (c)	(c) a Construction Soil and Water Quality Management Plan to manage surface and groundwater impacts during construction of the SSI. The Plan shall be developed in consultation with the EPA, DPI (Fisheries), NOW, Rous Water (in relation to the Woodburn borefield), DoE and the relevant council and include, but not necessarily be limited to: (i) details of construction activities and their locations, which have the potential to impact on water courses, storage facilities, stormwater flows, and groundwater; (ii) surface water and ground water impact assessment criteria consistent with Australian and New Zealand Environment Conservation Council (ANZECC) guidelines or relevant site specific baseline data collected for known Oxleyan Pygmy Perch waterways; (iii) management measures to be used to minimise surface and groundwater impacts, including details of how spoil and fill material required by the SSI will be sourced, handled, stockpiled, reused and managed; erosion and sediment control measures; salinity control measures and the consideration of flood events; (iv) a Groundwater and Soil Salinity report should geotechnical investigations determine the presence, extent and severity of soil salinity within the SSI boundary, The report shall detail the outcomes of geotechnical investigations and identify and mitigate impacts to groundwater resources; (v) an Acid Sulfate Soils contingency plan, consistent with the Acid Sulfate Soils Manual, to deal with the unexpected discovery of actual or potential acid sulfate soils, including procedures for the investigation, handling, treatment and management of such soils and water seepage; (vi) a tannin leachate management protocol to manage the stockpiling of mulch and use of cleared vegetation and mulch filters for erosion and sediment control; (vii) an Oxleyan Pygmy Perch habitat waterway management framework to detail the measures and construction methods that will be employed to avoid direct discharge of construction water to known Oxleyan Pygmy Perch habitat waterways and downstream impacts to suitable habitat; (viii) management measures for contaminated material and a contingency plan to be implemented in the case of unanticipated discovery of contaminated material during construction; (ix) a description of how the effectiveness of these actions and measures would be monitored during the proposed works, clearly indicating how often this monitoring would be undertaken, the locations where monitoring would take place, how the results of the monitoring would be recorded and reported, and, if any exceedance of the criteria is detected how any non-compliance can be rectified; and mechanisms for the monitoring, review and amendment of this plan.	✓	Pre-construction and Construction	Contractor	Compliant	G10 Clause 3, 4.8, 4.9 & 4.10 G36 Clause 3.1 G38 Clause 2	Utilising the previously approved Section 2 CEMP (approved 4 June 2015), a Construction Environmental Management Plan for the WC2G project has been developed and was submitted for the approval of the Secretary on the 21 June 2019. Mitigation measures identified in the approved SWMP have been implemented throughout the reporting period. Mitigation measures identified in the approved SWMP have been implemented throughout the reporting period.
	D26 (d)	(d) a Construction Heritage Management Plan to detail how construction impacts on Aboriginal and non-Aboriginal heritage will be minimised and managed. The Plan shall be developed in consultation with the OEH, the NSW Heritage Council (for non-Aboriginal heritage) and Registered Aboriginal Parties (for Aboriginal heritage), and include, but not necessarily be limited to: (i) in relation to Aboriginal Heritage: (A) details of further investigation and identification of Aboriginal cultural heritage sites within the SSI boundary; (B) details of management measures to be carried out in relation to Aboriginal heritage, including a detailed methodology and strategies for protection, monitoring, salvage, and conservation, of sites and items associated with the SSI; (C) procedures for dealing with previously unidentified Aboriginal objects (excluding human remains) including cessation of works in the vicinity, assessment of the significance of the item(s) and determination of appropriate mitigation measures including when works can re-commence by a suitably qualified archaeologist in consultation with Department of Planning and Environment, OEH and Registered Aboriginal Parties and assessment of the consistency of any new Aboriginal heritage impacts against the approved impacts of the SSI, and registering of the new site in the OEH's Aboriginal Heritage Information Management System (AHIMS) register; (D) procedures for dealing with human remains, including cessation of works in the vicinity and notification of Department of Planning and Environment, NSW Police Force, OEH and Registered Aboriginal Parties and not recommencing any works in the area unless authorised by the OEH and/or the NSW Police Force; (E) heritage training and induction processes for construction personnel (including procedures for keeping records of inductions) and obligations under the conditions of this approval including site identification, protection and conservation of Aboriginal cultural heritage; and (F) procedures for ongoing Aboriginal consultation and involvement for the duration of the SSI; and (ii) in relation to non-Aboriginal Heritage: (A) identification of heritage Items directly and indirectly affected by the SSI; (B) details of management measures to be implemented to prevent and minimise impacts on heritage items (including further heritage investigations, archival recordings and/or measures to protect unaffected sites during construction works in the vicinity); (C) details of monitoring and reporting requirements for impacts on heritage items; (D) procedures for dealing with previously unidentified heritage objects, (including cessation of works in the vicinity, assessment of the significance of the item(s) and determination of appropriate mitigation measures including when works can re-commence by a suitably qualified and experienced archaeologist in consultation with the OEH, NSW Heritage Council and Department of Planning and Environment, and assessment of the consistency of any new heritage impacts against the approved impacts of the SSI; and (E) heritage training and induction processes for construction personnel (including procedures for keeping records of inductions and obligations under this approval including site identification, protection and conservation of non-Aboriginal cultural heritage; and (iii) mechanisms for the monitoring, review and amendment of this plan.	✓	Pre-construction and Construction	Contractor	Compliant	G10 Clause 3, 4.8, 4.9 & 4.10 G36 Clause 3.1 G38 Clause 2	Utilising the approved Template CEMP, a Construction Environmental Management Plan shall be prepared and implemented (following approval by the Secretary) for each package of works under Stage 1, prior to the commencement of construction. The Section 2 CEMP and associated Management Plans were approved on 4 June 2015. Mitigation measures identified in the approved HMP have been implemented throughout the reporting period. Mitigation measures identified in the approved HMP have been implemented throughout the reporting period.

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	Contract Reference	Comment
	D26 (e)	(e) a Construction Flora and Fauna Management Plan to detail how construction impacts on ecology will be minimised and managed. The Plan shall be prepared by a suitably qualified and experienced ecologist and developed in consultation with the OEH, DPI (Fisheries) and DoE, and shall include, but not necessarily be limited to: (i) details of pre-construction surveys undertaken by a suitably qualified and experienced ecologist to verify the SSI footprint based on detailed design; (ii) plans for impacted and adjoining areas showing vegetation communities; important flora and fauna habitat areas; locations where threatened species, populations or ecological communities have been recorded; including pre-clearing surveys to confirm the location of threatened flora and fauna species and associated habitat features; (iii) the identification of areas to be cleared and details of management measures (such as fencing, clearing procedures, removal and relocation of fauna during clearing, habitat tree management and construction worker education) to avoid any residual habitat damage or loss and to minimise or eliminate time lags between the removal and subsequent replacement of habitat; (iv) a protocol for the removal and relocation of fauna during clearing, including provision for engagement of a suitably qualified and experienced ecologist to identify locations where they would be present; to oversee clearing activities and facilitate fauna rescue and re-location; and consideration of timing of vegetation clearing with consideration to the avoidance of clearing native vegetation during the breeding/nesting periods of threatened species, where feasible and reasonable; (v) details of general work practices and mitigation measures to be implemented during construction and operation to minimise impacts on native fauna and native vegetation (particularly threatened species and their habitats and EEC) not proposed to be cleared as part of the SSI, including, but not necessarily limited to: fencing of sensitive areas; measures for maintaining existing habitat features (such as bush rock and tree branches etc); seed harvesting and appropriate topsoil management; construction worker education; weed management (including controls to prevent the introduction or spread of Phytophthora cinnamomi and myrtle rust (Puccinia psidii s.l.); erosion and sediment control, including measures to at least maintain habitat values downstream; and progressive re-vegetation; (vi) rehabilitation details, including identification of flora species and sources, and measures for the management and maintenance of rehabilitated areas; (vii) weed management measures focusing on early identification, suppression and control of invasive weeds and effective management controls; (viii) a protocol for managing aquatic and terrestrial pest animal/invasive species and plant species, and pathogens; (ix) consideration of the Threatened Species Management Plans; (x) a description of how the effectiveness of these management measures would be monitored and linked to the monitoring undertaken as part of the Threatened Species Management Plans; (xi) a procedure for dealing with unexpected EEC/threatened species identified during construction, including cessation of work and notification of the OEH, DPI (Fisheries) and DoE, determination of appropriate mitigation measures in consultation with these agencies (including relevant re-location measures) and updating of ecological monitoring and/or biodiversity offset requirements; and (xii) mechanisms for the monitoring, review and amendment of this plan.	✓	Pre-construction and Construction	RMS and Contractor	Compliant	G10 Clause 3, 4.8, 4.9 & 4.10 G36 Clause 3.1 G38 Clause 2	Utilising the previously approved Section 2 CEMP (approved 4 June 2015), a Construction Environmental Management Plan for the WC2G project has been developed and was submitted for the approval of the Secretary on the 21 June 2019. Mitigation measures identified in the approved FFMP have been implemented throughout the reporting period. Mitigation measures identified in the approved FFMP have been implemented throughout the reporting period.
COMPLIANCE MONITORING AND TRACKING								
	D27	The Applicant shall prepare and implement a Compliance Tracking Program, to track compliance with the requirements of this approval, prior to the commencement of construction and operate from the date of its approval to a minimum of one year following commencement of operation, or as otherwise agreed by the Secretary. The Program shall be prepared for the approval of the Secretary, and include, but not necessarily be limited to: (a) provisions for the notification of the Secretary prior to the commencement of construction and prior to the commencement of operation of the SSI (including prior to each stage, where works are being staged); (b) provisions for periodic review of the compliance status of the SSI against the requirements of this approval; (c) provisions for periodic reporting of compliance status to the Secretary, including a Pre-Construction Compliance Report, prior to the commencement of construction, and a Pre-Operation Compliance Report prior to the commencement of operation. These reports may be staged to suit the staged construction/operation of the SSI; (d) a program for independent environmental auditing in accordance with ISO 19011:2003 - Guidelines for Quality and/or Environmental Management Systems Auditing; (e) mechanisms for recording environmental incidents during construction and actions taken in response to those incidents; (f) provisions for reporting environmental incidents to the Secretary and relevant public authorities during construction; (g) procedures for rectifying any non-compliance identified during environmental auditing, review of compliance or incident management; and (h) provisions for ensuring all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.	✓	Pre-construction and Construction	RMS and Contractor	Compliant	G36 Clause 3.1, 3.2.2	The Compliance Tracking Program for Stage 1 was approved by the Department of Planning & Environment on the **7/5/15.** The previsions for periodic reporting including a pre-construction compliance report is being met with this document with 6 monthly reports to be provided to the Department of Planning and Environment in accordance with the approved Compliance Tracking Program. The WC2G pre construction compliance tracking report is submitted using this compliance tracking Spreadsheet as Appendix A. The first 6 monthly construction compliance report has been prepared to demonstrate compliance between 31st October 2019 and 30th April 2020. This Pre-operational / construction compliance report has been prepared to demonstrate compliance between May and October 2020 and prior to Operation.
OPERATIONAL NOISE AND VIBRATION COMPLIANCE								
	D28	The Applicant shall undertake operational noise monitoring, to compare actual noise performance of the SSI against noise performance predicted in the review of noise mitigation measures required by condition D11, within 12 months of the commencement of operation of the SSI, or as otherwise agreed by the Secretary. The Applicant shall subsequently prepare an Operational Noise Compliance Report to document this monitoring. The Report shall include, but not necessarily be limited to: (a) noise monitoring to assess compliance with the operational noise levels predicted in the review of operational noise mitigation measures required under condition D11 and documents listed in condition A2; (b) a review of the operational noise levels in terms of criteria and noise goals established in the NSW Road Noise Policy 2011; (c) methodology, location and frequency of noise monitoring undertaken, including monitoring sites at which SSI noise levels are ascertained, with specific reference to locations indicative of impacts on sensitive receivers; (d) details of any complaints and enquiries received in relation to operational noise generated by the SSI between the date of commencement of operation and the date the report was prepared; (e) any required recalibrations of the noise model taking into consideration factors such as noise monitoring and actual traffic numbers and proportions; (f) an assessment of the performance and effectiveness of applied noise mitigation measures together with a review and if necessary, reassessment of feasible and reasonable mitigation measures; and (g) identification of additional feasible and reasonable measures to those identified in the review of noise mitigation measures required by condition D11, that would be implemented with the objective of meeting the criteria outlined in the NSW Road Noise Policy 2011, when these measures would be implemented and how their effectiveness would be measured and reported to the Secretary and the EPA. The Applicant shall provide the Secretary and the EPA with a copy of the Operational Noise Report within 60 days of completing the operational noise monitoring referred to in (a) above or as otherwise agreed by the Secretary. Note: • The audit may be staged to suit the staged operation of the SSI.	✓	Operation	RMS	Not Triggered		An addendum to the W2B Section 1 and 2 Operational Noise Compliance Report shall be developed post construction of the WC2G Project to confirm the findings that no further noise treatments are required for receivers north of Wells Crossing
ENVIRONMENTAL MANAGEMENT SYSTEMS								
	D29	Prior to the commencement of operation, the Applicant shall incorporate the SSI into existing environmental management systems administered by the Applicant and prepared in accordance with the AS/NZS ISO 14000 Environmental Management System series. If there is an inconsistency between the existing environmental management systems and the conditions of this SSI approval, the requirements of this SSI approval shall prevail.	✓	Construction and Operation	RMS	Compliant		Noted for WC2G project.
INDEPENDENT ENVIRONMENTAL AUDIT								

Category	Part	Requirement	WC2G	Timing	Responsibility	Status	Contract Reference	Comment
	D30	Within 12 months of the commencement of operation, and then as required by the Secretary, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the SSI. This audit shall: (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary; (b) include consultation with the relevant agencies; (c) assess the environmental performance of the SSI and assess whether it is complying with the requirements in this approval, and any other relevant approvals (including any assessment, plan or program required under these approvals); (d) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals; and (e) recommend measures or actions to improve the environmental performance of the SSI, and/or any strategy, plan or program required under these approvals. Note: • This audit team shall be led by a suitably qualified auditor, and include experts in biodiversity, noise and vibration, hydrology and any other fields specified by the Secretary. • The audit may be staged to suit the staged operation of the SSI.	✓	Operation	RMS	Not Triggered		Noted for the WC2G Project.
	D31	Within 60 days of commissioning this audit, or as otherwise agreed by the Secretary, the Applicant shall submit a copy of the audit report to the Secretary and relevant public authorities, together with its response to any recommendations contained in the audit report.	✓	Operation	RMS	Not Triggered		Noted for the WC2G Project.

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Mitigation No.	Category	Management Measure	WC2G	Timing	Responsibility	Reference / Comment
Aboriginal Heritage						
SPIR-AH1	Aboriginal Cultural Heritage	Where artefact concentrations per square metre (over all depths) encountered are 50 per cent greater than previously encountered, additional salvage excavation using hand tools will be undertaken. If these artefact concentrations are encountered during machine excavation, then machine excavation will stop within 20 metres of the artefact concentrations. Up to, but no more than, an additional six square metres will be excavated in this situation at that site, unless rare features are encountered, in which case discussions with the registered Aboriginal stakeholders and NSW Office of Environment and Heritage will be undertaken to agree on a suitable approach.	✓	Pre-construction Construction	RMS/Contractor	The methodologies proposed by RPS Group and Navin Officer Heritage Consultants incorporated actions to take if substantially rich deposits of artefacts are located. These actions go over and above the requirements of this Management Measure. There have been no artefact salvage required on the WC2G Project. There have been no artefact salvage required on the WC2G Project.
SPIR-AH2	Aboriginal Cultural Heritage	For areas avoided by construction, exclusion zones will be put in place. These will be fenced with high visibility construction webbing or other similar fencing and have a 'Do Not Enter' sign. Exclusion zones will be marked on construction plans and be maintained until construction is completed. A representative of the Local Aboriginal Land Council will be present during establishment of the fencing.	✓	Construction	RMS/ Contractor	Aboriginal Site Officers are present during the initial installation of the fencing but as agreed with the Lead Archaeologists RMS will send in surveyors to locate the fence more accurately on the project boundary. Areas avoided by construction have been delineated with exclusion zones (highly visible parrawebbing and do not enter signage). Areas avoided by construction have been delineated with exclusion zones (highly visible parrawebbing and do not enter signage).
SPIR-AH3	Aboriginal Cultural Heritage	If any part of the project (such as an ancillary facility) is located in an area which has not been subject to Aboriginal heritage field survey and assessment, an assessment will be undertaken before that part of the project proceeds.	✓	Pre-construction	RMS	Due diligence assessments are undertaken for all works that are proposed outside the SSI project boundary prior to such works being undertaken. The due diligence assessment informs the level of assessment that is required in each proposed area. Assessments for works outside the boundary have been limited to the installation of a water pipeline at the southern extent of the Project. This did not involve soil disturbance and was assessed under the PACHI process by the TfNSW ACHO Crystal Donovan. There have been no works outside the project boundary during the reporting period.
SPIR-AH4	Aboriginal Cultural Heritage	Salvage excavation and systematic collection of previously recorded artefacts that will be impacted by the project, along with any other impacted sites that are identified prior to or during construction, are to be undertaken by qualified archaeologists in conjunction with the registered Aboriginal stakeholders: The location of excavations will be within the area of the site to be impacted, and be decided upon in the field by a qualified archaeologist and registered Aboriginal stakeholders. If any datable material is located, a minimum of two samples (per archaeological site) will be subject to radiocarbon, standard or accelerated mass spectrometry dating. For all salvaged material, suitable storage will be agreed upon with the registered Aboriginal stakeholders prior to commencing salvage in those areas.	✓	Pre-construction	RMS/ Contractor	The methodologies proposed by RPS Group and Navin Officer Heritage Consultants go over and above the requirements of this Management Measure. There are no required salvage excavations on the WC2G Project. There are no required salvage excavations on the WC2G Project.
SPIR-AH5	Aboriginal Cultural Heritage	Heritage evidence collected will be curated in an appropriate manner, as determined in consultation with the registered Aboriginal stakeholders and the NSW Office of Environment and Heritage and in accordance with the National Parks and Wildlife Act 1974, details of the material's nature and context will also be provided.	✓	Construction Post-construction	RMS	This will be carried out during the analysis phase.
SPIR-AH6	Aboriginal Cultural Heritage	A detailed technical report documenting the results of the salvage excavations and the archaeological material analysis will be prepared. A summary report (to be made public) will be developed to accompany the technical report.	✓	Construction Post-construction	RMS	This will be carried out after the analysis phase.
SPIR-AH7	Aboriginal Cultural Heritage	Site records will be lodged with NSW Office of Environment and Heritage for any previously unrecorded evidence that is identified and for any evidence that is salvaged.	✓	Construction	RMS	This will be carried out on an on-going basis on the discovery of previously unrecorded Aboriginal Heritage evidence. There have been no unrecorded findings during the reporting period. There have been no unrecorded findings during the reporting period.
SPIR-AH8	Aboriginal Cultural Heritage	Aboriginal Site Impact Recording (ASIR) forms will be lodged with the Aboriginal Heritage Information Management Systems (AHIMS) Register within three months of sites being impacted.	✓	Construction	RMS	All sites impacted by the WC2G project have been cleared of heritage constraint by RPS and Aboriginal Stakeholders.
SPIR-AH9	Aboriginal Cultural Heritage	An unexpected finds (including human skeletal remains) procedure will be developed in accordance with Roads and Maritime' Standard Management Procedures: Unexpected Archaeological Finds 2012.	✓	Construction	RMS/ Contractor	The methodologies proposed by RPS Group and Navin Officer Heritage Consultants go over and above the requirements of this Management Measure for pre-construction works. This measure will be active during construction. There have been no unexpected finds of heritage items, artefacts or human remains during the reporting period. There have been no unexpected finds of heritage items, artefacts or human remains during the reporting period.
SPIR-AH10	Aboriginal Cultural Heritage	Aboriginal focus group consultation (through letters or meetings); will occur at least once every six months, prior to and during construction (unless management actions have been completed).	✓	Pre-construction Construction	RMS	AFG meetings are on-going as required..

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SPIR-AH11	Aboriginal Cultural Heritage	Aboriginal culture awareness training for all relevant staff and contractors will occur prior to commencing work on-site. This could include information about the Aboriginal culture and history of the locality, the location of sites and items that require protection and movement corridors within the project boundary, heritage management measures and protocols, and legal obligations. This training will be developed in consultation with suitably trained personnel from local Aboriginal organisations represented by the relevant registered stakeholders for that area.	✓	Pre-construction Construction	RMS/ Contractor	Heritage awareness training is included in Project Induction, the CEMP / CHMPlan, capturing all project workforce. All personnel who have worked on the site during the reporting period have been inducted, which includes the heritage awareness training package submitted as part of the approved HMP. All personnel who have worked on the site during the reporting period have been inducted, which includes the heritage awareness training package submitted as part of the approved HMP.
SPIR-AH12	Aboriginal Cultural Heritage	An Aboriginal heritage interpretation strategy will be prepared as part of the Aboriginal heritage management plan. Measures will include opportunities for promoting salvage and investigation, the recovery of information, permanent installations and ways of marking the presence of Aboriginal people in the landscape, including, signage, interpretation products such as written materials, and through place naming.	✓	Pre-construction Construction	RMS	Being prepared by Roads and Maritime Environment Branch however still in development
SPIR-AH13	Aboriginal Cultural Heritage	Compliance auditing of the cultural heritage management measures will be undertaken as part of the environmental management audit regime.	✓	Construction	RMS/ Contractor	Audits to be undertaken as required in the CEMP / CHMPlan. The first independent audit was undertaken in February 2020 which included the assessment of compliance against the CEMP and subplans. A second independent audit has been completed in October 2020, which included compliance with CEMP and Subplans.
SPIR-AH14a	Aboriginal Cultural Heritage	Ancillary facility - Section 1, Site 1a (at Taylors Run 2): • 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. Ancillary facility - Section 1, Site 1a (at Taylors Run 3): • Exclusion zones will be established as per management measure AH2. Ancillary facility - Section 1, Site 1a (at 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. Ancillary facility - Section 1, Site 1a (at 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 clay 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.		Pre-construction Construction	RMS/ RMS/ Contractor	NA
SPIR-AH14b	Aboriginal Cultural Heritage	Ancillary facility - Section 1, Site 1a, 1b (at WWC39 (22-1-0343)): • If impact to WWC39 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. • If impacts to the Aboriginal archaeological site are necessary, following archaeological salvage the top soil down to the sterile clay layer will be graded from the area, stockpiled separately and placed in batters. • Where ground disturbance is not necessary, geotextile fabric and crushed rock or similar will be used to protect the ground from compaction. • The area of the Aboriginal archaeological site not to be impacted will be protected by an exclusion zone as per management measure AH2.		Pre-construction	RMS	NA
SPIR-AH14c	Aboriginal Cultural Heritage	Ancillary facility - Section 1, Additional site 5: • Sub-surface test excavation will be undertaken prior to the use of the ancillary facility. This will be conducted in accordance with the methodology used in the working paper, and will occur several months before any ground disturbance in this location. Further recommendations for the Aboriginal archaeological site will then be made in consultation with the registered Aboriginal stakeholders.		Pre-construction	RMS	NA
SPIR-AH14d	Aboriginal Cultural Heritage	Ancillary facility - Section 2, Site 1b (at Lemon Tree Road 1 (13-4-0180): • An exclusion zone will be established around this Aboriginal site as per management measure AH2.	✓	Construction	Contractor	Ancillary Facility not utilised.

