# Construction Environmental Management Plan

## Coffs Harbour Hospital Expansion

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| **Project number:** | N1050 |
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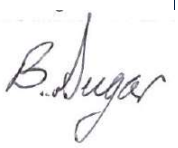
| **Revision:** | 06 |

### Document Approval

| Rev. | Date | Prepared by | Reviewed by | Approved by | Remarks |
|---|---|---|---|---|---|
| A | 23/04/2019 | E Gardner | T Doczy | J Ryan | Draft |
| 01 | 20/05/2019 | E Gardner | T Doczy | J Ryan | Submission to BCA Certifier |
| 02 | 31/05/2019 | E Gardner | T Doczy | J Ryan | |
| 03 | 24/06/2019 | E Gardner | T Doczy | J Ryan | Submission to DPE |
| 04 | 29/10/2019 | E Gardner | B Blanchette | S Knight | 6 month review |
| 05 | 13/12/2019 | | E Gardner | B Sugar | |
| 06 | 10/12/2020 | A.Sainthill | S.Thompson | B,.Sugar | Amend unexpected finds contact details and Development Consent Modifications |
| Signature | | Adam Sainthill |  |  | |

# Details of Revision Amendments

## Document Control

The Project Manager is responsible for ensuring that this plan is reviewed and approved. The Project Environmental Manager is responsible for updating this plan to reflect changes to environmental, legal and other requirements including the effectiveness of the control measures, every 6 months.

## Amendments

Any revisions or amendments must be approved by the Project Manager and

- be submitted to the Certifying Authority within 6 weeks of the review, and
- be issued to Health Infrastructure before being distributed / implemented.

## Revision Details

| Revision | Details |
|---|---|
| A | Draft |
| 01 | First submission to Building Certifier |
| 02 | Second submission to Building Certifier |
| 03 | Submission to DPE following Certifier comments |
| 04 | Added Appendix K Operational Flood Emergency Response Plan<br>Added Appendix L Construction Traffic Management Plan<br>Updated Appendix E with additional monitoring/ inspection requirements related to Development Consent Conditions<br>Section 2.5 for REF 006/2019 added<br>Bush Fire IPA reference included in Flora and Fauna Sub Plan<br>Updated Appendix H Site Environmental Plan |
| 05 | Section 2.3 Standard Operating Requirements<br>Section 2.4 Development Consent Requirements (updated to include Modifications)<br>Section 2.8 Key Environmental Stakeholders<br>Sub Plan 1 Tables 1.3 and 1.4<br>Sub Plan 9 Table 9.6<br>Appendix B Certification renewed<br>Appendix D Development Consent Conditions to reflect the Modifications<br>Appendix L Construction Traffic Management Plan updated |
| 06 | Update Development Consent Modifications<br>Update contact details for Unexpected Finds procedure |

# Contents

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## 1. Structure of this Plan

This Environmental Management Plan (EMP) outlines how we will achieve acceptable environmental outcomes on the Coffs Harbour Hospital Expansion by the application of the CPB Contractors Environmental Management System (EMS).

In addition to the Project Management Plan, other Project Plans that interface with the Environmental Management Plan include:

- Construction Management Plan
- Engineering and Design Management Plan
- Quality Management Plan
- Workplace Health and Safety Management Plan
- Project Training Plan
- Building Completion & Commissioning Plan

The plan has the following structure:

| | |
|---|---|
| **Part A: Overview** | This section clearly defines:<br>▪ Purpose and Scope of the EMP<br>▪ Environmental Contract Requirements<br>▪ Objectives and Targets<br>▪ Structure the Environmental Management System<br>▪ Summary of the Significant Environmental Hazards, specific client requirements, compliance requirements and project environmental performance targets |
| **Part B: Implementation Plan** | This section outlines in detail the key aspects for environmental management on the project including:<br>▪ Expectations<br>▪ How they will be met<br>▪ Responsibilities<br>▪ Associated deliverables |
| **Part C: Environmental Sub-Plans** | This section contains the Environmental Sub-Plans developed by the project to manage Significant Environmental Hazards and other potential major impacts upon the environment and community |
| **Part D: Appendices** | This section provides information supporting the EMP including:<br>▪ Environmental Policy<br>▪ Environmental Roles and Responsibilities<br>▪ Site Environment Plan |

# 2. Project Overview

## 2.1 Purpose and Scope

CPB Contractors has been contracted by Health Infrastructure to undertake finalization of the design, construction and commissioning for a new Clinical Services Building along with alterations and refurbishment to existing buildings, including landscaping, carparking facilities and associated site infrastructure works for Coffs Harbour Hospital. CPB Contractors has been appointed the Contractor to design and construct the Works in accordance with the GC21 (Edition2) Contract.

This Plan is established in accordance with 'The Way We Operate' framework and is the key document that integrates the requirements of the Environmental Impact Statement for SSD 8981 dated 28 February 2019 and associated Development Consent Conditions, REF #006/2019 for Hospital Alterations and Additions by GeoLINK approved 8 May 2019 and client environmental requirements during project delivery.

Implementation of the EMP will:

- Identify the environmental obligations attached to the tender / project and the hazards and risks associated with the works
- Assist in the prevention of unauthorised environmental harm
- Fulfil the Client's environmental requirements as defined in the Contract, including complying with relevant permits and approvals
- Comply with all relevant environmental legislation
- Minimise negative impacts on the community that relate to the Project's environmental impacts
- Identify and implement feasible opportunities to reduce the environmental impact of the Project that are beyond contractual and compliance requirements
- Fulfil CPB Contractors' EMS requirements enabling continued certification to ISO14001 and contribution to CPB Contractors' overall Business Plans.

The Project Manager, with advice and input from senior construction staff, is responsible for the Plan.

## 2.2 Environmental Contract Requirements

The following table sets out the minimum client requirements as defined in the GC21 Contract General Conditions and Special Conditions and shows where each requirement has been addressed within this Plan or the wider CPB Contractors management system.

Table A: Contract Requirements for Environmental Management

| Contract Reference | Content requirements | Where addressed | Comments |
|---|---|---|---|
| General Conditions Clause 15; Contract Information Section 15D; Special Conditions Clause 6 | Compliance with NSW Government Environmental Management System Guidelines | | |
| | 1. The Contractor is required to implement an accredited Environmental Management System. | EMP Part A Section 3 and Appendix B | ISO 14001:2015 accreditation to 30/11/2019. |
| | 2. The Contractor is required to submit an Environmental Management Plan 14 days before starting work on the site. | EMP Part A Section 3.1.2 | EMP provided 14 days before works commence on site. |
| Special Conditions Clause 16 and Preliminaries Clause 6.3 | **Waste Management** – the Contractor is the owner of waste absolutely and unconditionally, whether existing at the site or when generated as part of carrying out the Works, and assumes all risk and liability of | EMP Part C Waste Management Sub Plan | |

| Contract Reference | Content requirements | Where addressed | Comments |
|---|---|---|---|
| | any nature whatsoever in relation to such waste.<br>Implement waste minimization and management measures.<br>Monitor and record the volumes of waste and methods and locations of disposal. | | |
| Preliminaries Clause 6.1 | Environmental Management Monthly Report to be submitted | EMP Part B Section 12.2 | |
| | Notification of incidents in accordance with POEO Act and immediately notify the Principal | EMP Part B Section 9.1 | |

## 2.3 Standard Operating Requirements

**Hours of Work**

Construction, including the delivery of materials to and from the site, may only be carried out between the following hours:

a) 7am and 6pm, Mondays to Fridays; and

b) 8am and 4pm, Saturdays.

No work may be carried out on Sundays or public holidays.

Rock breaking, rock hammering, sheet piling, pile driving and similar activities may only be carried out between the following hours:

a) 9am to 12pm, Mondays to Fridays;
b) 2pm to 5pm Monday to Friday; and
c) 9am and 12pm, Saturdays.

Activities may be undertaken outside of these hours if required:

a) by the Police or a public authority for the delivery of vehicles, plant or materials; or

b) in an emergency to avoid the loss of life, damage to property or to prevent environmental harm; or

c) where the works are inaudible at the nearest sensitive receivers; or

d) where a variation is approved in advance in writing by the Planning Secretary or her nominee if appropriate justification is provided for the works.

Notification of such activities must be given to affected residents before undertaking the activities or as soon as is practical afterwards.

**Site Contacts:**

Site Manager Brett Mills: 0439 302 407

Project Manager Brad Sugar (Out of Hours): 0447 177 556

## 2.4 Development Consent Requirements

Development Consent Application number SSD 8981 was provided on 28 February 2019 in accordance with Section 4.38 of the Environmental Planning and Assessment Act 1979. Two Modifications have since been approved as follows:

- Modification 1 approved 25/08/2019 - Amendment to Condition D12
- Modification 2 approved 1/12/2019 - Façade design amendments, new staging conditions, delete conditions B15 and B16 and amend conditions C8 and C26.
- Modification 3 approved 28/07/2020 – Installaition of solar panels to Western Carpark

- Modification 4 approved 24/09/2020 – Correct condition B31 Total Car Parking Number

Compliance requirements relating to the Consent will be tracked as detailed in Appendix D. Details of environmental compliance requirements relating to the CEMP are tabled below:

Table B: Development Consent Requirements

| Development Consent SSD 8981 (28/02/2019) | Content requirements | Where addressed in CEMP |
|---|---|---|
| B4 | Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:<br>(a) detailed baseline data;<br>(b) details of:<br>(i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);<br>(ii) any relevant limits or performance measures and criteria; and<br>(iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;<br>(c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;<br>(d) a program to monitor and report on the:<br>(i) impacts and environmental performance of the development;<br>(ii) effectiveness of the management measures set out pursuant to paragraph (c) above;<br>(e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;<br>(f) a program to investigate and implement ways to improve the environmental performance of the development over time;<br>(g) a protocol for managing and reporting any:<br>(i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);<br>(ii) complaint;<br>(iii) failure to comply with statutory requirements; and<br>(h) a protocol for periodic review of the plan.<br>Note: The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans. | CEMP developed by CPB |
| B5 | Prior to commencement of construction, the Applicant must prepare a Construction Environmental Management Plan (CEMP) and it must include<br>a)(iii) management of dust and odour to protect the amenity of the neighborhood;<br>(iv) measures to ensure that sediment and other materials are not tracked onto the roadway by vehicles leaving the site<br>d) Construction Soil and Water Management Plan | Construction Soil and Water Management Sub Plan |
| B6 | The Applicant must not commence construction of the development until the CEMP is approved by the<br>Certifying Authority and a copy submitted to the Planning Secretary and Council. | This CEMP |
| B7 | The Construction Traffic and Pedestrian Management Plan (CTPMP) must address, but not be limited to, the following: | Construction Traffic and Pedestrian |

| Development Consent SSD 8981 (28/02/2019) | Content requirements | Where addressed in CEMP |
|---|---|---|
| | a) be prepared by a suitably qualified and experienced person(s)<br>b) be prepared in consultation with Council, RMS and Mid North Coast Local Health District;<br>c) detail the measures that are to be implemented to ensure road safety and network efficiency during construction in consideration of potential impacts on general traffic, cyclists and pedestrians and bus services<br>d) detail heavy vehicle routes, access and parking arrangements<br>e) include a Driver Code of Conduct to:<br>(i) minimise the impacts of earthworks and construction on the local and regional road network<br>(ii) minimise conflict with other road users<br>(iii) minimise road traffic noise; and<br>(iv) ensure truck drivers use specified routes<br>f) include a program to monitor the effectiveness of these measures; and<br>g) if necessary, detail procedures for notifying residents and the community (including local schools), of any potential disruptions to routes. | Management Sub Plan |
| B8 | The Construction Noise and Vibration Management Sub-Plan must address, but not be limited to, the following:<br>a) be prepared by a suitably qualified and experienced noise expert<br>b) describe procedures for achieving the noise management levels in EPA's Interim Construction Noise Guideline (DECC, 2009);<br>c) describe the measures to be implemented to manage high noise generating works such as piling, in close proximity to sensitive receivers<br>d) include strategies that have been developed with the community for managing high noise generating works<br>e) describe the community consultation undertaken to develop the strategies in condition B23(d); and<br>f) include a complaints management system that would be implemented for the duration of the construction. | Construction Noise and Vibration Management Sub Plan |
| B9 | Prior to the commencement of construction, the Applicant must prepare a Construction Soil and Water Management Plan (CSWMP). The CSWMP must address, but not be limited to, the following:<br>a) be prepared by a suitably qualified expert, in consultation with Council and Department of Industry, Lands and Water Division;<br>b) describe all erosion and sediment controls to be implemented during construction;<br>c) describe all stormwater controls and discharge during construction;<br>d) describe inspection regime for erosion and sediment controls including regular scheduled inspections and inspections pre- and post- heavy rainfall events;<br>e) describe controls to contain spills and leakages during construction;<br>f) (f) provide a plan of how all construction works will be managed in a wet-weather events (i.e. storage<br>g) of equipment, stabilisation of the site);<br>h) detail all off-site flows from the site; | Construction Soil and Water Management Sub Plan |

| Development Consent SSD 8981 (28/02/2019) | Content requirements | Where addressed in CEMP |
|---|---|---|
| | i) detail groundwater management measures to prevent groundwater contamination;<br>a. an Unexpected Contamination Procedure for soil and groundwater contamination and associated<br>j) communications procedure; and<br>k) describe the measures that must be implemented to manage stormwater and flood flows for small<br>l) and large sized events during construction, including but not limited to 1 in 1-year ARI, 1 in 5-year ARI and 1 in 100-year ARI. | |
| B10 | The Construction Waste Management (CWMP) must address, but not be limited to, the following:<br>(c) an Unexpected Contamination Protocol for construction and demolition waste. | Appendix J Unexpected Finds Procedure |
| B11 | Prior to the commencement of construction, the Applicant must prepare a Flood Emergency Response Plan (FERP). The FERP must address, but not limited to, the following:<br>a) be prepared by a suitably qualified and experienced person(s);<br>b) address the provisions of the Floodplain Risk Management Guideline (OEH 2007);<br>c) include details of:<br>d) the flood emergency responses for both construction and operation phases of the development;<br>(ii) predicted flood levels;<br>(iii) flood warning time and flood notification;<br>(iv) assembly points and evacuation routes;<br>(v) evacuation and refuge protocols; and<br>(vi) awareness training for employees and contractors. | Flood Emergency Response Sub Plan |
| B17 | Prior to the commencement of earthworks, the Applicant must prepare an unexpected contamination procedure to ensure that potentially contaminated material is appropriately managed. The procedure must form part of the of the CEMP in accordance with condition B5 and must ensure any material identified as contaminated must be disposed off-site, with the disposal location and results of testing submitted to the Planning Secretary, prior to its removal from the site. | Appendix J Unexpected Finds Procedure |
| B22 | All outdoor lighting within the site must comply with AS 1158.3.1:2005 Lighting for roads and public spaces – Pedestrian area (Category P) lighting – Performance and design requirements and AS 4282-1997 Control of the obtrusive effects of outdoor lighting. Details demonstrating compliance with these requirements must be submitted to the satisfaction of the Certifying Authority. | Construction Light Pollution Sub Plan |
| B26 | Prior to the commencement of construction, the Applicant must design and install a stormwater management system for the development. The system must:<br>(a) be designed by a suitably qualified and experienced person(s), in consultation with Council;<br>(b) be submitted to the satisfaction of the Certifying Authority;<br>(c) be generally in accordance with the conceptual design in the EIS;<br>(d) be in accordance with applicable Australian Standards; and<br>(e) ensure that the system capacity has been designed in accordance with Australian Rainfall and Runoff (Engineers | Construction Soil and Water Management Sub Plan |

| Development Consent SSD 8981 (28/02/2019) | Content requirements | Where addressed in CEMP |
|---|---|---|
| | Australia, 2016) and Managing Urban Stormwater: Council Handbook (EPA, 1997) guidelines. | |
| B27 | Prior to the commencement of construction, the Applicant must ensure that a rainwater reuse/harvesting system for the development is developed for the site. A rainwater re-use plan must be prepared and certified by an experienced hydraulic engineer. | Construction Soil and Water Management Sub Plan |
| C4 | All plant and equipment used on site, or to monitor the performance of the development must be:<br>(a) maintained in a proper and efficient condition; and<br>(b) operated in a proper and efficient manner. | Construction Dust and Air Quality Sub Plan |
| C9 | Activities may be undertaken outside of the hours in condition C8. if Required:<br>(a) by the Police or a public authority for the delivery of vehicles, plant or materials; or<br>(b) in an emergency to avoid the loss of life, damage to property or to prevent environmental harm; or<br>(c) where the works are inaudible at the nearest sensitive receivers; or<br>(d) where a variation is approved in advance in writing by the Planning Secretary or her nominee if<br>appropriate justification is provided for the works.<br>Notification of such activities must be given to affected residents before undertaking the activities or as soon as is practical afterwards. | Construction Noise and Vibration Sub Plan |
| C10 | Rock breaking, rock hammering, sheet piling, pile driving and similar activities may only be carried out between the following hours:<br>(a) 9 am to 12 pm, Monday to Friday;<br>(b) 2 pm to 5 pm Monday to Friday; and<br>(c) 9 am to 12 pm, Saturday. | Construction Noise and Vibration Sub Plan |
| C11 | All plant and equipment used on site, or to monitor the performance of the development must be:<br>a) maintained in a proper and efficient condition; and<br>b) operated in a proper and efficient manner. | Construction Noise and Vibration Sub Plan |
| C13 | All construction vehicles (excluding worker vehicles) are to be contained wholly within the site, except if located in an approved on-street work zone, and vehicles must enter the site before stopping. | Construction Noise and Vibration Sub Plan |
| C15 | The development must be constructed to achieve the construction noise management levels detailed in the Interim Construction Noise Guideline (DECC, 2009). All feasible and reasonable noise mitigation measures must be implemented and any activities that could exceed the construction noise management levels must be identified and managed in accordance with the management and mitigation measures identified in the approved Construction Noise and Vibration Management Plan. | Construction Noise and Vibration Sub Plan |
| C16 | The Applicant must ensure construction vehicles (including concrete agitator trucks) do not arrive at the site or surrounding residential precincts outside of the construction hours of work outlined under condition C5. | Construction Noise and Vibration Sub Plan |

| Development Consent SSD 8981 (28/02/2019) | Content requirements | Where addressed in CEMP |
|---|---|---|
| C17 | The Applicant must implement, where practicable and without compromising the safety of construction staff or members of the public, the use audible movement alarms of a type that would minimise noise impacts on surrounding noise sensitive receivers. | Construction Noise and Vibration Sub Plan |
| C18 | Any noise generated during construction of the development must not be offensive noise within the meaning of the Protection of the Environment Operations Act 1997 or exceed approved noise limits for the site. | Construction Noise and Vibration Sub Plan |
| C19 | Vibration caused by construction at any residence or structure outside the site must be limited to:<br>(a) for structural damage, the latest version of DIN 4150-3 (1992-02) Structural vibration - Effects of<br>vibration on structures (German Institute for Standardisation, 1999); and<br>(b) for human exposure, the acceptable vibration values set out in the Environmental Noise<br>Management Assessing Vibration: a technical guideline (DEC 2006) (as may be updated or replaced<br>from time to time). | Construction Noise and Vibration Sub Plan |
| C20 | Vibratory compactors must not be used closer than 30 metres from residential buildings unless vibration monitoring confirms compliance with the vibration criteria specified in condition C19. | Construction Noise and Vibration Sub Plan |
| C21 | The limits in conditions C19 and C20 apply unless otherwise outlined in a Construction Noise and Vibration Management Plan, approved as part of the CEMP required by condition B5 of this consent. | Construction Noise and Vibration Sub Plan |
| C22 | The Applicant must take all reasonable steps to minimise dust generated during all works authorised by this consent. | Construction Dust and Air Quality Sub Plan |
| C23 | During construction, the Applicant must ensure that:<br>a) exposed surfaces and stockpiles are suppressed by regular watering<br>b) all trucks entering or leaving the site with loads have their loads covered<br>c) trucks associated with the development do not track dirt onto the public road network<br>d) public roads used by these trucks are kept clean; and<br>e) land stabilisation works are carried out progressively on site to minimise exposed surfaces. | Construction Soil and Water Management Sub Plan |
| C24 | All erosion and sediment control measures, must be effectively implemented and maintained at or above design capacity for the duration of the construction works and until such time as all ground disturbed by the works have been stabilised and rehabilitated so that it no longer acts as a source of sediment. | Appendix H Site Environmental Controls |
| C25 | The Applicant must:<br>a) ensure that only Virgin Excavated Natural Material (VENM), Excavated Natural Material (ENM), or other material approved in writing by EPA is brought onto the site;<br>b) keep accurate records of the volume and type of fill to be used; and | Construction Soil and Water Management Sub Plan |

| Development Consent SSD 8981 (28/02/2019) | Content requirements | Where addressed in CEMP |
|---|---|---|
| | c) make these records available to the Certifying Authority upon request. | |
| C26 | Adequate provisions must be made to collect and discharge stormwater drainage during construction of the building to the satisfaction of the Certifying Authority. The prior written approval of the relevant authority must be obtained to connect or discharge site stormwater to Councils stormwater drainage system or street gutter. | Construction Soil and Water Management Sub Plan |
| C27 | For the duration of the construction works:<br>a) only trees identified in the Arboricultural Impact Assessment, prepared by ArborSafe, dated 2 July 2018 are removed;<br>b) all trees on the site except those identified in condition C28(a) must be suitably protected at all times during construction as per recommendations of the Arboricultural Impact Assessment, prepared by ArborSafe, dated 2 July 2018;<br>c) if access to the area within any protective barrier is required during the works, it must be carried out under the supervision of a qualified arborist. Alternative tree protection measures must be installed, as required. The removal of tree protection measures, following completion of the works, must be carried out under the supervision of a qualified arborist and must avoid both di red mechanical injury to the structure of the tree and soil compaction within the canopy or the limit of the former protective fencing, whichever is the greater;<br>d) street trees must not be trimmed or removed unless it forms a part of this development consent or prior written approval from Council is obtained or is required in an emergency to avoid the loss of life or damage to property; and<br>e) all street trees must be protected at all times during construction. Any tree on the footpath, which is damaged or removed during construction due to an emergency, must be replaced, to the satisfaction of Council. | Construction Flora and Fauna Sub Plan |
| C31 | Waste must be secured and maintained within designated waste storage areas at all times and must not leave the site onto neighbouring public or private properties. | Construction Waste Management Sub Plan |
| C32 | All waste generated during construction must be assessed, classified and managed in accordance with the Waste Classification Guidelines Part 1: Classifying Waste (EPA, 2014 ). | Construction Waste Management Sub Plan |
| C33 | The body of any vehicle or trailer used to transport waste or excavation spoil must be covered before leaving the premises to prevent any spillage or escape of any dust, waste of spoil. Mud, splatter, dust and other material likely to fall from or be cast off the wheels, underside or body of any vehicle, trailer or motorised plant leaving the site must be removed before leaving the premises. | Construction Soil and Water Management Sub Plan |
| C34 | The Applicant must ensure that concrete waste and rinse water are not disposed of on the site and are prevented from entering any natural of artificial watercourse. | Construction Waste Management Sub Plan |
| C35 | In the event that surface disturbance identifies a new Aboriginal object, all works must halt in the immediate area to prevent any | Appendix J Unexpected |

| Development Consent SSD 8981 (28/02/2019) | Content requirements | Where addressed in CEMP |
|---|---|---|
| | further impacts to the object(s). A suitably qualified archaeologist and the registered Aboriginal representatives must be contacted to determine the significance of the objects. The site is to be registered in the Aboriginal Heritage Information Management System (AHIMS) which is managed by OEH and the management outcome for the site included in the information provided to AHIMS. The Applicant must consult with the Aboriginal community representatives, the archaeologists and OEH to develop and implement management strategies for all objects/sites. Works shall only recommence with the written approval of OEH. | Finds Procedure |
| C36 | If any unexpected archaeological relics are uncovered during the work, then all works must cease immediately in that area and the OEH Heritage Division contacted. Depending on the possible significance of the relics, an archaeological assessment and management strategy may be required before further works can continue in that area. Works may only recommence with the written approval of Heritage Division of the OEH. | Appendix J Unexpected Finds Procedure |
| C37 | The Applicant must carry out works involving asbestos material in accordance with Work Health and Safety Act 2011, Work Health and Safety Regulation 2017 and Safe Work Australia Code of Practice How to Manage and Control Asbestos in the Workplace (February 2016), including contactors who hold a current Safe Work Asbestos or Demolition Licence and any other current Safe Work Licence required.<br>The Applicant must notify SafeWork NSW in accordance with the relevant policy prior to the commencement of works involving asbestos material. Waste must be transported by an appropriately licensed transporter and disposed to a facility that is licensed to receive that class of waste. | Construction Hazardous Substance Management Sub Plan |

Refer to the following for Development Assessment and EIS:
http://www.majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8981

## 2.5 REF Requirements

REF 006/2019 was approved on 8 May 2019 in accordance with Part 5 of the Environmental Planning and Assessment Act 1979 for alteration and additions at Coffs Harbour Hospital. Details of environmental compliance requirements relating to the CEMP are tabled below:

| REF #006/2019 (08/05/2019) | Content requirements | Where addressed in CEMP |
|---|---|---|
| 6 | Tree Management and Landscape | Flora and Fauna Sub Plan |
| 7 | Community Notification | Community Communication Strategy Sub Plan |
| 8 | Construction Management | All CEMP Sub Plans |
| 9 | Construction Waste Management Plan | Construction Waste Management Sub Plan |
| 10 | Noise Management Measures | Construction Noise and Vibration Sub Plan |

| REF #006/2019 (08/05/2019) | Content requirements | Where addressed in CEMP |
|---|---|---|
| 12 & 15 | Erosion and Sediment Controls | Construction Soil and Water Management Sub Plan |
| 13 | Contamination | Contamination Sub Plan |
| 14 | Construction Site Management | Construction Hazardous Substance Sub Plan |
| 16 | Air Quality and Dust Management | Construction Dust and Air Quality Sub Plan |
| 17 | Traffic Management | Construction Pedestrian and Traffic management Sub Plan |
| 18 | Noise and Vibration | Construction Noise and Vibration Sub Plan |
| 19 | Restrictions on Hours during Construction | Section 2.3 Standard Operating Requirements |
| 20 | Non-Aboriginal Heritage | Construction Heritage Sub Plan |
| 21 | Aboriginal Heritage | Construction Heritage Sub Plan |
| 22 | Ecology | Flora and Fauna Sub Plan |
| 23 | Bushfire | Flora and Fauna Sub Plan |

## 2.6 Applicable legislative requirements

The following table sets out the minimum legislative requirements under NSW and Commonwealth legislation and shows where each requirement has been addressed within this Plan or the wider CPB Contractors Management System.

Table C: Legislative requirements for environmental management

| Legislation | Section Reference | Requirements | Where addressed |
|---|---|---|---|
| *Environmental Planning and Assessment Act 1979* | s115ZI | Comply with the terms Minister for Planning's approval for the project. Obtain the Minister's approval for any project modifications that are not consistent with the planning approval. | Element 5 |
| *NSW Heritage Act 1977* | s146 | If a relic is discovered, stop work in that area and notify the Heritage Council in accordance with section 146(a) of the Act. | Construction Heritage Sub Plan |
| *National Parks and Wildlife Act 1974* | s86 & s90 | Do not harm or desecrate an Aboriginal object or Aboriginal place without consent. | Construction Heritage Sub Plan |
| | s89A | Notify the Office of Environment and Heritage (OEH) within reasonable time of becoming aware of the location or discovery of certain Aboriginal objects. | Construction Heritage Sub Plan |
| *Contaminated Land Management Act 1997* | s60 | Notify the EPA if:<br>▪ Contaminants exceed thresholds contained in guidelines or the regulations where contamination has entered or will foreseeably enter the neighbourhood, the atmosphere, groundwater or surface water<br>▪ Contaminants in soil are equal to or exceed guideline levels with respect to the current or approved use of the land<br>▪ Contamination meets other criteria that may be prescribed by the regulations. | Construction Contamination Sub Plan |
| | s142A-E | Do not cause or permit land pollution other than under authority of a licence or regulation. | Construction Contamination Sub Plan |
| *Biosecurity Act 2015* | s21 | Duty to prevent, eliminate or minimise biosecurity risk (in relation to the weeds on-site listed under the Act). | Construction Flora and Fauna Sub Plan |

| Legislation | Section Reference | Requirements | Where addressed |
|---|---|---|---|
| *Water Management Act 2000* | s56 & s60A | Do not take water from a water source (a lake, river or estuary or place where water occurs naturally on or below the surface of the ground, and includes coastal waters) without an access licence. | Construction Soil and Water Sub Plan |
| *Protection of the Environment Operations Act 1997* | s115, s116 & s117 | Do not risk harming the environment by willfully or negligently:<br>▪ disposing of waste unlawfully.<br>▪ causing any substance to leak, spill or otherwise escape (whether or not from a container); or<br>▪ emitting an ozone depleting substance | Construction Waste Management Sub Plan<br>Construction Energy Management Sub Plan |
| | s115 | Disposal of waste:<br>Do not:<br>▪ dispose of waste in a manner that harms, or is likely to harm the environment<br>▪ deposit or leave on Crown land without approval any:<br>▪ rubbish, litter, refuse, dead animals, or other similar matter<br>▪ prescribed matter<br>▪ unless in a place or receptacle provided. | Construction Waste Management Sub Plan |
| | s148 | Notify the EPA immediately of pollution incidents where material harm to the environment is caused or threatened | Construction Soil and Water/ Contamination/ Hazardous Substances/ Waste/ Dust & Air Quality Sub Plan |
| | s120 & s122 | Do not cause water pollution (other than to a sewer), except in accordance with the conditions of any Environmental Protection Licence. | Construction Soil and Water/ Waste Sub Plan |

| Legislation | Section Reference | Requirements | Where addressed |
|---|---|---|---|
| | s124 | Do not operate plant which emits air pollution caused by poor maintenance or operation. | Construction Dust and Air Quality Management Sub Plan |
| | s142A – E | Do not cause or permit land pollution other than under authority of a licence or regulation. (However, it is not a land pollution offence to place virgin excavated natural material (VENM) or lawful pesticides and fertilisers on land, or by placing matter on land that has been notified to the Environment Protection Authority (EPA) as an unlicensed landfill and which is operated in accordance with the regulations). | Construction Soil and Water/ Hazardous Substances/ Waste Management Sub Plan |
| | s143 | Only transport the waste to a facility that can lawfully accept the waste. | Construction Waste Management Sub Plan |
| | Part 3.2 Schedule 1 | Do not undertake a scheduled waste activity unless in accordance with an Environmental Protection Licence.<br>A licence must be obtained when construction and demolition wastes are applied to land under certain circumstances. This includes the reincorporation of crushed road base material back into roads and the placing of excess fill material onto properties. A licence is not required if the material:<br>▪ Is Virgin Excavated Natural Materials (VENM)<br>▪ Is covered by a 'resource recovery order/exemption'.<br><br>(Current exempted materials are Excavation Natural Materials (ENM), recycled aggregates and raw mulch. These exemptions are conditional and require some chemical testing of materials before they are placed onto land). Does not exceed 1000 tonnes or 1000$m^3$ on-site at any one time, processing more than 6000 tonnes a year (Regulated Area). | Construction Waste Management Sub Plan |
| | Part 5.6A | Do not litter in a public space or an open private place. | Construction Waste Management Sub Plan |

| Legislation | Section Reference | Requirements | Where addressed |
|---|---|---|---|
| *Protection of the Environment Operations (Waste) Regulation 2014* | Regulation cl.49 | Comply with general requirements for the transport of waste. For example, any vehicle used by the person to transport waste must be kept in a clean condition and be maintained so as to prevent spillage of waste. For some wastes only licensed transporters can be used. | Construction Waste Management Sub Plan |
| | Regulation Part 3 | Comply with record keeping requirements in relation to the transport of certain types of waste. | Construction Waste Management Sub Plan |
| | s71 | The Protection of the Environment Operations (Waste) Regulation 2014 (the Waste Regulation) makes it an offence to transport waste generated in NSW by motor vehicle for disposal more than 150 kilometres from the place of generation, unless the waste is transported to one of the two nearest lawful disposal facilities to the place of generation (even if that facility is located more than 150 kilometres from its place of generation). | Construction Waste Management Sub Plan |

## 2.7 Objectives and Targets

The Project has set the following environmental performance targets. These include current business plan environmental targets for the Business Unit and the whole of CPB Contractors:

Table D: Leading indicators

| Key Performance Indicator | Target | Time Frame | Actions to be Taken | Accountability |
|---|---|---|---|---|
| SHEQ observations | Four observations conducted per member of leadership team per month | Each month | Four observations to be performed by each member of the leadership team per month | Project team |
| Completion of inspections | 100 per cent of scheduled inspections of environmental controls occur | Each month | Inspections of environmental controls to be identified, scheduled and conducted | Project team |

Table E: Lagging Indicators

| Key Performance Indicator | Target | Time Frame | Actions to be Taken | Accountability |
|---|---|---|---|---|
| Level 1, 2 & HPI environmental incidents | Zero | Ongoing | Implementation of the EMP | Project Manager |
| Environmental Incident Frequency Rate | 0.10 | Ongoing | All environmental incidents reported and investigated | Project Environmental Manager |
| Number of actions taken by regulators and/or client | Zero | At all times | Implementation of the EMP | Project Manager |
| Area of land cleared or disturbed without authorisation | Zero ha | At all times | Implementation of the Fauna and Fauna Sub Plan | Site Manager |
| Number of unauthorised discharges | Zero | At all times | Implementation of Soil and Water Sub Plan | Site Manager |
| Damage to heritage items or places without relevant approvals | Zero | | Implementation of Heritage Sub Plan | Site Manager |
| 100% of all fuel use and GHG emissions generated by the project is captured and entered into JDE (NGER reporting requirement). | All use / emissions entered into JDE System | Monthly | Implementation of Energy Sub Plan | Commercial Manager |
| % of waste reused or recycled | 75% of waste generated [note waste types excluded from calculation must be defined] | 12 months | Implementation of Waste Sub Plan | Site Manager |

## 2.8 Key Environmental Stakeholders

Key environmental stakeholders for the Project include:

| Stakeholder Name | Representative | Contact Details |
|---|---|---|
| Principal's Authorised Representative - PwC | Alex Wilson | Via Aconex |
| Contractor's Representative CPB Contractors Pty Ltd | Anthony Armstrong | 0419 236 318, Anthony.Armstrong@cpbcon.com.au |
| Project Manager CPB Contractors Pty Ltd | Brad Sugar | 0447 177 556 Brad.Sugar@cpbcon.com.au |
| CPB Business Unit Environmental Manager (NSW/ACT) | Tracey Doczy | 0411 952 658, 02 9035 5870 Tracey.Doczy@cpbcon.com.au |
| CPB Project Environmental Manager | Emma Gardner | 0402 574 943 Emma.gardner@cpbcon.com.au |
| Coffs Harbour City Council | | 02 6648 4000 |
| Office of Environment and Heritage (EPA) | | Coffs Harbour: 02 6651 5946 Environment Line: 131 555 |
| Building Compliance – Blackett Maguire & Goldsmith Pty Ltd | Jake Hofner | 0457 777 582, 02 92117777 |
| Natural Resources Access Regulator Department of Industry /Lands & Water http://www.industry.nsw.gov.au/water | | David Zerafa<br>Senior Water Regulation Officer<br><br>NSW Government Offices<br>5 O'Keefe Avenue, Nowra<br>PO Box 309 Nowra 2541<br>Phone (02) 4428 9142<br>Mobile 0427 663187<br>david.zerafa@nrar.nsw.gov.au<br>Andrew Petrochevski,<br>Department of Lands<br>Grafton Office, 6642 1375 |

# 3. Environmental Management System

## 3.1 System Overview

### 3.1.1 Governance documentation

The Environmental Management System (EMS) is based on the requirements of the CPB Management System and has been specifically tailored to ensure compliance with Health Infrastructure additional Environmental requirements. The Project Management Plan provides more detail about 'The Way We Operate' and the process adopted to deliver against Health Infrastructure overall requirements.

The CPB Contractors management system is certified to conform to:

- AS/NZS ISO 14001:2004 Environmental management systems – Requirements with guidance for use.

Evidence of certification is included in Appendix B.

The CPB Management System has been developed and implemented to ensure a consistent approach to project delivery.
The management system comprises the following components:


**Figure 1: CPB Contractors Management System**

- A Policy is a statement of strategic intent and commitment and defines the minimum mandatory requirements that CPB Contractors expects all levels of the organisation to comply with.
- The Project Management Plan outlines how the Project will be managed and it is supported by a suite of functional management plans.
- Procedures and Work Instruction specify how to undertake and control specific activities. They also list accountable roles and the tools and knowledge to be used. Where appropriate and approved by the respective Business Unit functional manager, project specific procedures may be produced to reflect specific project circumstances.
- Tools are preformatted documents such as forms and templates that are required to be completed as part of a Procedure.
- Knowledge documents are reference material to provide context, additional information or guidance to a Policy or Procedure.
- Business Applications are the software tools used to manage our business and support our operations.

### 3.1.2 Environmental Management Plans (EMPs)

Each project maintains an EMP (this document) that describes the actions to be taken by that project to comply with each Element and Expectation. The Project's EMP must demonstrate that:

- Contractual environmental requirements are being fulfilled
- The Project is compliant with all relevant environmental legislation
- The effect of environmental impacts on the community is minimised.

### 3.1.3 Procedures, Knowledge and Tools

A procedure describes the steps to be undertaken to complete an activity, the accountable roles and the tools and knowledge to be used.

Tools are preformatted documents (forms and templates) used to collect specific data or information for a particular purpose.

Knowledge documents are reference material to provide context, additional information or guidance to a Policy or Procedure.

Business Applications are the software tools used to manage and support our operations.

## 3.2 Improvement

In addition to specifying the day-to-day environmental management of a project, each EMP details activities to be performed to deliver continual improvement in environmental performance.

Continual improvement is achieved through constant measurement and evaluation, audit and review of the effectiveness of EMP and adjustment and improvement, project environmental outcomes, and CPB Contractors EMS.

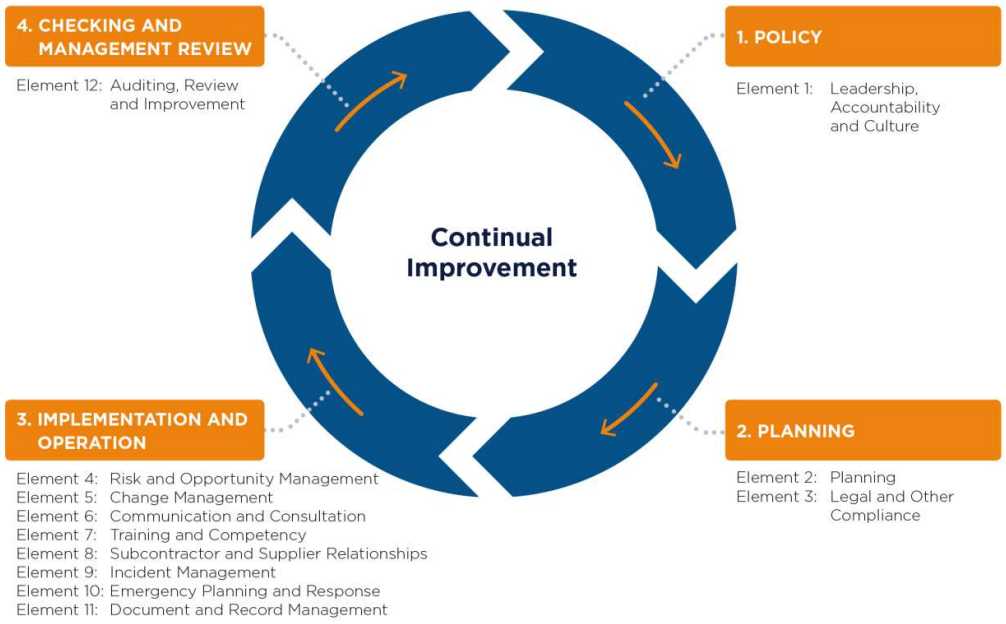



**Figure 2 Continual Improvement Mechanism**

## 3.3 Interactions with Other Management Plans

This EMP is part of an integrated set of project management plans. The table below sets out interactions of this EMP with the other management plans implemented on the Coffs Harbour Hospital Expansion.