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SPIR-AH14e	Aboriginal Cultural Heritage	Ancillary facility - Section 2, Site 3 (at Kungala Road 1 (13-4-0181)): • Sub-surface test excavation will be undertaken prior to construction, conducted in accordance with the methodology used in the working paper, and 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, including potentially establishing a care agreement will be necessary to enable this. • Any portions of the Aboriginal archaeological site that are not to be impacted will be protected by exclusion zones as per management measure AH2.	✓	Pre-construction Construction	RMS/ Contractor	Ancillary Facility not utilised.
SPIR-AH14f	Aboriginal Cultural Heritage	Ancillary facility - Section 2, Site 4 (at 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.	✓	Pre-construction	RMS	Ancillary Facility not utilised.
Air Quality						
SPIR-AQ1	Air Quality	An air quality management plan will be prepared and implemented by the contractor during construction to mitigate dust. The air quality management plan will address all aspects of construction including spoil handling, machinery operating procedures, soft soil treatments, stockpile management, traffic management, haulage, dust suppression and monitoring. The following dust mitigation measures will be used on-site and included as part of the management plan: • Covering materials transported to and from construction sites. • Covering or spraying water on stockpiles of soil or other potential dust generating materials, particularly during dry or windy conditions. • Temporarily seed and stabilise temporary stockpiles that are planned to be in place for long periods. • Imposing speed limits for vehicles and equipment travelling on unsealed surfaces. • Minimising the extent of disturbed areas as far as practicable. This will be achieved by staging the works to minimise the number of disturbed areas at any one time. • Progressively rehabilitating disturbed areas as soon as practicable. • Suppressing dust on unsealed surfaces, temporary roadways, stockpiles and other exposed areas using water trucks, hand held hoses, temporary vegetation and other practices. • Modifying or stopping dust generating activities during very windy conditions. • Installing wheel wash facilities at appropriate locations to reduce tracking of mud and soil off-site. • Monitoring air quality, both visually, using instrumentation and/or depositional dust gauges, near representative sensitive receptors to verify the	✓	Pre-construction Construction	RMS / Contractor	The WC2G CEMP and associated sub plans (eg AQMP) were submitted to the Secretary for approval on the 21st June 2019. Mitigation measures identified within the AQMP have been implemented during the reporting period. Air quality monitoring has been completed and results have been compliant with standards established within the approved AQMP. Mitigation measures identified within the AQMP have been implemented during the reporting period. Air quality monitoring has been completed and results have been compliant with standards established within the approved AQMP.
Biodiversity						
SPIR-B1	Biodiversity	The Ecological Monitoring Program (Appendix K of the PIR) will be finalised in consultation with relevant State and Commonwealth agencies and incorporate any specific conditions of approval and feedback from the expert review.	✓	Pre-construction	RMS	No Ecological Monitoring Program Required
SPIR-B2	Biodiversity	The Connectivity Strategy will be further developed during detailed design, in consultation with relevant State and Commonwealth agencies, building upon the Connectivity Strategy in Appendix A of the Working paper – Biodiversity and the Supplementary Biodiversity Assessment in Appendix J of the Submissions / Preferred Infrastructure Report.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	The Connectivity Strategy for Sections 1 and 2 was approved by the Department of Planning & Environment on the 11/5/15. This document is part of the WC2G CEMP FFMP.
SPIR-B3	Biodiversity	All fauna connectivity structures will be developed in accordance with the design principles outlined in the Connectivity Strategy in Appendix A of the Working paper – Biodiversity and the Supplementary Biodiversity Assessment in Appendix J of the Submissions / Preferred Infrastructure Report.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	Completed as required in accordance with the approved Connectivity Strategy that was approved on the 11/5/15.
SPIR-B5	Biodiversity	Fauna exclusion fencing locations and design will be further developed in accordance with the design principles outlined in the Connectivity Strategy in Appendix A of the Working paper – Biodiversity.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	WC2G Detailed design shall ensure fauna exclusion fencing outcomes are in accordance with the approved Connectivity Strategy
SPIR-B7	Biodiversity	Tree height surveys will be conducted at proposed arboreal crossing zones to determine the most appropriate location to place rope or pole structures. Where feasible, the design will place arboreal crossing zones where average tree heights exceed 20 metres, and/ or taller trees are able to be safely retained close to the road edge.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	Ongoing review and assessment of final treatment to ensure outcomes are in accordance with the approved Connectivity Strategy
SPIR-B8	Biodiversity	The design and construction of fauna exclusion fencing, drainage or fauna underpass structures in widened medians minimise vegetation clearing.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer/ Contractor	Ongoing review and assessment of final treatment to ensure outcomes are in accordance with the approved Connectivity Strategy Clearing around the entry/exit of fauna connectivity structures has been minimised through collaboration between TfNSW, the contractor and the Project Ecologist. No additional clearing has been completed adjacent to underpasses during the reporting period.
SPIR-B9	Biodiversity	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 lay down and ancillary facilities.	✓	Construction	RMS/ Contractor	It is not expected that there will be a requirement for any disturbance of widened median vegetation for ancillary construction purpose including access tracks, stockpiles, materials lay down and ancillary facilities. There have been no incursions into retained vegetation for ancillary facilities during the reporting period. There have been no incursions into retained vegetation for ancillary facilities during the reporting period.
SPIR-B10	Biodiversity	A Flora and Fauna Management Plan will be prepared in accordance with Roads and Maritime Biodiversity Guidelines – Protecting and managing biodiversity on RTA projects (RTA, 2011a).	✓	Pre-construction	RMS/ Contractor	The WC2G CEMP and associated sub plans (eg FFMP) were submitted to the Secretary for approval on the 21st June 2019.

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SPIR-B11	Biodiversity	The threatened species management plans prepared for the project will be finalised, as relevant to the element of the project to be constructed. Development of the plans will include responding, where feasible and reasonable to: • Recommendations from expert review undertaken as part of the Submissions / Preferred Infrastructure Report (and detailed in section 1.4 of the management plans). • Any conditions of approval. • Results from baseline monitoring undertaken. The threatened species management plans will be finalised in consultation with the relevant State and Federal government agencies.	✓	Pre-construction	RMS	The following Plans are relevant for the WC2G project- The Threatened Flora Management Plan for Sections 1 & 2 was approved by the Department of Planning & Environment on the **5/5/15.** The Threatened Mammal Management Plan for Sections 1 & 2 was approved by the Department of Planning & Environment on the **12/5/15.** The Threatened Frog Management Plan was approved by the Department of Planning & Environment on the **7/5/15.** The Threatened Glider Management Plan was approved by the Department of Planning & Environment on the **5/5/15.** The Threatened Bat Management Plan for Sections 1 & 2 was approved by the Department of Planning & Environment on the **29/9/14.** The Koala Management Plan for Sections 1 & 2 was approved by the Department of Planning & Environment on the **11/5/15.**These documents are part of the FFMP.
SPIR-B12	Biodiversity	A landscape management plan will be developed to provide specific details for the re-establishment of native vegetation on batters, cut faces, surrounding sediment basins and other areas disturbed during construction. This includes details for the appropriate removal and restoration of temporary creek crossings. The landscape management plan will be developed in line with Roads and Maritime Biodiversity Guidelines (RTA, 2011a), the design principles identified in the Connectivity Strategy and the design principles in Working paper – Urban design, landscape character and visual impact.	✓	Pre-construction	RMS	The Urban Design Landscape Plan was approved by the Department of Planning & Environment on the **8/5/15,** and shall be implemented for the WC2G project.
SPIR-B13	Biodiversity	Disturbance and clearing of vegetation will be minimised, particularly: • Avoiding and minimising vegetation removal wherever possible through the detailed design process. • Placing water quality basins in the optimal location for treating surface runoff. During detailed design, the location of water quality treatment measures will consider minimising vegetation removal, particularly where there is the potential for threatened plant species, threatened fauna habitat or in identified regional wildlife corridors.	✓	Pre-construction Detailed Design Construction	RMS/ Contractor	Design and clearing limits were focused on minimising clearing wherever possible during detailed design. The contractor minimised clearing during construction clearing to ensure compliance with the approved clearing quantities as per MCoA B1. Section 2 has achieved vegetation savings include riparian zones at Halfway Creek and Wells Crossing including savings to EEC and threatened species. Clearing for WC2G has been minimised during the reporting period through collaboration with TfNSW, the Contractor and the Project Ecologist. No additional clearing has been completed during the reporting period.
SPIR-B14	Biodiversity	In stream structures such as bridges and culverts will be designed and managed to minimise any potential impact to flow regimes and fish passage, in accordance with Fairfull and Witheridge (2003).	✓	Pre-construction Detailed Design	RMS/ Detailed Designer/ Contractor	This has been completed utilising input from DPI / EPA Culverts have been constructed in a manner that minimises impact to flow regimes and fish passage (as required) throughout the reporting period, this has been inspected regularly by DPI Fisheries and EPA. Culvert construction was completed consistent with this requirement during the reporting requirement.
SPIR-B17	Biodiversity	Each permanent waterway crossing is to be designed to ensure no physical, hydraulic and behavioural barriers to aquatic fauna movements. Impacts be minimised by ensuring that: • The natural stream flow and velocity are maintained as closely as possible. • Surface level of any causeway is the same or lower than the natural stream bed to reduce interference with flow. • Habitat within a culvert is as natural as possible (eg allow rock and bed materials to infill the culvert base). • There is the maximum light penetration. • Fauna and fish passage standards are maintained, as detailed in the Connectivity Strategy, including minimum design widths, including for natural banks, while also providing for scour protection and cut and fill batters. • Bridges will be designed and sized to ensure peak flood velocities are not increased by more than one metre per second than the existing flood event, where Oxleyan Pygmy Perch have been confirmed.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	This has been completed utilising input from DPI / EPA
SPIR-B19	Biodiversity	Where temporary access tracks are required over drainage lines with no flow, fords may be installed.	✓	Detailed Design Construction	Contractor	Waterway crossings shall be installed in accordance with Blue Book and Progressive Erosion and Sediment Control Plan approved by project soil conservationist. Crossings to be inspected during ERG inspections. Waterway crossings installed during the reporting period have been installed in accordance with the Bluebook and the approved Progressive Erosion and Sediment Control Plans. Controls have been inspected at least weekly and modifications made as required. There have been no waterway crossings installed during the reporting period.

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SPIR-B20	Biodiversity	Where possible, existing crossings will be used. Where this is not feasible or reasonable, the temporary crossings will be designed to minimise impacts on the existing aquatic ecology and water quality.	✓	Construction	RMS/ Contractor	Waterway crossings shall be installed in accordance with Blue Book and Progressive Erosion and Sediment Control Plan approved by project soil conservationist. Crossings to be inspected during ERG inspections. Waterway crossings installed during the reporting period have been installed in accordance with the Bluebook and the approved Progressive Erosion and Sediment Control Plans. Controls have been inspected at least weekly and modifications made as required There have been no waterway crossings installed during the reporting period.
SPIR-B21	Biodiversity	Temporary waterway access track mitigation measures include: • Installation and subsequent decommissioning of temporary crossings will be undertaken outside of Oxleyan Pygmy Perch spawning seasons (October to December), where Oxleyan Pygmy Perch have been confirmed. • Temporary crossings will be constructed from clean fill using pipe or box culvert cells to carry flows. • All temporary works (eg crossings, flow diversion barriers) will be removed as soon as practicable and in a way that does not promote future channel erosion. • The preferred temporary structure for crossing waterways will be consistent with Witheridge (2002). • Scour protection works will be established at temporary crossings as required. • At the completion of construction, the temporary crossings will be removed and rehabilitated.	✓	Detailed Design Construction	RMS/ Contractor	Temporary Crossings Designed in consultation with ERG, including these provisions Waterway crossings installed during the reporting period have been installed in accordance with the Bluebook and the approved Progressive Erosion and Sediment Control Plans. Controls have been inspected at least weekly and modifications made as required There have been no waterway crossings installed during the reporting period.
SPIR-B22	Biodiversity	Fish that become stranded due to temporary access crossings or construction of temporary or permanent creek diversions must be captured and translocated following the Department of Primary Industries Fisheries Guidelines – A Guide to Acceptable Procedures and Practices for Aquaculture and Fisheries Research.	✓	Construction	Contractor	No blockages to fish passage are expected to be required due to temporary access crossings. There have been no blockages to fish passage during the reporting period.
SPIR-B23	Biodiversity	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.	✓	Pre-construction Construction	RMS/ Contractor	To be implemented in accordance with the Construction Flora and Fauna Management Plan Pre clearing processes have been implemented in accordance with the FFMP during the reporting period. This includes pre construction ecological surveys, targeted threatened species surveys, pre clearing surveys and implementation of the pre clearing permit system. Pre clearing processes utilised throughout the Project, including any minor removal of vegetation during the reporting period.
SPIR-B24	Biodiversity	The location of exclusion zones will be identified, with temporary fencing or flagging tape to indicate the limits of clearing (in accordance with the Roads and Maritime Biodiversity Guidelines (RTA, 2011a)). Permanent fauna exclusion fencing for the project (as described in the Connectivity Strategy), where reasonable and feasible, will be installed prior to clearing and can function as exclusion fencing.	✓	Construction	RMS/ Contractor	To be implemented in accordance with the Construction Flora and Fauna Management Plan Exclusion zones are in place in the form of Limits of Clearing, highly visible flagging with Environmental Protection area Signage. This is reviewed and maintained, and has been inspected regularly during the reporting period. Exclusion zones have remained in place during the reporting period, there have been no events of unauthorised impacts outside exclusion zones during the reporting period.
SPIR-B25	Biodiversity	A staged habitat removal process will be implemented consistent with the Roads and Maritime Biodiversity Guidelines (RTA, 2011a).	✓	Construction	RMS/ Contractor	To be implemented in accordance with the Construction Flora and Fauna Management Plan Staged habitat removal has been completed during the reporting period, in accordance with the approved FFMP. No staged habitat removal completed during the reporting period.
SPIR-B26	Biodiversity	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).	✓	Construction	Contractor	To be implemented in accordance with the Construction Flora and Fauna Management Plan / and the UDLPlan. Woody debris has been placed as habitat as per the FFMP and under the direction of the Project Ecologist during the reporting period. Some placement of woody debris in dedicated culverts has been undertaken during the reporting period in accordance with the Connectivity Strategy..
SPIR-B27	Biodiversity	A weed management plan will be developed as part of the CEMP, in accordance with the Roads and Maritime Biodiversity Guidelines (RTA, 2011a) and the Introductory Weed Management Manual (Richards, 2004).	✓	Pre-construction Construction	RMS/ Contractor	Included as Appendix in the Construction Flora and Fauna Management Plan Weed management has not been required during the reporting period, standard mitigation measures such as incoming vehicle checks have been completed. Weed management was reviewed and no treatment measures were required in addition to incoming plant and equipment inspections..

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SPIR-B28	Biodiversity	A site assessment by an ecologist or person trained in weed identification will be undertaken to identify the presence and extent of Alligator weed. If present, management measures in the Weed Management Plan will be in accordance with the Department of Primary Industries Alligator Weed control manual (van Oosterhout, 2007).		Pre-construction	RMS	Included as Appendix in the Construction Flora and Fauna Management Plan Pre-construction ecological assessments, and pre-clearing inspections did not identify Alligator Weed. No change
SPIR-B29	Biodiversity	Measures to prevent the introduction and/or spread of pests and disease causing agents such as bacteria and fungi will be incorporated into the CEMP, in accordance with the Roads and Maritime Biodiversity Guidelines (RTA, 2011a).	✓	Pre-construction Construction	RMS/ Contractor	Included as Appendix in the Construction Flora and Fauna Management Plan Mitigation measures identified within the FFMP have been implemented during the reporting period. Mitigation measures identified within the FFMP have been implemented during the reporting period.
SPIR-B30	Biodiversity	If pathogens are identified on site: • Testing may be required to confirm the presence of pathogens. • Advice from government departments will be sought on practical hygiene management measures. • Fenced exclusion zones will be identified to restrict access into contaminated areas.	✓	Construction	RMS/ Contractor	Included as Appendix in the Construction Flora and Fauna Management Plan Testing for pathogens has been completed prior to construction, no further mitigation measures were warranted due to the extent of Phytopthera Cinnamomi impact along the alignment.
SPIR-B31	Biodiversity	Nest boxes be installed as per Roads and Maritime Biodiversity Guidelines (RTA, 2011a) and a nest box strategy developed as part of the CEMP, detailing: • The number and type of nest boxes required based on the number, quality and size of the hollows that be removed. • Specifications for nest box dimensions, installation requirements, locations of nest boxes and ongoing monitoring and maintenance. • Installation timeframes, including the installation of 70 % of nest boxes prior to the removal of any vegetation in the vicinity of the hollows.	✓	Pre-construction Construction	RMS	The Nest Box Plan for Section 2 was approved by the Department of Planning & Environment on the **17/2/15.** An addendum to the Section 2 nest box plan was included in the CEMP FFMP for the WC2G project. Nest boxes have been installed in accordance with the WC2G Nest Box Addendum. Once post clearing report is finalised the 100% nest box figures will be determined and installed accordingly. Final nest box figures have been confirmed in Post Clearing Report, TfNSW has
SPIR-B32	Biodiversity	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).	✓	Construction	RMS	To be implemented in accordance with the Construction Flora and Fauna Management Plan The Project Ecologist was present during all vegetation clearing during the reporting period. The Project Ecologist was present during all vegetation clearing during the reporting period.
SPIR-B33	Biodiversity	Prior to any disturbance of waterway banks, a thorough inspection by a qualified ecologist will be undertaken for aquatic fauna such as turtle nests.	✓	Construction	RMS/ Contractor	To be implemented in accordance with the Construction Flora and Fauna Management Plan Project ecologist undertaken detailed inspections as part of the pre clearing process, no finds of aquatic fauna occurred during the clearing and creek disturbance undertaken during the reporting period.
SPIR-B34	Biodiversity	Where possible, streams will be crossed perpendicular to flow, with crossing sites selected to avoid unstable banks, bends in the channel, deep pools and confluences with other channels.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	This has been completed utilising input from DPI / EPA
SPIR-B35	Biodiversity	The bed and banks are to be reinstated to a condition similar to or better than the original condition ensuring that there are no adverse impacts on the aquatic values (different measures may be required for each crossing) and where feasible and reasonable, avoid impacts on geomorphic processes.	✓	Construction	RMS/ Contractor	Would be implemented in consultation with ERG and in accordance with the UDLP and CEMP. Works have progressed in accordance with the CEMP during the reporting period, due to the current stage of works there has been minimal reinstatement during the reporting period. Works have progressed within waterways during the reporting period with permanent
SPIR-B36	Biodiversity	All construction materials used for permanent watercourse crossings (rocks and gravel) are to be free of fine particles to minimise turbidity.	✓	Construction	RMS/ Contractor	Would be implemented in consultation with ERG and in accordance with the UDLP and CEMP. Rock used in permanent scour protection is clean and free of fine materials. Rock used in permanent scour protection is clean and free of fine materials.
SPIR-B37	Biodiversity	Instream and riparian disturbance will be minimised and sediment, woody snags or debris removed from a stream or stream channel will be minimised. Trimming or 'lopping' of branches and logs will be considered as a first option before moving.	✓	Construction	RMS/ Contractor	Would be implemented in consultation with ERG and in accordance with the UDLP and CEMP. Clearing/disturbance around streams has been minimised the extent required to construct the designed project. No new disturbance adjacent to waterways has occurred during the reporting period.
SPIR-B38	Biodiversity	Any instream woody debris removed during construction will be replaced at the completion of the works within the same waterways from which it was removed, where feasible and reasonable.	✓	Construction	RMS/ Contractor	Noted and will be implemented. No woody debris has been removed from waterways. No woody debris has been removed from waterways.

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SPIR-B40	Biodiversity	Appropriate plant species will be incorporated into the rehabilitation of disturbed aquatic habitats and drains as a result of construction.	✓	Construction	RMS/ Contractor	Rehabilitation will be undertaken in accordance with the approved Urban Design and Landscape Plan No rehabilitation has taken place during the reporting period. Landscaping and hydromulching has commenced during the reporting period in accordance with the approved UDLP. Revegetation as per UDLP will be completed on mainline prior to Operation of the project.
SPIR-B41	Biodiversity	All construction sediment and erosion control measures will be put in place during the construction process and may include sediment and erosion control curtains in the waterways to control turbidity generated during the construction and restoration process.	✓	Construction	RMS/ Contractor	Sediment curtains included for works where required in consultation with DPI(Fisheries) and EPA Sediment curtains for works in waterways are not required on this section of the upgrade.
SPIR-B42	Biodiversity	No turbid water generated from the construction corridor or construction area is to be discharged to any waterway unless in accordance with relevant Environment Protection Licence conditions and developed in consultation with Environment Protection Agency and Department of Primary Industries (Fisheries).	✓	Construction	RMS/ Contractor	All discharges from site shall be in accordance with project EPL requirements. All discharges during the reporting period from the Project are compliant with EPL 21330. Refer to monthly reports provided to TfNSW (monthly) . All discharges during the reporting period from the Project are compliant with EPL 21330. Refer to monthly reports provided to TfNSW (monthly) .
SPIR-B44	Biodiversity	Operational spill basins are to be installed at key locations ie near Broadwater National Park and other key drainage lines that lead directly into threatened fish habitat.	✓	Operation	RMS/ Contractor	Operational spill basins have been designed and located where run-off from the roadway could entre class 1 waterways. Spill basins are under construction during the reporting period. Spill basins have been constructed during the reporting period, in accordance with the approved design. All spill and water quality basins shall be completed prior to operation of the project.
SPIR-B45	Biodiversity	Chemicals and fuels will be appropriately stored and bunded, away from waterways and drainage lines.	✓	Construction	RMS/ Contractor	Included in WC2G CEMP / CSWMP Chemicals and fuels are appropriately bunded and inspected at least weekly during the reporting period. Chemicals and fuels are appropriately bunded and inspected at least weekly during the reporting period.
SPIR-B47	Biodiversity	Water quality monitoring will be undertaken to assess the effectiveness of (and where necessary amend) water, sediment and erosion management strategies that aim to protect native fish species, their habitat and other aquatic flora and fauna species. Water quality monitoring program be undertaken in line with details in Appendix B of the Working paper – Biodiversity.	✓	Construction	RMS/ Contractor	Water quality monitoring is undertaken in accordance with the approved Water Quality Monitoring Program for Sections 1 nd 2, with results reported at monthly ERG meetings and annual report to be provided to the Secretary. Water quality monitoring was completed in accordance with the WQMP during the reporting period, including the notification to EPA of elevated readings at SW11 on 27th March 2020. Water quality monitoring was completed in accordance with the WQMP during the reporting period, with elevated readings reported to NSW EPA as required under the WQMP.
SPIR-B48	Biodiversity	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	RMS/ Contractor	Included in CSWMP Stockpiles are located in accordance with the Stockpile Management Protocol, and a register is maintained. Stockpiles are located in accordance with the Stockpile Management Protocol, and a register is maintained.
SPIR-B51	Biodiversity	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	RMS/ Contractor	Ancillary Facilities shall be assessed against the B73 locational criteria and the A2 (d) document with one of the objectives being to avoid native vegetation and Threatened Ecological Communities. Ancillary facilities established during the reporting period meet this requirement, and are subject to approval by TfNSW and the ER to ensure compliance. No new AF established during the reporting period.