The specific linkages that exist between management plans are addressed thoroughly in Part B of this plan.

| | PROJECT MANAGEMENT PLAN<br>ENVIRONMENTAL MANAGEMENT PLAN | | | | | | |
|---|---|---|---|---|---|---|---|
| **Element of EMP** | **Design** | **Construction** | **Safety** | **Risk** | **Commercial** | **HR** | **Community & Stakeholder** |
| Leadership, Accountability and Culture | | | ● | | | ✓ | |
| Planning | | | ● | | ✓ | ● | |
| Legal and Other Compliance | ✓ | ✓ | ● | | | | ● |
| Risk Management and Controls | ✓ | ✓ | ✓ | ✓ | | ● | |
| Change Management | ● | ● | ● | ● | ● | ● | ● |
| Communication, Consultation and Participation | | | ✓ | | | ✓ | ✓ |
| Training and Competency | | | ● | | | ✓ | |
| Subcontractor and Supplier Relationships | ● | | ● | ● | ✓ | | |
| Incident Management | | | ✓ | | | | ● |
| Emergency Planning and Response | | | ✓ | ● | ● | ● | ● |
| Document and Records Management | ● | ● | | ● | ● | ● | ● |
| Auditing, Review and Improvement | | | ✓ | ● | | | |

● Element (or subject) also addressed in other management plans

✓ Other plan directly interfaces with the Environmental Management Plan

## 4. Significant Environmental Hazards and Environmental Sub Plans

This EMP also includes Environmental Sub Plans for Significant Environmental Hazards (SEH), and Environmental Sub Plans for Other Environmental Hazards. As with all Environmental Hazards, SEHs have been identified through the review and analysis of environmental reports, contractual documents, community and legal compliance requirements relating to the Project and professional experience. Each of the Sub Plans listed below will be regularly reviewed during construction as the project risks are reviewed.

| Environmental Hazards (Aspect) | Associated Significant Environmental Impact (Risk) | Environmental Sub Plans (Part C) |
|---|---|---|
| Impact to natural water courses | Contamination of soil and water including erosion and sediment control | Construction Soil and Water Management Sub Plan |
| Impact to flora and/or fauna | Loss of or harm to flora or fauna and protection of exiting trees | Construction Flora and Fauna Management Sub Plan |
| Environmental impact of noise | Noise affects to community and residents | Construction Noise and Vibration Sub Plan |
| Environmental impact of vibration | Vibration affects to community and residents | Construction Noise and Vibration Sub Plan |
| Impacts due to Acid Sulphate Soils | Contaminated soil effecting people and environment | Construction Acid Sulphate Soils Sub Plan |
| Impact to Heritage | Loss or damage to Heritage items/areas | Construction Heritage Sub Plan |
| Environmental impact of contaminated soil | Contaminated materials affecting soil and water | Construction Contamination Sub Plan |
| NGER Reporting | Non- conformance to Government reporting requirements | Construction Energy Sub Plan |
| Environmental impact of contaminated substances | Uncontrolled spills contaminating soil and water | Construction Hazardous Substances Sub Plan |
| Waste management and reporting | Uncontrolled waste removal and non-conformance to waste reporting to Government | Construction Waste Management Sub Plan |
| Environmental impact of air pollution | Air pollution including dust affecting people, fauna and water | Construction Dust and Air Quality Sub Plan |
| Environmental impact of light | Construction light effects on hospital Users | Construction Light Pollution Sub Plan |

| Environmental Hazards (Aspect) | Associated Significant Environmental Impact (Risk) | Environmental Sub Plans (Part C) |
|---|---|---|
| Environmental impact of traffic | Construction traffic effects on public traffic and pedestrians | Construction Traffic Management Sub Plan |
| Flooding | Possible pollution impacts from flooded construction site and plant | Construction Flooding Emergency Response Plan |
| Community complaints | Community concerns | Community Communication Strategy |

## 5. Elements and Expectations

The Environmental Management Plan is structured using a common set of Elements and Expectations:

| | |
|---|---|
| **Element** | Key aspects for managing this function on the Project |
| **Expectation** | The high-level outcomes achieved as part of each Element |

This two-level hierarchy provides a consistent structure that is applied across all Management Plans on the Project. Those Elements are:

- Element 1: Leadership, Accountability and Culture
- Element 2: Planning
- Element 3: Legal and Other Requirements
- Element 4: Risk and Opportunity Management
- Element 5: Change Management
- Element 6: Communication and Consultation
- Element 7: Training and Competency
- Element 8: Subcontractor Relationships
- Element 9: Incident Management
- Element 10: Emergency Planning and Response
- Element 11: Document and Record Management
- Element 12: Reporting, Auditing, Review and Improvement

## Element 1: Leadership, Accountability and Culture

| Expectations | How we will meet the Expectations (minimum requirements) | Responsible Key Contributor | Deliverables |
|---|---|---|---|
| 1.1 Environmental accountabilities, roles and responsibilities for managers, staff, employees and subcontractors are clearly defined, documented and communicated | **Roles and Responsibilities**<br>Environmental responsibilities are included in all Position Descriptions. Roles that carry specific environmental accountabilities (e.g. those that supervise or manage work with specific environmental risks) will contain more detailed environmental content.<br>The environmental responsibilities contained in Position Descriptions are communicated to each person by their immediate supervisor upon commencing in their role. | **P&C Manager**<br>Project Environmental Representative<br>Line managers | Position Descriptions |
| 1.2 Environmental leadership and commitment is demonstrated through measurable participation in environmental management | **Participation and Measurement**<br>All personnel in leadership roles on the Project participate in environmental management activities, including observations, incident reviews and HSE committee meetings. In addition, project management will:<br>Regularly review environmental performance against Project KPIs and raise corrective actions to maintain or improve environmental performance as necessary<br>Address pertinent environmental matters at communication forums. | **Project Manager**<br>Line managers<br>Functional managers<br>Supervisory staff<br>Project Environmental Representative | Measurement system output to include:<br>Inspection records,<br>Incident reviews,<br>HSE Committee meeting attendance (minutes),<br>delivering toolbox talks |
| 1.3 Environmental expectations are clearly defined with appropriate reward and disciplinary processes in place. | **Environmental Policy**<br>The CPB Contractors Environmental Policy will be communicated in project inductions and prominently displayed at the Project.<br>**Project Environmental Rules**<br>The Project Manager and Project Environmental Representative will assist in development of "Project Rules" during Project start-up to address key environmental matters. These rules will be documented, communicated and prominently displayed at the Project and will be reviewed at least every six months.<br>Any person who breaches these rules will be managed in accordance with CPB Contractors requirements for counselling, discipline and, if needed, termination. | **Project Manager**<br>All personnel | Environmental policy displayed and communicated in site inductions<br>Project Rules<br>KPIs defined (Part A) |

| Expectations | How we will meet the Expectations<br>(minimum requirements) | Responsible<br>Key Contributor | Deliverables |
|---|---|---|---|
| | **Performance Targets**<br>Environmental performance targets for the Project have been identified in Part A of this document. The associated key performance indicators (KPI) include lead and lag indicators. Measurable targets have been set for each KPI and an applicable time frame nominated. The targets are in line with CPB Contractors Corporate and Business Unit targets. | **Project Manager**<br>Project Environmental Representative | Monthly Team Meetings |
| | **Managing Personal Performance**<br>Environmental performance goals will be set and reviewed for individuals with environmental leadership roles (refer to Element 1.1 above) during the performance and development review process. | **Project Manager**<br>Line Managers | Performance and development reviews |

## Element 2: Planning

| Expectations | How we will meet the Expectations (minimum requirements) | Responsible Key Contributor | Deliverables |
|---|---|---|---|
| 2.1 Adequate resources are provided to effectively implement the EMP | **Resources**<br>The Project budget includes sufficient allowances to implement the EMP, including people, technical environmental expertise, equipment, materials, training, plant, and infrastructure.<br>Sufficient people are appointed to the Project to implement the EMP. | **Project Manager**<br>Commercial Manager | Project budget<br>Project forecasts<br>Organisational structure<br>Training matrix<br>Training schedule |
| | **Environmental Monitoring**<br>The Project Environmental Representative in consultation with the Senior Project Engineer is accountable for developing the Project Monitoring Schedule(s) prior to any works commencing on the project.<br>All environmental monitoring on the Project is planned according to the requirements of the Environmental Sub-Plans within Part C of this Plan. | **Project Environmental Representative**<br>Senior Project Engineer | Monitoring Schedule<br>Environmental Sub-Plans |
| 2.2 Business systems are defined and established | **Define and set up IT Systems**<br>Applications required to management environment on the Project are defined and established prior to works commencing. Systems to be used include:<br>▪ **Synergy** - Reporting and recording all environmental incidents, audit results and corrective actions, water usage and waste data<br>▪ **JD Edwards** (NGER module) to capture energy use and emissions, and fuel usage<br>▪ **Aconex** – Records and documents management and archiving<br>▪ **Damstra** – Management of project inductions and record of inspections | **Project Environmental Representative** | Applicable business systems |
| 2.3 Environmental Sub-Plans are prepared and maintained for Significant Environmental Hazards | **Identify Significant Environmental Hazards (SEH)**<br>Significant environmental hazards relating to the projects activities have been identified through the review and analysis of environmental reports, contractual documents, and community and legal compliance requirements relating to the Project and supported by professional experience of the assessor. The project SEH list in Part A is reviewed by the Project Environmental Representative at a minimum of 6 monthly intervals. The review should be supported by the current environmental risk and opportunities identification and analysis assessment and project environmental performance. | **Project Environmental Rep** | Significant Environmental Hazards and Environmental Sub-Plans listed in Part A<br>Sub-Plans contained in Part C<br>Project Risk Register |
| | **Environmental Sub-Plans**<br>Environmental Sub-Plans (Part C) are reviewed for on-going relevance and accuracy by the Project Environmental Representative. The frequency of review is triggered by | **Project Environmental Rep** | Reviews of SEH and environmental Sub-Plans |

| Expectations | How we will meet the Expectations<br>(minimum requirements) | Responsible<br>Key Contributor | Deliverables |
|---|---|---|---|
| | incident history, changes to the project, including contract variations, and management review requirements.<br>Reviews are documented and records retained in the project document management system. | | |

# Element 3: Legal and Other Requirements

| Expectations | How we will meet the Expectations (minimum requirements) | Responsible Key Contributor | Deliverables |
|---|---|---|---|
| 3.1 Relevant legal, contractual and other requirements are identified and maintained in a legal and other obligations register | **Identifying Environmental Obligations**<br>The Project Environmental Representative has reviewed the Contract, construction methodology and program and identified all:<br>▪ Contractual conditions specific to environmental management.<br>▪ Regulatory approvals required and associated conditions.<br>▪ Specific requirements of local, state and federal laws that are additional to the requirements of Project approvals using CPB Contractors' online subscription to EnviroLaw.<br>▪ Targets and objectives in CPB Contractors Business Unit or whole of CPB Contractors Business Plans.<br>The sources and details of, and means of compliance with the above, are captured within the Development Consent Compliance Register (Appendix D), Legal and Other Requirements Register (Appendix F) and Environmental Obligations Register (Appendix G).<br>Documentary evidence must be available to show that all owners of obligations have been informed of their responsibility and are in a position to deliver the obligation. | **Project Environmental Representative**<br>Project Manager | Environmental Obligations Register<br>Development Consent Compliance Register<br>Legal and Other Requirements Register |
| 3.2 All necessary environmental approvals are obtained prior to commencing relevant works and surrendered on completion | **Obtaining and Surrendering Environmental Approvals**<br>Approvals required to deliver the project are obtained prior to the commencement of any activities relating to the scope of the approval. The timing to obtain each necessary regulatory approval is determined and included within the Project program linked to relevant activities.<br>Details of all approvals and licenses (including applications and decision notices where appropriate) are maintained in the Project's Environmental Obligations Register. .<br>All regulatory approvals will be surrendered according to the requirements of the approval or, where not stated, as soon as practical following the completion of the activity to which the approval relates.<br>An Environmental Obligations Register will be updated to include conditions associated with newly received regulatory approvals. | **Project Environmental Representative**<br>Engineers<br>Project Manager | Environmental approval documentation<br>Approval and licence conditions entered into Project's Environmental Obligations Register<br>Updated Environmental Obligations Register |
| 3.3 Work is planned and executed to ensure compliance | **Planning for Compliance**<br>The Project Environmental Representative is consulted upon commencement of development of all Construction Area Plans (CAPs) and Work Packs, and throughout their development. All controls necessary to ensure compliance are included in the CAPs and Work Packs and in the Environmental Sub-Plans (Part C of this Plan). | **Construction Manager**<br>Supervisors<br>Engineers<br>Project Environmental Representative | Reviewed WAPs and Work Packs by Project Environmental Rep<br>Update project program |

| Expectations | How we will meet the Expectations (minimum requirements) | Responsible Key Contributor | Deliverables |
|---|---|---|---|
| | CAP's and Work Packs should include Site Environmental Plans that clearly shows the controls to be implemented. The Project program is updated to include new approvals determined to be necessary following the review of work plans.<br>CAPs and Work Packs are reviewed by the Project Environmental Representative prior to the commencement of works described in their scope. | Engineering Manager | |
| 3.4 Inspections, observations and monitoring are performed to ensure compliance is maintained | **Implementing Controls**<br>Controls required to achieve compliance, as detailed in the CAPs and Work Packs, will be implemented before relevant works commence.<br>The Environmental Obligations Register contains an explanation, or link to an Environmental Sub-Plan containing an explanation, of how compliance with each listed requirement is to be achieved and how the project will regularly demonstrate compliance with the requirement (if relevant). | **Supervisors**<br>Engineers<br>Project Environmental Representative | Engineered (physical) and administrative controls (e.g. procedures, forms, training) in place |
| | **Inspections and Observations**<br>Controls are to be inspected regularly to ensure their ongoing suitability and effectiveness. Inspections and observations are planned and conducted according to the requirements of the Conduct Task Observations and Workplace Inspections Procedures.<br>The outcomes of inspections are captured on the inspection checklists. Corrective actions are raised, tracked and closed out in Aconex. | **Supervisors**<br>Engineers<br>Project Environmental Representative | Observation records<br>Inspection schedules<br>Inspection checklists<br>Corrective actions in Aconex |
| | **Environmental Monitoring**<br>Environmental monitoring is carried out to confirm compliance with the conditions of environmental approvals and laws, and to provide early indication of potential adverse impacts to the environment or community. All monitoring is planned and conducted according to the requirements of the procedure Environmental Monitoring and as detailed in the Environmental Sub-Plans (Part C of this Plan).<br>Environmental monitoring results are interpreted to identify actual and potential non-compliances and events that may result in nuisance, environmental harm, and unacceptable loss of amenity or community complaints. Corrective actions are taken immediately or are raised and managed using Aconex | **Project Environmental Representative** | Environmental Monitoring Schedule<br>Monitoring records<br>Calibration records<br>Corrective actions |
| 3.5 All non-compliances are reported as incidents | **Reporting Non-Compliances**<br>All non-compliances are recorded and reported as incidents in the Synergy. This includes events involving an action being taken against the project by a regulator. | **Project Environmental Representative**<br>All personnel | Synergy Incident reports |

| Expectations | How we will meet the Expectations (minimum requirements) | Responsible Key Contributor | Deliverables |
|---|---|---|---|
| 3.6 All energy and greenhouse data are collected and entered into JDE | **Greenhouse and Energy**<br>All subcontractor fuel use to be collated and entered into the JDE NGER Module at the site level.<br>Projects will track subcontractor energy reporting where relevant.<br>All relevant records relating to the reporting of NGER data will be retained with project records for seven years.<br>Any NGER data to be reported to the Client will be reported if required in the Client Monthly Report.<br>All energy (fuels, oils, greases, gases, electricity, solvents) purchased by CPB Contractors and processed through JDE are captured centrally at the Group level. | **Project Environmental Representative**<br>Commercial Manager<br>Project Manager | NGER subcontractor register<br>NGER data checklist<br>Completed NGER subcontractor records<br>Monthly HSE Statistical reports |
| 3.7 Personnel on the site have access to current versions of relevant legislation, standards and codes of practice | **Updates to Legislation, Standards and Codes of Practice**<br>Access to all relevant legislation will be available to personnel via EnviroLaw or other online resources (e.g. state or Commonwealth government websites or www.austlii.edu.au).<br>Updates to legislation, standards and codes of practice will be reviewed to determine relevance.<br>Work practices, the Environmental Sub-Plans attached to this EMP, and Environmental Obligations Register will be altered where appropriate to ensure compliance and all affected personnel informed in a timely manner.<br>Regulatory approvals will be obtained or amended as necessary, work practices altered to ensure compliance and all affected personnel informed in a timely manner. | **Business Unit Environmental Representative**<br>Project Environmental Representative | Updates distributed |

# Element 4: Risk and Opportunity Management

| Expectations | How we will meet the Expectations (minimum requirements) | Responsible Key Contributor | Deliverables |
|---|---|---|---|
| 4.1 Systematic processes are defined and implemented for identifying environmental risks and opportunities at all stages of the Project | **Identifying Environmental Risks and Opportunities**<br>Environmental risks and opportunities associated with activities, products and services of the project will be identified, recorded and tracked in the Project Risk Register. The Project Risk Register is an excel Spreadsheet contained in the Project Document Management System, Aconex. Any environmental risks identified as critical will be captured and monitored via the Project Risk Register.<br>Environmental risks and opportunities are considered during all subsequent project risk assessments as per the Project Management Plan. This includes:<br>▪ Safety/Environment-in-Design workshops conducted throughout the Project<br>▪ Construction Area Plan (CAP) risk assessments<br>▪ Work Pack risk assessments<br>▪ Project Prestart Meeting<br>The Environment Representative is involved in the Principle Risk Assessment and Safety/Environment-in-Design workshops and has approval authorities for all other risk assessment types (except for START/Restart Cards) to ensure environmental risks and opportunities are adequately raised and addressed. | **Project Manager**<br>Project Environmental Representative<br>Engineering Manager<br>Engineers<br>Supervisors | Project Risk Register<br>Work Area Plan risk assessments<br>Project Prestart Meeting |
| 4.2 Identified risks and opportunities are analysed and evaluated according to agreed criteria and recorded in a risk register | **Analysing Environmental Risks and Opportunities**<br>Each environmental risk and opportunity will be evaluated and assigned a rating in the Work Pack Risk Register which is determined using the consequence and likelihood criteria in the Risk Management Procedure identified within the Safety & Health Plan. The influence of existing controls is considered in determining the risk rating.<br>For each environmental risk:<br>▪ An owner is assigned by the Project Manager,<br>▪ Existing controls are recorded, including the owner of that control, and<br>▪ The residual risk will be evaluated.<br>Opportunities will be assessed to determine whether or not they can be implemented on the project and be based on a cost-benefit business case for the opportunity.<br>Advice is sought from the Project Environmental Representative as necessary by the project team to ensure CAP, Work Pack and SEP risk assessments are as informed and accurate as possible. | **Project Manager**<br>Risk owners<br>Project Environmental Representative<br>Engineers | Work Pack Risk Register<br>Project Prestart Meeting |
| 4.3 Environmental controls appropriate to the level of risk are identified, documented and implemented | **Identifying Adequate Controls**<br>If the risk rating returns a result of 'medium' or above, then additional controls sufficient to reduce the risk rating to 'low' or an alternative acceptable level using cost effective designs and engineering and/or administrative controls are to be utilised. Residual risks with a high or extreme risk rating will be considered 'significant' and must be controlled using appropriate systems of work, including Environmental Sub- | **Risk owners**<br>Project Environmental Representative<br>Project Manager<br>Project Engineers | Controls agreed (engineered or administrative) |

| Expectations | How we will meet the Expectations (minimum requirements) | Responsible Key Contributor | Deliverables |
|---|---|---|---|
| | Plans and project work procedure, along with available “hard controls”. Approval to proceed is required prior to commencing<br>Accountability for the implementation of each control is assigned in the respective Sub plan and SEPs and a due date set for its implementation as appropriate. Controls are selected in consultation with the Project Environmental Representative to achieve the following, in order of preference:<br>▪ Eliminate the risk by not performing the relevant activity<br>▪ Substitute by performing the relevant activity in a way that presents a lower risk<br>▪ Implement physical (engineered) controls (e.g. sediment basins, check dams)<br>▪ Implement administrative controls (e.g. procedures, training, inspections). | | |
| | **Implementing Controls**<br>Controls are implemented by the accountable person as specified in the Sub Plan or SEP by the due date. No activity is commenced until all relevant controls are implemented. | **Risk owners** | Controls in place (engineered or administrative) |
| 4.4 Feasible opportunities are implemented | **Implementing Opportunities**<br>Opportunities identified and for which a business case has been developed, are submitted to the appropriate member of the project leadership team for approval. Once approved, accountability for implementation of the opportunity is assigned and the opportunity is implemented. Environmental and cost benefits are recorded and reported in monthly reporting. | **Project Manager**<br>Opportunity Owner | Monthly reports<br>Case studies |
| 4.5 Identified environmental risks and controls are communicated to all relevant personnel | **Communications in line with Construction Planning**<br>The environmental risks, controls and accountabilities identified are communicated to all relevant personnel. This is achieved through the preparation and communication of the construction methodology, CAPs, Work Packs, SEPs, the conduct of Safety/Environment-in-Design workshops. | **Project Manager**<br>Engineers<br>Project Environmental Representative | Toolbox talk content and attendee records<br>Pre-start meeting content<br>Records of communications and meetings |
| | **HSE Communications**<br>Environmental risks, controls and accountabilities are also communicated through delivery of HSE communications, including HSE Committee meetings, toolbox talks and pre-start meetings. | **Engineers**<br>Supervisors<br>Project Environmental Representative<br>Project Manager<br>Health and Safety Manager | Site induction content<br>Toolbox talk content and attendee records<br>Pre-start meeting content<br>Records of communications and meetings |

| Expectations | How we will meet the Expectations (minimum requirements) | Responsible Key Contributor | Deliverables |
|---|---|---|---|
| | **Communication through Training**<br>Nominated administrative controls, including procedures and training, will be communicated through the delivery of training in their requirements. The planning and delivery of this training is provided according to the requirements of Project Training Management Plan. | **Project Environmental Representative**<br>P&C Manager | Training schedule<br>Training matrix<br>Training records |
| 4.6 Regular inspections and monitoring are conducted to check effectiveness of controls | **Inspections, Observations and Monitoring**<br>The processes for inspections, observations and monitoring are described in Expectation 3 of this EMP and detailed in Appendix E. | **Project Environmental Representative**<br>Project Manager<br>Engineers<br>Supervisors | Observation records<br>Inspection schedules<br>Inspection checklists<br>Corrective actions in Aconex |
| 4.7 Environmental risks and controls are regularly reviewed. | **Risk Review**<br>The relevance and adequacy of environmental risks and controls identified in this EMP, the Principal Risk Assessment, CAP and Work Pack risk assessments are reviewed and updated according to Project Management Plan. | **Project Manager**<br>Project Environmental Representative<br>Engineers | Project Risk Register<br>Updated risk registers in CAPs and Work Packs |