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SPIR-B52a	Biodiversity	Ancillary facility - Section 2 site 1a: • Flag and avoid hollow bearing trees • Revegetation of the section of the site in the road reserve or the entire site (if practicable).	✓	Construction	RMS/ Contractor	Ancillary Facilities shall be assessed against the B73 locational criteria and the A2 (d) document with one of the objectives being to avoid native vegetation and Threatened Ecological Communities. AF have been assessed against the B73 conditions and A2D document, approved by the ER and established in accordance with the approved AF Checklists. No new AF established during the reporting period.
SPIR-B52b	Biodiversity	Ancillary facility - Section 2 site 5a: • Avoid isolated trees and flag and avoid hollow bearing trees where possible. Site to remain cleared to benefit emus.	✓	Construction	RMS/ Contractor	Ancillary Facilities shall be assessed against the B73 locational criteria and the A2 (d) document with one of the objectives being to avoid native vegetation and Threatened Ecological Communities. AF have been assessed against the B73 conditions and A2D document, approved by the ER and established in accordance with the approved AF Checklists No new AF established during the reporting period.
SPIR-B52c	Biodiversity	Ancillary facility - Section 2 site 6a and 6b: • Site to remain clear (not vegetated) to benefit emus.	✓	Construction	RMS/ Contractor	Ancillary Facilities shall be assessed against the B73 locational criteria and the A2 (d) document with one of the objectives being to avoid native vegetation and Threatened Ecological Communities. Sites not utilised. Sites not utilised.
SPIR-B55	Biodiversity	The Biodiversity Offset Strategy (detailed in Appendix C of the Working paper – Biodiversity) will be developed further, in consultation with relevant State and Commonwealth agencies, and implemented during detailed design.	✓	Pre-construction Detailed Design	RMS/ RMS/ Detailed Designer	The Biodiversity Offset Strategy was approved by the Department of Planning & Environment on the 6/1/16 The Biodiversity Offset Strategy was approved by the Department of the Environment the 7/1/16
Construction & Operational Noise & Vibration						
SPIR-CNV1	Noise & Vibration	Affected receivers will be notified prior to the commencement of out of hours work. Notification includes contact details of project personnel in charge of the out of hours works.	✓	Construction	RMS/ Contractor	Addressed in the NVMP/ App D Out of Hours Work Procedure. Notifications for OOH works have been completed in accordance with the NVMP. Notifications for OOH works have been completed in accordance with the NVMP.
SPIR-CNV2	Noise & Vibration	Construction will be timetabled to minimise noise impacts where feasible and reasonable. This may include time and duration restrictions and respite periods. These measures will be considered after consultation with affected receivers.	✓	Construction	RMS/ Contractor	Included and addressed in Construction Noise and Vibration Management Plan Mitigation measures within the NVMP have been implemented during the reporting period. Mitigation measures within the NVMP have been implemented during the reporting period.
SPIR-CNV3	Noise & Vibration	Haulage routes will be located as far away as possible from residential receivers, where this is reasonable and feasible.	✓	Construction	RMS/ Contractor	Included and addressed in Construction Noise and Vibration Management Plan Haulage routes are located as far away from receivers as possible and have been restricted to the existing Pacific Highway, Solitary Islands Way and Parker Road throughout the reporting period. Haulage routes are located as far away from receivers as possible and have been restricted to the existing Pacific Highway, Solitary Islands Way and Parker Road throughout the reporting period.
SPIR-CNV4	Noise & Vibration	Equipment will be maintained in efficient working order.	✓	Construction	Contractor	Included and addressed in Construction Noise and Vibration Management Plan Mitigation measures within the NVMP have been implemented during the reporting period. Mitigation measures within the NVMP have been implemented during the reporting period.
SPIR-CNV5	Noise & Vibration	Quieter construction methods will be used, where there are sensitive receivers potentially affected and where this is considered reasonable and feasible. These may include grinding, rock splitting or terrain levelling instead of hydraulic rock breaking.	✓	Construction	Contractor	Included and addressed in Construction Noise and Vibration Management Plan Mitigation measures within the NVMP have been implemented during the reporting period. Mitigation measures within the NVMP have been implemented during the reporting period.

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SPIR-CNV6	Noise & Vibration	Where acceptable from a work health and safety perspective, quieter alternatives to reversing alarms (such as spotters, closed circuit television monitors and 'smart' reversing alarms) will be used, particularly during night-time activities.	✓	Construction	Contractor	Included and addressed in Construction Noise and Vibration Management Plan Mitigation measures within the NVMP have been implemented during the reporting period. Mitigation measures within the NVMP have been implemented during the reporting period.
SPIR-CNV7	Noise & Vibration	All noise complaints received will be dealt with promptly. Construction methods may need to be altered to reduce noise impacts at the affected locations.	✓	Construction	RMS/ Contractor	Included and addressed in Construction Noise and Vibration Management Plan There have been no noise complaints received during the reporting period. There have been no noise complaints received during the reporting period.
SPIR-CNV8	Noise & Vibration	Machinery will not be turned on prior to the work hours outlined in this EIS. This will include daily maintenance activities and/or 'warming up' of engines.	✓	Construction	Contractor	Included and addressed in Construction Noise and Vibration Management Plan OOH works have been completed in accordance with the approved CNVMP and EPL for the reporting period. OOH works have been completed in accordance with the approved CNVMP and EPL for the reporting period.
SPIR-CNV9	Noise & Vibration	Truck movements will be restricted to identified haulage routes and the routes outlined in the Construction Traffic Management Plan.	✓	Construction	RMS	Included and addressed in Construction Noise and Vibration Management Plan Haulage routes are located as far away from receivers as possible and have been restricted to the existing Pacific Highway, Solitary Islands Way and Parker Road throughout the reporting period. Haulage routes are located as far away from receivers as possible and have been restricted to the existing Pacific Highway, Solitary Islands Way and Parker Road throughout the reporting period.
SPIR-CNV10	Noise & Vibration	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	RMS/ Contractor	Included and addressed in Construction Noise and Vibration Management Plan No complaints received in relation to noise during the reporting period. No complaints received in relation to noise during the reporting period.
SPIR-CNV11	Noise & Vibration	The use of temporary noise shielding will be considered at locations where substantial exceedances of noise criteria are predicted.	✓	Construction	RMS/ Contractor	Included and addressed in Construction Noise and Vibration Management Plan Mitigation measures within the NVMP have been implemented during the reporting period. Mitigation measures within the NVMP have been implemented during the reporting period.
SPIR-CNV12	Noise & Vibration	Static noise sources, such as generators, pumps and lighting towers, will be located as far as possible from sensitive receivers.	✓	Construction	Contractor	Included and addressed in Construction Noise and Vibration Management Plan Mitigation measures within the NVMP have been implemented during the reporting period. Mitigation measures within the NVMP have been implemented during the reporting period.
SPIR-CNV13	Noise & Vibration	Regular noise monitoring will be undertaken during proposed construction hours at a representative receiver location, between: • 6am to 7pm, Monday to Friday. • 8am to 5pm, Saturday	✓	Construction	RMS/ Contractor	Included and addressed in Construction Noise and Vibration Management Plan Monthly noise monitoring has been completed as per the CNVMP and reported to TfNSW within monthly reporting - for the entire reporting period. Monthly noise monitoring has been completed as per the CNVMP and reported to TfNSW within monthly reporting - for the entire reporting period.
SPIR-CNV14	Noise & Vibration	The selection of plant and equipment will be based on noise emission levels. This equipment will be operated and maintained so that noise emissions are minimised.	✓	Construction	Contractor	Included and addressed in Construction Noise and Vibration Management Plan Mitigation measures within the NVMP have been implemented during the reporting period. Mitigation measures within the NVMP have been implemented during the reporting period.
SPIR-CNV15	Noise & Vibration	Where piling, hydraulic hammering or dynamic compaction is proposed within 50 metres of any structure or service, a building condition survey will be conducted and preliminary vibration monitoring undertaken by a qualified contractor.	✓	Construction	RMS/ Contractor	Included and addressed in Construction Noise and Vibration Management Plan None of the activities listed are expected to be undertaken within 50m of and structure. Building condition surveys have been completed as required by TfNSW G36. None of the activities listed are expected to be undertaken within 50m of and structure. Building condition surveys have been completed as required by TfNSW G36.

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SPIR-CNV16	Noise & Vibration	Where piling, hydraulic hammering or dynamic compaction is proposed within 50 metres of any heritage structure or potentially structurally unsound service, a building condition survey will be conducted and preliminary vibration monitoring undertaken by a qualified contractor. A follow-up survey will be conducted in response to any vibration complaints.	✓	Construction	RMS/ Contractor	Included and addressed in Construction Noise and Vibration Management Plan None of the activities listed are expected to be undertaken within 50m of and structure. Building condition surveys have been completed as required by TfNSW G36. None of the activities listed are expected to be undertaken within 50m of and structure. Building condition surveys have been completed as required by TfNSW G36.
SPIR-CNV17	Noise & Vibration	Appropriately sized equipment will be selected to minimise vibration emissions, where required.	✓	Construction	Contractor	Included and addressed in Construction Noise and Vibration Management Plan Mitigation measures within the NVMP have been implemented during the reporting period. Mitigation measures within the NVMP have been implemented during the reporting period.
SPIR-CNV18	Noise & Vibration	A blast management plan will be prepared prior to the start of blasting activities.	✓	Construction	RMS/ Contractor	Included and addressed in Construction Noise and Vibration Management Plan A blast management plan was prepared and approved, prior to the commencement of blasting - in the reporting period. The blast management plan was implemented during the reporting period.
SPIR-CNV19	Noise & Vibration	Where sensitive receivers are located close to the blast site, a series of trials will be undertaken at a reduced scale to determine site-specific blast response characteristics, to define allowable blast sizes to occur within the criteria.	✓	Construction	RMS/ Contractor	Included and addressed in Construction Noise and Vibration Management Plan Nearest receiver to a blast site is 1100m. Nearest receiver to a blast site is 1100m.
SPIR-CNV20	Noise & Vibration	Controlled blasting activities will only be undertaken between the hours of: • 9am to 5pm, Monday to Friday. • 9am to 1pm, Saturday. These times may be increased with the written agreement of affected residents. Where the blast management plan has identified potential impacts on sensitive receivers, these hours will be subject to change.	✓	Construction	Contractor	Included and addressed in Construction Noise and Vibration Management Plan Blasts have been completed within specified hours throughout the reporting period. Blasts have been completed within specified hours throughout the reporting period.
SPIR-CNV21	Noise & Vibration	A minimum of 24 hours' notice will be provided to all residences located within 500 metres of any blast, including an indication of blasting times and a contact name and telephone number.	✓	Construction	RMS/ Contractor	Included and addressed in Construction Noise and Vibration Management Plan There are no residents within 500m of blasts on WC2G. There are no residents within 500m of blasts on WC2G.
SPIR-CNV22	Noise & Vibration	Monitoring of overpressure and vibration levels will be undertaken for each blast at the potentially most affected receivers.	✓	Construction	RMS/ Contractor	Included and addressed in Construction Noise and Vibration Management Plan Monitoring as required by SPIR-CNV22 and the EPL has been completed for each blast, there has been no trigger for any blast completed during the reporting period. Monitoring as required by SPIR-CNV22 and the EPL has been completed for each blast, there has been no trigger for any blast completed during the reporting period
SPIR-CNV23	Noise & Vibration	A building condition survey will be undertaken for all buildings located within 200 metres of the proposed blasting area prior to the start of blasting. The proponent will be responsible for rectifying any damage occurring from the blasting, with the cost to be borne by the proponent.	✓	Construction	RMS/ Contractor	Included and addressed in Construction Noise and Vibration Management Plan There are no buildings located within 200m of the blast locations for WC2G. There are no buildings located within 200m of the blast locations for WC2G.
SPIR-CNV25	Noise & Vibration	The maximum instantaneous charge (MIC) will be reduced to the lowest possible level by the use of delays, reduced diameter holes, and/or deck loading.	✓	Construction	Contractor	Included and addressed in Construction Noise and Vibration Management Plan The blast subcontractor has ensured compliance with this requirement, Ron Southon . The blast subcontractor has ensured compliance with this requirement, Ron Southon .
SPIR-CNV26	Noise & Vibration	Adequate stemming will be provided and exposed detonating cord be eliminated (by covering with at least 300 millimetres of quarry dust or road base).	✓	Construction	Contractor	Included and addressed in Construction Noise and Vibration Management Plan The blast subcontractor has ensured compliance with this requirement, Ron Southon The blast subcontractor has ensured compliance with this requirement, Ron Southon .

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SPIR-CNV27	Noise & Vibration	Secondary blasting will be eliminated. (A rock breaker or drop hammer will be used instead of popping). Effort will be made to eliminate the need for toe shots (eg by better control of drill patterns).	✓	Construction	Contractor	Included and addressed in Construction Noise and Vibration Management Plan Secondary blasting has not been undertaken during the reporting period. No change
SPIR-CNV28	Noise & Vibration	Weather conditions at the time of the blast will be assessed. Blasting will be avoided where possible during heavy cloud cover and/or if a strong wind is blowing towards residences. Days of severe temperature inversion will be avoided where possible or, (if not possible) blasting will occur between 11am and 1pm.	✓	Construction	RMS/ Contractor	Included and addressed in Construction Noise and Vibration Management Plan The blast subcontractor has ensured compliance with this requirement, Ron Southon The blast subcontractor has ensured compliance with this requirement, Ron Southon
SPIR-CNV29	Noise & Vibration	Strict control will be exercised over the spacing and orientation of all blast drill holes. Holes will be spaced in such a manner that the explosive force is just sufficient to break the stone to the required size.	✓	Construction	Contractor	Included and addressed in Construction Noise and Vibration Management Plan The blast subcontractor has ensured compliance with this requirement, Ron Southon The blast subcontractor has ensured compliance with this requirement, Ron Southon
SPIR-CNV30	Noise & Vibration	Controlled blasting times will be determined in consideration of site-specific conditions and in consultation with affected residents and take place, where possible, when impacts are likely to be the least intrusive (eg all blasts be fired at a set time acceptable to residents and preferably when the background noise is highest).	✓	Construction	Contractor	Included and addressed in Construction Noise and Vibration Management Plan Blast times have been determined by the Project team at times with minimal disruption to traffic on the Pacific Highway and nearest receivers, however the nearest receiver is approximately 1100m away and has not triggered any monitoring undertaken for blasts. Blast times have been determined by the Project team at times with minimal disruption to traffic on the Pacific Highway and nearest receivers, however the nearest receiver is approximately 1100m away and has not triggered any monitoring undertaken for blasts.
SPIR-CNV31	Noise & Vibration	Identified receivers will be notified by letter of the proposed hours and asked for comment and feedback. This will include justification for the proposed extended working hours along with the benefits the community can expect. Where the community or individual residents wish to receiver further clarification on the proposed hours, individual interviews or public meetings will be organised to address any further issues. Discussions will be sufficiently detailed to provide a general summary of the expected impacts but also how this relates to individual receivers. At this stage, more detail will be available regarding the proposed construction activities to be undertaken in the extended hours. Property owners will be provided with the complaints management procedures to be in place for extended working hours. Feedback will be collected to help determine the final adopted working hours for the project, with community consultation continuing throughout the project.	✓	Pre-construction	RMS/ Contractor	Included and addressed in Construction Noise and Vibration Management Plan Notification for working hours has been completed in accordance with the NVMP and EPL requirements. Notification for working hours has been completed in accordance with the NVMP and EPL requirements.
SPIR-ONV1	Noise & Vibration	Architectural treatments will be considered for noise-affected receivers identified in the EIS and Submissions / Preferred Infrastructure Report (Appendix F), subject to confirmation at the detailed design stage.	✓	Pre-operation Detailed Design	RMS/ Contractor	Included and addressed in Construction Noise and Vibration Management Plan Architectural treatments have not been identified as a requirement for the construction phase. Architectural treatments have not been identified as a requirement for the construction phase.
SPIR-ONV3	Noise & Vibration	No later than one year after commencement of operation of the project stages as they are constructed, Roads and Maritime will undertake operational noise monitoring to compare the actual noise performance of the project against predicted noise performance. The report will include, but not necessarily be limited to: • Noise monitoring to assess compliance with the operational noise levels predicted. • A review of the operational noise levels in terms of criteria and noise goals. • Methodology, location and frequency of noise monitoring undertaken. • Details of any complaints and enquiries received in relation to operational noise. • Any required recalibrations of the noise model. • An assessment of the performance and effectiveness of applied noise mitigation measures. • Any additional feasible and reasonable measures required.	✓	Operation	RMS	An addendum to the W2B Section 1 and 2 Operational Noise Compliance Report shall be developed post construction of the WC2G Project to confirm the findings that no further noise treatments are required for receivers north of Wells Crossing
Greenhouse Gas Emissions						
SPIR-GH1	Greenhouse Gas Emissions	Flyash content within concrete will be specified where feasible. Contractors will be required to propose recycled content construction materials where they are cost, quality and performance competitive.	✓	Pre-construction Construction	RMS/ Contractor	Fly ash to be included in concrete mix designs where feasible.
SPIR-GH2	Greenhouse Gas Emissions	Reuse of excavated road materials will be maximised as far as possible where they are cost, quality and performance competitive to reduce use of materials (with embedded energy).	✓	Pre-construction Construction	RMS/ Contractor	Reuse of materials maximised All excavated materials have been re-used within the Project works , including the Hawthorn close batter widening during the reporting period. All excavated materials have been re-used within the Project works , including the Hawthorn close batter widening during the reporting period.

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SPIR-GH3	Greenhouse Gas Emissions	Steel with high recycled content will be specified where feasible where they are cost, quality and performance competitive. Contractors will be required to propose recycled content construction materials where they are cost, quality and performance competitive.	✓	Pre-construction Construction	RMS/ Contractor	Where available from commercial steel suppliers within RMS specification and cost, quality and performance competitive; recycled steel will be sourced Steel has been supplied in accordance with specification during the reporting period. Steel has been supplied in accordance with specification during the reporting period.
SPIR-GH4	Greenhouse Gas Emissions	The feasibility of using biofuels (biodiesel, ethanol, or blends such as E10 or B80) will be investigated by the contractor, taking into consideration the capacity of plant and equipment to use these fuels, ongoing maintenance issues and local sources. Works will be planned to minimise fuel use.	✓	Construction	Contractor	To be assessed by the Principal contractor for WC2G project. The use of biodiesel remains un recommended for suppliers of plant and equipment used during the reporting period. The use of biodiesel remains un recommended for suppliers of plant and equipment used during the reporting period.
SPIR-GH5	Greenhouse Gas Emissions	An energy management plan will be developed during the construction of the project. The plan will include a commitment to monitor on-site energy consumption and identify and address on-site energy waste.	✓	Pre-construction Construction	Contractor	Refer to WC2G Construction Waste and Energy Management Plan Mitigation measures within the WEMP have been implemented throughout the reporting period, including the review of waste energy. All compounds operate on mains power. Mitigation measures within the WEMP have been implemented throughout the reporting period, including the review of waste energy. All compounds operate on mains power.
SPIR-GH6	Greenhouse Gas Emissions	Roads and Maritime will investigate the use of LED lighting in place of incandescent lamps as part of the project's detailed design, and use them where practicable to reduce electrical energy consumption. Any energy-efficient alternatives will have to meet lighting standards for major roads.	✓	Pre-construction	RMS	For sections 1 & 2, RMS has investigated and has approved LED lighting. Contractors are required to progress utilisation of LED lighting as part of a design and construct component.
SPIR-GH7	Greenhouse Gas Emissions	An education program will be developed and delivered to the construction personnel to promote energy-efficient work practices.	✓	Construction	RMS/ Contractor	To be included in project induction for WC2G. Project induction has been delivered to all personnel who work on the site. Project induction has been delivered to all personnel who work on the site.
Hydrology & Flooding						
SPIR-HF4	Hydrology and Flooding	Any permanent fencing at culvert and bridge crossings will consider the potential for blockage and be designed and operated to maintain the existing flood regime.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	This has been addressed during detailed design process
SPIR-HF5	Hydrology and Flooding	Detailed design for permanent road fencing will consider hydrology and flooding impacts.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	This has been addressed during detailed design process
SPIR-HF6	Hydrology and Flooding	Scour and erosion protection measures at temporary and permanent waterway crossings will be provided upstream and downstream of the highway, particularly within 50 metres of Class 1 waterways or within the range of the Oxleyan Pygmy Perch as identified in section 3.9.6 of the Working paper – Biodiversity and the supplementary biodiversity assessment in Appendix J of the Submissions / Preferred Infrastructure Report. This will be undertaken in consultation with the Department of Primary Industries (Fisheries).	✓	Pre-construction Detailed Design Construction	RMS/ Detailed Designer	This has been addressed during detailed design process Also addressed in the contractors SWMP and EWMS for temp waterway crossings.
SPIR-HF8	Hydrology and Flooding	Revegetation of waterway diversions and surrounding areas will be undertaken in accordance with the following principles: • Diversions will be stabilised prior to the diversion receiving flows, in conjunction with the establishment of other scour and erosion control measures. • Diversions will establish appropriate vegetation communities along the channel bed and banks, using endemic native species.	✓	Detailed Design Construction	Contractor	This has been addressed during the detailed design and is captured within the contract documents. Also shall be discussed onsite during construction with DPI Fisheries and EPA as rehabilitation is implemented on ground. Rehabilitation of waterways has not yet commenced in the reporting period. Rehabilitation of waterways with permanent scour protection has been completed. Joint inspections have been undertaken with EPA and DPI fisheries, including Glenugie Creek.
SPIR-HF11	Hydrology and Flooding	Farm dams located within or partially within the project boundary will be acquired as part of the acquisition process in accordance with the *Land Acquisition (Just Terms Compensation) Act 1991* .	✓	Pre-construction	RMS	All acquisitions have been undertaken in accordance with the Land Acquisition (Just Terms Compensation) Act 1991.
SPIR-HF12	Hydrology and Flooding	Potential impacts to farm dams located downstream of the project that are fed by catchments upstream, and that have a diversion of rainfall as a result of the project, will be considered during the relevant property acquisition process.	✓	Pre-construction	RMS	The design considers this impact. Consultation during land acquisition identifies these impacts and is compensated for reduced run-off is expected.
SPIR-HF13	Hydrology and Flooding	Detailed design will consider flood access and evacuation for affected landowners including changes in stock access routes.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	This has been addressed during the detailed design in consultation with affected landowners.
SPIR-HF14	Hydrology and Flooding	The level of flood immunity of Eggins Drive into Corindi will be built at a 100 year ARI as agreed with Coffs Harbour City Council.		Construction	RMS	This has been addressed during the detailed design in consultation with Coffs City Council and has achieved a 1 in 100 year flood immunity.
SPIR-HF19	Hydrology and Flooding	All work within 40 metres of a permanent watercourse, crossed by the project, will be undertaken in accordance with the NSW Office of Water 'Guidelines for Controlled Actions' and industry best practice including maintaining where feasible and reasonable the geomorphic integrity and natural hydrological flow regime.	✓	Detailed Design Construction	RMS/ Contractor	Noted and shall be applied to the works All works have been completed in accordance with the approved CEMP and Subplans which cover this requirement. All works have been completed in accordance with the approved CEMP and Subplans which cover this requirement.