# Element 5: Change Management

| Expectations | How we will meet the Expectations (minimum requirements) | Responsible Key Contributor | Deliverables |
|---|---|---|---|
| 5.1 Changes to planned operations that have potential environmental consequences are identified | **Identifying Change**<br>Personnel promptly report any 'medium' or 'major' changes that could affect the environment and/or community. Obtain the Minister's approval for any project modifications that are not consistent with the planning approval.<br>A 'medium' or 'major' change could result from a change to design, plant (fixed and mobile), systems, personnel and work methods such that the absence of a considered review could compromise the project's ability to comply with its obligations and/or result in an inadequate range of controls which could lead to an incident or result in community nuisance.<br>A 'medium' change is one which includes permanent changes to Work Pack methodology or work conditions. A 'major' change is one which is site-wide or requires a revision of CAP's. | **Project Manager**<br>Project Environmental Representative<br>Engineering Manager<br>Engineers<br>Supervisors | Notification via Aconex |
| 5.2 Risks associated with identified changes are assessed and controlled before changes are implemented | **Risks Associated with Change**<br>All proposed changes are documented, including the assessment of risks relating to the change. Key personnel affected by the change are involved in the risk assessment. Input from environmental personnel is sought as necessary.<br>The approach to risk assessment and the implementation of controls will follow the requirements of Element 4 of the EMP. | **Project Manager**<br>Change owner<br>Supervisors<br>Project Environmental Representative | Revised risk assessments |
| 5.3 All changes with environmental consequences are authorised before they are implemented | **Approvals of Change**<br>All change requests are approved by the supervisor or manager of the change owner, or as otherwise required by the project delegations, before any relevant work commences and a record is maintained. This must include any approvals associated with revised WAPs and Work Packs by the Project Environmental Representative. | **Project Manager**<br>Construction Manager<br>Engineering Manager<br>Project Environmental Representative | Correspondence via Aconex |
| 5.4 Controls associated with change are communicated to all affected personnel | **Communication of Change**<br>Affected personnel will be consulted and understand the effects of change before the relevant works commence. This is achieved through toolbox talks, daily pre-start meeting, HSE committees or forums arranged to specifically address changes. | **Change Owner**<br>Supervisors | Toolbox talk material<br>Pre-start meetings<br>Attendance records<br>Meeting minutes |

## Element 6: Communication and Consultation

| Expectations | How we will meet the Expectations (minimum requirements) | Responsible Key Contributor | Deliverables |
|---|---|---|---|
| 6.1 External environmental stakeholders are identified | **Identifying External Stakeholders**<br>A comprehensive stakeholder analysis will be performed to identify external stakeholders and their interests in the environmental management of the Project. This will include community members and others who could be affected by the Project works, as well as government and environmental lobby groups. The Environment Representative will be involved in the analysis process. | **Community & Stakeholder Manager**<br>Project Environmental Representative | Stakeholder register or database maintained by HI |
| 6.2 Relationships with external stakeholders are effectively managed | **Managing Relationships**<br>Activities performed to effectively manage relationships with external stakeholders include:<br>▪ Identifying environmental risks that relate to stakeholder interests by considering the impacts to stakeholders (documented in Environmental Risk Register)<br>▪ Determining suitable controls and activities to mitigate risks (general controls and activities documented in Environmental Risk Register, details in Environmental Sub-Plans, CAPs, and Work Packs).<br>▪ Performing inspections, audits, stakeholder engagement and monitoring activities to assess the effectiveness of controls<br>Actively engaging stakeholders through open communication and involvement.<br>Compliance with the Community Communication Strategy developed by HI is required for communication with Stakeholders and response to complaints. | **Project Environmental Representative**<br>Community & Stakeholder Manager<br>Project Manager | Project Risk Register<br>Risk assessments in CAPs, Work Packs,<br>Environmental Sub-Plans and Procedures<br>Audit reports<br>Monitoring results<br>Communications material<br>Forums and opportunities for stakeholder engagement<br>HI Complaints Register |
| 6.3 Internal consultative forums are established with regular meetings scheduled, conducted, documented and communicated | **Consultative Forums**<br>A schedule of communication forums will be developed which includes:<br>▪ Managers' meetings that are to address environmental matters at least monthly;<br>▪ Environmental Toolbox Talks at least monthly;<br>▪ Pre-start meetings prior to commencing a shift;<br>The Project Manager will establish appropriate environmental interfaces with the Client and regulatory bodies. Records will be kept of all HSE communication activities (e.g. attendance records). The effectiveness of the meeting outcomes will be reviewed as required. | **Project Manager**<br>Project Environmental Representative<br>H&S Manager | Minutes of meetings/ correspondence with Council and other Authorities<br>Toolbox Talks<br>Pre-Start meetings<br>Attendance records |
| | **Actions from Consultative Forums**<br>Actions arising from consultative forums are assigned and communicated to a responsible person and confirmed as being completed. | **Community & Stakeholder Liaison**<br>Project Environmental Representative | Synergy – Action Plans Module |

| Expectations | How we will meet the Expectations<br>(minimum requirements) | Responsible<br>Key Contributor | Deliverables |
|---|---|---|---|
| | The Project will identify, track and complete environmental related actions using Synergy – Action Plans Module. | | |
| | **HSE Signs and Notice Boards**<br>Dedicated HSE notice boards will be prominently located and maintained with current environmental information. | **Project Environmental Representative** | Signs and notice boards installed with current environmental content |
| 6.4 Environmental complaints and enquiries are recorded and responded to appropriately | **Responding to Complaints and Enquiries**<br>All environmental related complaints will be managed in accordance with the Community Communication Strategy developed by HI.<br>In addition, complaints are treated as an incident and managed according to Element 9 of the EMP. Corrective actions are agreed and implemented, with accountabilities and time frames assigned. The complainant or enquirer is notified of the intended Project response once approved by the Project Manager by HI. | **Community & Stakeholder Manager**<br>Project Environmental Representative<br>Project Manager | Incident records<br>Records of communications |
| | **Changes to Environmental Monitoring**<br>Environmental monitoring programs will be reviewed to address matters raised through valid complaints and consultations with stakeholders. Amendments to the monitoring program will be adequate to allow early identification of conditions that are likely to result in further complaints and/or exceedances. Data will be analysed to identify actual and potential impacts to the community, and corrective actions implemented. | **Project Environmental Representative**<br>Community & Stakeholder Manager | Monitoring schedule<br>Monitoring records<br>Corrective actions in Aconex |
| | **Client and Internal Notifications**<br>The Business Unit Environment Manager and Corporate Communications Manager are notified of complaints that have or are likely to generate media interest.<br>The Client is notified according to the conditions outlined in the Contract. | **Project Manager** | Record of communication |

| Expectations | How we will meet the Expectations (minimum requirements) | Responsible Key Contributor | Deliverables |
|---|---|---|---|
| 6.5 The effectiveness of internal and external stakeholder engagement is evaluated and improved. | **Evaluation of Internal and External Communications**<br>The effectiveness of internal communication and consultation activities will be formally reviewed as required. The effectiveness of external communication and consultation activities will be formally reviewed as required. The Project Environmental Representative participates in both of these reviews, which are led by the Project Manager and include the Community and Stakeholder Manager and Health and Safety Manager.<br>The Project Environmental Representative will also regularly attend and review the effectiveness of forums and recommend changes to the scheduling or style of forum. | **Project Manager**<br>Community & Stakeholder Manager<br>Project Environmental Representative<br>H&S Manager | Meeting minutes |

# Element 7: Training and Competency

| Expectations | How we will meet the Expectations (minimum requirements) | Responsible Key Contributor | Deliverables |
|---|---|---|---|
| 7.1 All personnel have completed an induction containing relevant environmental information before they are authorised to work on the Project | **Inductions**<br>All personnel, subcontractors and visitors will undergo an induction before commencing work on-site. The induction addresses general and Project-specific environmental issues, including:<br>▪ CPB Contractors' environmental policy<br>▪ How the EMP will be implemented on-site<br>▪ High-risk environmental activities on the Project and their controls<br>▪ What to do in the event of an environmental incident.<br>An assessment will be conducted upon completion of the induction.<br>Induction materials are reviewed at least annually and amended to reflect changes to Project environmental risks, the status of community relations and the occurrence of incidents.<br>Relevant environmental aspects to be considered for environmental awareness/ toolbox training include the limit of works, environmentally sensitive areas (native flora), pollution prevention, vegetation trimming and removal (noxious weed management, protection of native flora/ fauna), construction methodology (excavation) and hazards (mass movement). The training would also address who is responsible for the various components, e.g. inspection and maintenance of sedimentation and erosion controls, etc. Environmental awareness/ toolbox talks would commence early in the program and continue as new personnel/ contractors are engaged. | **Project Environmental Representative**<br>P&C Manager<br>Health and Safety Manager | Induction materials<br>Training attendance records<br>Completed induction assessments |
| 7.2 A training plan is developed and documented | **Identifying Training Needs**<br>Environmental training needs required to deliver this EMP are identified and documented within the Project's training matrix. In populating the training matrix, the environmental training requirements for each role are addressed, including competency, needs and capability.<br>The Project Environmental Representative will contribute to the development of the training matrix.<br>The performance and development management process provides an opportunity to identify and plan the delivery of training needs not provided in the training matrix, or that are necessary to aid in the development of the individual.<br>Subcontractor training and competency responsibilities will be included in subcontractor agreements. | **Environment Representative**<br>P&C Manager | Training matrix<br>Performance and Development management plans<br>Subcontractor agreements<br>Subcontractor Start-Up Meeting minutes |
| | **Scheduling Training Needs** | **P&C Manager** | Training matrix<br>Training records |

| Expectations | How we will meet the Expectations<br>(minimum requirements) | Responsible<br>Key Contributor | Deliverables |
|---|---|---|---|
| | A project training schedule will be developed to plan the delivery of training needs identified in the training matrix. Refresher training intervals will also be stated where applicable. | Project Environmental Representative | |

| Expectations | How we will meet the Expectations (minimum requirements) | Responsible Key Contributor | Deliverables |
|---|---|---|---|
| 7.3 Personnel are trained and assessed according to the training plan | **Provide Training Resources**<br>All resources to deliver the training schedule, including personnel, equipment, funding and materials, will be allowed for in the Project budget. | **Project Manager**<br>Project Environmental Representative | Project budget |
| | **Delivery of Training**<br>All training identified in the training matrix will be delivered according to the training schedule. Training and development needs identified through the performance and development process will be achieved as per time frames nominated in individual plans. Personnel delivering environmental training must be deemed competent by the Project Environmental Representative or Business Unit Environment Manager. | **Project Manager**<br>P&C Manager<br>Project Environment Representative | Training records |
| | **Training Evaluation and Review**<br>Training assessments and evaluation forms will be used to assess the effectiveness of training. Training evaluation and feedback will be reviewed and used to improve the quality of environmental training delivered on the Project.<br>The training matrix and schedule will be completely reviewed at least annually or prior to the commencement of major new tasks. | **P&C Manager**<br>Project Environmental Representative | Training evaluation forms<br>Training matrix |
| 7.4 Training records are maintained and accessible to relevant personnel. | **Training Records**<br>Records of all training activities, including inductions, will be maintained. Records will include the name and role of the attendee, the name of the course and, where applicable, reference to the document-controlled version of the material presented, and a copy of the assessment completed. | **P&C Manager**<br>Project Environmental Representative | Training records |

## Element 8: Subcontractor Relationships

| Expectations | How we will meet the Expectations (minimum requirements) | Responsible Key Contributor | Deliverables |
|---|---|---|---|
| 8.1 Selection processes ensure that subcontractors meet CPB Contractors' minimum environmental requirements | **Subcontractor Selection and Engagement**<br>Subcontractors engaged on the project are required to undergo a thorough assessment prior to selection. The Project Environmental Representative will be consulted on environmental requirements of subcontracts and the adequacy of proposed conditions.<br>Subcontractors will be made aware of CPB Contractors' environmental requirements during the tender process and Start-Up meetings. | **Commercial Manager**<br>Engineers<br>Project Environmental Representative | Subcontractor Agreements |
| 8.2 Planning requirements of all subcontractor work scopes are completed and communicated prior to commencing work | **Identify, Complete and Communicate Planning Requirements and Documentation**<br>The scope of work to be performed by each subcontractor is reviewed to determine whether it includes works for which project planning and environmental risk assessments have been completed. If so, the subcontractor is formally informed of all relevant risks and existing project documents, systems and procedures to be followed prior to commencing works (in addition to having been informed of these during the tendering process in the Subby Pack). These may include the contents of the construction methodology, CAPs, Work Packs, SEPs, and Environmental Sub-Plans in this EMP.<br>If the scope of works includes activities not already addressed in Project planning and risk assessment, then an appropriate risk assessment is performed and either existing documentation is revised or new documentation produced. The Project Environmental Representative should review this new documentation to ensure it meets project requirements.<br>In either case, the subcontractor must be formally informed of all requirements prior to commencing works. | **Engineers**<br>Project Environmental Representative<br>Commercial Manager | Construction Area Plans (CAPs)<br>Work Packs<br>SEPs<br>Records of subcontractor notification<br>Induction |
| 8.3 Compliance requirements for high risk environmental activities are identified and enforced | **Compliance requirements**<br>For high risk environmental activities, the Project Environmental Representative will review the subcontractor's scope of works with the supervising Engineer and:<br>▪ Identify any new issues relevant to the subcontractor's scope of works;<br>▪ Identify any additional compliance requirement not captured;<br>▪ Identify necessary approvals not already in place and obtain those approvals prior to any works commencing;<br>▪ Update the relevant Environmental Sub-Plans, SEPs, and Environmental Obligations Register with details new approvals and their conditions.<br>The Project Environmental Representative will review the CAP and Work Packs, for high risk environmental issues. | **Engineers**<br>Project Environmental Representative<br>Commercial Manager | Records of subcontractor notification<br>Subby Pack Transmittal |

| Expectations | How we will meet the Expectations (minimum requirements) | Responsible Key Contributor | Deliverables |
|---|---|---|---|
| | The subcontractor will be informed of all relevant environmental issues/risks and controls, procedures and documents to be followed and implemented in order to achieve compliance during the tendering process. This will be reinforced during the Start-Up meeting.<br>The subcontractor will be informed of the requirement to provide all relevant data relating to their works as per the National Greenhouse and Energy Reporting Act 2007 (Cth). | | |
| 8.4 Subcontractor documentation is submitted and reviewed to meet Project requirements | **Documentation Preparation and Review**<br>The subcontractor will provide CPB Contractors with all required environmental documentation prior to commencing work on the Project as described in the executed agreement, including any requirement to produce an Environmental Management Plan. Any further requirements will be agreed by the Commercial Manager and the Project Environmental Representative. | **Project Environmental Representative**<br>Engineer<br>Commercial Manager | Subcontractor environmental documentation |
| 8.5 Changes to the scope of work are managed as a Project change | **Manage Changes/Variations**<br>Changes and variations to subcontractor scopes of work will be assessed as a change according to the requirements of Element 5 of the EMP. Documentation will be amended accordingly. | **Commercial Manager**<br>Engineers | Change Requests |
| 8.6 Subcontractors actively participate in environmental management and training on the Project | **Subcontractor Environmental Participation**<br>Subcontractors will participate in HSE communication forums and monitoring activities, as a minimum, including:<br>▪ Project induction;<br>▪ Scheduled HSE management meetings, toolbox talks, pre-start meetings, HSE committees (as required);<br>▪ HSE observations, inspections and audits;<br>▪ Incident investigations (as required);<br>▪ Development or review of safe work systems SEPs (as required). | **Commercial Manager**<br>Project Environmental Representative<br>Subcontractors<br>Engineers | Attendance records<br>Monitoring records |

| Expectations | How we will meet the Expectations<br>(minimum requirements) | Responsible<br>Key Contributor | Deliverables |
|---|---|---|---|
| | **Subcontractor Training**<br>Subcontractors will undergo all necessary environmental training including any required by the Project. The required training will be determined by reviewing the training matrix relative to the scope of work and roles being filled or supplied by the subcontractor. The delivery and management of training will be as per Element 7 of the EMP. | **Subcontractor**<br>Project Environmental Representative | Subcontractor training records |
| 8.7 Subcontractors are reviewed to assess their performance and compliance with our minimum environmental requirements. | **Subcontractor Audits and Reviews**<br>Subcontractors will be regularly inspected and observed for environmental performance as per Element 3.4 of this EMP. | **Project Environmental Representative**<br>Engineers<br>Supervisors | Audit reports<br>Inspection and monitoring records |

# Element 9: Incident Management

| Expectations | | How we will meet the Expectations (minimum requirements) | Responsible Key Contributor | Deliverables |
|---|---|---|---|---|
| 9.1 | All incidents are followed by appropriate response and notification | **Incident Response**<br>The immediate response to all incidents is to make the area safe and undertake measures to prevent further environmental harm. An assessment will be made in consultation with the Project Environmental Representative to ensure that responses do not result in further harm.<br>**Initial Incident Notification**<br>The Project Manager and Project Environmental Representative are to be notified immediately of the following incidents:<br>All Level 1 and Level 2 environmental incidents, and PL1 and PL2.<br>The Project Environmental Representative is also to be notified of any actual Class 3 environmental incident, procedural or legal breach.<br>For Level 1 and Level 2 incidents and PL1 and PL2, the Project Manager will immediately notify the Business Unit General Manager and the Business Unit Environment Manager. The Project Manager will also notify the Business Unit General Manager of the need to activate the Project's Emergency Response Procedure and the Group Crisis Management Plan if necessary.<br>The Client is notified of all environmental incidents as per the agreed contractual arrangements. Environmental incidents will be reported to regulators in accordance with POEO Act.<br>In accordance with Development Consent SSD 8981 item C38 and associated Appendix 1 of the Consent Responsibility Matrix, the Department of Planning must be notified in writing at compliance@planning.nsw.gov.au immediately after the Applicant becomes aware of an incident and within 7 days. The notification must identify: the development (including the development application number and the name of the development if it has one) and set out the location and nature of the incident. Refer to Appendix I for template of written notification.<br>Within three months of the submission of an incident report under condition C39 the strategies, plans and programs required under this consent must be reviewed, and the Department and the Certifying Authority must be notified in writing that a review is being carried out.<br>**Preserve the Incident Scene**<br>Scenes of environmental Level 1 and 2 incidents and PL1's are to be preserved until the incident investigation team has collected relevant data and evidence (see below). | **Project Manager**<br>Project Environmental Representative<br>Community & Stakeholder Manager<br>Engineers<br>Supervisors | Records of incident notifications |
| 9.2 | All incidents are entered and managed in Synergy | **Incident Classification and Reporting**<br>Environmental incidents will be classified using the Incident Classification Matrix by the Project Environmental Representative in consultation with the Project Manager. | **Project Environmental Representative**<br>Project Manager | Incident records<br>Root cause coding |

| Expectations | How we will meet the Expectations<br>(minimum requirements) | Responsible<br>Key Contributor | Deliverables |
|---|---|---|---|
| | All environmental incidents, including community complaints, will be reported using the Synergy within three calendar days.<br>Root causes will be identified and recorded in Synergy for all Class 1, 2 incidents and HPIs (and optionally for Class 3 incidents).<br>All statutory notices received from regulators, including penalty notices and fines, will be entered as Environmental Legal Issue incidents upon receipt.<br>In accordance with the Development Consent within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, the Applicant must provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below, and such further reports as may berequested.<br>The Incident Report must include:<br>a. a summary of the incident;<br>b. outcomes of an incident investigation, including identification of the cause of the incident;<br>c. details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and<br>d. details of any communication with other stakeholders regarding the incident. | | |
| 9.3 Incident investigations are conducted appropriate to the type of incident | **Project Incident Investigations**<br>All incidents will be investigated according to company procedures. The level of investigation needed will depend on the incident classification. Corrective actions, including those required to help prevent future incident occurrences, are a key outcome of incident investigations.<br>Incident investigation reports are to be uploaded to Synergy.<br>**Statutory Authority Investigations**<br>Before any staff member is questioned by officers of a statutory authority they will endeavor to consult the Project Manager to determine whether Legal Counsel is needed.<br>Regulatory inspectors must be given appropriate assistance during their own investigations. | **Project Manager**<br>Project Environmental Representative<br>Supervisors<br>Engineers | Incident investigation reports |
| 9.4 All personnel conducting incident investigations are trained to competently perform the task | **Incident Investigation Teams Competent and Trained**<br>The selection of the investigation team will be up to the Project Manager and will depend upon the severity of the incident, and the availability of experienced personnel. However, the investigation team does need to have a mix of both Operational and HSE Staff.<br>The following should be considered when selecting an investigation team:<br>▪ Statutory requirements;<br>▪ CPB Contractors Corporate requirements; | **Project Manager** | |

| Expectations | How we will meet the Expectations (minimum requirements) | Responsible Key Contributor | Deliverables |
|---|---|---|---|
| | ▪ Technical specialists with an understanding of the work process;<br>▪ Administrative Support;<br>▪ Mix of skills and experience;<br>▪ Potential conflict of interest for any proposed member. | | |
| 9.5 Corrective and preventive actions are taken after incidents and lessons are shared with other projects | **Corrective & Preventive Actions**<br>Following an incident, corrective and preventive actions will be identified, assigned to the appropriate person/s and closed out according to set time frames. Time frames are set to ensure damage incurred is rectified and any chance of recurrence is eliminated as soon as practicable.<br>Synergy will be used to assign and track corrective actions. All corrective actions will include reference to the relevant incident record for ease of tracking. | **Project Manager**<br>Project Environmental Representative | Corrective action records on Synergy |
| | **HSE Alerts**<br>HSE Alerts will be submitted for all Class 1 and 2 incidents and HPIs to the Project Manager and Business Unit Environment Manager for distribution outside of the project team. HSE Alerts will also be raised for all other incident types at the discretion of the Project Environmental Representative, Project Manager or Business Unit Environment Manager. | **Project Environmental Representative**<br>Project Manager | HSE Alerts |
| 9.6 High potential and repeat incidents are regularly reviewed by the project management team | Each month the Project Environmental Representative will, as a minimum, identify trends in incidents (as a minimum, all Class 1 and 2 incidents and HPIs) and trends in root causes to suggest the nature of preventative actions which are warranted. The Project Manager will approve actions to address incident occurrences and incident and root cause trends. Actions will be managed using the Synergy. | **Project Environmental Representative**<br>Project Manager | Monthly project reports<br>Corrective actions |

# Element 10: Emergency Planning and Response

| Expectations | How we will meet the Expectations (minimum requirements) | Responsible Key Contributor | Deliverables |
|---|---|---|---|
| 10.1 Potential emergencies are identified using a formal risk assessment process | **Identifying Potential Emergencies**<br>Risk assessments conducted in accordance with Element 4 of the EMP are used to identify potential emergencies on the Project. Activities found to have an environmental consequence of 4 or 5 as per the definitions for environmental consequence contained within the CPB Contractors Risk Management Protocol will be considered potential emergencies. | **Project Manager**<br>Project Environmental Representative | Project Risk Register<br>Principal Risk Assessment |
| 10.2 Emergency response plans and procedures are developed and regularly reviewed | **Emergency Response Plan**<br>An Emergency Response Plan that addresses all identified potential environmental emergencies with specific emergency procedures for each different potential emergency will be developed. The plan will address or include the following:<br>▪ Nominated and trained emergency coordinator and emergency wardens<br>▪ Explanation of communications to be performed during an emergency<br>▪ Explanation of what a crisis is as compared to an emergency and what to do in the event of a crisis<br>▪ The details of emergency services contacts<br>▪ Emergency assembly locations<br>▪ A detailed location map showing the site in relation to local public roads<br>▪ A detailed site layout diagram<br>▪ Information about personnel and facilities available to help emergency services<br>▪ Specific emergency procedures for each potential emergency identified that aim to protect human health and environmental values, including assessment of resources required to respond to that emergency<br>▪ Post-emergency actions.<br>The Emergency Response Plan will be updated at least annually or when there are significant changes to project activities or in response to revised and new risk assessments. | **Project Manager**<br>Project Environmental Representative<br>H&S Manager | Emergency Response Plan and procedures |
| 10.3 Adequate resources are provided to effectively implement emergency response plans and procedures | **Emergency Response Plans Adequately Resourced**<br>Resources required to implement the Emergency Response Plan will be available on the Project and be maintained.<br>Necessary resources include but are not limited to:<br>▪ An emergency coordinator and emergency wardens;<br>▪ Spill response kits;<br>▪ Firefighting equipment;<br>▪ Barricading;<br>▪ Vehicles. | **Project Manager**<br>Project Environmental Representative<br>H&S Manager | Project resources for Emergency Response Plan and procedures |

| Expectations | How we will meet the Expectations (minimum requirements) | Responsible Key Contributor | Deliverables |
|---|---|---|---|
| 10.4 Environmental emergency response drills are conducted | **Environmental Emergency Response Drills**<br>Environmental emergency response drills will be conducted at least every six months. The emergency scenario of the drills will be rotated to avoid repetition and be relevant to the activities occurring at the time.<br>Records will be kept of the results for all drills.<br>Where testing and evaluation shows a deficiency in either emergency preparations or the Emergency Response Plan, appropriate corrective and preventive actions are taken and raised and managed using Synergy. | **Project Manager**<br>Project Environmental Representative<br>Health and Safety Manager | Emergency response drill records<br>Corrective action records in Synergy |
| 10.5 Employees, contractors and visitors are given appropriate emergency response training. | **Emergency Training**<br>Emergency coordinators and wardens are trained to implement the emergency response plans. Specific training requirements will be identified and captured within the training matrix and will be delivered according to company procedures.<br>Visitors are informed of requirements during the visitors' induction.<br>**General Workforce Training and Awareness**<br>All personnel and subcontractors will receive training to inform them of their roles and responsibilities in the event of an emergency. This training and awareness will be provided during Project induction. | **P&C Manager**<br>Project Environmental Representative<br>Health and Safety Manager | Training matrix<br>Training schedule<br>Training and induction records |

# Element 11: Document and Record Management

| Expectations | How we will meet the Expectations (minimum requirements) | Responsibilities Key Contributor | Deliverables |
|---|---|---|---|
| 11.1 Current versions of all relevant documents and records are available and controlled. | The Project must ensure that all documents and records referred to and required to implement the EMP, including the plan are controlled and maintained according to CPB Contractors requirements. This includes but is not limited to all:<br>▪ Management plans & Procedures<br>▪ Knowledge and Tools<br>▪ Templates (e.g. audit template, training matrix)<br>▪ All electronic records saved in electronic databases such as Synergy, ChemAlert etc.<br>**Document Types**<br>The types of records to be generated on the Project that are to be stored and maintained include:<br>▪ Environmental monitoring results - 30 years from the date of any incident or completion of the Project, whichever is later<br>▪ Complaints and enquiries received - 7 years from completion of the Project<br>▪ Notifications received by regulators - 30 years after the completion of the project<br>▪ Audit reports - 7 years from completion of the Project<br>▪ Completed inspections and observations - 30 years from the creation of the record<br>▪ Waste tracking certificates - 7 years from the creation of the record<br>▪ Training records - 7 years from the end of the employee's employment<br>▪ Incident reports - 30 years from the creation of the record<br>▪ Calibration records for monitoring equipment<br>▪ Monthly reports and Meeting minutes - 7 years from completion of the Project or from the date on which work was last performed on the Project<br>▪ Records as required under the National Greenhouse and Energy Reporting Act 2007 - 7 years from the creation of the record<br>▪ HSE Alerts<br>Any editing and access restrictions to environmental documents and records and who has authority to dispose of nominated documents and records comprise:<br>▪ Project Environmental Representative to authorise the disposal of any environmental documents or records. | **Project Environmental Representative**<br>Project Manager | Controlled and maintained documents and records |
| 11.2 Relevant documents and records will be maintained using | Relevant environmental documents and records generated on the Project will be stored and managed using Aconex with the following exceptions:<br>▪ Environmental monitoring data will be managed and stored using the Project drive | **Project Manager** | Controlled and maintained documents and records |

| Expectations | How we will meet the Expectations<br>(minimum requirements) | Responsibilities<br>Key Contributor | Deliverables |
|---|---|---|---|
| corporate business applications and systems | ▪ Whole of CPB Contractors environmental performance data will be managed and stored in Synergy and JDE, including Water, Waste and Energy and Greenhouse Gases<br>▪ Incident reports and corrective actions will be stored and managed using Synergy<br>▪ Risk registers will be retained in excel spreadsheet in Aconex.<br>▪ Corrective Actions issued to Subcontractors will be managed in Aconex. | | |

# Element 12: Reporting, Auditing, Review and Improvement

| Expectations | How we will meet the Expectations (minimum requirements) | Responsible Key Contributor | Deliverables |
|---|---|---|---|
| 12.1 Environmental performance trends are identified, and corrective actions are implemented as required | **Performance Trends**<br>Environmental performance will be reviewed and reported at least monthly to identify trends. Performance will be assessed against both lead and lag measures and relative to specific targets agreed as per Expectation 1.3 of the EMP, and in the sub-plans in Part C. Corrective actions will be managed through Aconex. | **Project Manager**<br>Project Environmental Representative | Monthly reports<br>Team Meetings<br>Corrective Actions in Aconex |
| 12.2 A monthly environmental report is produced and distributed | **Monthly Reporting**<br>A monthly environment report will be prepared for the Project Manager for inclusion in the monthly project Client report, in accordance with Clause 6.1 of the *Preliminaries*. This report will include the following:<br>**Implementation of environmental management** - details of:<br>• the environmental risks and opportunities, and significant environmental impacts<br>• associated with the work;<br>• environmental objectives, targets and measures of performance (where practical); and<br>• management actions, including environmental controls, training, inspections and testing.<br>**Implementation of incident management, including emergency response** - details of<br>• all environmental incidents or emergencies, including non-compliance with<br>• environmental procedures and near misses, implementation of incident and emergency<br>• response management, and implementation of corrective action.<br>**Implementation of reviews** - details of internal reviews, audits and inspections undertaken to verify that on-site environmental processes and practices conform with the Environmental Management Plan, including:<br>• monitoring, measurement, evaluation and review of activities;<br>• the consequences of non-conformances;<br>• investigation, analysis, evaluation and follow-up verification; and<br>• corrective and preventive action taken.<br>NOTE: Environmental section of the monthly report is to be issued with Progress Claim on last business day of the month. | **Project Environmental Representative** | Monthly environment report within:<br>• SHEQ Dashboard<br>• Client Monthly Report |
| | The Monthly HSE Statistical Report in Synergy will be completed and approved by the Project Manager. This includes reporting on the currency of the EMP, compliance with the EMP and issues and initiatives arising during the period | **Project Manager** | Monthly HSE Statistical Report via SHEQ Dashboard |

| Expectations | How we will meet the Expectations (minimum requirements) | Responsible Key Contributor | Deliverables |
|---|---|---|---|
| 12.3 Regular management reviews are conducted to determine the continuing suitability, adequacy and effectiveness of the Environmental Management System | The Project must conduct formal management reviews to assess the adequacy of the Environmental Management System as part of its annual management system reviews. The outputs of the review will be incorporated into the EMP.<br>That review must take into account the results of:<br>▪ Audits undertaken;<br>▪ Communication, participation and consultation;<br>▪ Relevant communication including complaints from external stakeholders;<br>▪ The perform of the Project;<br>▪ The extent to which the objectives and targets have been met;<br>▪ The outcomes of incident investigations and any corrective actions;<br>▪ Changes to legislation;<br>▪ Actions from previous management reviews and recommendations for improvement. | **Project Manager**<br>Project Leadership Group<br>Project Environmental Representative | Management review report<br>Actions in Synergy |
| 12.4 Audits are undertaken to ensure compliance with the requirements of the EMP | **Compliance with Environmental Management Plan**<br>Regular audits and reviews will be conducted to confirm compliance with the EMP and associated Obligations.<br>A schedule of audits and reviews will be developed and maintained, and may include:<br>Project planning/Start Up reviews (conducted by Business Unit HSE Manager or delegate)<br>▪ Project mobilisation audits (conducted by Business Unit HSE Manager or delegate)<br>▪ Subcontractor audits (for subcontractors performing high risk activities)<br>▪ High-risk activity audits<br>▪ Environmental Management Plan audits (conducted by Business Unit Environment Manager or delegate)<br>▪ Compliance and Legislative audits (conducted by BUEM or competent 3rd party).<br>Action plans will be developed to improve performance as required. Necessary corrective actions will be managed using Aconex.<br>Development Consent SSD 8981 Item A21 requires: Any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the EP&A Act. This includes conditions in respect of incident notification, reporting and response, noncompliance notification, compliance reporting and independent auditing.<br>Note: For the purposes of this condition, as set out in the EP&A Act, “monitoring” is monitoring of the development to provide data on compliance with the consent or on the environmental impact of the development, and an “environmental audit” is a | **Project Manager**<br>Business Unit Environmental Management Representative<br>Business Unit HSE Manager | Audit reports<br>Corrective actions in Aconex |

| Expectations | How we will meet the Expectations (minimum requirements) | Responsible Key Contributor | Deliverables |
|---|---|---|---|
| | periodic or particular documented evaluation of the development to provide information on compliance with the consent or the environmental management or impact of the development. | | |
| 12.5 All audits are undertaken by suitably qualified and experienced personnel | **Auditor Competency**<br>Persons conducting audits and reviews will be suitably experienced and qualified. There are two levels of internal auditor that can be obtained, these being Auditor and Lead Auditor. A mix of general education, specific auditor training and work experience are considered in determining the level of auditor. | **Business Unit Environmental Management Representative** | Training records |
| 12.6 Compliance Reporting | Development Consent SSD 8981 Item B35 states:<br>No later than two weeks before the date notified for the commencement of construction, a Compliance Monitoring and Reporting Program prepared in accordance with the Compliance Reporting Post Approval Requirements (Department 2018) must be submitted to the Department and the Certifying Authority.<br>Compliance Reports of the project must be carried out in accordance with the Compliance Reporting Post Approval Requirements (Department 2018).<br>The Applicant must make each Compliance Report publicly available 60 days after submitting it to the Department and notify the Department and the Certifying Authority in writing at least seven days before this is done. | **Project Manager**<br>Environmental Manager | Compliance Monitoring and Reporting Program<br>HI Website |
| 12.7 Independent Environmental Audit | In accordance with Development Consent SSD 8981 Items C42 to C45:<br>No later than 2 months after the date notified for the commencement of construction, an Independent Audit Program prepared in accordance with the Independent Audit Post Approval Requirements (Department 2018) must be submitted to the Department and the Certifying Authority.<br>Independent Audits of the development must be carried out in accordance with:<br>a) the Independent Audit Program submitted to the Department and the Certifying Authority under condition C42 of this consent; and<br>b) the requirements for an Independent Audit Methodology and Independent Audit Report in the Independent Audit Post Approval Requirements (Department 2018).<br>In accordance with the specific requirements in the Independent Audit Post Approval Requirements (Department 2018), the Applicant must:<br>a) review and respond to each Independent Audit Report prepared under condition C42 of this consent<br>b) submit the response to the Department and the Certifying Authority; and | **Project Manager** | Planning Secretary Agreement (e.g. email correspondence from DP&E)<br>Independent Audit Program and reports<br>Review documentation |

| Expectations | How we will meet the Expectations<br>(minimum requirements) | Responsible<br>Key Contributor | Deliverables |
|---|---|---|---|
| | c) make each Independent Audit Report and response to it publicly available within 60 days after submission to the Department and notify the Department and the Certifying Authority in writing at least seven days before this is done.<br>Notwithstanding the requirements of the Independent Audit Post Approval Requirements (Department 2018), the Planning Secretary may approve a request for ongoing annual operational audits to cease, where it has been demonstrated to the Planning Secretary's satisfaction that ongoing operational audits are no longer required. | | |
| 12.8 Non-compliance | All non-compliance with Development Consent requirements must be notified in writing to the Department of Planning at compliance@planning.nsw.gov.au within seven days after the Applicant becomes aware of any non-compliance. The Certifying Authority must also notify the Department in writing to compliance@planning.nsw.gov.au within seven days after they identify any non-compliance.<br>The notification must identify the development and the application number for it, set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.<br>A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.<br>All non-compliances are to raised and actioned in Aconex. | **Project Manager** | Aconex<br>Email correspondence to Dept Planning |

| | Environmental Sub Plans |
|---|---|
| 1 | Construction Soil and Water Management Sub Plan |
| 2 | Construction Flora and Fauna Management Sub Plan |
| 3 | Construction Noise and Vibration Sub Plan |
| 4 | Construction Acid Sulphate Soils Sub Plan |
| 5 | Construction Heritage Sub Plan |
| 6 | Construction Contamination Sub Plan |
| 7 | Construction Energy Sub Plan |
| 8 | Construction Hazardous Substances Sub Plan |
| 9 | Construction Waste Management Sub Plan |
| 10 | Construction Dust and Air Quality Sub Plan |
| 11 | Construction Light Pollution Sub Plan |
| 12 | Construction Traffic and Pedestrian Management Sub Plan |
| 13 | Construction Flooding Emergency Response Plan |
| 14 | Community Communication Strategy |

# 1. Construction Soil and Water Management Sub Plan

## 1.1 Scope

This Plan addresses the transportation of soil, the use of water on the project and the management of impacts to water quality and/or quantity that may be caused by Project activities and that have the potential to adversely affect water availability, the environment and/or community.

The geological nature of the ground is alluvial floodplain with layers of clay, silt, sand and gravel with deep bedrock at depths of more than 7 m below the existing ground surface.

Activities conducted on the project that have the potential to impact water quality and/or quantity are provided below.

Table 1.1: Activities, Hazards and Risks

| Project Activity | Environmental Hazard | Environmental Risk |
|---|---|---|
| Detailed excavation | Damage to watercourse/waterway<br>Damage to soil stability | Impacts to aquatic fauna and flora<br>Soil erosion and sedimentation |
| Concreting | Discharge of contaminated water | Water quality negatively impacted |
| Storage and use of flammable and combustible liquids and solids | Spills | Water quality negatively impacted |
| Dust suppression | Use of water | Unnecessary load on water resources contributing to resource availability |
| Dewatering | Discharge of contaminated water | Water quality negatively impacted |
| General Construction works | Flooding | Contamination of floodwater with construction waste |

## 1.2 Project Compliance Requirements

### 1.2.1 Contract Clauses

Specific contract clauses and references which set limits and/or govern impacts to water quality on the project include:

Table 1.2: Contract Clauses

| Contract Document Reference | Contract Clause/Reference | Limit/Requirement |
|---|---|---|
| Preliminaries Clause 5.16 | Progressive Cleaning & Rubbish Removal | The Contractor must at all times:<br>1. Keep the Site and the Works clean and tidy including all access roads;<br>2. Restrict mud and dust getting on and spreading onto the public roads;<br>3. Regularly clean public roads as required when conditions require it and/or at the request of any authority; |
| Preliminaries Clause 5.17 | Dust, Mud, Vibration & Noise Control | The Contractor must take all reasonable precautions to avoid nuisance dust, mud.<br>The Contractor must utilise reasonable methods of dust suppression on all compressors, jack-hammers and other machinery of whatsoever description to ensure that the dust levels emanating |

| Contract Document Reference | Contract Clause/Reference | Limit/Requirement |
|---|---|---|
| | | from the Site during the Works are minimised. The Contractor shall erect screens or take other reasonably necessary preventative measures to prevent dust and damage to surrounding or adjoining properties (public and private) and shall arrange for the programming of the Works so as to avoid or minimise any such issues occurring.<br><br>If dust or mud interfere with normal hospital or health facility operations, surrounding or adjoining areas to the Site or the use of roadways, the progress of the Works (or any part thereof) will be suspended until such time as the Contractor rectifies or implements a more appropriate work method to address these issues. |
| Preliminaries Clause 6 | Environmental Protection | EMP must address erosion and sediment control |

### 1.2.2 Conditions of Project Environmental Approvals

Conditions of project environmental approvals that specifically address the management of water quality include:

Table 1.3: Development Consent Conditions

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Compliance Requirement |
|---|---|---|
| B4 | Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:<br>(a) detailed baseline data;<br>(b) details of:<br>(i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);<br>(ii) any relevant limits or performance measures and criteria; and<br>(iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;<br>(c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;<br>(d) a program to monitor and report on the:<br>(i) impacts and environmental performance of the development;<br>(ii) effectiveness of the management measures set out pursuant to paragraph (c) above;<br>(e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to | CEMP developed by CPB |

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Compliance Requirement |
|---|---|---|
| | levels below relevant impact assessment criteria as quickly as possible;<br>(f) a program to investigate and implement ways to improve the environmental performance of the development over time;<br>(g) a protocol for managing and reporting any:<br>(i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);<br>(ii) complaint;<br>(iii) failure to comply with statutory requirements; and<br>(h) a protocol for periodic review of the plan.<br><br>Note: The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans. | |
| B5 | Prior to commencement of construction, the Applicant must prepare a Construction Environmental Management Plan (CEMP) and it must include<br>a)(iii) management of dust and odour to protect the amenity of the neighborhood;<br>(iv) measures to ensure that sediment and other materials are not tracked onto the roadway by vehicles leaving the site<br>d) Construction Soil and Water Management Plan | CEMP developed by CPB includes monitoring requirements for each impact.<br>SEP's to include preliminary ESC (Appendix H) |
| B9 | Prior to the commencement of construction, the Applicant must prepare a Construction Soil and Water Management Plan (CSWMP). The CSWMP must address, but not be limited to, the following:<br>m) be prepared by a suitably qualified expert, in consultation with Council and Department of Industry, Lands and Water Division;<br>n) describe all erosion and sediment controls to be implemented during construction;<br>o) describe all stormwater controls and discharge during construction;<br>p) describe inspection regime for erosion and sediment controls including regular scheduled inspections and inspections pre- and post- heavy rainfall events;<br>q) describe controls to contain spills and leakages during construction;<br>r) (f) provide a plan of how all construction works will be managed in a wet-weather events (i.e. storage<br>s) of equipment, stabilisation of the site); | CEMP developed by CPB includes a Construction Soil and Water Management Plan |

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Compliance Requirement |
|---|---|---|
| | t) (g) detail all off-site flows from the site;<br>u) (h) detail groundwater management measures to prevent groundwater contamination;<br>a. an Unexpected Contamination Procedure for soil and groundwater contamination and associated<br>v) communications procedure; and<br>w) (j) describe the measures that must be implemented to manage stormwater and flood flows for small<br>x) and large sized events during construction, including but not limited to 1 in 1-year ARI, 1 in 5-year ARI and 1 in 100-year ARI. | |
| B26 | Prior to the commencement of construction, the Applicant must design and install a stormwater<br>management system for the development. The system must:<br>(a) be designed by a suitably qualified and experienced person(s), in consultation with Council;<br>(b) be submitted to the satisfaction of the Certifying Authority;<br>(c) be generally in accordance with the conceptual design in the EIS;<br>(d) be in accordance with applicable Australian Standards; and<br>(e) ensure that the system capacity has been designed in accordance with Australian Rainfall and<br>Runoff (Engineers Australia, 2016) and Managing Urban Stormwater: Council Handbook (EPA,<br>1997) guidelines. | Design review and approval work flows for design development of stormwater management documentation. |
| B27 | Prior to the commencement of construction, the Applicant must ensure that a rainwater reuse/harvesting system for the development is developed for the site. A rainwater re-use plan must be prepared and certified by an experienced hydraulic engineer. | Design review and approval work flows for design development of rainwater reuse/harvesting system. |
| C23 | During construction, the Applicant must ensure that:<br>f) exposed surfaces and stockpiles are suppressed by regular watering<br>g) all trucks entering or leaving the site with loads have their loads covered<br>h) trucks associated with the development do not track dirt onto the public road network<br>i) public roads used by these trucks are kept clean; and | Soil and Water Management Sub Plan developed by CPB Contractors includes these requirements.<br>Rubble grid installed to main vehicle routes.<br>Gravel access tracks installed to main vehicle routes.<br>Wheel wash facility installed during earthworks activities.<br>Temporary stockpiles kept suppressed with water.<br>Longer term stockpiles to be bound with soil binder. |