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SPIR-HF20	Hydrology and Flooding	The design of temporary fencing at culvert and bridge crossings will consider the potential for blockage and be designed and operated in a manner that does not result in impacts on flooding.	✓	Detailed Design Construction	RMS/ Detailed Designer	Noted and shall be applied to the works No temporary fencing is required at bridge or culvert crossings. No temporary fencing is required at bridge or culvert crossings.
SPIR-HF21	Hydrology and Flooding	The need for design modifications to address changes in flood behaviour as a result of climate change will be considered in accordance with Roads and Maritime' Climate Change Plan (Roads and Maritime, 2012).	✓	Pre-construction Detailed Design Construction	RMS/ Detailed Designer	This has been addressed during the detailed design
SPIR-HF22	Hydrology and Flooding	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 Detailed Design	RMS/ Contractor	For WC2G, Ancillary Facilities will be assessed against the B73 locational criteria and the A2 (d) document. AF have been assessed and approved in accordance with the MCoA by the ER and TfNSW throughout the reporting period. No new AF have been approved during the reporting period.
SPIR-HF23	Hydrology and Flooding	Design objectives (for road flood immunity and flood management will apply during the detailed design phase. Where these objectives are not met, Roads and Maritime will work to either: • Achieve compliance thorough modified embankment or drainage design. • Achieve an acceptable level of mitigation of impacts through alternative design measures (eg raised access tracks) in consultation with the affected land owner.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	This has been addressed during the detailed design process.
SPIR-HF25	Hydrology and Flooding	Maintenance regime of drainage structures will be considered during detailed design.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	Inspection of drainage structures included in routine site inspections, especially post flooding events. Inspections of drainage structures are completed during and following rainfall events. Large rainfall events received during January/February 2020 did not cause flooding of existing drainage structures. Inspections of waterways completed during post rainfall inspections, no flooding issues identified.
SPIR-HF30	Hydrology and Flooding	Consultation with affected landowners will be undertaken during detailed design and construction regarding flooding impacts on properties, residences and other structures.	✓	Pre-construction Detailed Design Construction	RMS/ Detailed Designer/ Contractor	This has been addressed during the detailed design and will continue during the construction phase. There have been no flooding impacts the neighbouring properties during the reporting period.
Non-Aboriginal Heritage						
SPIR-HH1	Non-Aboriginal Historical Heritage	If at any time during construction associated with the project, unidentified historical heritage materials, features and/or deposits are found, the Roads and Maritime Standard Management Procedure: Unexpected Archaeological Finds (20121) will be followed.	✓	Construction	RMS/ Contractor	Noted and shall be applied to the works There have been no unexpected finds during the reporting period. There have been no unexpected finds during the reporting period.
SPIR-HH2	Non-Aboriginal Historical Heritage	Contractors will be given awareness training on non-Aboriginal historical heritage prior to commencement of construction works to ensure understanding of potential heritage items and the procedure in the event of discovery of historical heritage materials, features or deposits, or the discovery of human remains.	✓	Construction	RMS/ Contractor	Included in project induction in the CEMP / CHMP. All personnel working on site have been inducted during the reporting period. All personnel working on site have been inducted .
SPIR-HH3	Non-Aboriginal Historical Heritage	The Heritage management plan will be developed in consultation with the Heritage Council of NSW.	✓	Construction	RMS/ Contractor	Heritage Council of NSW were consulted during development of the Section 2 Heritage Management Plan which was subsequently approved by Department of Planning and Environment. The WC2G project utilised the Section 2 CEMP as a template and updated the document to reflect project opportunities and constraints.
SPIR-HH4	Non-Aboriginal Historical Heritage	Should the impact to any historic heritage item change during detailed design, further assessment of impacts on the items will be undertaken.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	This has been addressed during the detailed design
SPIR-HH7	Non-Aboriginal Historical Heritage	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	RMS/ Contractor	Noted and will be implemented There have been no unexpected finds during the reporting period. There have been no unexpected finds during the reporting period.
SPIR-HH12	Non-Aboriginal Historical Heritage	Salvage excavation (of the coach way station and early coach road) will be undertaken from the project boundary along the front of the complex buildings to the edge of the existing highway before construction starts in the vicinity of the heritage item. Excavations will be undertaken in accordance with Heritage Branch guidelines and under the supervision of an appropriately qualified and experienced historical archaeologist. An appropriate research design and methodology will be prepared to best realise the research potential of this area of the site.	✓	Pre-construction Construction	RMS/ RMS/ Contractor	Jacobs developed an appropriate methodology that was approved by DP & E for these works. Salvage excavations were undertaken in accordance with the approved methodology for the HC2G project.
SPIR-HH13	Non-Aboriginal Historical Heritage	The batter slope for the motorway upgrade will not be constructed within eight metres of the bar/restaurant building.	✓	Detailed Design Construction	RMS/ Detailed Designer/ Contractor	This has been achieved as part of detailed design.
SPIR-HH14	Non-Aboriginal Historical Heritage	A temporary fence will be erected between the bar/restaurant building and the motorway upgrade construction before work starts in the vicinity of the heritage item. The fence will remain in place until construction is completed, at which time it will be removed.	✓	Pre-construction Construction	RMS/ Contractor	This fence was installed after the physical investigation work had been completed at this location.

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SPIR-HH15	Non-Aboriginal Historical Heritage	A photographic condition survey will be undertaken of the current condition of the heritage items with any damage to the item from construction to be repaired once construction is complete.	✓	Pre-construction Construction	RMS/ Contractor	Recording to be undertaken as part of dilapidation condition reports
SPIR-HH16	Non-Aboriginal Historical Heritage	Architectural noise treatment to the house will be investigated and provided where reasonable and feasible and in consultation with a qualified heritage consultant. Consideration will be given for the need to revise the SOHI for this item when the specific architectural noise treatment options are identified.	✓	Pre-construction	RMS	Assessment would need to be undertaken following Operational Noise Review to assess whether noise treatment warranted and feasible before engaging heritage specialist to ascertain works required.
SPIR-HH17	Non-Aboriginal Historical Heritage	Archival photographic recording will be undertaken in accordance with the Heritage Branch guidelines How To Prepare Archival Records Of Heritage Items (NSW Heritage Office, 1998) prior to its removal.	✓	Pre-construction	RMS	Archival Recording will be undertaken by Jacobs in accordance with the Heritage Branch guidelines How To Prepare Archival Records Of Heritage Items (NSW Heritage Office, 1998)
SPIR-HH51	Non-Aboriginal Historical Heritage	Detailed design will consider the extent to which clearing High Conservation Value Old Growth Forest within the project boundary may be minimised.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	This was undertaken during detailed design to ensure minimal impact to High Conservation Value Old Growth Forest
SPIR-HH52	Non-Aboriginal Historical Heritage	The area to be cleared will be clearly identified on-site. High Conservation Value Old Growth Forest adjacent to areas to be cleared will be delineated to avoid accidental disturbance on further areas.	✓	Construction	Contractor	Clearing undertaken as per the approved clearing limits and the approved Construction Flora and Fauna Management Plan. Clearing has been completed in accordance with the FFMP during the reporting period. Clearing has been completed in accordance with the FFMP during the reporting period.
Land Use						
SPIR-LU1	Property & Landuse	Ongoing communication and consultation will be undertaken with directly affected property owners about the property acquisition process. This includes the provision of information on the timing of acquisitions, and the process for property acquisitions under the *Land Acquisition (Just Terms Compensation) Act 1991* and Roads and Maritime' Land Acquisition Policy (RTA, 1999).	✓	Pre-construction	RMS	Noted and undertaken in accordance with the Land Acquisition (Just Terms Compensation) Act 1991 and RMS' Land Acquisition Policy (RTA, 1999).
SPIR-LU2	Property & Landuse	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 Detailed Design	RMS/ Detailed Designer	Noted and undertaken in accordance with the Land Acquisition (Just Terms Compensation) Act 1991 and RMS' Land Acquisition Policy (RTA, 1999).
SPIR-LU3	Property & Landuse	Property adjustments will be completed for fencing, access tracks, cattle underpasses and other farm infrastructure in consultation with the impacted land owner.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	Standard process - ongoing
SPIR-LU4	Property & Landuse	The Fencing Strategy will be further developed during detailed design, in consultation with relevant stakeholders. This will build upon the principles of the strategy described in Chapter 3 of the Submissions and Preferred Infrastructure Report (Roads and Maritime, 2013).	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	The fencing strategy was further developed as part of detailed design for Sections 1 and 2. This involved all relevant stakeholders to maximise the potential of achieving appropriate fencing outcomes in all locations.
SPIR-LU5	Property & Land use	Sterilisation and severance of land uses and lots will be minimised by amalgamating severed parcels of land together, where possible, with provision of road access, in accordance with the project's remnant land use strategy.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	This has been considered where ever possible, and will be finalised post construction
SPIR-LU6	Property & Land use	Where required, acquisition of State forests will be minimised in accordance with the provisions of the *Forestry Act* 2012. Revocation of land dedicated or reserved as national parks or nature reserves will be in accordance with the *National Parks and Wildlife Act 1974* . Acquisition of land owned by Local Aboriginal Land Councils will be in accordance with the provisions of the *Aboriginal Land Rights Act 1983* .	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	Land acquired from State Forest and Aboriginal Land Councils has been/currently undertaken by RMS Property Section in accordance with relevant legislation.
SPIR-LU7	Property & Landuse	A remnant land strategy to minimise land use severance and sterilisation, and a mitigation strategy for final land uses will be developed in consultation with cane industry stakeholders, Coffs Harbour City, Clarence Valley, Richmond Valley and Ballina Councils.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	This requirement has been considered where ever possible, and will be finalised both during and post construction in consultation with relevant industry and Councils
SPIR-LU9	Property & Landuse	Access to properties near construction works will be maintained, including where required for the movement of farm equipment and livestock between properties, unless otherwise agreed with landowners.	✓	Construction	RMS/Contractor	Access to be maintained - ongoing. Access to properties has been maintained throughout the reporting period. Access to properties has been maintained throughout the reporting period.
SPIR-LU10	Property & Landuse	Where temporary changes to property access are required during construction, alternative access will be determined in consultation with affected property owners and tenants.	✓	Construction	RMS/Contractor	Access to be maintained - ongoing. Access to properties has been maintained throughout the reporting period. Access to properties has been maintained throughout the reporting period.
SPIR-LU11	Property & Landuse	There will be ongoing communication with local communities about changes to the local road network, including likely delays and disruptions and alternative accesses if required.	✓	Construction	RMS/Contractor	Achieved via notifications reviewed , project web site, and approved by RMS TfNSW Construction update issued April 2020 No further updates issued during the reporting period.
SPIR-LU12	Property & Landuse	Where possible, onsite reuse of any spoil is the preferred solution for managing the impacts, although alternative options for the reuse or disposal of spoil will be identified in the surplus material management plan.	✓	Construction	Contractor	Included and managed as per the CEMP / CSWMP Spoil use has remained onsite during the reporting period, this includes the placement of spoil in the Hawthorn Close batter widening. Spoil use has remained onsite during the reporting period.
SPIR-LU13	Property & Landuse	The management of surplus material will be further developed during detailed design, in consultation with relevant stakeholders. This will build upon the principles of the strategy described in Chapter 3 of the Submissions and Preferred Infrastructure Report (Roads and Maritime, 2013).	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	Noted and applied to the project works
SPIR-LU14	Property & Landuse	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	RMS	Harvest of millable timber to be maximised during clearing operations for WC2G project. LLE confirmed prior to commencement of clear that harvest of timber was not requested by Forest Corporation NSW. NO changes to compliance with this requirement during the reporting period.

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SPIR-LU15	Property & Landuse	Environmental management measures will be implemented to minimise potential for impacts on adjoining agricultural uses, including from changes in water quality and spread of weeds and pests.	✓	Construction	RMS/ Contractor	Managed in accordance with the CSWMP and CFFMP for WC2G Mitigation measures have been employed during the reporting period. Mitigation measures have been employed during the reporting period.
SPIR-LU16	Property & Landuse	Where pesticides are required during construction, implement appropriate environmental management measures to avoid potential impacts on adjoining agricultural properties.	✓	Construction	Contractor	Managed in accordance with the CFFMP Pesticides have not been applied during the reporting period. Pesticides have not been applied during the reporting period.
SPIR-LU19	Property & Landuse	Relocation or adjustment of infrastructure will be planned to minimise disruptions and impacts on surrounding properties.	✓	Construction	RMS/ Contractor	Noted and is being undertaken during both preconstruction and construction Works have been planned and implement to minimise disruption to surrounding properties during the reporting period. Works continue to be planned to minimise disruption to the surrounding community, including planning for the final opening.
SPIR-LU20	Property & Landuse	Communication will be undertaken with nearby communities about the timing and duration of potential disruptions to infrastructure.	✓	Construction	RMS/ Contractor	Noted and shall be undertaken in accordance with the W2B Communications and Stakeholder Engagement Strategy Completed by TfNSW during the reporting period, including the issue of Project Updates. Completed by TfNSW during the reporting period, including the issue of Project Updates.
SPIR-LU21	Property & Landuse	Roads and Maritime' land that is required for the project will be appropriately maintained. This will be undertaken by regional Roads and Maritime officers or a designated local authority. Roads and Maritime manage the leasing and maintenance of property identified as suitable for tenants.	✓	Operation	RMS	This is being undertaken in accordance with RMS Property maintenance processes.
SPIR-LU23	Property & Landuse	Ongoing consultation will be undertaken with owners of agricultural properties affected by the project – through acquisition, changes to local access or fragmentation of properties – about potential impacts on farming operations and potential measures to manage or mitigate identified impacts.	✓	Operation	RMS/ Contractor	Noted and is ongoing in accordance with the Land Acquisition (Just Terms Compensation) Act 1991 and RMS' Land Acquisition Policy (RTA, 1999).
SPIR-LU24	Property & Landuse	Consultation with Forestry Corporation will be undertaken regarding access to and within State forests where required, in accordance with the *Forestry Act* 2012.	✓	Detailed Design Operation	RMS/ Contractor	This has been completed for Sections 1 & 2, and will be ongoing during construction for the WC2G Principal contractor.
SPIR-LU25	Property & Landuse	Consultation with Forestry Corporation will be undertaken regarding the relocation of fire trails directly impacted by the project's construction or operation.	✓	Detailed Design Operation	RMS/ Contractor	This has been completed for Sections 1 & 2, and will be ongoing as necessary during construction for the WC2G Principal contractor. Notification requirements are listed in the G36 and G40.
SPIR-LU27	Property & Landuse	As far as possible, property accesses will be reinstated or new access provided, in consultation with impacted landowners.	✓	Detailed Design Operation	RMS/ Detailed Designer/ Contractor	For WC2G, new property accesses have been designed to replace those that are lost or modified. This has been undertaken in consultation with impacted landowners.
SPIR-LU30	Property & Landuse	Consultation will be undertaken with the relevant State Government agency to consider any future coal seam gas production in the vicinity of the project.	✓	Pre-construction	RMS/ RMS	Noted and undertaken as necessary
SPIR-LU31	Property & Landuse	Consultation will be undertaken with service and utility providers to verify locations, impacts and any relocation or construction protection work required.	✓	Detailed Design Operation	RMS/ Detailed Designer/ Contractor	Noted and undertaken as necessary
Social & Economic						
SPIR-SE1	Social and Economic	Consultation will be undertaken with local business owners, industry and tourism operators directly affected by construction and located closest to construction works. The focus will be on the timing, duration and likely impact of construction activities, to identify appropriate measures to manage potential impacts.	✓	Pre-construction Construction	RMS/ Contractor	Ongoing consultation with local business owners where impacted. WC2G has minimal impact on local businesses. Consultation has been ongoing during the reporting period, the only business consulted with to date has been Jacks Eggs. Consultation has been undertaken throughout the reporting period, with the only business consulted being Jacks Eggs.
SPIR-SE2	Social and Economic	Consultation will be undertaken with managers of community services and facilities near the proposed construction works, to ensure that potential impacts are appropriately managed.	✓	Pre-construction Construction	RMS/ Contractor	Consultation with Halfway Creek Community Hall will be undertaken if potential impacted by Ancillary Facilities for the WC2G project. To be implemented by Community Relations team throughout construction if required. Further consultation has not been required during the reporting period. Further consultation has not been required during the reporting period.
SPIR-SE3	Social and Economic	Consultation will be undertaken with residents and local communities closest to construction works about construction activities, including timing, duration and likely impacts.	✓	Pre-construction Construction	RMS/ Contractor	Noted and shall be undertaken in accordance with the W2B Communications and Stakeholder Engagement Strategy TfNSW provided notification prior to start of Early Works (October 2019) and has issued the Project Update in April 2020. The final major notification for the Project will be the Open to Traffic notifications scheduled for distribution in November 2020.
SPIR-SE5	Social and Economic	Roads and Maritime will work with Councils affected by the upgrade, where relevant, to support strategies by local councils and/or chamber of commerce and industry to promote townships and villages as stopovers for tourist.	✓	Construction Operation	RMS	Noted and shall be undertaken in accordance with the W2B Communications and Stakeholder Engagement Strategy
SPIR-SE6	Social and Economic	Roads and Maritime will work with Councils affected by the upgrade, during detailed design, to discuss the classification of the existing Pacific Highway and, where appropriate, the required transfer process of state road assets to Council.	✓	Pre-construction Detailed Design	RMS/ RMS/ Detailed Designer	Initiated during detailed design with further discussions relating to transfer ongoing during construction phase and post construction.

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SPIR-SE7	Social and Economic	Maintain access to properties near to the project during construction, including, where required, for the movement of farm equipment and livestock between properties, and for access to the Berry Exchange and other affected agribusinesses.	✓	Construction	Contractor	Undertaken by Community Relations Team Property access has been maintained during the reporting period. Property access has been maintained during the reporting period.
SPIR-SE8	Social and Economic	Where temporary changes to property access are required during construction, alternative access will be determined in consultation with affected property owners and tenants.	✓	Construction	RMS/ Contractor	Undertaken by Community Relations Team where required Temporary changes to property access have not occurred during the reporting period. Temporary changes to property access have not occurred during the reporting period.
SPIR-SE10	Social and Economic	Undertake early and ongoing communication and consultation with emergency services to allow planning for potential changes to response patterns and input into the design development.	✓	Detailed Design Operation	RMS/ Detailed Designer	For sections 1 and 2, this was undertaken during preconstruction. And is continued through the reporting period as required. Consultation has been ongoing during the reporting period.
Soil & Water						
SPIR-SSW1	Soil & water	Batter slope gradients will be designed to minimise erosion of select topsoil.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	For WC2G, this has been addressed during detailed design.
SPIR-SSW2	Soil & water	Where feasible, bench cuttings will be diverted onto contours and surface flow drainage paths designed to spread flow at the source in preference to concentrating the flow and treating it further downstream.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	For WC2G, this has been addressed during detailed design.
SPIR-SSW3	Soil & water	As part of the Construction Environmental Management Plan, a soils and water management plan will be prepared and include (but not limited to): • Erosion and sediment control plans for all stages of construction. • Consideration of soil erodibility. • At-source erosion controls (eg check dams). • Sedimentation basin construction and management. • Protection of waterways. • Acid sulfate soil sub-plan issues (including from groundwater drawdown). • Management of stockpiles. • Tannin leachate management control. • Batch plant/ chemical storage controls. • Water quality monitoring and checklists. • Detailed consideration of measures to prevent, where possible, or minimise any water quality impacts.	✓	Pre-construction	RMS/ Contractor	WC2G CEMP includes a Construction Soil and Water Management Plan
SPIR-SSW4	Soil & water	Erosion and sediment control plans will be developed in line with current Roads and Maritime specifications and as detailed in the Working paper – Water quality.	✓	Pre-construction Detailed Design Construction	Contractor	Required as part of WC2G Construction Soil and Water Management Plan and RMS Specifications G36 and G38. Erosion and sediment control plans are developed and approved by the Project Soil Conservationist - CPESC (Tim Elder). Control are implemented and maintained as required. Erosion and sediment control plans are developed and approved by the Project Soil Conservationist - CPESC (Tim Elder). Control are implemented and maintained as required.
SPIR-SSW5	Soil & water	A soil conservationist will be engaged during detailed design to inform the soils and water management plan.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	Completed
SPIR-SSW6	Soil & water	Sedimentation basins and water quality ponds will be sized and located in accordance with the principles identified in the Working paper – Water quality.	✓	Pre-construction Detailed Design Construction	RMS/ Detailed Designer/ Contractor	Completed
SPIR-SSW7	Soil & water	Exposed areas will be progressively rehabilitated. Methods will include permanent revegetation, or temporary protection with spray mulching or cover crops.	✓	Construction	Contractor	Included as part of Construction Soil and Water Management Plan Progressive rehabilitation has not occurred with permanent vegetation during the reporting period. Temporary cover crop and soil stabilising polymers have been used extensively to stabilise soils during the reporting period. Permanent vegetation has been applied through hydromulch across 80% of the Project site, along with concrete pavement this is demonstrated progressive stabilisation.