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Compliance Requirement |
|---|---|---|
| | j) land stabilisation works are carried out progressively on site to minimise exposed surfaces. | |
| C24 | All erosion and sediment control measures, must be effectively implemented and maintained at or above design capacity for the duration of the construction works and until such time as all ground disturbed by the works have been stabilised and rehabilitated so that it no longer acts as a source of sediment. | ERSED controls to be inspected as part of weekly environmental inspection. |
| C25 | The Applicant must:<br>d) ensure that only Virgin Excavated Natural Material (VENM), Excavated Natural Material (ENM), or other material approved in writing by EPA is brought onto the site;<br>e) keep accurate records of the volume and type of fill to be used; and<br>f) make these records available to the Certifying Authority upon request. | Soil and Water Management Sub Plan developed by CPB Contractors includes these requirements. |
| C26 | Adequate provisions must be made to collect and discharge stormwater drainage during construction of the building to the satisfaction of the Certifying Authority. The prior written approval of the relevant authority must be obtained to connect or discharge site stormwater to Councils stormwater drainage system or street gutter. | Soil and Water Management Sub Plan includes this requirement.<br>CPB Permit to dewater process. |
| C33 | The body of any vehicle or trailer used to transport waste or excavation spoil must be covered before leaving the premises to prevent any spillage or escape of any dust, waste of spoil. Mud, splatter, dust and other material likely to fall from or be cast off the wheels, underside or body of any vehicle, trailer or motorised plant leaving the site must be removed before leaving the premises. | Soil and Water Management Sub Plan includes this requirement. |
| C34 | The Applicant must ensure that concrete waste and rinse water are not disposed of on the site and are prevented from entering any natural of artificial watercourse. | CPB Waste Management Sub Plan developed by CPB includes this requirement.<br>Designated concrete washout bay established on site for wash out activities. |

## 1.3 Controls Used to Manage Water Quality

Controls that are adequate to minimise water use, to ensure compliance, and to reduce risk to the lowest acceptable rating achievable are implemented before any relevant works commence. Elimination of the hazard is the first preference of control, followed by engineering, then administrative controls. An Erosion and Sediment Control Plan has been prepared by TTW and is included as part of the Site Environmental plan in Appendix H. The Plan outlines the management processes to be put in place to maintain the quality of stormwater discharge during construction. Surface water management measures will be in accordance with *Landcom guidelines – Managing Urban Stormwater Runoff: Soils and Construction* ("Blue Book"). Controls to be used on this project include:

Table 1.4: Water quality controls

| Control | Accountability |
|---|---|
| During construction:<br>exposed surfaces and stockpiles shall be suppressed by regular watering trucks associated with the development shall not track dirt onto the public road network public roads used by these trucks are to be kept clean; and land stabilisation works shall be carried out progressively on site to minimise exposed surfaces. | Site Manager |
| CPB shall keep the Site and the Works clean and tidy including all access roads; | Site Manager |
| Erosion and sediment controls must be designed, developed and implemented in consultation with the construction team and project environmental representative. Refer to CPB Erosion and Sediment Control Plan within Appendix H. | Project Environmental Manager |
| Only Virgin Excavated Natural Material (VENM), Excavated Natural Material (ENM), or other material approved in writing by EPA to brought onto the site.<br>- keep accurate records of the volume and type of fill to be used; and<br>- make these records available to the Certifying Authority upon request. | Project Manager |
| Clean water diversions must be installed prior to the commencement of work. | Site Manager |
| A wash-down area and exit pad are to be provided at the exit point from the construction site to avoid sediment being tracked off the site. All areas used by vehicles are to be adequately drained | Site Manager |
| Erosion and sediment controls in accordance with Appendix H must be installed prior to or immediately upon any disturbance to vegetation or soil. These controls must remain in place until revegetation, stabilisation or hard scaping has occurred. If these controls require maintenance notify your supervisor. Ensure all works within proximity to storm water drainage have adequate sediment controls that are inspected regularly. | Site Manager/ Supervisors |
| The body of any vehicle or trailer used to transport excavation spoil must be covered before leaving the premises to prevent any spillage or escape of any dust, waste of spoil. | Supervisors |
| Cleared areas must be kept to a minimum and be progressively rehabilitated/revegetated as they become available. | Site Manager |
| All materials must be stockpiled away from water flow paths and sediment fences installed downstream. | Site Manager |
| Sediment laden water (dirty water) captured onsite must be preferentially reused e.g. dust control. | Site Manager |
| If dewatering is required during construction, the water would be tested (and treated if necessary) prior to re-use, discharge or disposal. Water discharged from site is in strict accordance with the site's dewatering procedure. No transfer/discharge will be made without a Permit To Dewater approved by the project environmental representative.<br>Dewatering to grassed areas is the preferred method for water discharge. Adequate provisions must be made to collect and discharge stormwater drainage during construction of the building to the satisfaction of the Certifying Authority. The prior written approval of the relevant authority must be obtained to connect or discharge site stormwater to Councils stormwater drainage system or street gutter. | Site Manager |
| An adequate number of concrete washout facilities must be maintained at all times. The washout facilities will be isolated from surface water flows using bunds to prevent contamination of clean surface waters and will be lined to prevent contamination of soil and ground water | Site Manager |
| All hazardous substances (liquids and solids) are stored and managed according to AS1940. | Site Manager |
| All refuelling points, including refuelling trucks, will carry hydrocarbon spill kits. | Site Manager |

| Control | Accountability |
|---|---|
| The quantity of water consumed on the project are reported monthly in Synergy | Project Environmental Manager |
| Opportunities to minimise the use of high quality water will be continually sought and adopted as appropriate. | Site Manager |
| Daily visual observations of public footpaths and roads to be undertaken for signs of soil tracked on roads. Any soil on road must be cleaned as soon as practicable. | Site Manager |
| Erosion and Sediment controls to be inspected in accordance with the site inspection requirements in Appendix E. Additional inspections will be required pre and post heavy rainfall events. | Site Environmental Representative |

## 1.4 Stormwater management

All stormwater from the development and during construction ultimately travels to Newport Creek. Diversion of upslope water shall be carried out where possible. During construction a sediment basin will be managed to hold stormwater for settlement and/ treatment as necessary prior to discharge. Note that all excavations may be used as a sediment basin. Water will be tested in accordance with the below water discharge criteria. No discharges are to occur without a signed Permit to Dewater and are to be supervised at all times, reusing water where possible and implementing pollution control techniques such as discharging over grassed swales or vegetated areas.

Where water is pumped into a sediment basin it may require flocculation with gypsum and pH correction with lime to hasten the treatment process.

Prior to discharge the water must be sampled and tested for the requirements in Table 1.5: Waste Water discharge criteria.

Table 1.5: Waste Water discharge criteria

| Parameter | Typical EPL Criteria | Sampling Frequency | Method |
|---|---|---|---|
| **pH (units)** | **6.5 – 8.5** | <1 hour Prior to discharge to stormwater | Probe |
| **Total Suspended Solids (TSS – mg/L)** | **<50** | Prior to discharge to stormwater | Lab testing to identify correlation between NTU and TSS. Testing on site to be for NTU. |
| **Oil and Grease** | **No visible oil or odour** | <1 hour Prior to discharge to receiving waterway | Visual and olfactory observation |

## 1.5 Groundwater management

Groundwater has been observed at depths less than six metres below the existing ground surface level across the site therefore where deep excavations are required as part of the works groundwater pumping and disposal may be required.

## 1.6 Monitoring

The quantity of water used from potable supplies or recycled water obtained from outside the project, will be captured and reported in Synergy.

Water quality monitoring will be performed as required by the Permit To Discharge and if so requested by the Project Manager to identify potential non-compliances before they occur.

The project will use turbidity (NTU) in place of TSS to determine compliance with the Total Suspended Solids criteria. CPB will develop a statistical correlation which identifies the relationship between NTU and TSS for water quality in the sediment basins and excavations in order to determine the NTU equivalent of 50 mg/L TSS before NTU is used.

Where monitoring determines non-compliance to be a risk or to have occurred, an incident report and corrective actions are raised in the HSE Reporting System.

Monitoring and analysis of data will be carried out by a competent person.

It is the accountability of the Environmental Manager to ensure all monitoring is performed according to these requirements.

Meteorological monitoring to allow the forecasting of rainfall will be reviewed daily at:

http://www.bom.gov.au/nsw/forecasts/coffsharbour.shtml

## 1.7 References

Appendix H Erosion and Sediment Controls and Site Environmental Plan

Civil Design Report Issued for EIS – Bonacci (15 June 2018)

Soils and Construction 4th Ed (March 2004) – Managing Urban Stormwater: https://www.environment.nsw.gov.au/resources/water/BlueBookVol1.pdf

# 2. Construction Flora & Fauna Management Sub Plan

## 2.1 Scope

This Plan addresses the management of impacts to flora & fauna. The project is within a significantly disturbed area and in accordance with Section 7.9 (2) of the BC Act, the Planning Agency Head and the Environment Agency Head made a determination that the proposed development is unlikely to have any significant impact on biodiversity values and that a Biodiversity Development Assessment Report (BDAR) is therefore not required. A Biodiversity Assessment was prepared to gain the BDAR waiver and the assessment found that the site has been historically cleared in the past and the affected area comprises mown grassland and landscaping. Results of the Biodiversity Assessment are as follows:

- No threatened flora species were recorded;
- No Threatened Ecological Communities (TECs) occur within the Proposal footprint;
- No threatened fauna species were recorded; based on the habitat present and the site location there is potential for several threatened fauna species to utilise the site on a seasonal or opportunistic basis.

There are however existing site trees within the grounds of the Coffs Harbour Hospital site that will require protection controls (as detailed in Table 2.4). It is also noted that the development meets the *special fire protection purposes* development under *Section 100B(6) of the Rural Fires Act 1997*, as it relates to construction of a new hospital building.

Activities conducted on the project that has the potential to impact flora and fauna is provided below.

Table 2.1: Activities, Hazards and Risks

| Project Activity | Environmental Hazard | Environmental Risk |
|---|---|---|
| Vehicle and plant movements | Impact/ interaction with existing trees around perimeter of site and primary koala habitat (note that the proposal will not result in the removal of any koala habitat) | Damage to existing trees |
| Earthworks and vehicle/ plant movements | Introduction of weeds | Weeds cause loss of native flora |
| Refuelling/ hazardous materials handling | Accidental release of contaminants to storm water | Loss of water species |

## 2.2 Project Compliance Requirements

### 2.2.1 Contract Clauses

Specific contract clauses and references which set limits and/or govern impacts to Flora & Fauna on the project include:

Table 2.2: Contract Clauses

| Contract Document Reference | Contract Clause/Reference | Limit/Requirement |
|---|---|---|
| Preliminaries 6 | Environmental Protection | EMP must address protection of existing trees |

### 2.2.2 Conditions of Project Environmental Approvals

Conditions of project environmental approvals that specifically address the management of Flora & Fauna include:

Table 2.3: Development Consent Conditions

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Compliance Requirement |
|---|---|---|
| B4 | Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:<br>(a) detailed baseline data;<br>(b) details of:<br>(i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);<br>(ii) any relevant limits or performance measures and criteria; and<br>(iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;<br>(c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;<br>(d) a program to monitor and report on the:<br>(i) impacts and environmental performance of the development;<br>(ii) effectiveness of the management measures set out pursuant to paragraph (c) above;<br>(e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;<br>(f) a program to investigate and implement ways to improve the environmental performance of the development over time;<br>(g) a protocol for managing and reporting any:<br>(i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);<br>(ii) complaint;<br>(iii) failure to comply with statutory requirements; and<br>(h) a protocol for periodic review of the plan.<br><br>Note: The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans. | CEMP developed by CPB |
| C27 | For the duration of the construction works:<br>f) only trees identified in the Arboricultural Impact Assessment, prepared by ArborSafe, dated 2 July 2018 are removed;<br>g) all trees on the site except those identified in condition C28(a) must be suitably protected at all times during construction as per recommendations of the Arboricultural Impact Assessment, | Existing trees to be inspected during environmental inspections |

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Compliance Requirement |
|---|---|---|
| | prepared by ArborSafe, dated 2 July 2018;<br>h) if access to the area within any protective barrier is required during the works, it must be carried out under the supervision of a qualified arborist. Alternative tree protection measures must be installed, as required. The removal of tree protection measures, following completion of the works, must be carried out under the supervision of a qualified arborist and must avoid both di red mechanical injury to the structure of the tree and soil compaction within the canopy or the limit of the former protective fencing, whichever is the greater;<br>i) street trees must not be trimmed or removed unless it forms a part of this development consent or prior written approval from Council is obtained or is required in an emergency to avoid the loss of life or damage to property; and<br>j) all street trees must be protected at all times during construction. Any tree on the footpath, which is damaged or removed during construction due to an emergency, must be replaced, to the satisfaction of Council. | |

## 2.3 Controls Used to Manage Flora & Fauna

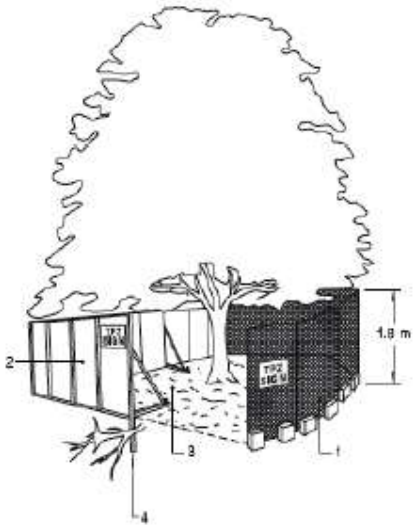
Controls that are adequate to manage flora & fauna risks and to reduce risk to the lowest acceptable rating achievable are implemented before any relevant works commence. Elimination of the hazard is the first preference of control, followed by engineering, then administrative controls. Controls used on this project include:

Table 2.4: Flora & Fauna controls

| Control | Accountability |
|---|---|
| Prior to any disturbance, clearing or grubbing activities in any locations the following must be in place;<br>▪ A Land Disturbance Permit (or equivalent)<br>▪ No-go Zones for significant flora and fauna must be established, fenced/flagged and sign posted prior to commencement of clearing.<br>▪ A wildlife catcher/spotter or the Environmental Representative needs to conduct a search for any wildlife that may need to be removed and relocated. | Site Manager |
| If a threat to an animal is evident onsite or a koala is sighted, you must contact your supervisor and/or EMR Project Environmental Representative immediately. Works may need to cease if the animal is in danger or harmed until it has been relocated. | Site Manager |
| If non-mobile fauna or habitat features are identified (e.g. birds nest) before or during construction, a suitably licensed and experienced ecologist is to be contacted immediately and appropriate measures would be discussed and implemented prior to commencement/ recommencement of works. If an animal is injured during construction WIRES is to be contacted to arrange for capture/ removal of the animal from the works area. | Site Manager |

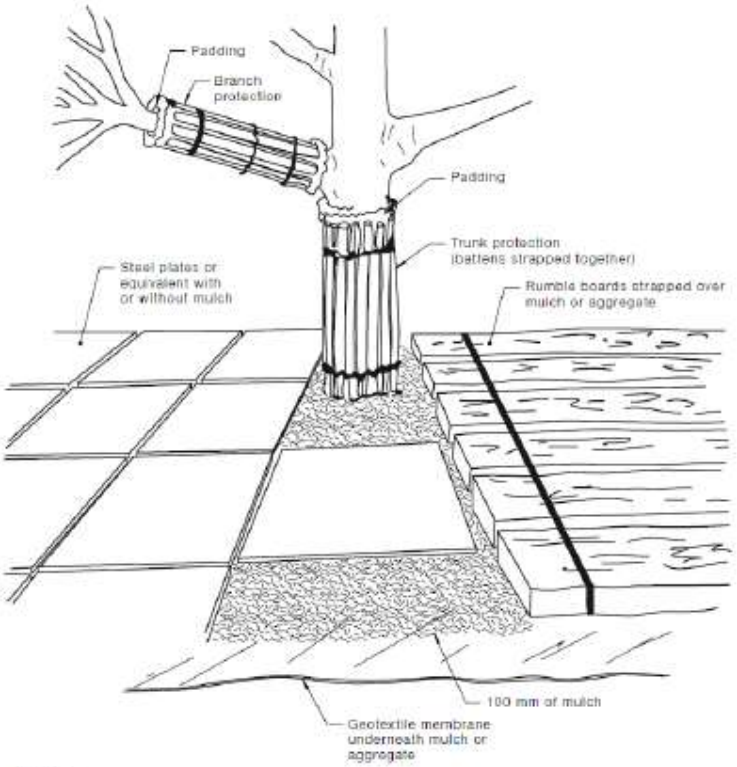
| Control | Accountability |
|---|---|
| Where possible revegetation activities will preferentially use only species that are indigenous to the area. | Site Manager |
| For the duration of the construction works:<br>• street trees must not be trimmed or removed unless it forms a part of this development consent or prior written approval from Council is obtained or is required in an emergency to avoid the loss of life or damage to property<br>• all street trees must be protected at all times during construction. Any tree on the footpath, which is damaged or removed during construction due to an emergency, must be replaced, to the satisfaction of Council<br>• all trees on the site that are not approved for removal must be suitably protected during construction as per recommendations of the Tree Assessment Report prepared for the EIS; and<br>• if access to the area within any protective barrier is required during the works, it must be carried out under the supervision of a qualified arborist. Alternative tree protection measures must be installed, as required. The removal of tree protection measures, following completion of the works, must be carried out under the supervision of a qualified arborist and must avoid both direct mechanical injury to the structure of the tree and soil compaction within the canopy or the limit of the former protective fencing, whichever is the greater. | Site Manager/ Project Environmental Manager |
| Training to be provided of responsibilities under National Parks and Wildlife Act 1975, Heritage Act 1977 and any other relevant legislation. | Project Environmental Manager |
| **Existing Tree Management**<br>• Tree Protection Zones (TPZ) to be established around retained trees:<br>  • **TPZ radius = (diameter at breast height) x 12**<br>• Any damage to existing trees must be reported to CPB Site Manager immediately.<br>• Roots discovered are to be treated with care and minor roots (<40mm dia.) pruned with sharp clean handsaw. All significant roots (>40mm dia.) to be recorded, photographed and reported to arborist.<br>• Trees within the construction area not proposed to be removed are to be protected. Protection measures may include protective fencing, trunk and ground protection, tree protection signage and involvement of the project arborist.<br>• Activities prohibited within the TPZ include:<br>  ○ Machine excavation<br>  ○ Storage<br>  ○ Preparation of chemicals, including cement products<br>  ○ Parking of vehicles<br>  ○ Refueling<br>  ○ Dumping of waste<br>  ○ Wash down and cleaning of equipment<br>  ○ Placement of fill<br>  ○ Lighting of fires<br>  ○ Soil level change<br>  ○ Temporary or permanent installation of utilities and signs<br>  ○ Physical damage to the tree<br>• Protective fencing to trees and their trunk to be installed using standard techniques (refer AS 4970-2009) and as depicted below: | Site Manager/ Project Environmental Manager |

| Control | Accountability |
|---|---|




Legend:

1. Chain wire mesh panels with shade cloth (if required) attached, held in place with concrete feet.
2. Alternative plywood or wooden paling fence panels. This fencing material also prevents building materials or soil entering the TPZ.
3. Mulch installation across surface of TPZ (at the discretion of the project arborist). No excavation, construction activity, grade changes, surface treatment or storage of materials of any kind is permitted within the TPZ.
4. Bracing is permissible within the TPZ. Installation of supports should avoid damaging roots.




Notes:

1. For trunk and branch protection use boards and padding that will prevent damage to bark. Boards are to be strapped to trees, not nailed or screwed.
2. Rumble boards should be of a suitable thickness to prevent soil compaction and root damage.

| Control | Accountability |
|---|---|
| | |
| **Category A Trees** (High Retention Value) - Tree No. 7 identified below.<br>Excavation around Tree 7 is to be carried out only under arborist supervision.<br>  <br>**Category B Trees** (Moderate Retention Value) – Tree Nos. 1,2,3,4,5,6,8,9,13,14,15,16 identified below:<br>  <br>**Category C Trees** (Low Retention Value) – Tree nos. 10, 11, 12 detailed below: | |

| Control | Accountability |
|---|---|
|  | |
| **Weed Management**<br>▪ Vehicle and machinery wash/brush downs will be conducted before vehicles leave the proposal site to minimise the risk of spreading weed and pathogen species during construction.<br>▪ Priority weeds will be managed according to the requirements of the Biosecurity Act 2015. Local indigenous plant species be utilised in the landscaping wherever possible<br>▪ Any herbicides used for weed control will be applied to the manufacturer's specifications and as outlined in the manufacturer's Safety Data Sheet.<br>▪ Spraying of herbicides will not be undertaken in windy weather or within such distance of a watercourse as will permit any of the herbicide to enter the water. | Site Manager |
| **Bush Fire Asset Protection Zone**<br>During construction the property around the buildings for a distance of 60m shall be managed as an asset protection zone – inner protection area (IPA) | Site Manager |

## 2.4 Monitoring

Protected street trees will be monitored daily during visual inspections by the site team. Weekly recorded environmental inspections will be performed by the Project Environmental Representative or Site Manager to identify potential non-compliances before they occur.