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SPIR-SSW8	Soil & water	Any necessary approvals will be obtained in accordance with Roads and Maritime specification G36 for permanent and temporary waterway crossings.	✓	Construction	RMS/ Contractor	Significant consultation has occurred during preconstruction with several agencies regarding the permanent design and will be ongoing for temporary waterway crossings. Temporary water way crossings, diversions and temporary drainage structures have been constructed in accordance with approved EWMS. These EWMS have been reviewed and approved by the ERG (EPA< DPI, DPIE and ER) during the reporting period. No temporary waterway crossings or diversions have been constructed during the reporting period.
SPIR-SSW9	Soil & water	All work potentially affecting wetlands will be undertaken in consideration of the requirements outlined in the NSW Wetlands Management Policy 2010.	✓	Detailed Design Construction	RMS/ Contractor	Included as part of WC2G Construction Soil and Water Management Plan There are no wetlands associated with the WC2G Project.
SPIR-SSW10	Soil & water	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	RMS/ Contractor	Included as part of the Construction Soil and Water Management Plan Mitigation and management measures detailed within the SWMP have been implemented during the reporting period. Mitigation and management measures detailed within the SWMP have been implemented during the reporting period.
SPIR-SSW11	Soil & water	Where reasonable and feasible, stockpiles will: • Not require removal of areas of native vegetation. • Be located outside of known areas of weed infestation. • Be located such that waterways and drainage lines are not directly or indirectly impacted.	✓	Construction	RMS/ Contractor	Included as part of WC2G Construction Soil and Water Management Plan Mitigation and management measures detailed within the SWMP have been implemented during the reporting period. Mitigation and management measures detailed within the SWMP have been implemented during the reporting period.
SPIR-SSW12	Soil & water	Where practicable, stockpiles will be located away from areas subject to concentrated overland flow. Stockpiles located on a floodplain be finished and contoured so as to minimise loss of material in flood or rainfall events.	✓	Construction	RMS/ Contractor	Included as part of Construction Soil and Water Management Plan Mitigation and management measures detailed within the SWMP have been implemented during the reporting period. Mitigation and management measures detailed within the SWMP have been implemented during the reporting period.
SPIR-SSW13	Soil & water	Topsoil will be stockpiled separately and inspected for noxious weed seedlings at six monthly intervals and controlled with herbicide as required.	✓	Construction	RMS/ Contractor	Included as part of Construction Soil and Water Management Plan Mitigation and management measures detailed within the SWMP have been implemented during the reporting period. Mitigation and management measures detailed within the SWMP have been implemented during the reporting period.
SPIR-SSW14	Soil & water	All construction stockpiles will comply with the requirements of the *Protection of the Environment 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.	✓	Construction	RMS/ Contractor	Noted, addressed in the WC2G CEMP/WEMP Mitigation and management measures detailed within the SWMP/WEMP have been implemented during the reporting period. Mitigation and management measures detailed within the SWMP/WEMP have been implemented during the reporting period.
SPIR-SSW15	Soil & water	Stockpiles containing potential acid sulfate soils will be lined, bunded and covered in accordance with relevant guidelines.	✓	Construction	RMS/ Contractor	Included as part of Construction Acid Sulphate Materials Management Plan There have been no PASS or ASS encountered during the reporting period. There have been no PASS or ASS encountered during the reporting period.
SPIR-SSW16	Soil & water	Management of tannin leaching from vegetation mulch will be in accordance with Roads and Maritime' Environmental Direction – Management of Tannins from Vegetation Mulch (Roads and Maritime, 2012).	✓	Construction	RMS/ Contractor	Included as part of Construction Soil and Water Management Plan Mitigation and management measures detailed within the SWMP have been implemented during the reporting period. Mitigation and management measures detailed within the SWMP have been implemented during the reporting period.
SPIR-SSW17	Soil & water	A Stage 1 Preliminary Site Investigation will be conducted to verify past and present potentially contaminating activities, potential contaminants of concern and the need for further investigation. This will include a review of past highway crashes and spills and the associated contamination risks.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	Completed

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SPIR-SSW18	Soil & water	If necessary, a Stage 2 Detailed Site Investigation will be undertaken to: • Provide information on the type, nature, extent and concentrations of contamination present, and the corresponding risks to human health and the environment. • Examine pathways of contaminant dispersal and exposure, the potential for off-site impacts and the management requirements and options.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	For sections 1 and 2, a Phase 2 contamination investigation has been undertaken.
SPIR-SSW19	Soil & water	If required, a Stage 3 Remedial Action Plan will be produced, detailing the remediation goals, environmental safeguards, and any necessary approval and licence requirements in accordance with NSW Office of Environment and Heritage guidelines.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	Based on outcome of the Stage 1 and 2 Investigations, this has not been required.
SPIR-SSW22	Soil & water	An emergency spill response plan will be developed and incorporated into the soils and water management plan. This plan will detail measures for the prevention, containment and clean-up of accidental spills of fuels and chemicals.	✓	Construction	RMS/ Contractor	Included as part of Construction Soil and Water Management Plan
SPIR-SSW24	Soil & water	Strategies to remove / reduce risks associated with acid sulfate soils will be identified.	✓	Pre-construction Detailed Design Construction	RMS/ Detailed Designer/ Contractor	Noted and this has been undertaken during preconstruction and will continue to be applied during the construction phase.
SPIR-SSW25	Soil & water	An acid sulfate soils management plan will be implemented in accordance with Guidelines for the Management of Acid Sulfate Materials (Roads and Maritime 2005) and Waste Classification Guidelines Part 4: Acid Sulfate Soils (DECC 2008), where there is a probability of encountering acid sulfate soils during construction.	✓	Construction	RMS/ Contractor	Included as part of approved Construction Acid Sulphate Materials Management Plan
SPIR-SSW26	Soil & water	Appropriate erosion and sediment controls, following the guidelines of the 'Blue Books' (Landcom, 2004 and DECC, 2008a), and Roads and Maritime' Technical Guideline – Temporary Stormwater Drainage for Main Road Construction (Roads and Maritime, 2010b) will be established before the start of construction and maintained in effective working order for the duration of the construction period until site stabilisation.	✓	Construction	RMS/ Contractor	Included as part of approved Construction Soil and Water Management Plan and RMS Specifications G36 / G38. Mitigation and management measures detailed within the SWMP have been implemented during the reporting period. Mitigation and management measures detailed within the SWMP have been implemented during the reporting period.
SPIR-SSW27	Soil & water	Works within waterways will consider the need to maintain fish passage, in consultation with the Department of Primary Industries (Fisheries).	✓	Detailed Design Construction	RMS/ Contractor	There has been significant consultation for Section 2 with DPI and will be ongoing during construction for WC2G project. Works in waterways have been in accordance with SWMP and EWMS, which have been reviewed and endorsed by DPI Fisheries. Works in waterways have been in accordance with SWMP and EWMS, which have been reviewed and endorsed by DPI Fisheries.
SPIR-SSW28	Soil & water	Flow discharge points will be designed with erosion controls to manage the flow velocities.	✓	Detailed Design Construction	RMS/ Detailed Designer/ Contractor	Noted and addressed during detailed design
SPIR-SSW29	Soil & water	Where appropriate, construction phase sedimentations basins will be designed so they could be retained and used as permanent operational water quality ponds, where required for operational purposes.	✓	Detailed Design Construction	RMS/ Detailed Designer	Noted and addressed during detailed design
SPIR-SSW31	Soil & water	Sedimentation basins will be inspected at regular intervals and following significant rainfall events to assess available water storage capacity, water quality, structural integrity and debris levels.	✓	Construction	RMS/ Contractor	Included as part of Construction Soil and Water Management Plan Mitigation and management measures detailed within the SWMP have been implemented during the reporting period. Mitigation and management measures detailed within the SWMP have been implemented during the reporting period
SPIR-SSW32	Soil & water	Where appropriate, an approved flocculent will be applied to sedimentation basins as early as possible so that early mixing of flocculants occurs. Water quality will be tested prior to discharge in accordance with any licence requirements.	✓	Construction	RMS/ Contractor	Included as part of Construction Soil and Water Management Plan, gypsum used as approved flocculent Mitigation and management measures detailed within the SWMP have been implemented during the reporting period. Mitigation and management measures detailed within the SWMP have been implemented during the reporting period
SPIR-SSW33	Soil & water	Where sediment has built up in a basin to a point where the total sediment storage zone has reached capacity, sediment will be removed and appropriately disposed of.	✓	Construction	Contractor	Included as part of Construction Soil and Water Management Plan, removed once reaches 60% of storage volume.. No sediment basin clean out has been required during the reporting period. No sediment basin clean out has been required during the reporting period, basins have been designed with additional capacity to store sediment build up.
SPIR-SSW34	Soil & water	Water from sedimentation basins will be used for construction purposes, such as dust suppression, where feasible.	✓	Construction	Contractor	Included as part of Construction Soil and Water Management Plan Mitigation and management measures detailed within the SWMP have been implemented during the reporting period. Mitigation and management measures detailed within the SWMP have been implemented during the reporting period.

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SPIR-SSW35	Soil & water	When sedimentation basins require pumping out rather than discharge via a flow outlet, a float will be attached to the suction hose or the hose will be located inside a bucket to prevent sediment from the basin floor from being discharged.	✓	Construction	Contractor	Included as part of Construction Soil and Water Management Plan Mitigation and management measures detailed within the SWMP have been implemented during the reporting period. Mitigation and management measures detailed within the SWMP have been implemented during the reporting period.
SPIR-SSW36	Soil & water	Records will be kept of water quality monitoring and erosion and sediment control inspections, including details of rain events, use of flocculants, discharge, sediment removal and dewatering activities.	✓	Construction	RMS/ Contractor	Included as part of Construction Soil and Water Management Plan Mitigation and management measures detailed within the SWMP have been implemented during the reporting period. Mitigation and management measures detailed within the SWMP have been implemented during the reporting period.
SPIR-SSW37	Soil & water	Physical controls to address the potential risks associated with the use and storage of chemicals on site will include: • Use of appropriately bunded storage facilities for chemicals and fuels. • Use of appropriately bunded areas for refuelling and washdown. • Availability of effective spill kits at all construction sites.	✓	Construction	RMS/ Contractor	Included as part of Construction Soil and Water Management Plan Mitigation and management measures detailed within the SWMP have been implemented during the reporting period. Mitigation and management measures detailed within the SWMP have been implemented during the reporting period.
SPIR-SSW38	Soil & water	At ancillary facilities, management of runoff and spills will include: • Restricting vehicle movements to designated pathways where feasible. • Paving areas that will be exposed for extended periods, such as car parks and main access roads, where reasonable and feasible. • Diverting off-site runoff around sites where required. • 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.	✓	Construction	RMS/ Contractor	Included in ancillary facility management Plan and site specific Plans Mitigation and management measures detailed within the SWMP and AFMPs have been implemented during the reporting period. Mitigation and management measures detailed within the SWMP and AFMPs have been implemented during the reporting period.
SPIR-SSW41	Soil & water	Further assessment involving geotechnical boreholes, monitoring boreholes and water quality testing at cutting sites will be undertaken at Type A cutting sites to monitor impacts on local groundwater reserves.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	Significant installation and monitoring has been undertaken to date with further monitoring as per the approved Water QMProgram.
SPIR-SSW44	Soil & water	Dewatering of excavations will be undertaken in line with Roads and Maritime' Technical Guideline – Environmental Management of Construction Site Dewatering (Roads and Maritime, 2011c), and in accordance with any licence conditions.	✓	Construction	Contractor	Included as part of Construction Soil and Water Management Plan Mitigation and management measures detailed within the SWMP have been implemented during the reporting period. Mitigation and management measures detailed within the SWMP have been implemented during the reporting period.
SPIR-SSW46	Soil & water	The proposed management strategy to address potential impacts at type A cuttings includes: • Pre-works investigations – geotechnical investigations to determine groundwater condition (quality parameters: electrical conductivity, groundwater depth, geological information), presence of actual or potential acid sulfate soils, presence or potential of salinisation, establishing groundwater monitoring sites, and gathering of other pertinent information. • Assessment – including the EIS assessment, the pre-works investigations carried out, groundwater modelling of cuts (and the Rous Water Woodburn borefield site), and predictions made from those results. • Monitoring – to assess whether the investigation and its predictions are accurate and to instigate early intervention in the unlikely case/s that the actual outcomes deviate from predictions. Monitoring start before construction, and continue during construction. Monitoring also continue into the operation phase of the project. • Mitigation – implement environmental and engineering management measures where predictions and/or modelling and monitoring suggest that these are required to minimise impacts on groundwater.	✓	Pre-construction Detailed Design Construction	RMS	The Water Quality Monitoring Program for Sections 1 & 2 was approved by the Department of Planning & Environment on the **8/5/15.** Ongoing monitoring of groundwater is occurring and will continue throughout the construction phase of WC2G. Groundwater monitoring during the reporting period has been undertaken in accordance with the approved Water quality monitoring Program Groundwater monitoring during the reporting period has been undertaken in accordance with the approved Water quality monitoring Program
SPIR-SSW47	Soil & water	The monitoring of locations in the vicinity of type B cuttings and major embankments will commence before construction to identify the need to implement any mitigation measure.	✓	Pre-construction Detailed Design Construction	RMS	The Water Quality Monitoring Program for Sections 1 & 2 was approved by the Department of Planning & Environment on the **8/5/15.** Significant installation and monitoring has been undertaken to date with further monitoring as per the approved Water QMProgram. Groundwater monitoring during the reporting period has been undertaken in accordance with the approved Water quality monitoring Program Groundwater monitoring during the reporting period has been undertaken in accordance with the approved Water quality monitoring Program

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SPIR-SSW48	Soil & water	If required to manage groundwater impacts at type A and type B cuttings and major embankments, the following engineering mitigation measures will be considered: • Engineering measures that transfer the seepage water downstream. Standard practice will be to collect the seepage from the cut face in the drainage system for the highway, which will be diverted into water quality basins before being released back into the creek or natural drainage system at some point downstream. • Engineering impact mitigation measures that transfer the seepage water (where present) into the groundwater ecosystem immediately downslope of the cutting or embankments.	✓	Pre-construction Detailed Design Construction	RMS	The Water Quality Monitoring Program for Sections 1 & 2 was approved by the Department of Planning & Environment on the **8/5/15.** Significant installation and monitoring has been undertaken to date with further monitoring as per the approved Water QMProgram.
SPIR-SSW49	Soil & water	Major embankments will be designed to enable distributed flow of surface waters.	✓	Pre-construction Detailed Design Construction	Detailed Designer	Addressed during detailed design
SPIR-SSW50	Soil & water	Measures to manage high-risk groundwater impact areas will continue to be considered through the detailed design process. In identified areas, the design of water quality controls will be reviewed and the need for additional controls may be identified.	✓	Pre-construction Detailed Design Construction	RMS/ Detailed Designer	Significant installation and monitoring has been undertaken to date with further monitoring as per the approved Water QMProgram.
SPIR-SSW51	Soil & water	Where reasonable and feasible, sites used for batch plants, refuelling and chemical storage will be managed so that no groundwater intrusion occurs.	✓	Pre-construction Construction	RMS/ Contractor	Noted and to be addressed by the AFMPlan. Designated site for batch plant will not result in groundwater incursion. Batch plant site did not result in groundwater incursion.
SPIR-SSW59	Soil & water	All permanent water quality basins will incorporate measures to contain accidental fuel and chemical spills resulting from vehicle accidents on the highway. Basins will be designed to accommodate a spill volume of up to 40,000 litres.	✓	Detailed Design Operation	RMS/ Detailed Designer	Addressed during detailed design
SPIR-SSW60	Soil & water	For water quality treatment in floodplains and other locations with minimal changes in gradient, grassed swales will be considered during detailed design.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	Addressed during detailed design
SPIR-SSW61	Soil & water	Appropriate scour protection for drainage measures will be determined during detailed design.	✓	Detailed Design Operation	RMS/ Detailed Designer	Addressed during detailed design and as per the SWMP
SPIR-SSW62	Soil & water	Surface water quality monitoring will be undertaken in accordance with Roads and Maritime' Guideline for Construction Water quality Monitoring (RTA, 2003), and as per the framework outlined in the Working paper – Water quality.	✓	Pre-construction	RMS/ Contractor	The Water Quality Monitoring Program for Sections 1 & 2 was approved by the Department of Planning & Environment on the **8/5/15.** The approved program will be implemented for the WC2G Project. WQMP Surface water monitoring has been completed in accordance with the WQMP during the reporting period. WQMP Surface water monitoring has been completed in accordance with the WQMP during the reporting period.
SPIR-SSW63	Soil & water	Groundwater monitoring will be undertaken in accordance with the framework outlined in the Working paper – Groundwater (Section 5.2).	✓	Construction	RMS/ Contractor	The Water Quality Monitoring Program for Sections 1 & 2 was approved by the Department of Planning & Environment on the **8/5/15.** The approved program will be implemented for the WC2G Project. Groundwater monitoring during the reporting period has been undertaken in accordance with the approved Water quality monitoring Program Groundwater monitoring during the reporting period has been undertaken in accordance with the approved Water quality monitoring Program
Transport &Traffic						
SPIR-T&T1	Traffic & Transport	Construction traffic management plans will be prepared and implemented for work sites. They will include: • Identification of all public roads to be used by construction traffic. • Management methods to direct construction traffic to use identified roads. • Identification of all public roads that may be partially or completely closed during construction, and the expected timing and duration of closures. • Details on likely impacts on existing traffic (including pedestrians, vehicles, cyclists and disabled persons). • Temporary traffic arrangement measures, including property access. • Details on access to construction sites, including entry and exit locations, and measures to prevent construction vehicles queuing on public roads. • A response plan for any incident involving construction traffic. • Mechanisms for monitoring, reviewing and amending the success of the plans. The traffic management plans be prepared in consultation with councils.	✓	Pre-construction Construction	RMS/ Contractor	Included in the WC2G Construction Traffic and Access Management Plan Controls within the CTMP have bene implemented during the reporting period. Controls within the CTMP have bene implemented during the reporting period.
SPIR-T&T2	Traffic & Transport	A strategy will be prepared for bulk earthworks haulage between the crossing of the Richmond River and the interchange at Wardell. The strategy will seek to maximise the extent of haulage within the project boundary and limit the need to haul material through the town of Wardell.		Pre-construction Construction	RMS/ Contractor	N/A
SPIR-T&T3	Traffic & Transport	Traffic control schemes will be inspected as follows: • Pre-start and pre-closedown inspections of short-term traffic controls. • Weekly inspections of long-term traffic controls. • Night-time inspections of long-term traffic controls.	✓	Construction	RMS/ Contractor	Included in the WC2G Construction Traffic and Access Management Plan Controls within the CTMP have bene implemented during the reporting period. Controls within the CTMP have bene implemented during the reporting period.

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SPIR-T&T4	Traffic & Transport	Vehicle movement plans and haulage route plans will be prepared. Drivers will be briefed on these vehicle movement plans during project induction. Deliveries be planned to occur outside peak traffic periods, where possible. To minimise queuing of construction vehicles on the highway, site personnel use two-way radios to call up haulage trucks from layover areas on a 'just in time' basis.	✓	Construction	RMS/ Contractor	Included in the WC2G Construction Traffic and Access Management Plan Controls within the CTMP have bene implemented during the reporting period. Controls within the CTMP have bene implemented during the reporting period.
SPIR-T&T5	Traffic & Transport	Applications for Road Occupancy licences will be submitted to Roads and Maritime Services and the relevant council at least 10 working days prior to proposed occupancy.	✓	Pre-construction Construction	RMS/ Contractor	Included in the WC2G Construction Traffic and Access Management Plan Controls within the CTMP have bene implemented during the reporting period. Controls within the CTMP have bene implemented during the reporting period.
SPIR-T&T6	Traffic & Transport	Pre-construction road dilapidation reports will be prepared for all roads likely to be used by construction traffic. 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.	✓	Pre-construction Construction	RMS/ Contractor	Included in the WC2G Construction Traffic and Access Management Plan Controls within the CTMP have bene implemented during the reporting period. Controls within the CTMP have bene implemented during the reporting period.
SPIR-T&T7	Traffic & Transport	Access be maintained to properties during construction including, where necessary and feasible, temporary alternative access unless otherwise agreed with property owners. Where any legal access is permanently affected, alternative access to an equivalent standard to and from a public road will be provided where a property has no other legal means of access and where such alternative access is feasible and practical. Where alternative access arrangements are not feasible or practical and a property is left with no access to a public road, negotiations will be undertaken with the relevant property owner for acquisition of the property in accordance with the provisions of the Land Acquisition (Just Terms Compensation) Act 1991.	✓	Detailed Design Construction	RMS/ Detailed Designer/ Contractor	Included in the WC2G Construction Traffic and Access Management Plan Controls within the CTMP have bene implemented during the reporting period. Controls within the CTMP have bene implemented during the reporting period.
SPIR-T&T9	Traffic & Transport	Where access to State forest land is affected during construction, a new access route will be provided in consultation with the Department of Primary Industries (Forests NSW).	✓	Detailed Design Construction	RMS/ Detailed Designer/ Contractor	Access to State Forest to be maintained throughout construction. Access to state forest has remained open during the reporting period. Access to state forest has remained open during the reporting period.
Urban Design						
SPIR-UD1	Urban Design & Landscape	If further noise modelling identifies that noise walls are required, further visual assessment address the visual implications of the change. Their location and design will be in accordance with the Noise Wall Design Guideline (RTA, 2007) and the principles identified in Working Paper – Urban design, Landscape Character and Visual Impact (Section 4.6.3).	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	An Urban Design and Landscape Plan has been submitted and approved by the Department of Planning & Environment on the **8/5/15**
SPIR-UD3	Urban Design & Landscape	The project will be carried out in accordance with the urban design and landscaping strategy, as identified in Section 11.4.1 of this EIS. Detailed landscape design for all project batters, and median planting areas will be developed in accordance with the Landscape Guidelines (RTA, 2008), the requirements of the Working Paper – Biodiversity (Section 5.2.2) and the landscape strategy to provide a robust, successful and effective planting design.	✓	Pre-construction	RMS/ Contractor	An Urban Design and Landscape Plan has been submitted and approved by the Department of Planning & Environment on the **8/5/15**
SPIR-UD4	Urban Design & Landscape	The built form of the project, including consideration of the height, bulk, scale, materials and finishes for: • Bridges. • Retaining walls. • Cuttings and embankments. • Road barriers. • Signage. • Fences. • Clear zones. • Topsoil management. • Water quality control ponds. • Fauna crossing. • Place marking and cultural plantings. The project will be designed in accordance with the design principles identified in Working Paper – Urban Design, Landscape Character and Visual Impact, and relevant Roads and Maritime guidelines.	✓	Pre-construction Detailed Design	RMS/ Detailed Designer	An Urban Design and Landscape Plan has been submitted and approved by the Department of Planning & Environment on the **8/5/15**
SPIR-UD6	Urban Design & Landscape	Measures to mitigate visual impacts to viewpoints will be implemented, as identified in Table 11-42 and Working Paper – Urban Design, Landscape Character and Visual Impact. If any further viewpoints were identified during detailed design that have a moderate–high or high impact, screen planting also be considered.	✓	Construction	RMS/ Contractor	An Urban Design and Landscape Plan has been submitted and approved by the Department of Planning & Environment on the **8/5/15.**
SPIR-UD7	Urban Design & Landscape	Disturbed areas will be progressively revegetated throughout the construction period.	✓	Construction	RMS/ Contractor	Included as part of Construction Soil and Water Management Plan Rehabilitation is ongoing during the reporting period, and has included the use of temporary stabilisation where required. Progressive rehabilitation has been ongoing during the reporting period with approximately 80% of hydromulched areas completed.

COMPLIANCE TRACKING - ENVIRONMENTAL MITIGATION MEASURES
Woolgoolga to Ballina SSI-4963

6 Monthly Compliance Reporting April 2020

6 Monthly and Pre Operational Compliance Reporting October 2020

Mitigation No.	Category	Management Measure	WC2G	Timing	Responsibility	Reference / Comment
SPIR-UD8	Urban Design & Landscape	Where required, typical landscape treatments for ancillary facilities in forest areas will include: • Providing screen planting. • Considering reinstatement of disturbed forest in heavily forested. • 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. • Negotiating with private landowners, as applicable, to determine future treatments for other non-forested ancillary facility locations. • Re-grading disturbed areas to achieve a sustainable and functional landform. • Stabilising all surfaces in accordance with good engineering and environmental practice.	✓	Construction	RMS/ Contractor	Noted and addressed by the AFMPlan AF still in use during reporting period, no landscaping undertaken to date. AF still in use during reporting period, no landscaping undertaken to date.
SPIR-UD9	Urban Design & Landscape	Typical landscape treatments for ancillary facilities in agricultural areas will include: • Considering returning remnant agricultural land to agricultural uses. • Providing screen planting. • Reinstating riparian vegetation through ancillary facilities, where practicable, in the open landscape. • 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. • Re-grading disturbed areas to achieve a sustainable and functional landform. • Stabilising all surfaces in accordance with good engineering and environmental practice.	✓	Construction	RMS/ Contractor	Noted and addressed by the AFMPlan AF still in use during reporting period, no landscaping undertaken to date. AF still in use during reporting period, no landscaping undertaken to date.
SPIR-UD14	Urban Design & Landscape	The mounding profile of any earth mound will blend suitably into the existing landscape setting. Any mounding to be landscaped will be compacted in 1.5 metre layers with 1:3 maximum batter slopes where reasonable in consideration of constraints within the project corridor. Where feasible and reasonable, permanent mounds will be treated with ameliorants and overlaid with topsoil to minimum 150 millimetres to ensure suitable planting conditions are achieved.	✓	Detailed Design Construction	RMS/ Detailed Designer/ Contractor	For sections 1 & 2, An Urban Design and Landscape Plan has been submitted and approved by the Department of Planning & Environment on the **8/5/15**
Waste Management						
SPIR-WM1	Waste	The cut-and-fill balance of the project will be further refined to obtain as much material as possible for reuse on the project.	✓	Pre-construction	RMS	Noted and being applied during detailed design for WC2G
SPIR-WM2	Waste	A resource management strategy will be prepared for construction of the project to identify the hierarchy for sourcing and use of resources. It include the following provisions: • Available project cutting material (including Select Material Zone (SMZ) and verge material) will be used for the construction of embankments, SMZ and verge within that section to the extent that it is suitable. • Project sections with a deficit in material import surplus material from other project sections in preference to external sources. • Where possible, the distances that earthworks materials are moved across the project as a whole be minimised, notwithstanding the above two requirements. • Contractors will reduce the amount of unsuitable waste generated during excavations, where feasible (eg treatment at source). • The generation and management of unsuitable material during project earthworks will be monitored to ensure appropriate management of the issue. The resource management strategy will also identify: • Details on materials that be sourced from the project (including location and type). • Viable material suppliers (including water) near the project. • Proposed sustainable material sources practices (such as use of recycled materials or wastewater). • Materials that could be recycled and re-used on-site or transferred to other project sections.	✓	Pre-construction Construction	RMS/ Contractor	This is being managed in accordance with the contractors earth works management plan Management measures detailed within the earthworks management plan and the WEMP have been implemented during the reporting period. Management measures detailed within the earthworks management plan and the WEMP have been implemented during the reporting period.
SPIR-WM3	Waste	A waste register will be maintained by each contractor, detailing types of waste collected, amounts, date, time, and details of disposal.	✓	Construction	RMS/ Contractor	Waste Register maintained on project file server and as per the Waste and Energy Management Plan A waste register has been maintained during the reporting period. A waste register has been maintained during the reporting period.
SPIR-WM4	Waste	Where possible, materials will be bought in bulk to minimise the amount of package required. Sources of material that have sustainable packaging design, recycled and recyclable packaging will be favoured over other material sources where cost effective.	✓	Construction	RMS/ Contractor	Bulk supplies sourced whenever feasible
SPIR-WM5	Waste	Waste material generated on-site (including chemical, fuel and lubricant containers, and solid and liquid wastes) will be classified and disposed of in accordance with the Protection of the *Environment Operations Act 1997* and Waste Classification Guidelines Part 1: Classifying Waste (DECCW, 2009).	✓	Construction	RMS/ Contractor	Addressed in Construction Waste and Energy Management Plan Management and mitigation measures detailed within the WEMP have been employed during the reporting period. Management and mitigation measures detailed within the WEMP have been employed during the reporting period.
SPIR-WM6	Waste	Waste minimisation and management measures will be developed based on the principles in the Waste Avoidance and Resource Recovery Act 2001, the NSW Government's Waste Reduction and Purchasing Policy, and waste exemptions including: • Excavated Natural Material Exemption (EPA, 2008)). • Excavated Public Road Material Exemption (EPA, 2012)). • Raw Mulch Exemption (EPA, 2008). • Reclaimed Asphalt Pavement Exemption (EPA, 2012). • Recovered Aggregate Exemption (EPA, 2010). • Stormwater Exemption (EPA, 2008). • Treated Drilling Mud Exemption (EPA, 2011). Measures seek to avoid, minimise, re-use, recycle, treat or dispose of waste streams during construction and address transport and disposal arrangements.	✓	Construction	RMS/ Contractor	Noted and Addressed in Construction Waste and Energy Management Plan Management and mitigation measures detailed within the WEMP have been employed during the reporting period. Management and mitigation measures detailed within the WEMP have been employed during the reporting period.