Where monitoring determines non-compliance to be a risk or to have occurred, an incident report and corrective actions are raised in Aconex.

It is the accountability of the Environmental Manager to ensure all monitoring is performed according to these requirements.

## 2.5 References

AS4970 - 2009: Protection of Trees on Construction Sites
Arboricultural Impact Assessment, ArborSafe 2 July 2018
Inner Protection Area (IPA) is detailed within section 4.1.3 and Appendix 5 of *Planning for Bush Fire Protection 2006* and the *NSW Rural Fire Service's Standards for Asset Protection Zones*.

# 3. Construction Noise and Vibration Sub Plan

## 3.1 Scope

This Plan addresses noise and vibration management on the project and the management of impacts to the environment and/or community. Acoustic Consultant Mathew McGrory (M.Sc Acoustics) JHA Consulting Engineers, has been consulted in the development of this Plan.

An Acoustic Assessment conducted for the EIS concluded that due to the distance between the site and the nearest residential properties, no vibration impacts are envisaged.

Activities conducted on the project that has the potential to create noise and vibration issues are provided below.

Table 3.1: Activities, Hazards and Risks

| Project Activity | Environmental Hazard | Environmental Risk |
|---|---|---|
| Demolition | Noise from plant movements (reversing alarms), operation of excavators | Noise limits exceeded causing complaints and discomfort to local residents and hospital users |
| Excavation | Vibration from excavation plant | Vibration limits exceeded causing complaints and discomfort to local residents and hospital users. |
| Piling works | Noise and vibration from piling operations | Noise and vibration limits exceeded causing complaints and discomfort to local residents and hospital users |
| Detailed excavation | Noise from plant movements (reversing alarms), operation of excavators | Noise limits exceeded causing complaints and discomfort to local residents and hospital users |
| Concrete works | Noise from vibrators, reversing concrete trucks | Noise limits exceeded causing complaints and discomfort to local residents and hospital users |
| General construction activities for building the structure | Use of hand tools (jack hammers, grinders)<br>Additional construction traffic generating additional traffic noise<br>Crane operations | Noise limits exceeded causing complaints and discomfort to local residents and hospital users |
| Out of hours works | Noise from plant movements (reversing alarms), air brakes, | Noise limits exceeded causing complaints and discomfort to local residents and hospital users |

## 3.2 Project Compliance Requirements

### 3.2.1 Contract Clauses

Specific contract clauses and references which set limits and/or govern noise on the project include:

Table 3.2: Contract Clauses

| Contract Document Reference | Contract Clause/Reference | Limit/Requirement |
|---|---|---|
| Contract Information Item 18 | Working Hours | 7am to 6pm Monday to Friday and 8am to 4pm Saturday inclusive |
| Special Condition 6 | Environmental Protection | EMP must address noise management to minimise impact to Hospital users, patients and adjoining neighbours |
| Preliminaries Clause 5.17 | Dust, Mud, Vibration & Noise Control | The Contractor must take all reasonable precautions to avoid noise.<br>The Contractor must utilise reasonable methods of noise suppression on all compressors, jack-hammers and other machinery of whatsoever description to |

| Contract Document Reference | Contract Clause/Reference | Limit/Requirement |
|---|---|---|
| | | ensure that the noise levels emanating from the Site during the Works are minimised. The Contractor shall erect screens or take other reasonably necessary preventative measures to prevent noise and damage to surrounding or adjoining properties (public and private) and shall arrange for the programming of the Works so as to avoid or minimise any such issues occurring.<br><br>If noise interfere with normal hospital or health facility operations, surrounding or adjoining areas to the Site or the use of roadways, the progress of the Works (or any part thereof) will be suspended until such time as the Contractor rectifies or implements a more appropriate work method to address these issues. |

### 3.2.2 Conditions of Project Environmental Approvals

Conditions of project environmental approvals that specifically address the management of noise include:

Table 3.3: Development Consent Conditions

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Compliance /Requirement |
|---|---|---|
| B4 | Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:<br>(a) detailed baseline data;<br>(b) details of:<br>(i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);<br>(ii) any relevant limits or performance measures and criteria; and<br>(iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;<br>(c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;<br>(d) a program to monitor and report on the:<br>(i) impacts and environmental performance of the development;<br>(ii) effectiveness of the management measures set out pursuant to paragraph (c) above;<br>(e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible; | CEMP developed by CPB |

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Compliance /Requirement |
|---|---|---|
| | (f) a program to investigate and implement ways to improve the environmental performance of the development over time;<br>(g) a protocol for managing and reporting any:<br>(i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);<br>(ii) complaint;<br>(iii) failure to comply with statutory requirements; and<br>(h) a protocol for periodic review of the plan.<br><br>Note: The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans. | |
| B5 | Prior to commencement of construction, the Applicant must prepare a Construction Environmental Management Plan (CEMP) and it must include, but not be limited to, the following:<br>c) Construction Noise and Vibration Management Sub-Plan | CEMP developed by CPB includes monitoring requirements for each impact. |
| B8 | The Construction Noise and Vibration Management Sub-Plan must address, but not be limited to, the following:<br>a) be prepared by a suitably qualified and experienced noise expert<br>b) describe procedures for achieving the noise management levels in EPA's Interim Construction Noise Guideline (DECC, 2009);<br>c) describe the measures to be implemented to manage high noise generating works such as piling, in close proximity to sensitive receivers<br>d) include strategies that have been developed with the community for managing high noise generating works<br>e) describe the community consultation undertaken to develop the strategies in condition B23(d); and<br>f) include a complaints management system that would be implemented for the duration of the construction. | Construction Noise and Vibration Management Sub Plan developed by CPB includes monitoring requirements for each impact. |
| C9 | Activities may be undertaken outside of the hours in condition C8. if Required:<br>(a) by the Police or a public authority for the delivery of vehicles, plant or materials; or<br>(b) in an emergency to avoid the loss of life, damage to property or to prevent environmental harm; or<br>(c) where the works are inaudible at the nearest sensitive receivers; or<br>(d) where a variation is approved in advance in writing by the Planning Secretary or her nominee if | Referenced in CEMP Construction Noise and Vibration Sub Plan |

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Compliance /Requirement |
|---|---|---|
| | appropriate justification is provided for the works.<br>Notification of such activities must be given to affected residents before undertaking the activities or as soon as is practical afterwards. | |
| C10 | Rock breaking, rock hammering, sheet piling, pile driving and similar activities may only be carried out between the following hours:<br>(a) 9 am to 12 pm, Monday to Friday;<br>(b) 2 pm to 5 pm Monday to Friday; and<br>(c) 9 am to 12 pm, Saturday. | Referenced in CEMP Construction Noise and Vibration Sub Plan |
| C11 | All plant and equipment used on site, or to monitor the performance of the development must be:<br>a) maintained in a proper and efficient condition; and<br>b) operated in a proper and efficient manner. | Mitigation measure detailed in CEMP Construction Noise and Vibration Sub Plan |
| C13 | All construction vehicles (excluding worker vehicles) are to be contained wholly within the site, except if located in an approved on-street work zone, and vehicles must enter the site before stopping. | Mitigation measure detailed in CEMP Construction Noise and Vibration Sub Plan |
| C15 | The development must be constructed to achieve the construction noise management levels detailed in the Interim Construction Noise Guideline (DECC, 2009). All feasible and reasonable noise mitigation measures must be implemented and any activities that could exceed the construction noise management levels must be identified and managed in accordance with the management and mitigation measures identified in the approved Construction Noise and Vibration Management Plan. | Noise monitoring to be conducted regularly or during works with expected higher levels of noise. |
| C16 | The Applicant must ensure construction vehicles (including concrete agitator trucks) do not arrive at the site or surrounding residential precincts outside of the construction hours of work outlined under condition C5. | Dedicated person to manage logistics and deliveries. |
| C17 | The Applicant must implement, where practicable and without compromising the safety of construction staff or members of the public, the use audible movement alarms of a type that would minimise noise impacts on surrounding noise sensitive receivers. | Plant management and monitoring in accordance with CPB Noise Management Plan. |
| C18 | Any noise generated during construction of the development must not be offensive noise within the meaning of the Protection of the Environment Operations Act 1997 or exceed approved noise limits for the site. | Construction noise management and monitoring in accordance with CPB Noise Management sub Plan. |
| C19 | Vibration caused by construction at any residence or structure outside the site must be limited to: | Conduct vibration monitoring at regular intervals or during excessive vibration works. |

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Compliance /Requirement |
|---|---|---|
| | (a) for structural damage, the latest version of DIN 4150-3 (1992-02) Structural vibration - Effects of<br>vibration on structures (German Institute for Standardisation, 1999); and<br>(b) for human exposure, the acceptable vibration values set out in the Environmental Noise<br>Management Assessing Vibration: a technical guideline (DEC 2006) (as may be updated or replaced<br>from time to time). | |
| C20 | Vibratory compactors must not be used closer than 30 metres from residential buildings unless vibration monitoring confirms compliance with the vibration criteria specified in condition C19. | Vibration management and monitoring in accordance with CPB Vibration Management Sub Plan. |
| C21 | The limits in conditions C19 and C20 apply unless otherwise outlined in a Construction Noise and Vibration Management Plan, approved as part of the CEMP required by condition B5 of this consent. | Note |

### 3.2.3 Sensitive receivers

Figure 3 below identifies potential sensitive receivers adjacent to the project:

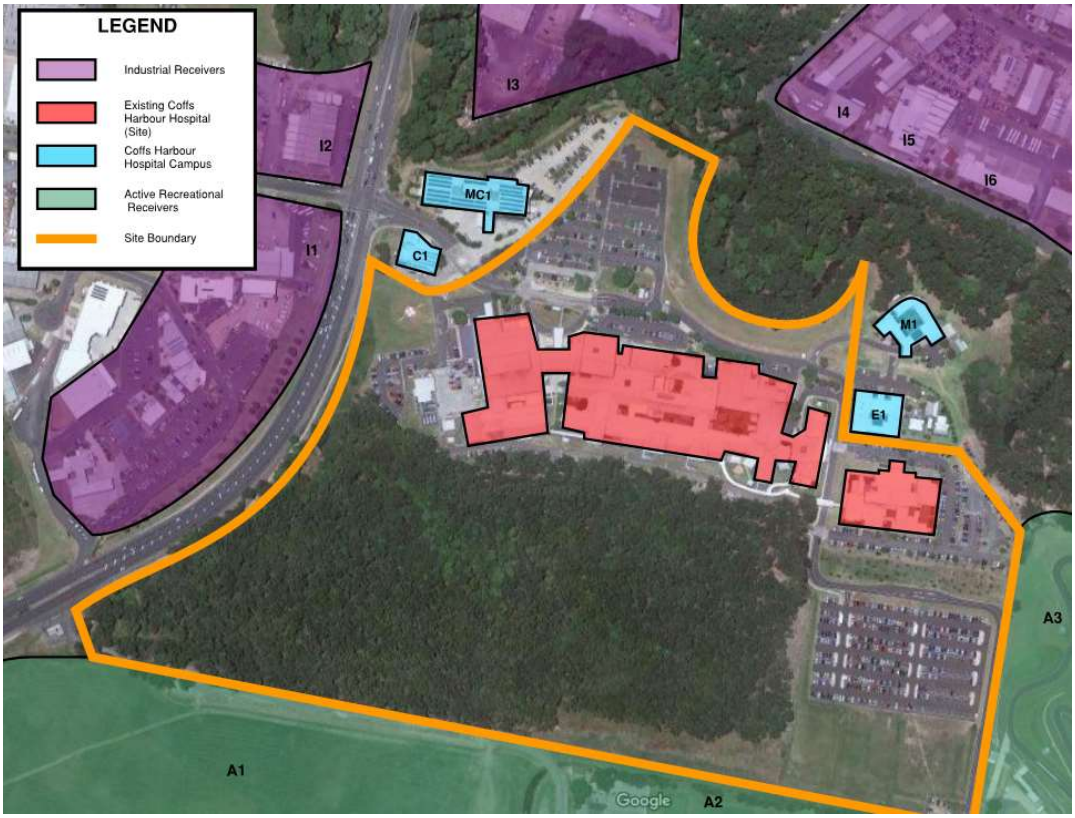



**Figure 3 – Sensitive receivers**

### 3.2.4 Working Hours

Construction, including the delivery of materials to and from the site, may only be carried out between the following hours:

a) 7am and 6pm, Mondays to Fridays inclusive; and

b) 8am and 4pm, Saturdays.

No work may be carried out on Sundays or public holidays.

Activities that may be undertaken outside of the hours above are limited to if required:

(a) by the Police or a public authority for the delivery of vehicles, plant or materials; or

(b) in an emergency to avoid the loss of life, damage to property or to prevent environmental harm; or

(c) where the works are inaudible at the nearest sensitive receivers; or

(d) where a variation is approved in advance in writing by the Planning Secretary or her nominee if appropriate justification is provided for the works.

Notification of such activities must be given to affected residents before undertaking the activities or as soon as is practical afterwards.

Rock breaking, rock hammering, sheet piling, pile driving and similar activities may only be carried out between the following hours:

(a) 9 am to 12 pm, Monday to Friday;

(b) 2 pm to 5 pm Monday to Friday; and

(c) 9 am to 12 pm, Saturday.

## 3.3 Noise Assessment

A revised noise assessment has been carried out based on the update. The predicted noise levels are generally consistent with those presented in the acoustic report prepared for SSDA.

Table 3.4: Noise Assessment

| Receiver ID | Predicted Noise Level $L_{Aeq,\ 15\ mins}$ dB(A) | | | Noise Management Level $L_{Aeq,\ 15\ mins}$ dB(A) | Compliance? |
|---|---|---|---|---|---|
| | Scenario 1 | Scenario 2 | Scenario 3 | | |
| M1 | 62 | 57 | 55 | 45 (internal) | No |
| E1 | 63 | 58 | 56 | 45 (internal) | No |
| MC1 | 64 | 60 | 61 | 45 (internal) | No |
| C1 | 72 | 71 | 69 | 70 | No |
| I1 | 72 | 69 | 67 | 75 | Yes |
| I2 | 73 | 69 | 67 | 75 | Yes |
| I3 | 73 | 69 | 68 | 75 | Yes |
| I4 | 71 | 67 | 65 | 75 | Yes |
| I5 | 71 | 66 | 64 | 75 | Yes |
| I6 | 69 | 65 | 63 | 75 | Yes |
| A1 | 63 | 59 | 57 | 65 | Yes |
| A2 | 59 | 55 | 53 | 65 | Yes |
| A3 | 64 | 62 | 58 | 65 | Yes |

For locations where the noise levels are predicted to exceed the Noise Management Level, the noise controls provided in the following sub-section are to be implemented where feasible.

## 3.4 Controls Used to Manage Noise and Vibration

Controls that are adequate to minimise noise and vibration and to reduce risk to the lowest acceptable rating achievable are implemented before any relevant works commence. Elimination of the hazard is

the first preference of control, followed by engineering, then administrative controls. Controls used on this project include:

Table 3.5: Noise and vibration controls

| Control | Accountability |
|---|---|
| Undertake construction activities within the nominated hours of work to comply with contractual and legal requirements. For work during these nominated hours, construction noise is to be limited to 10dB(A)$L_{eq(15min)}$ above ambient levels.<br>Any works that need to occur outside the nominated hours must be approved by the Project Manager in writing (Aconex). For works outside nominated hours the construction noise limits are 5dB(A)$L_{eq(15min)}$ above ambient levels.<br>Undertake high noise generating works in accordance with project obligations.<br>Where noise emissions are such that nearby properties are “highly noise effected”, noise controls such as respite periods should be considered. For residential properties, the “highly noise effected” level occurs when construction noise exceeds 75dB(A)Leq(15min) at nearby residences. | Site Manager |
| All equipment must be serviced and maintained according to manufacturer’s recommendations, or more frequently if required to minimise noise generated. Plant servicing records to be uploaded to Damstra. | Project Manager |
| Switch off any equipment not in use for extended periods e.g. heavy vehicles engines will be switched off whilst being unloaded. No idling of delivery trucks. | Supervisor |
| Where intermittent high frequency noise is a high risk, and pending safety requirements, the least noise-intrusive reversing alarms must be used. | Project Manager |
| In accordance with contractual requirements early consultation must be conducted with community stakeholders on the likely impacts of activities likely to cause disruption.<br>Carry out consultation with the community and surrounding building owners/ occupants during construction including, but not limited to notification of planned activities and expected disruption/ effects, construction noise complaints handling procedures. Of particular importance would be the Private Medical Centre, Ambulance Station, Shearwater Lodge and UNSW rural clinical school. | Project Manager |
| Noise attenuation of fixed and mobile plant as required in order to achieve compliance is installed. Site noisy static processes and equipment where they can be shielded. | Site Manager |
| Use of augured rather than driven or vibratory piling to be considered | Project Manager |
| Construct and maintain noise barriers to shield significant noise generating activities or plant as required in order to comply | Site Manager |
| Adjust the Project Traffic Management Plan/Plans to minimise noise impacts as required. | Project Engineer |
| Noise monitoring may be conducted at the discretion of the Project Manager where methods of work or sensitive receivers require monitoring or where a non-compliance occurs. All monitoring is to be in accordance with EPA’s Interim Construction Noise Guideline (DECC, 2009) and at a frequency and at locations to confirm compliance with the regulatory limits. | Project Manager |
| If notification is received by the Project Manager that noise interferes with normal hospital or health facility operations, surrounding or adjoining areas to the Site or the use of roadways, the noise emitting work will be suspended until such time as the issue is rectified or more appropriate work methods adopted to address the issue. | Project Manager |
| Perimeter of the building will be fully scaffolded with shade cloth to contain noise. | Project Engineer |
| Compliance with the Communications Strategy for notification to hospital users and residents for any activities with the potential to result in noise levels reaching the “Highly Noise Effected” noise level, and for management of noise complaints received. | All |
| Compliance with Disruptive Works Notice as agreed with HI for any notifications of noisy or vibration related disruptive works. | Project Engineer |

| Control | Accountability |
|---|---|
| Deliveries of heavy machinery may be required out of the proposed hours of operation to conform to the overriding requirements of Coffs Harbour City Council and the Roads & Maritime Services (RMS) such as tower crane and piling rig delivery. | Site Manager |
| Where applicable, activities that are found to exceed the 75dB (highly affected noise level) at receivers, will incite respite periods (such as three hours on and 1 hour off). | Site Manager |
| Work practices predicted to generate non-compliant vibration must be amended prior to commencing works to the extent required to comply with applicable limits. | Project Manager |
| Vibratory compactors must not be used closer than 30 metres from residential buildings unless vibration monitoring confirms compliance with the vibration criteria specified in condition C18. | Site Manager |
| Dilapidation surveys will be completed for properties located adjacent to construction activities | Project Engineer |
| If activities are predicted to result in vibration impacts vibration monitoring will be conducted at a frequency and at locations to confirm compliance with the following regulatory limits:<br>• Structural damage – 50mm/s Peak Particle Velocity for Frequencies >4Hz<br>• Human Comfort (impulsive Vibration) – Critical working areas e.g. operating theatres, precision laboratories etc. – Maximum 0.28mm/s Peak Velocity<br>Offices Maximum 36mm/s Peak Velocity | Project Manager |
| Piling will not be conducted within 15 meters of a pipeline without an assessment of the vibration levels | Site Manager |
| Sealing of openings in the building (temporary or permanent) prior to commencement of internal works to limit noise emission. | Site Manager |
| Review of controls within AS2436-1981: Guide to Noise Control on Construction, Maintenance and Demolition Sites to be considered for management of particular plant and equipment. | Project Engineer |

## 3.5 Monitoring

If required, noise monitoring is to be performed in accordance with EPA's Interim Construction Noise Guideline (DECC, 2009).

Vibration monitoring if performed will comply with legal and contract requirements and which is sufficient to identify potential non-compliances before they occur.

Where monitoring determines non-compliance to be a risk or to have occurred, an incident report and corrective actions are raised in Synergy.

Monitoring and analysis of data will be carried out by a competent person. Evidence of competence must be retained.

It is the accountability of the Environmental Manager to ensure all monitoring is performed according to these requirements.