COMPLIANCE TRACKING - ENVIRONMENTAL MITIGATION MEASURES
Woolgoolga to Ballina SSI-4963

6 Monthly Compliance Reporting April 2020
6 Monthly and Pre Operational Compliance Reporting October 2020

Mitigation No.	Category	Management Measure	WC2G	Timing	Responsibility	Reference / Comment
SPIR-WM7	Waste	Millable timber will be harvested for reuse off site. All other felled timber will be reused on-site in the form of habitat recreation or mulch in landscaping and erosion and sedimentation controls. Where mulch cannot be reused on-site, consideration will be given to making the mulch available to the public in accordance with the Roads and Maritime Environmental Direction 25 (2012) and the Raw Mulch Exemption (EPA, 2008).	✓	Construction	RMS/ Contractor	Salvage of millable timber maximised. Raw mulch exemption 2008 has been superseded. All mulched vegetation has been re-used onsite through erosion and sediment control measures, or stored for future landscaping use. Mulch has been used for erosion and sediment control measures and in landscaping during the reporting period.
SPIR-WM8	Waste	Sediment removed from sedimentation basins will be used, where appropriate, on-site in landscaping and/or flattening of batters.	✓	Construction	Contractor	Sediment will be beneficially reused where ever feasible in the WC2G project. Sediment basin desilting has not occurred during the reporting period. Sediment basin desilting has not occurred during the reporting period.
SPIR-WM9	Waste	Where feasible, the contractor will be required to re-use materials. This could include, but is not limited to, concrete formwork or surplus concrete pours.	✓	Construction	Contractor	Included in CWEMP Management and mitigation measures detailed within the WEMP have been employed during the reporting period. Management and mitigation measures detailed within the WEMP have been employed during the reporting period.
SPIR-WM10	Waste	Site inductions and on-site training will be required to include waste minimisation principles and measures.	✓	Construction	RMS/ Contractor	Included in Project Induction Project induction has been completed for all site workers during the reporting period. Project induction has been completed for all site workers during the reporting period
SPIR-WM11	Waste	At site compounds, on-site recycling facilities will be provided for recycling paper, plastic, glass and other re-useable materials.	✓	Construction	RMS/ Contractor	Recycling facilities to be provided at site compounds Recycling facilities are provided at 10 Parker Road and the Main Compound. Recycling facilities are provided at 10 Parker Road and the Main Compound.
SPIR-WM12	Waste	Regular visual inspections will be conducted to ensure that work sites are kept tidy and to identify opportunities for reuse and recycling.	✓	Construction	RMS/ Contractor	Addressed as part of weekly inspections Weekly inspections have been completed throughout the reporting period. Weekly inspections have been completed throughout the reporting period.
SPIR-WM13	Waste	Water captured in excavations will be required to be either: • Managed in accordance with the construction Soil and Water Management Plan. • Transferred to a licensed sediment basin, treated and discharged in accordance with any licence conditions that apply to the discharge of water, or, • Re-used for construction water or dust suppression.	✓	Construction	Contractor	Noted and managed in accordance with the SWMP Mitigation and management measures detailed within the SWMP have been implemented during the reporting period. Mitigation and management measures detailed within the SWMP have been implemented during the reporting period.
SPIR-WM14	Waste	Appropriate waste and recycling facilities will be provided at rest areas and heavy vehicle checking stations.	✓	Operation	RMS/ Contractor	N/A for WC2G.
SPIR-WM15	Waste	All operational waste will be managed in accordance with the Roads and Maritime waste management procedures and Environmental Management System.	✓	Operation	RMS	Noted for implementation durign operation
SPIR-WM16	Waste	Collection and removal of roadside litter will be undertaken in accordance with the Roads and Maritime Environmental Management System.	✓	Operation	RMS	Noted for implementation durign operation
SPIR-WM17	Waste	Sediment removed from operational water quality basins will , where appropriate, be classified in accordance with the Waste Classification Guidelines (DECCW, 2009), and be disposed of in accordance with the *Protection of the Environment Operations (Waste) Regulation 2005* .	✓	Operation	RMS	Noted for implementation durign operation

Appendix B
Environmental Monitoring

Surface and Ground Water Monitoring Locations (from WQMP)

GWB28 GWB29 GWB30 GWB31 - Glenugie State Forest Ch. 26800 - 27200

Illustration C.21

W2G - Water Quality Monitoring Program
2134-1031

Table B-1: Water quality monitoring results for May 2020 to October 2020

Monitoring Location	Field Notes	Date	pH (field)	Temperature (field)	Electrical Conductivity (field)	Dissolved Oxygen	Turbidity (field)	Oil & Grease	Suspended Solids	Total Phosphorus	Total Nitrogen	Phosphate	Ammonia	Nitrate	Nitrite
			pH unit	ºC	mS/cm	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
SW10-DS	Upstream and downstream not connected. No visible flow. Weather fine.	8/05/2020	8.25	17.36	0.223	5.86	0		10	*0.03*	*0.70*	*0.003*	*0.037*	*0.003*	*0.003*
SW10-US	Upstream and downstream not connected. No visible flow. Weather fine.	8/05/2020	7.40	15.9	0.19	19.12	0		10	*0.03*	0.70	*0.003*	0.017	0.010	*0.003*
SW11-DS	Upstream and downstream sites not connected. No visible flow. Weather fine.	8/05/2020	7.35	17	1.35	6.11	1.6		5	*0.1*	2.3	*0.072*	0.16	1.3	0.073
SW11-US	Upstream and downstream sites not connected. No visible flow. Weather fine.	8/05/2020	7.96	17.3	0.35	5.72	116		32	*0.03*	0.50	*0.003*	*0.003*	*0.005*	*0.003*
SW10-DS	Upstream and downstream connected. No visible flow. Weather fine.	10/05/2020	8.16	17.02	0.173	7.61	0.4		11	*0.03*	0.800	*0.003*	0.040	*0.003*	*0.003*
SW10-US	Upstream and downstream connected. No visible flow. Weather fine.	10/05/2020	7.36	17.0	0.17	4.41	18		27	*0.03*	0.90	*0.003*	0.008	*0.003*	*0.003*
SW11-DS	Upstream and downstream sites not connected. No visible flow, low water level. Weather fine.	10/05/2020	7.53	18.27	1.32	8.53	0.9		6	*0.09*	2.1	*0.083*	0.25	1.2	0.063
SW11-US	Upstream and downstream sites not connected. No visible flow, low water level. Weather fine.	10/05/2020	8.25	17.9	0.35	7.27	60		82	*0.030*	0.500	*0.003*	0.015	*0.003*	*0.003*
SW10-DS	Upstream and downstream connected. No visible flow. Weather fine.	19/05/2020	7.81	14.9	0.203	5	0.5		4	*0.03*	0.600	*0.003*	0.042	0.010	*0.003*
SW10-US	Upstream and downstream connected. No visible flow. Weather fine.	19/05/2020	7.96	14.4	0.24	4.83	45		56	*0.03*	0.20	*0.003*	0.050	*0.003*	*0.003*
SW11-DS	Upstream and downstream sites not connected. No visible flow, low water level. Weather fine.	19/05/2020	8.11	15.21	1.38	5.27	0		3	*0.1*	2.1	*0.072*	0.13	1.5	0.049
SW11-US	Upstream and downstream sites not connected. No visible flow, low water level. Weather fine.	19/05/2020	8.56	14.5	0.35	8.95	46		71	*0.030*	0.500	*0.003*	0.024	*0.003*	*0.003*
SW10-DS	Upstream and downstream connected. No visible flow. Weather fine.	11/06/2020	7.68	16.48	0.171	11.21	77.9		54	*0.03*	0.100	*0.003*	0.009	0.010	*0.003*
SW10-US	Upstream and downstream connected. No visible flow. Weather fine.	11/06/2020	7.80	16.9	0.17	6.19	103		80	*0.03*	0.10	*0.003*	*0.003*	0.040	*0.003*
SW11-DS	Upstream and downstream sites not connected. No visible flow, low water level. Weather fine.	11/06/2020	8.64	17.68	0.221	6.82	145		66	*0.03*	0.5	*0.0025*	0.012	0.46	0.006
SW11-US	Upstream and downstream sites not connected. No visible flow, low water level. Weather fine.	11/06/2020	8.20	16.6	0.18	6.77	82		68	*0.030*	0.100	*0.003*	*0.003*	*0.003*	*0.003*
SW10-DS	Upstream and downstream connected. Visible flow. Weather fine.	22/06/2020	8.13	16.51	0.194	11.31	26		29	*0.03*	0.400	*0.003*	0.010	*0.003*	*0.003*
SW10-US	Upstream and downstream connected. No visible flow. Weather fine.	22/06/2020	8.44	16.1	0.09	14.39	229		127	*0.03*	0.30	*0.003*	*0.003*	0.008	*0.003*
SW11-DS	Upstream and downstream sites not connected. No visible flow. Weather fine.	22/06/2020	8.37	16.71	0.26	12.22	72.4		61	*0.03*	0.5	*0.0025*	0.01	*0.0025*	*0.0025*
SW11-US	Upstream and downstream sites not connected. Visible flow, low water level. Weather fine.	22/06/2020	8.54	15.8	0.27	21.02	62		45	*0.030*	0.600	*0.003*	*0.003*	0.008	*0.003*
SW10-DS	Upstream and downstream not connected. No visible flow. Weather fine.	25/06/2020	7.42	11.17	0.205	4.91	58.3		46	*0.03*	0.3	*0.003*	*0.003*	*0.003*	*0.003*
SW10-US	Upstream and downstream not connected. No visible flow. Weather fine.	25/06/2020	7.64	10.6	0.24	8.45	58		58	*0.03*	0.3	*0.003*	*0.003*	0.03	*0.003*
SW11-DS	Upstream and downstream sites not connected. No visible flow. Weather fine.	25/06/2020	7.9	10.9	0.307	8.14	76.5		54	*0.03*	0.6	*0.003*	*0.003*	0.15	*0.003*
SW11-US	Upstream and downstream sites not connected. No visible flow. Weather fine.	25/06/2020	7.98	10.7	0.29	8.35	107		62	*0.03*	0.90	*0.003*	*0.003*	0.39	*0.003*
SW10-DS	Upstream and downstream not connected. No visible flow. Weather fine.	17/07/2020	7.31	12.31	0.211	7.81	10.7		16	*0.03*	0.2	*0.003*	0.006	0.008	*0.003*
SW10-US	Upstream and downstream not connected. No visible flow. Weather fine.	17/07/2020	7.56	12.4	0.21	7.93	7		13	*0.03*	0.3	*0.003*	0.007	*0.003*	*0.003*
SW11-DS	Upstream and downstream sites not connected. No visible flow. Weather fine.	17/07/2020	7.87	12.26	0.65	8.13	12		12	*0.03*	0.8	*0.003*	0.018	0.42	0.011
SW11-US	Upstream and downstream sites not connected. No visible flow. Weather fine.	17/07/2020	8.07	10.9	0.32	10.80	52		31	*0.03*	0.60	*0.003*	*0.003*	0.26	*0.003*
SW10-DS	Upstream and downstream connected. Visible flow. Raining.	26/07/2020	6.7	16.15	0.054	7.3	213		89	*0.03*	0.600	*0.003*	0.018	*0.003*	*0.003*
SW10-US	Upstream and downstream connected. Visible flow. Raining.	26/07/2020	7.11	16.2	0.05	9.50	361		102	*0.03*	0.60	*0.003*	0.019	*0.003*	*0.003*
SW11-DS	Upstream and downstream sites connected. Visible flow. Raining.	26/07/2020	7.42	15.92	0.225	10.19	>1000		900	*0.05*	1.1	*0.003*	0.015	*0.33*	*0.003*
SW11-US	Upstream and downstream sites connected. Visible flow, medium water level. Raining.	26/07/2020	7.80	16.2	0.12	13.21	>1000		3950	*0.030*	0.700	*0.003*	0.018	0.075	*0.003*
SW10-DS	Upstream and downstream not connected. No visible flow. Weather fine.	5/08/2020	7.03	13.16	0.091	17.85	3.7		9	*0.03*	0.5	*0.003*	*0.003*	*0.003*	*0.003*
SW10-US	Upstream and downstream not connected. No visible flow. Weather fine.	5/08/2020	7.32	12.7	0.17	7.24	6		14	*0.03*	0.4	*0.003*	*0.003*	*0.003*	*0.003*
SW11-DS	Upstream and downstream sites not connected. No visible flow. Weather fine.	5/08/2020	7.86	13.8	0.415	12.04	80		68	*0.03*	0.9	*0.003*	0.036	0.33	0.015
SW11-US	Upstream and downstream sites not connected. No visible flow. Weather fine.	5/08/2020	7.61	13.0	0.24	7.12	61		37	*0.03*	0.80	0.008	0.021	0.10	*0.003*
SW10-DS	Upstream and downstream connected. No visible flow. Weather fine.	8/08/2020	8.17	16.27	0.128	19.65	8.8		21	*0.03*	0.300	*0.003*	*0.003*	*0.003*	*0.003*
SW10-US	Upstream and downstream connected. No visible flow. Weather fine.	8/08/2020	6.69	16.6	0.12	9.09	15		20	*0.03*	0.30	*0.003*	0.009	*0.003*	*0.003*
SW11-DS	Upstream and downstream sites not connected. No visible flow, low water level. Weather fine.	8/08/2020	6.96	17.74	0.204	9.99	97.5		89	*0.03*	0.6	*0.0025*	0.036	*0.16*	*0.0025*
SW11-US	Upstream and downstream sites not connected. Visible flow, low water level. Weather fine.	8/08/2020	7.28	16.9	0.27	9.54	54		47	*0.030*	0.700	0.005	0.032	0.069	*0.003*
SW10-DS	Upstream and downstream connected. No visible flow. Weather fine.	15/08/2020	7.66	16.05	0.149	9.91	6.8		11	*0.03*	0.400	*0.003*	*0.003*	*0.003*	*0.003*
SW10-US	Upstream and downstream connected. No visible flow. Weather fine.	15/08/2020	7.03	16.5	0.12	6.56	4		12	*0.03*	0.50	*0.003*	*0.003*	*0.003*	*0.003*
SW11-DS	Upstream and downstream sites not connected. No visible flow. Weather fine.	15/08/2020	7.31	17.46	0.229	9.29	101		76	*0.03*	0.6	*0.0025*	*0.0025*	*0.1*	*0.0025*

Monitoring Location	Field Notes	Date	pH (field)	Temperature (field)	Electrical Conductivity (field)	Dissolved Oxygen	Turbidity (field)	Oil & Grease	Suspended Solids	Total Phosphorus	Total Nitrogen	Phosphate	Ammonia	Nitrate	Nitrite
			pH unit	ºC	mS/cm	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
SW11-US	Upstream and downstream sites not connected. Visible flow, low water level. Weather fine.	15/08/2020	7.46	16.4	0.31	8.77	60		45	*0.030*	0.800	0.006	*0.003*	0.050	*0.003*
SW10-DS	Upstream and downstream not connected. No visible flow. Weather partly cloudy.	2/09/2020	6.9	17.65	0.139	6.82	3.2		11	*0.03*	0.4	*0.003*	*0.003*	*0.003*	*0.003*
SW10-US	Upstream and downstream not connected. No visible flow. Weather partly cloudy.	2/09/2020	7.30	17.8	0.17	7.05	4		12	*0.03*	0.4	*0.003*	*0.003*	*0.003*	*0.003*
SW11-DS	Upstream and downstream sites not connected. No visible flow. Weather partly cloudy.	2/09/2020	7.47	18.49	0.442	8.21	34.4		17	*0.03*	1	0.006	0.028	0.37	0.011
SW11-US	Upstream and downstream sites not connected. No visible flow. Weather partly cloudy.	2/09/2020	7.77	18.1	0.34	7.99	36		20	*0.03*	0.70	*0.003*	*0.003*	0.01	*0.003*
SW10-DS	Upstream and downstream connected. No visible flow. Weather rain.	10/09/2020	7.89	17.1	0.142	9.18	3.9		7	0.07	0.500	*0.003*	0.044	*0.003*	*0.003*
SW10-US	Upstream and downstream connected. No visible flow. Weather rain.	10/09/2020	8.09	17.6	0.17	7.68	4		27	0.08	0.40	*0.003*	0.021	*0.003*	*0.003*
SW11-DS	Upstream and downstream sites not connected. No visible flow. Weather rain.	10/09/2020	7.55	16.63	0.433	9.27	33.5		23	*0.1*	1.2	*0.03*	*0.15*	*0.66*	*0.19*
SW11-US	Upstream and downstream sites not connected. No visible flow, low water level. Weather rain.	10/09/2020	7.74	16.4	0.33	10.64	36		28	0.080	0.600	*0.003*	0.027	0.007	*0.003*
SW10-DS	Upstream and downstream not connected. No visible flow. Weather partly cloudy.	9/10/2020	7.89	18.43	0.185	14.47	2.9		6	*0.03*	0.4	*0.003*	*0.11*	*0.24*	*0.003*
SW10-US	Upstream and downstream not connected. No visible flow. Weather partly cloudy.	9/10/2020	7.86	18.2	0.23	10.76	6		48	*0.03*	0.6	*0.003*	0.015	0.010	*0.003*
SW11-DS	Upstream and downstream sites not connected. No visible flow. Weather partly cloudy.	9/10/2020	7.54	17.13	0.48	12.46	7.7		11	*0.09*	1.6	0.04	0.290	0.59	0.09
SW11-US	Upstream and downstream sites not connected. No visible flow. Weather partly cloudy.	9/10/2020	7.43	18.1	0.37	12.49	16		12	*0.03*	0.60	*0.003*	0.013	0.01	*0.003*
SW10-DS	Upstream and downstream connected. No visible flow. Weather rain.	13/10/2020	7.42	18.01	0.179	11.9	5.1		3	*0.03*	0.400	*0.003*	*0.003*	*0.003*	*0.003*
SW10-US	Upstream and downstream connected. No visible flow. Weather fine.	13/10/2020	7.46	17.5	0.23	10.70	9		50	0.10	0.90	*0.003*	*0.003*	*0.003*	*0.003*
SW11-DS	Upstream and downstream sites not connected. No visible flow. Weather fine.	13/10/2020	7.33	17.32	0.492	11.27	17.6		19	*0.09*	1.4	*0.02*	0.02	*0.53*	*0.063*
SW11-US	Upstream and downstream sites not connected. No visible flow, low water level. Weather fine.	13/10/2020	7.54	18.2	0.37	14.16	22		27	*0.030*	0.700	*0.003*	*0.003*	0.006	*0.003*
SW10-DS	Upstream and downstream connected. No visible flow. Weather rain.	20/10/2020	7.17	18.22	0.192	4.99	5.2		3	*0.03*	0.4	*0.003*	*0.003*	*0.003*	*0.003*
SW10-US	Upstream and downstream connected. No visible flow. Weather fine.	20/10/2020	7.47	17.06	0.247	5.54	10.2		104	*0.03*	0.6	*0.003*	0.028	*0.067*	*0.003*
SW11-DS	Upstream and downstream sites not connected. No visible flow. Weather fine.	20/10/2020	7.3	18.14	0.527	4.57	29.9		41	*0.08*	1	0.007	0.19	*0.15*	*0.027*
SW11-US	Upstream and downstream sites not connected. No visible flow, low water level. Weather fine.	20/10/2020	7.73	19.08	0.373	5.38	13.7		18	*0.03*	0.6	*0.003*	0.018	*0.003*	*0.003*

Table B-1: Ground Water quality and levels monitoring results for May 2020 to October 2020

GWB31

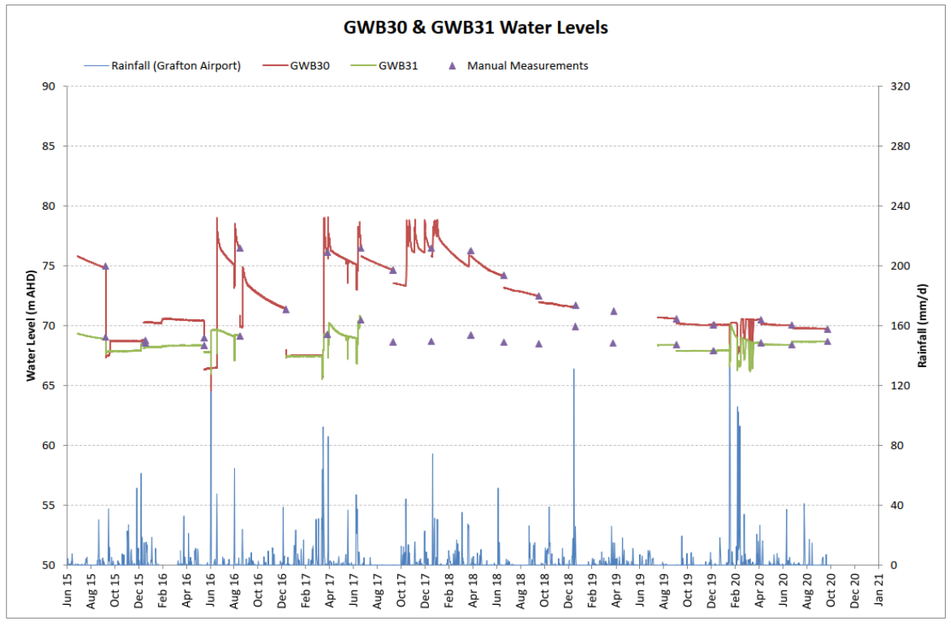
			Physical and chemical properties						Hydrocarbons			Nutrients		Major Cations				Major Anions			Heavy Metals (Dissolved)				
Monitoring Location	Field Notes	Date	pH	Temperature	EC	DO	Turbidity	TDS	TRH C10-C16 Fraction	TRH C16-C34 Fraction	TRH C34-C40 Fraction	Total Nitrogen	Total Phosphorus	Sodium	Potassium	Calcium	Magnesium	Chloride	Sulfate	Bicarbonate (Alkalinity)	Aluminium	Cadmium	Copper	Lead	Zinc
			pH unit	°C	mS/cm	mg/L	NTU	mg/L	µg/L	µg/L	µg/L	mg/L N	mg/L P	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L SO42	mg/L CaCO3 equiv	mg/L	mg/L	mg/L	mg/L	mg/L
Downgradient (construction) Monitoring																									
GWB31		11/09/2015	**7.10**	21.10	**2.55**	2.12	0	**1660**				1.01	**0.45**	414	2.6	**176.0**	**57.8**	169	**132**	**710**	0.013	*0.0005*	0.001	*0.001*	0.009
GWB31		16/12/2015	**8.30**	23.30	2.12	2.59	800	1334				2.41	0.07	345	3.0	**126.0**	**50.0**	156	**101**	**660**	0.010	*0.0005*	0.023	*0.001*	**0.019**
GWB31		20/05/2016	**6.67**	24.04	2.43	8.89	771	**1743**				0.61	**0.25**	394	3.0	**171.0**	**62.0**	177	**125**	**830**	0.005	*0.0005*	0.013	*0.001*	**0.027**
GWB31		18/08/2016	7.30	21.40	2.42	9.67	0	**1600**				1.26	**0.93**	366	2.0	**165.0**	**59.0**	194	**115**	**785**	0.006	*0.0005*	*0.005*	*0.001*	**0.041**
GWB31	Not enough to sample - no recharge 24hrs after purge.	13/12/2016						---				---	---	---	---	---	---	---	---	---	---	---	---	---	---
GWB31		29/03/2017	**6.84**	23.21	2.41	1.60	132	**1540**	*50*	**120**	*50*	1.34	0.15	326	3.1	**121.0**	**55.5**	167	**258**	**846**	*0.005*	*0.0010*	**0.033**	*0.005*	**0.018**
GWB31		23/06/2017	**7.02**	20.05	2.03	**0.14**	731	1240	*13*	*50*	*50*	0.95	0.20	296	2.8	**101.0**	**45.1**	119	**181**	**865**	0.010	*0.0010*	*0.002*	*0.005*	*0.002*
GWB31		12/09/2017	**6.82**	22.16	2.27	1.17	413	1170	*13*	*50*	*50*	1.40	*0.02*	337	6.6	**107.0**	**50.4**	130	**202**	**882**	*0.005*	*0.0010*	0.008	*0.005*	**0.024**
GWB31		18/12/2017	**6.75**	24.08	2.24	**0.47**	123	1370	*13*	*50*	*50*	1.03	0.07	400	4.1	**110.0**	**54.0**	172	**261**	**827**	0.014	*0.0010*	**1.590**	*0.005*	**0.020**
GWB31		29/03/2018	**6.63**	23.62	2.13	**0.31**	57	1360	*13*	*50*	*50*	1.56	0.05	315	5.0	**101.0**	**50.0**	141	**197**	**835**	0.013	*0.0010*	**0.079**	*0.005*	**0.020**
GWB31		21/06/2018	**7.08**	20.23	2.23	1.76	448	1440	*13*	*50*	*50*	0.82	0.10	332	3.4	**108.0**	**50.0**	148	**194**	**821**	*0.005*	*0.0010*	**0.039**	*0.005*	*0.002*
GWB31		18/09/2018	**7.19**	22.32	2.24	**0.65**	196	1340	*13*	*50*	*50*	0.37	0.07	339	5.0	**109.0**	**51.0**	157	**223**	**860**	*0.005*	*0.0010*	**0.310**	*0.005*	**0.020**
GWB31		20/12/2018	7.36	26.35	2.06	2.62	77	1370	*13*	*50*	*50*	1.75	0.07	308	4.1	**101.0**	**48.0**	168	**193**	**777**	*0.005*	*0.0010*	**0.056**	**0.011**	**0.032**
GWB31		26/03/2019	7.40	22.30	1.97	1.77	295	1240	*13*	*50*	*50*	1.22	0.12	300	2.5	**93.0**	**45.0**	175	**158**	**756**	*0.005*	*0.0010*	0.007	*0.005*	**0.015**
GWB31		4/09/2019	**6.80**	21.48	2.31	2.33	134	1380	*13*	*50*	*50*	1.32	0.09	345	**11.0**	**107.0**	**50.0**	175	**191**	**859**	0.012	*0.0010*	**0.120**	*0.005*	**0.054**
GWB31	Insufficient water to sample.	7/12/2019																							
GWB31	Insufficient water to sample.	6/04/2020																							
GWB31	Insufficient water to sample.	24/06/2020																							
GWB31	Insufficient water to monitor.	23/09/2020																							
P80 & P20 Values (calculated from baseline data)																									
P80			8.03		2.47		800	1500	146	50	50	2.48	0.23	423	7.5	35.2	11.0	436	18	430	0.065	0.0010	0.028	0.005	0.012
P20			7.20		0.98	0.70		607																	
Downgradient Baseline (pre-construction) Monitoring (identifier from pre-construction)																									
GW31		9/04/2014	6.96	21.51	1.48	3.40	131		*25*	*50*	*50*														

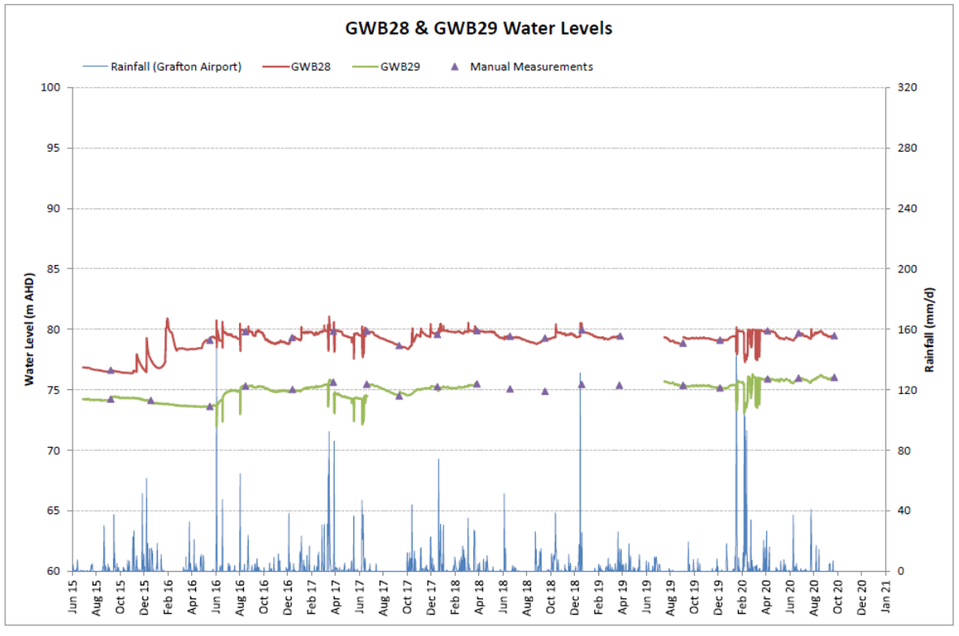
Upgradient (construction) Monitoring

GWB30		11/03/2015	7.30	13.30	1.89	5.80	240	1070				0.7	0.2	383	2.3	34.8	7.5	319	16	368	0.060	*0.0005*	0.011	*0.001*	0.003
GWB30		16/12/2015	9.10	23.50	1.89	2.88	479	1083				0.6	0.1	418	2.0	34.0	8.0	375	17	380	0.020	*0.0005*	0.013	*0.001*	0.005
GWB30		20/05/2016	7.09	21.76	2.22	9.02	800	1240				1.0	0.3	442	2.0	48.0	9.0	403	16	450	0.011	*0.0005*	0.010	*0.001*	0.004
GWB30		18/08/2016	8.10	21.20	0.39	8.77	193	470				1.0	0.4	83	3.0	15.0	3.0	94	5	85	0.512	*0.0005*	0.024	0.001	0.020
GWB30		13/12/2016	7.20	22.80	1.36	8.33	0	1120				0.9	0.6	282	2.0	22.0	4.0	245	9	230	0.087	*0.0005*	0.004	*0.001*	0.002
GWB30		23/03/2017	6.36	23.20	0.28	3.09	353	183	*50*	*50*	*50*	1.3	0.1	46	1.4	5.8	2.0	46	13	42	0.780	*0.0010*	0.010	*0.005*	0.011
GWB30	Tubidity exceeded maximum measuring range of probe.	23/06/2017	7.21	20.24	0.64	0.46	800	401	*15*	*50*	*50*	1.6	0.1	106	1.7	10.3	3.5	103	16	147	0.110	*0.0010*	0.007	*0.005*	*0.002*
GWB30	Tubidity exceeded maximum measuring range of probe.	12/09/2017	7.70	21.55	0.92	2.04	800	535	*15*	*50*	*50*	1.2	*0.0*	169	2.6	14.3	4.7	135	19	215	0.028	*0.0010*	0.036	*0.005*	*0.002*
GWB30	Tubidity exceeded maximum measuring range of probe.	18/12/2017	7.30	23.73	0.98	0.11	800	625	*15*	*50*	*50*	2.0	0.1	200	8.4	25.0	9.1	153	18	224	0.046	*0.0010*	*0.002*	*0.005*	*0.002*
GWB30	Turbidity exceeded maximum measuring range of probe.	23/03/2018	7.22	24.71	0.39	0.00	800	655	*15*	*50*	*50*	2.8	0.1	187	1.8	15.0	4.7	142	16	255	0.048	*0.0010*	0.004	*0.005*	*0.002*
GWB30		21/06/2018	7.32	21.20	1.18	2.05	351	772	*15*	*50*	*50*	1.4	0.1	235	3.2	20.0	6.1	190	17	288	0.013	*0.0010*	0.031	*0.005*	*0.002*
GWB30		18/09/2018	8.68	22.77	1.21	1.91	205	747	*15*	*50*	*50*	0.7	0.1	233	2.2	17.0	5.2	193	16	313	*0.005*	*0.0010*	0.038	*0.005*	*0.002*
GWB30		21/12/2018	8.72	28.17	0.98	1.50	256	702	*15*	*50*	*50*	1.4	0.1	209	3.5	16.0	4.9	168	17	281	0.017	*0.0010*	0.110	*0.005*	0.010
GWB30		28/03/2019	9.21	21.51	1.34	1.37	436	838	*15*	*50*	*50*	2.7	0.1	251	4.9	18.0	6.2	276	18	301	*0.005*	*0.0010*	0.027	*0.005*	*0.002*
GWB30		4/09/2019	7.67	24.39	2.07	0.28	349	1320	*15*	*50*	*50*	1.3	0.1	391	18.0	29.0	9.0	428	14	430	0.010	*0.0010*	0.016	*0.005*	0.004
GWB30		7/12/2019	7.52	24.15	2.59	0.00	186	1430	*15*	*50*	*50*	0.9	0.1	460	7.2	36.0	14.0	537	18	431	*0.005*	*0.0010*	0.013	*0.005*	0.024
GWB30		6/04/2020	7.50	25.11	2.29	1.07	819	1550	*15*	*50*	*50*	2.5	0.2	418	7.3	35.0	11.0	32	49	424	*0.005*	*0.0010*	*0.002*	*0.005*	0.023
GWB30		24/06/2020	6.98	19.99	2.39	1.17	393	1540	210	620	*50*	2.5	0.2	411	10.0	35.0	11.0	502	15	421	0.017	*0.0010*	*0.002*	*0.005*	0.009
GWB30		23/09/2020	7.31	22.71	2.53	1.25	593	1700	*15*	*50*	*50*	1.3	0.5	457	8.3	42.0	14.0	587	19	444	0.014	*0.0010*	0.005	*0.005*	0.017

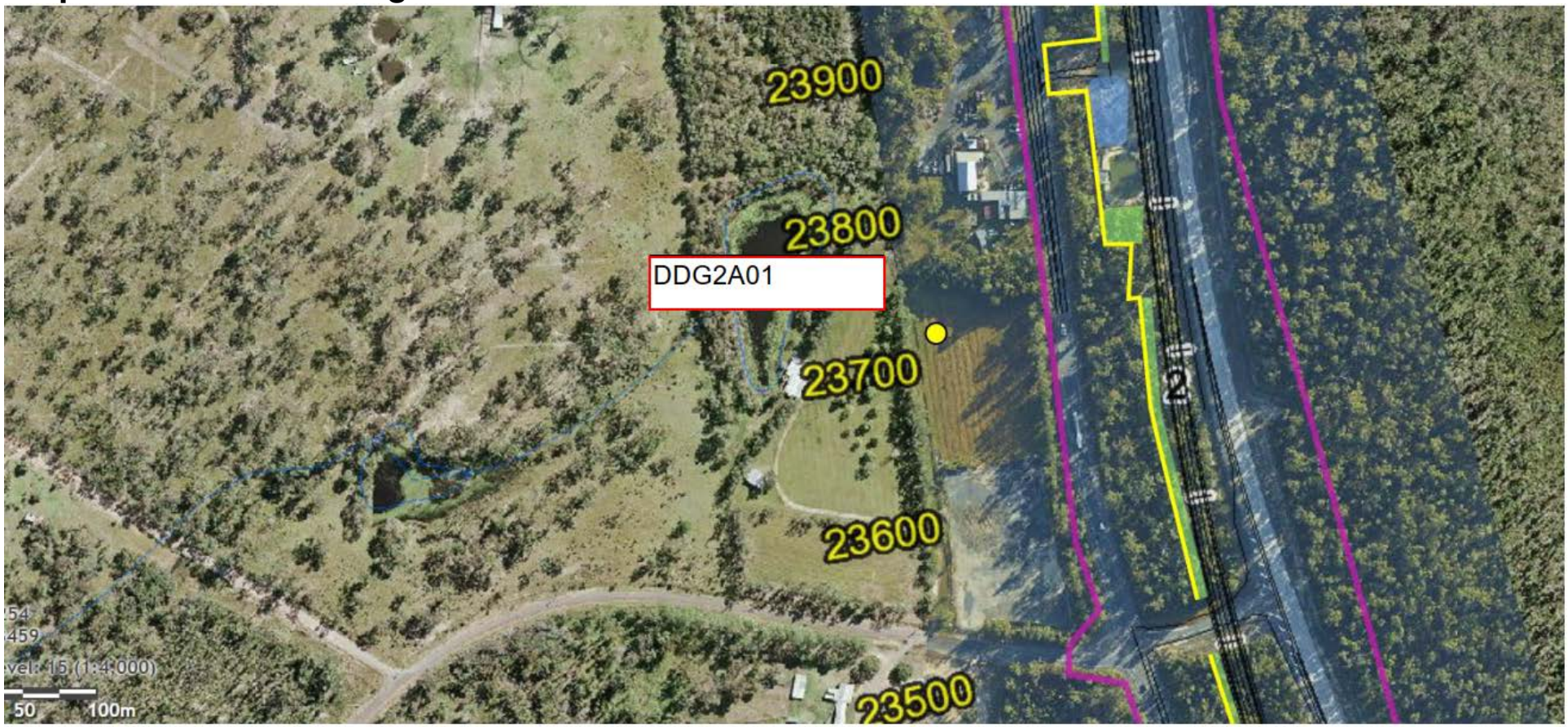
Upgradient Baseline (pre-construction) Monitoring (identifier from pre-construction)

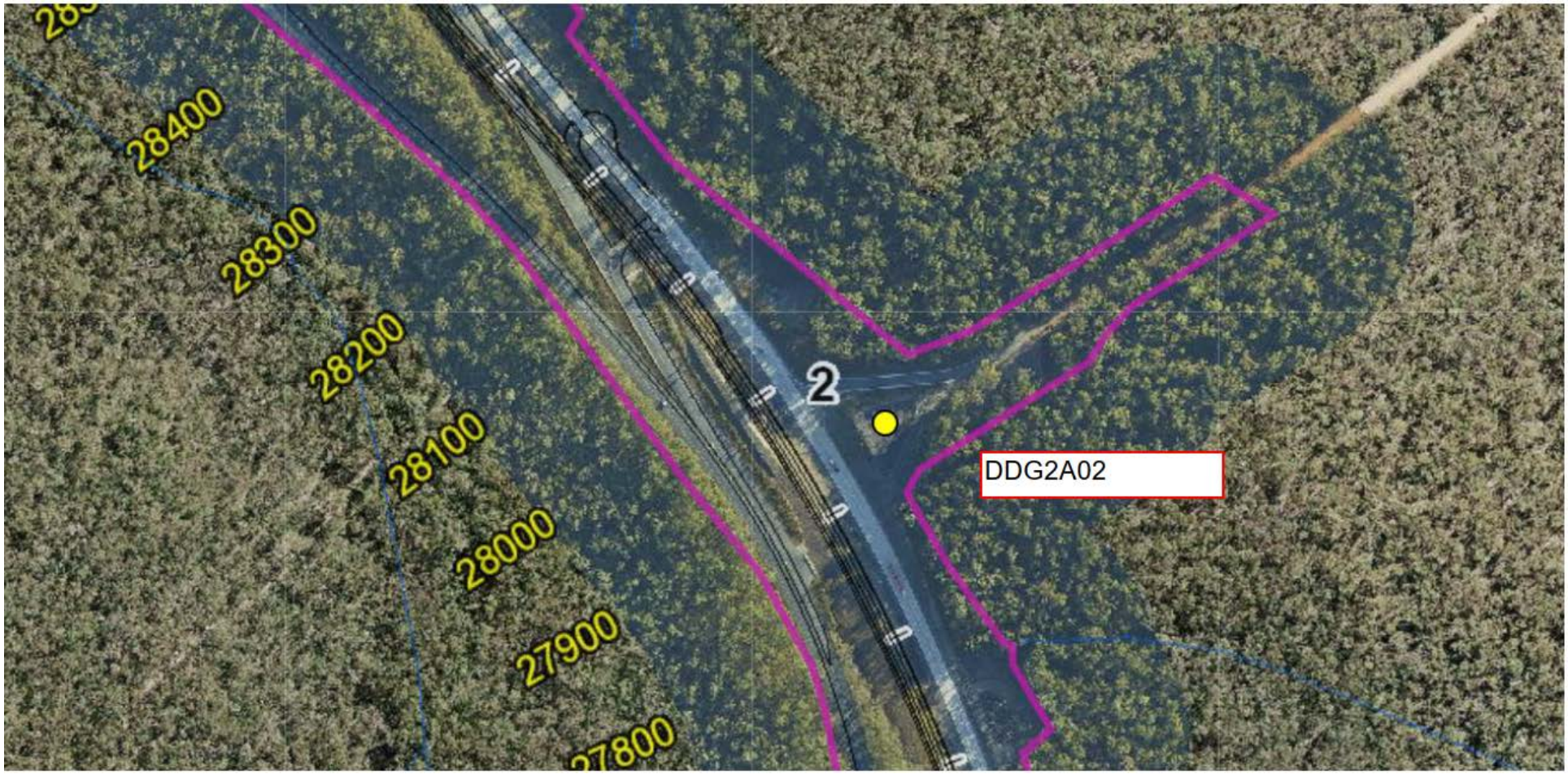
GW30		14/11/2013	7.33	26.54	3.02	1.69	6	1930	4100	240	*50*	5.57	0.13	661	2.2	85.6	15.6	466	433	630	0.007	*0.0005*	0.000	*0.001*	0.004
GW30		10/02/2014	7.29	26.57	3.34	1.37	12		2100	*50*	*50*														
GW30		9/04/2014	7.41	22.46	3.51	2.02	5		440	*50*	*50*														





Dispositional Dust Gauge Locations




28400
28300
28200
28100
28000
27900
27800
2
DDG2A02


DDG2A03
8100
8000
7900
7800
7700
7600


DDG2A04 - Control
23100
23000

Table B-2: Air quality monitoring results for May 2020 to October2020

Period	Deployment date	Collection date	Sent to lab	Gauge #	Insoluble Solids g/m2/month	Ash g/m2/month	Combustible Matter g/m2/month
May/June	15-05-20	13-06-20	17-06-20	DDG2A01	0.3	0.2	0.1
				DDG2A02	1.2	1.1	0.1
				DDG2A03	1.2	0.8	0.4
				DDG2A04	0.1	0.1	<0.1
June/July	13-06-20	15-07-20	17-07-20	DDG2A01	0.4	0.2	0.2
				DDG2A02	1	0.7	0.3
				DDG2A03	0.7	0.4	0.3
				DDG2A04	0.1	0.1	<0.1
July/August	15-07-20	14-08-20	14-08-20	DDG2A01	0.5	0.3	0.2
				DDG2A02	0.7	0.4	0.3
				DDG2A03	1	0.7	0.3
				DDG2A04	0.2	0.2	<0.1
August/September	14-08-20	15-09-20	15-09-20	DDG2A01	0.9	0.5	0.4
				DDG2A02	1	0.6	0.4
				DDG2A03	1.2	1	0.2
				DDG2A04	0.6	0.3	0.3
September/October	15-09-20	13-10-20	13-10-20	DDG2A01	1.2	1	0.2
				DDG2A02	0.7	0.5	0.2
				DDG2A03	0.2	0.1	0.1
				DDG2A04	0.2	0.1	0.1

Noise Monitoring Locations (from CNVMP)

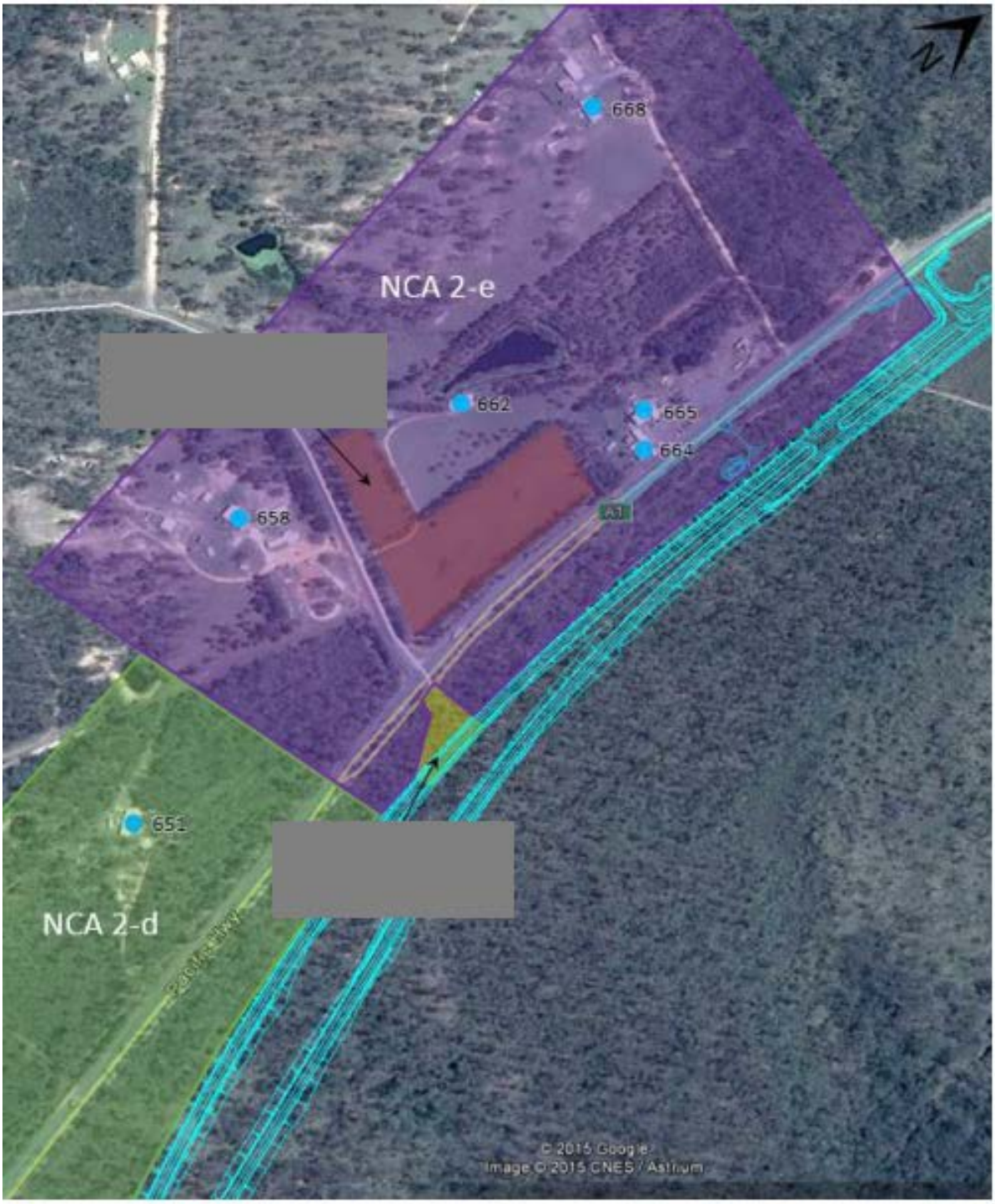
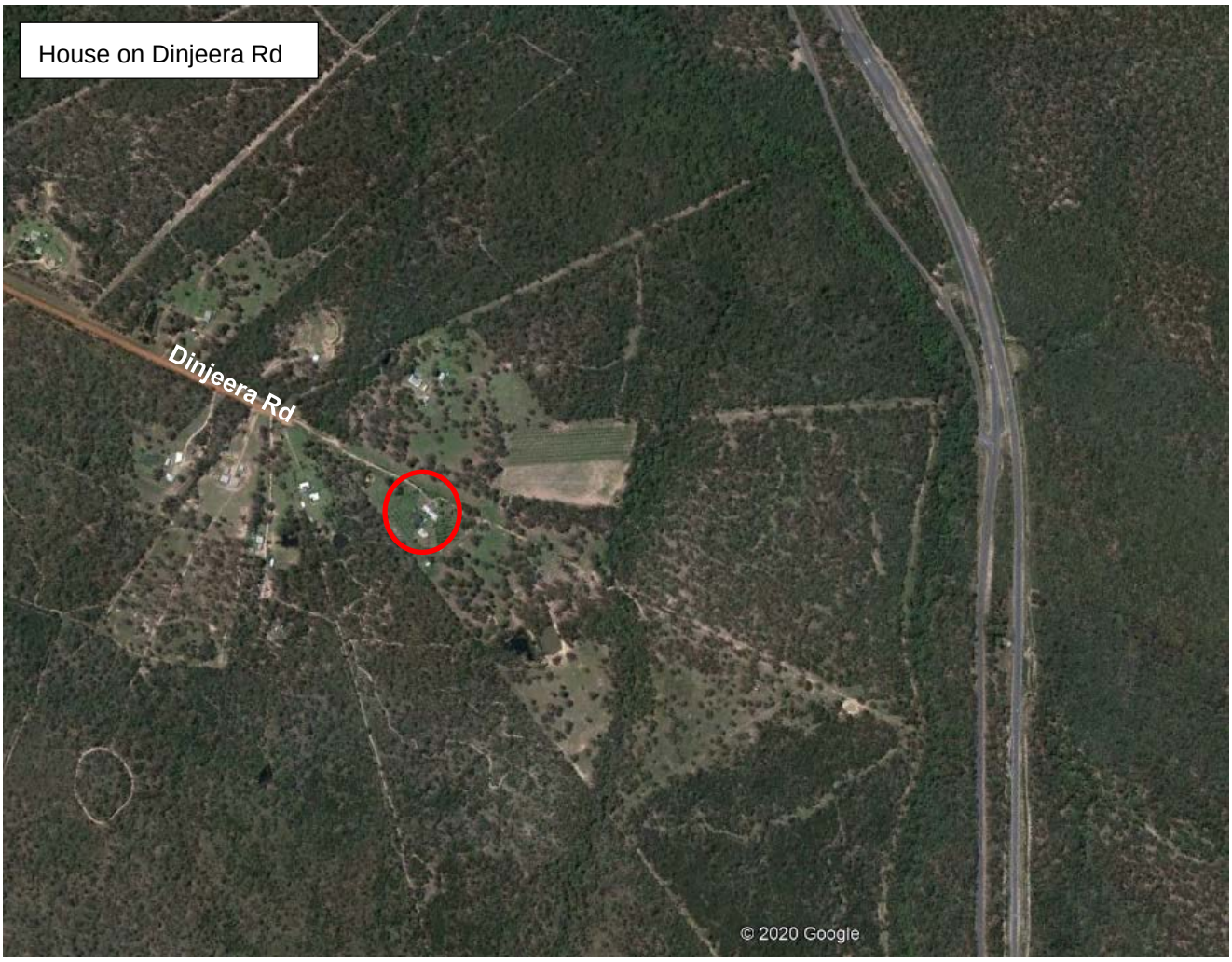


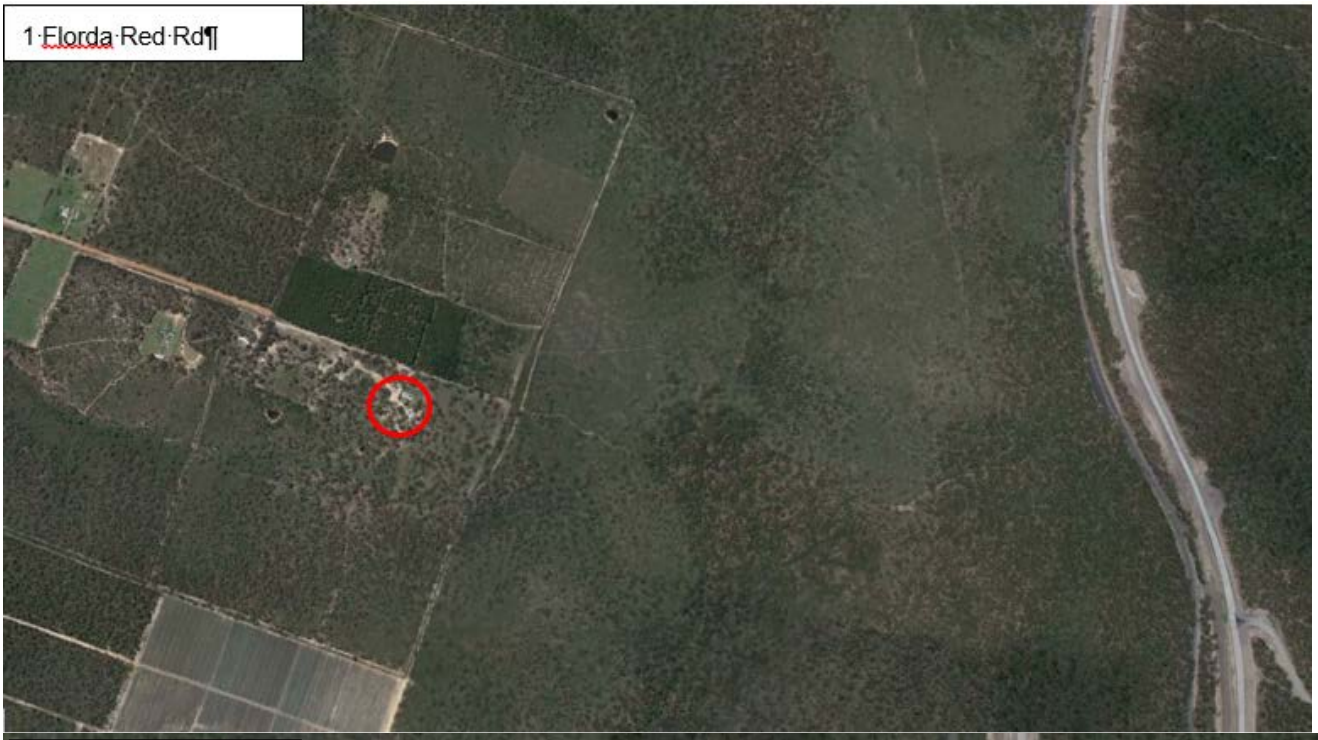
Table B-3: Noise monitoring results for May 2020 to October 2020

Monitoring Location	Date	Time	Predicted Construction Noise Levels Laeq	Measured LAeq (15 min)	Lafmax	Lzpk	Lafmin	Laf10	Laf90	Wind Direction	Wind (~m/s)	Comments - Sources, observations
NCA 2_d (R651)	6/05/2020	10:20	(B) 70-74	52.1	60.6	84.4	35.4	55.4	44	SE	1	Pac Highway main contributing source. 2A not audible during reading. Extraneous noise sources: Birds. Winds: SE @ 1m/sec.
NCA 2_e (R658)	6/05/2020	10:45	(B) 69-96	57.3	80.3	98.2	39.8	57.8	45.7	SE	1.8	Pac Highway main contributing source. 2A audible during reading- light vehicle leaving compound, backhoe operating at batchplant. Extraneous noise sources: Birds, traffic on Parker Rd, LV using Jacks Eggs carpark . Winds: SE @ 1m/sec.
Receiver not listed (representative distance) (Cut 6 Crushing)	23/05/2020	7:05	43	54.2	69.1	94	42.1	58.7	47.6	Still	Still	Main contributing source - Pacific Highway. 2A not audible during reading. Birds and wind extraneous noise sources: Still
Receiver not listed (representative distance) (Earthworks bebo)	23/05/2020	7:30	25	55.1	72.3	93.7	41.5	59.6	45.2	Still	Still	Pac Highway main contributing source. 2A not audible during reading. Extraneous noise sources: Birds. Winds: Still
R664 (representative distance)	28/05/2020	18:45	53	67.5	83.9	99.7	38.2	70.7	47.4	SE	0.8	Pac Highway main contributing source. During monitoring 30 B-Double trucks and 28 LVs passed on the highway. 1 LV used Parker Road and pulled into R664 residence @ 1855 and 1 LV passed location on Parker Rd at 1858. 2A audible during reading when completing two saw cuts during start of monitoring period for 1-3 minutes. With no other contributing sources work activities estimated to be between 48-50dB(A). Noise assessment details had modelled 53dB(A). Extraneous noise sources: Crickets. Winds: SE @.8m/sec.
NCA 2_d (R651)	5/06/2020	9:50	(B) 70-74	54.2	68.9	89.9	41.4	57.1	46	Still	Still	Pac Highway main contributing source. 2A audible during reading on one instant with hand tools audible at southern boundary. Extraneous noise sources: Birds. Winds: Still.
NCA 2_e (R658)	5/06/2020	9:20	(B) 69-96	62.7	85.2	100.7	55.9	63.1	57.7	Still	Still	2A audible during reading. Batch plant running. Wheel loader loading aggregate, 1 load from batch into 8 wheeler, reversing quacker in Parker compound, Agi pulled into batch. Ewp moving around batch. Extraneous noise sources: Heavy traffic on Pac Highway associated with long weekend traffic. 22 LVs drove past monitoring location during reading. 1 truck pulled into jacks eggs not associated with works left running. 1 farmer car in jacks eggs. Chickens and birds audible during reading. Winds: Mostly still with two gusts up to 2m/sec. 2A activities observed to be main contributing source and estimated to be ~61dBA with Pac Hway ~55dBA (validated by monitoring NCA 2_d).
R664 (representative distance)	2/07/2020	6:14	59	66	82.3	98.6	52.1	69.7	55	Still	Still	Pac Highway main contributing source. During monitoring 15 B-Double trucks and 68 LVs passed on the Nth bound and undetermined amount on Sth bound with trucks audible. 3 LV used Parker rd. Batch audible during reading with belts running as a constant source of noise. One siren audible towards end of reading that was below regular traffic volume. With no other contributing sources work activities estimated to be between 52-53dB(A). Noise assessment details had modelled 59dB(A). Extraneous noise sources: Birds. Winds: Still, Air Temp: ~4°C.
R664 (representative distance)	2/07/2020	6:34	59	65.2	80.4	97.3	52.8	69	56.1	Still	Still	Pac Highway main contributing source. During monitoring traffic estimate was 15 B-Double trucks and 75 LVs passed on the Nth bound and undetermined amount on Sth bound with trucks audible. 2 LV used Parker rd. Batch audible during reading with belts running as a constant source of noise. Loader viewed operating at 0643 with reversing quacker and loading of batch audible. Truck and dog arrived at 0645 with delivery, viewed but not audible until rear door closed on dog. Instantaneous noise at 0647 below regular traffic noise levels. One siren audible towards end of reading that was below regular traffic volume. Squeaky runner on conveyer belt audible when under load on a couple of occasions, towards end of monitoring period. With no other contributing sources work activities estimated to be between 52-53dB(A). Noise assessment details had modelled 59dB(A). Extraneous noise sources: Birds. Winds: Still, Air Temp: ~4°C, fog visible with dew point temp. ~4°C.
R664 (representative distance)	3/07/2020	6:35	59	64.8	77.5	98	48.4	68.8	52.3	Still	Still	BATCHPLANT NOT OPERATIONAL. Pac Highway main contributing source. During monitoring traffic estimate was 17 B-Double trucks and 64 LVs passed on the Nth bound and undetermined amount on Sth bound with trucks audible. Extraneous noise sources: Birds. Winds: Still, Air Temp: ~5°C.

Monitoring Location	Date	Time	Predicted Construction Noise Levels Laeq	Measured LAeq (15 min)	Lafmax	Lzpk	Lafmin	Laf10	Laf90	Wind Direction	Wind (~m/s)	Comments - Sources, observations
R664 (representative distance)	3/07/2020	6:47	59	65.8	80.3	97.6	47.8	69.9	53.8	Still	Still	BATCHPLANT NOT OPERATIONAL. Pac Highway main contributing source. During monitoring traffic estimate was 13 B-Double trucks and 59 LVs passed on the Nth bound and undetermined amount on Sth bound with trucks audible. Extraneous noise sources: Birds. Winds: Still, Air Temp: ~5°C.
R658	6/07/2020	22:30	48	60.3	85.1	99.7	41.8	55.7	46.8	Still	Still	SAW CUTTING NOT OPERATIONAL. Pac Highway main contributing source. During monitoring traffic estimate was 15 B-Double trucks and 37 LVs passed on the Nth bound and undetermined amount on Sth bound with trucks audible. 3 LVs passed along Parker rd during monitoring. Extraneous noise sources: Possum in a tree and horses in adjacent paddock. Winds: Still, Air Temp: ~6°C.
R658	6/07/2020	1:40	48	53.3	64	83.6	31.1	57.3	40.6	Still	Still	SAW CUTTING NOT OPERATIONAL. Pac Highway main contributing source. During monitoring traffic estimate was 11 B-Double trucks and 23 LVs passed on the Nth bound and undetermined amount on Sth bound with trucks audible. No traffic along Parker Road during monitoring. Extraneous noise sources: Possum in a tree and horses in adjacent paddock. Winds: Still, Air Temp: ~4°C.
R664 (representative distance)	15/07/2020	23:40	62	63.6	78.1	94.5	37.5	66.6	41	Still	Still	Pac Highway main contributing source. During monitoring traffic estimate was 17 B-Double trucks and ~30 LVs passed on the Nth bound and undetermined amount on Sth bound with trucks audible. No traffic along Parker Road during monitoring. Saw cutters audible on one occasion when using a shovel on the pavement. Winds: Still, Air Temp: ~7°C.
R664 (representative distance)	16/07/2020	0:20	62	61.4	82.7	93.2	38.8	64.4	43.4	Still	Still	Pac Highway main contributing source. During monitoring traffic was 12 B-Double trucks and ~20 LVs passed on the Nth bound and undetermined amount on Sth bound with trucks audible. No traffic along Parker Road during monitoring. Saw cutters audible at start and end of monitoring period operating soft cutter directly opposite monitoring location. The use of shovels on pavement, the use of an LV and some talking was audible. With no other contributing sources work activities estimated to be between 41-43dB(A). Winds: Still, Air Temp: ~6°C.
NCA 2_d (R651)	20/07/2020	10:50	(B) 70-74	54.3	61.2	85.6	34.6	54.3	44.5	Still	Still	Pac Highway main contributing source. 2A not audible during reading. Extraneous noise sources: Birds. Winds: Still.
NCA 2_e (R658)	20/07/2020	11:20	(B) 69-96	57.3	80.3	98.2	39.8	57.8	45.7	Still	Still	Pac Highway main contributing source. 2A audible during reading- light vehicle leaving compound. Extraneous noise sources: Birds, traffic on Parker Rd, LV using Jacks Eggs carpark . Winds: Still.
NCA 2_d (R651)	5/08/2020	8:30	(B) 70-74	53.9	64.9	88	41.8	57.3	47.3	Still	Still	Pac Highway main contributing source. 2A not audible during reading. Extraneous noise sources: Birds. Winds: Still.
NCA 2_e (R658)	5/08/2020	8:50	(B) 69-96	63.2	83.9	97.8	56.9	64.2	59.6	Still	Still	2A audible during reading and main contributing source- batch plant operating, Truck and dog deliveries, 8 wheelers, backhoe, alarms from batch, light vehicle movement within compound. Extraneous noise sources: Pacific Highway, Traffic on Parker Rd (5 LVs), Rural activity from Jacks Eggs (Tractor), Birds. Winds: Still.
NCA 2_d (R651)	2/09/2020	10:15	(B) 70-74	51.4	63	85.3	41.3	54.4	45.9	N	2.3	Pac Highway main contributing source. 2A only audible during reading when no traffic was audible. The use of hand tools (grinder). Extraneous noise sources: Birds. Winds: N 2.1m/sec.
NCA 2_e (R658)	2/09/2020	10:35	(B) 69-96	65.1	93	113.4	50.8	61.8	52.9	N	2.1	Pac Highway main contributing source. 2A audible during reading- light vehicle leaving compound and hand tools in use at batch plant. Batch plant was not running at the time of monitoring due to a breakdown. Extraneous noise sources: Birds, traffic on Parker Rd (6 LVs and one loud Harley Davidson passed during monitoring), LV using Jacks Eggs carpark . Winds: N 2.1m/sec.
NCA 2_d (R651)	7/10/2020	10:42	(B) 70-74	54.1	64.2	87.2	38.7	57.5	45.7	Still	Still	Pac Highway main contributing source. 2A not audible during reading. Extraneous noise sources: Birds. Winds: Still.
NCA 2_e (R658)	7/10/2020	10:59	(B) 69-96	61.8	83.4	98	53.3	61.2	54.5	Still	Still	2A audible during reading and main contributing source- batch plant operating, 8 wheelers, alarms from batch, light vehicle movement within compound. Extraneous noise sources: Pacific Highway, Traffic on Parker Rd (8 LVs), Rural activity from Jacks Eggs (Chickens), Birds. Winds: Still.

Blast Monitoring Locations




1 Florda Red Rd¶

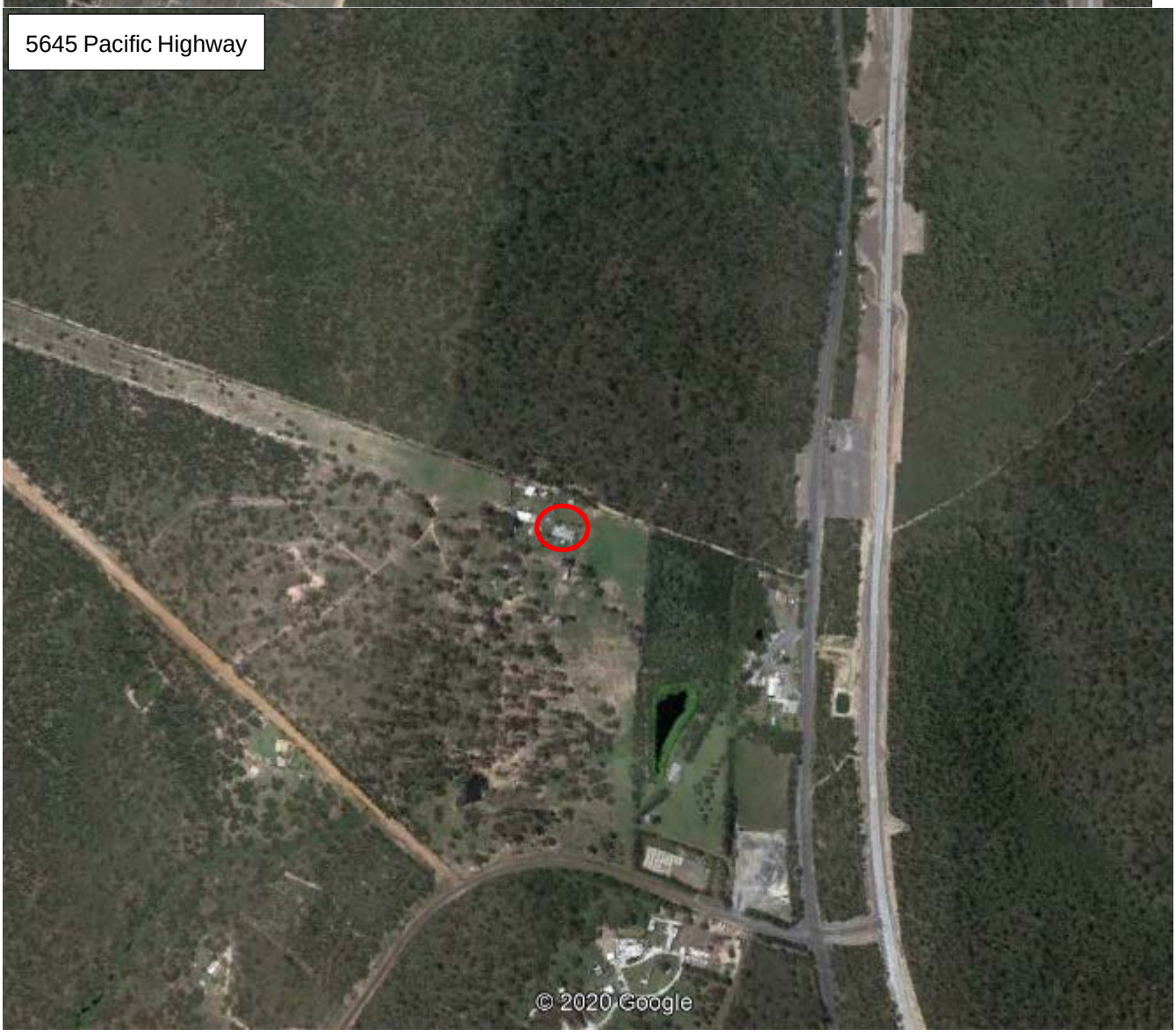

5645 Pacific Highway
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Table B-4: Blast monitoring results for May 2020 to April 2020

Date	Blast location	Monitoring location	Distance from blast (m)	Air blast Overpressure (dB)	Peak Particle Velocity (mm/sec)
Criteria				120 dBL for 95% of blasts per year	10mm/s maximum limit
7/05/2020	Cut 9	House on Dinjeera Road	1776	104.2	1.332
7/05/2020	Cut 9 basin	House on Dinjeera Road	1776	No trigger	No Trigger
7/05/2020	Cut 5	1 Florda Red Road	1779	No trigger	No Trigger