An indicative map showing noise monitoring locations is shown below in Figure 4

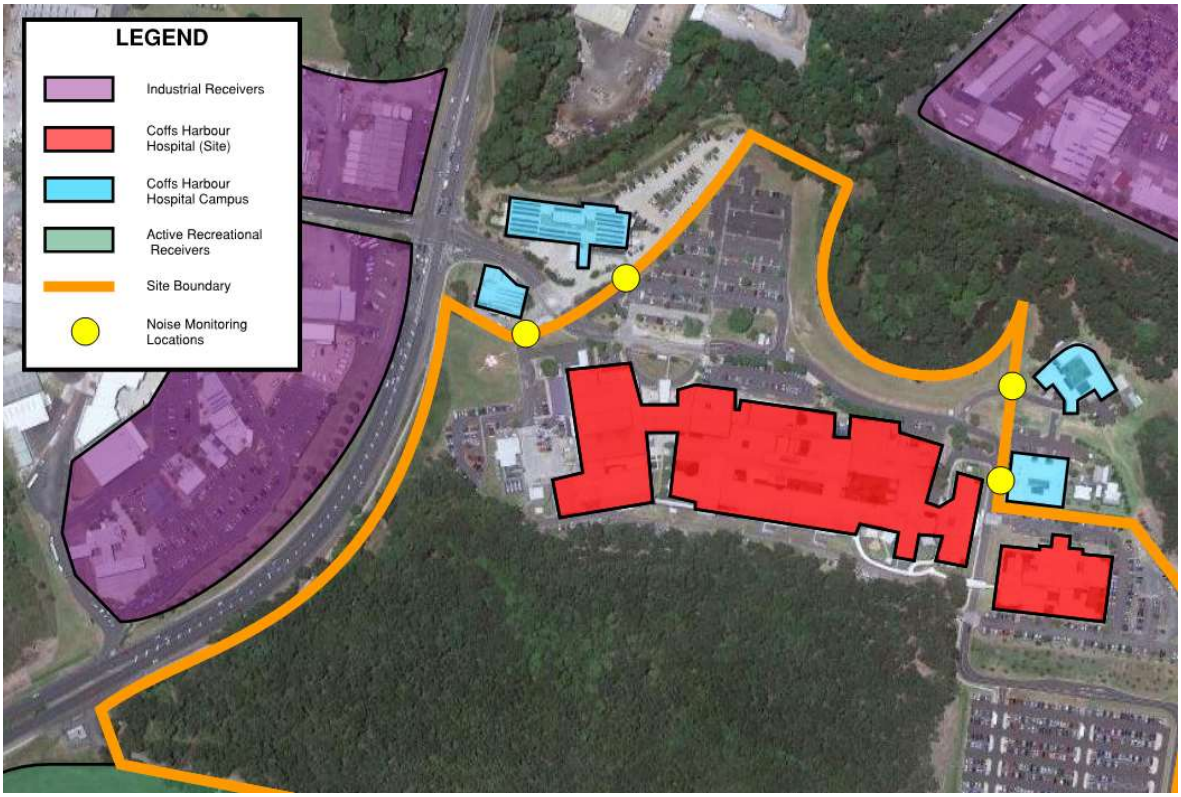



**Figure 4 – Noise Monitoring Locations**

## 3.6 References

EPA's Interim Construction Noise Guideline (DECC, 2009).

DIN 4150-3 (1992-02) Structural vibration - Effects of vibration on structures (German Institute for Standardisation, 1999);

Environmental Noise Management Assessing Vibration: a technical guideline (DEC, 2006).

SSD8981 - Construction and Operational Noise and Vibration Assessment prepared by Arup dated 4 June 2018.

AS2436-1981: Guide to Noise Control on Construction, Maintenance and Demolition Sites.

# 4. Construction Acid Sulphate Soils Sub Plan

## 4.1 Scope

This Plan addresses Acid Sulphate Soil (ASS) or Potential Acid Sulphate Soil (PASS) management on the project and the management of impacts to the environment and/or community.

Site assessment conducted by Coffey Geotechnics Australia for the EIS considered the potential for ASS as low. Acid Sulfate Soils or Potential Acid Sulfate Soils will be managed in accordance with the Acid Sulfate Soil Management Plan prepared by Coffey Geotechnics.

The preliminary visual checking of the soils will be based on material type, colour, odour and consistency. ASS material is generally characterised by grey, dark grey, and black clayey sands and sandy clays which can be accompanied by a sulfuric odour. Marine sediments when encountered will often contain seashells. It is important that when any of these characteristics are encountered that a field scientist is contacted.

Activities conducted on the project that has the potential to create acid sulphate soil issues are provided below.

Table 1.1: Activities, Hazards and Risks

| Project Activity | Environmental Hazard | Environmental Risk |
|---|---|---|
| Excavation | Excavation unearths acid sulphate soil | Leachate from the acid sulphate soil enters land or waterways affecting aquatic life |

## 4.2 Project Compliance Requirements

### 4.2.1 Contract Clauses

Specific contract clauses and references which set limits and/or govern impacts to ASS on the project include:

Table 2.2: Contract Clauses

| Contract Document Reference | Contract Clause/Reference | Limit/Requirement |
|---|---|---|
| *nil* | | |

### 4.2.2 Conditions of Project Environmental Approvals

Conditions of project environmental approvals that specifically address the management of ASS include:

Table 3.3: Development Consent Conditions

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Compliance /Requirement |
|---|---|---|
| *nil* | | |

## 4.3 Controls Used to Manage Acid Sulphate Soils

Controls that are adequate to manage Acid Sulphate Soil and to reduce risk to the lowest acceptable rating achievable are implemented before any relevant works commence. Elimination of the hazard is the first preference of control, followed by engineering, then administrative controls. Controls used on this project include:

Table 4.4: Controls used to Manage Acid Sulphate Soils

| Control | Accountability |
|---|---|
| Whenever ASS/PASS material is discovered or suspected, works must cease and the site supervisor and project environmental representative notified immediately. | Site Manager |
| Avoid land where ASS occurs and avoid disturbing ASS soils if present; | |

| Control | Accountability |
|---|---|
| Prevent the oxidation of sulfides and neutralise acid as it is produced;<br>Separate out and treat the sulfidic component (i.e. pyrite) by sluicing if this material is very sandy;<br>Immediate burial of excavated ASS below the permanent water table. | |
| Avoid lowering the water table. | |
| Testing by a trained and competent person must be conducted and an ASS/PASS management strategy developed. | Project Engineer |
| All known or discovered areas of ASS/PASS will be communicated to those involved via the induction, toolbox talks, pre starts and Site Environmental Plans. | Project Environmental Manager |
| Disturbance of surface and subsurface soils in potential ASS/PASS must be minimised. | Site Manager |
| All persons likely to be involved with the management of ASS/PASS will be trained in their identification and management. | Project Environmental Manager |
| ASS/PASS will need to be handled, stockpiled, tracked, treated and reused and/or disposed of as per the Projects ASS/PASS management strategy. | Project Engineer |
| The movement of ASS/PASS materials must be tracked via the Materials Tracking Form | Project Engineer |
| Water runoff from ASS/PASS stockpiles must be contained, treated or disposed to ensure there is no pollution of land or waterways. | Site Manager |
| All vehicles, plant and other machinery operating in contact with ASS/PASS must be decontaminated prior to leaving site. | Site Manager |
| A spill of ASS/PASS material outside the ASS/PASS storage and/or treatment areas or evidence of impacts on waterways must be reported to the supervisor and Environmental Representative immediately. | Site Manager |
| | |

## 4.4 Monitoring

Acid Sulfate Soil monitoring is performed that complies with legal and contract requirements and which is sufficient to identify potential non-compliances before they occur.

Where monitoring determines non-compliance to be a risk or to have occurred, an incident report and corrective actions are raised in Synergy.

Monitoring and analysis of data will be carried out by a competent person. Evidence of competence must be retained.

It is the accountability of the Environmental Manager to ensure all monitoring is performed according to these requirements.

## 4.5 References

DEC (2009) Draft Treatment and Management of Soils and Water In Acid Sulfate Soil Landscapes

Acid Sulfate Soil Management Plan prepared by Coffey Geotechnics.

# 5. Construction Heritage Sub Plan

## 5.1 Scope

This Plan addresses Heritage management on the project and the management of impacts to the environment and/or community. An Aboriginal heritage (due diligence) assessment developed by Everick Heritage Consultants for the EIS determined that there is generally a low potential for Aboriginal objects due to the long history of disturbance from previous and existing land uses.

Similarly the risk to non-Aboriginal heritage is also low due to the highly disturbed and developed nature of the site.

Activities conducted on the project that has the potential to impact heritage values are listed below.

Table 5.1: Activities, Hazards and Risks

| Project Activity | Environmental Hazard | Environmental Risk |
|---|---|---|
| Excavation | Heritage artifacts identified | Incidents of damage to heritage items, places or values<br>Complaints from the Regulators or traditional owners as a result of the works undertaken |

## 5.2 Project Compliance Requirements

### 5.2.1 Contract Clauses

Specific contract clauses and references which set limits and/or govern impacts to heritage on the project include:

Table 5.2: Contract clauses

| Contract Document Reference | Contract Clause/Reference | Limit/Requirement |
|---|---|---|
| *nil* | | |

### 5.2.2 Conditions of Project Environmental Approvals

Conditions of project environmental approvals that specifically address the management of heritage include:

Table 5.3: Development Consent Conditions

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Limit/Requirement |
|---|---|---|
| B5 | Prior to commencement of construction, the Applicant must prepare a Construction Environmental Management Plan (CEMP) and it must include, but not be limited to, the following:<br>i) an unexpected finds protocol for Aboriginal and non-Aboriginal heritage and associated communications procedure | CEMP developed by CPB includes monitoring requirements for each impact. |
| C35 | In the event that surface disturbance identifies a new Aboriginal object, all works must halt in the immediate area to prevent any further impacts to the object(s). A suitably qualified archaeologist and the registered Aboriginal representatives must be contacted to determine the significance of the objects. The site is to be registered in the Aboriginal Heritage Information Management System (AHIMS) which is managed by OEH and the management outcome for the site included in the information provided to AHIMS. The Applicant must consult with the Aboriginal community representatives, the archaeologists and OEH to develop and implement management strategies for all objects/sites. Works | Unexpected finds procedure to be followed. |

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Limit/Requirement |
|---|---|---|
| | shall only recommence with the written approval of OEH. | |
| C36 | If any unexpected archaeological relics are uncovered during the work, then all works must cease immediately in that area and the OEH Heritage Division contacted. Depending on the possible significance of the relics, an archaeological assessment and management strategy may be required before further works can continue in that area. Works may only recommence with the written approval of Heritage Division of the OEH. | Unexpected finds procedure to be followed. |

## 5.3 Controls Used to Manage Heritage

Controls that are adequate to manage Heritage and to reduce risk to the lowest acceptable rating achievable are implemented before any relevant works commence. Elimination of the hazard is the first preference of control, followed by engineering, then administrative controls. Controls used on this project include:

Table 5.4: Heritage controls

| Control | Accountability |
|---|---|
| If an object is discovered that may be a suspected Aboriginal/ heritage item, work must cease immediately in accordance with the **Unexpected Finds Procedure** (refer Appendix J) and the supervisor and Project Manager notified.<br>A temporary fence is to be erected around the site, with a buffer zone of at least 10 m around the known edge of the site.<br>Notify the OEH as soon as practical, providing any details of the heritage object and it's location. No works at the particular location will be allowed to continue until authorized in writing by OEH.<br>For Aboriginal artefacts discovered, local Aboriginal communities will be consulted on the retrieval and recording of the artefact. | Project Manager |
| If identified, all cultural heritage items and places to be preserved will be fenced/flagged and sign posted as No-go zones and shown on relevant site plans and communicate to relevant workforce. These No-go zones must be observed at all times until a Permit to Enter No-go Zone has been authorised. | Site Manager |
| Ground disturbance must not take place until a Land Disturbance Permit has been authorised. | Site Manager |
| All Personnel will undertake a Site Induction which includes Aboriginal and non-Aboriginal Heritage risks, and training in their responsibilities under the *Heritage Act 1977.* | Project Environmental Manager |
| Work will cease upon the discovery of any object which may be a heritage item within the meaning of the relevant legislation, including likely human remains. No works will be allowed to continue until a permit or clearance has been received from the relevant authority. If skeletal remain are found the NSW Police and OEH must be contacted. | Project Manager |

## 5.4 Monitoring

Any no-go zones that have been installed to protect heritage items are to be monitored weekly.

# 6. Construction Contamination Sub Plan

## 6.1 Scope

This Plan addresses Contaminated Land management on the project and the management of impacts to the environment and/or community.

Excavated soils will need to be tested on site to check for contamination. The site has been operating as a hospital for many years and the possibility of contamination is high even though they weren't picked up in the original Preliminary Contamination Assessment conducted by Coffey Geotechnics Australia. The Assessment does shows that the site has been previously disturbed for the first 400-700mm.

Activities conducted on the project that has the potential to create soil contamination are listed below.

Table 6.1: Activities, Hazards and Risks

| Project Activity | Environmental Hazard | Environmental Risk |
|---|---|---|
| Excavation | Exposing contaminated material<br><u>Western car park excavation:</u><br>There is an existing helipad in this area. It is possible this use has contaminated the surrounding soils.<br>The Geotech report shows borehole 2 and 3 to have approximately 400mm of topsoil/fill.<br><u>CSB/piling platform excavation:</u><br>It is partly under an existing road. It is likely that the first half meter of excavation will be made up of asphalt (approx. 50mm), road base and fill (approx. 350mm). Further it is possible that fuel/oil spills have occurred.<br>The Geotech report shows borehole 5 to have approximately 700mm of topsoil/fill.<br>Underlying soil material, holding tank and hardstand surfaces within vicinity of the emergency shower located at the entrance to the Emergency Department shall be inspected for contamination during any disturbance. | Persons exposed to contaminated material |
| Importing material | Importing contaminated material | Persons exposed to contaminated material |
| Plant operations | Accidental release of contaminants to storm water | Loss of water species |

## 6.2 Project Compliance Requirements

### 6.2.1 Contract Clauses

Specific contract clauses and references which set limits and/or govern contamination on the project include:

Table 6.2: Contract clauses

| Contract Document Reference | Contract Clause/Reference | Limit/Requirement |
|---|---|---|
| Preliminaries Clause 5.6 | Hazardous substances | **Importing material onto the Site**<br>The Contractor must ensure that Material to be imported onto the Site, including fill material, is accompanied by a clearance certificate provided by the supplier. The Contractor shall undertake and provide |

| Contract Document Reference | Contract Clause/Reference | Limit/Requirement |
|---|---|---|
| | | the Principal with further testing (conducted by an independent person) when the Material arrives on Site (and before using or incorporation into the Works) to verify that it is free of contaminants. |

### 6.2.2 Conditions of Project Environmental Approvals

Conditions of local, State and Commonwealth legislation that apply specific criteria to the management of contamination on the project include:

Table 6.3: Development Consent Conditions

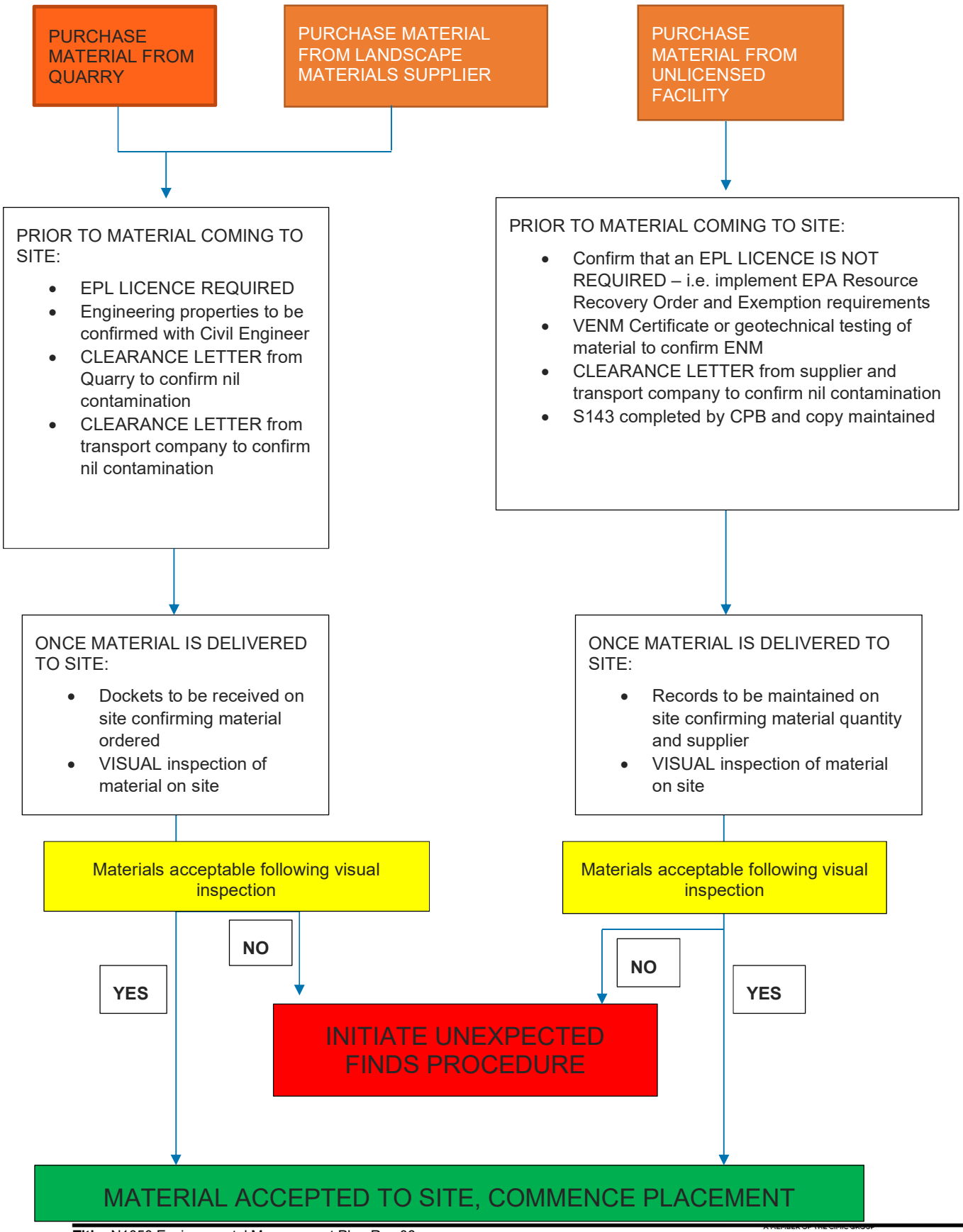
| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Limit/Requirement |
|---|---|---|
| B17 | Prior to the commencement of earthworks, the Applicant must prepare an unexpected contamination procedure to ensure that potentially contaminated material is appropriately managed. The procedure must form part of the of the CEMP in accordance with condition B5 and must ensure any material identified as contaminated must be disposed off-site, with the disposal location and results of testing submitted to the Planning Secretary, prior to its removal from the site. | Stop work and isolate the areas in accordance with unexpected finds procedure. |
| B10 | The Construction Waste Management (CWMP) must address, but not be limited to, the following:<br>(c) an Unexpected Contamination Protocol for construction and demolition waste. | CEMP developed by CPB includes Unexpected Contamination Finds Procedure |
| C31 | Waste must be secured and maintained within designated waste storage areas at all times and must not leave the site onto neighbouring public or private properties. | Construction Waste Management Sub Plan |
| C32 | All waste generated during construction must be assessed, classified and managed in accordance with the Waste Classification Guidelines Part 1: Classifying Waste (EPA, 2014 ). | |
| C37 | The Applicant must carry out works involving asbestos material in accordance with Work Health and Safety Act 2011, Work Health and Safety Regulation 2017 and Safe Work Australia Code of Practice How to Manage and Control Asbestos in the Workplace (February 2016), including contactors who hold a current Safe Work Asbestos or Demolition Licence and any other current Safe Work Licence required.<br><br>The Applicant must notify SafeWork NSW in accordance with the relevant policy prior to the commencement of works involving asbestos material. Waste must be transported by an appropriately licensed transporter and disposed to a facility that is licensed to receive that class of waste. | CPB Hazardous Substance Management Sub Plan developed by CPB includes this requirement. |

## 6.3 Materials Import Due Diligence Process

To ensure materials brought on to the project are free of contamination the following flowchart is to be followed for all materials, including purchased and materials obtained from other sources including (Virgin) Excavated Natural Material.

## DUE DILIGENCE PROCESS

The following flow chart is to be followed for all materials being brought on to the project:



## 6.4 Controls Used to Manage Contamination

Controls that are adequate to manage Contamination and to reduce risk to the lowest acceptable rating achievable are implemented before any relevant works commence. Elimination of the hazard is the first preference of control, followed by engineering, then administrative controls. Controls used on this project include:

Table 6.4: Contamination controls

| Control | Accountability |
|---|---|
| Contamination Consultant and Occupational Hygienist to be engaged to assess any known or potential contamination risk and to oversee the management of the disposal. | Project Manager |
| A register is to be developed to record and track the management of all contaminated material. The register will identify:<br>• The nature of the material<br>• The precise location of the material within the collection point<br>• All information, data and records relating to the disposal offsite of the contaminated material the subject of a Contaminated Material Notice (including testing and transport costs)<br>• Cost, data and details of aggregated disposal costs of any Contaminated Material (including testing and transport costs). | Environmental Manager |
| Whenever contaminated materials are discovered or suspected, works must cease and the supervisor and Project Manager notified immediately, in accordance with the **Unexpected Finds Procedure**. Testing by a trained and competent person must be conducted and a management strategy developed.<br>A Remedial Action Plan is to be prepared for any remediation works to be carried out in accordance with State Environmental Planning Policy No. 55 – Remediation of Land. | Project Manager<br>Geotechnical Engineer |
| **In the case of any material being identified as contaminated, they are to be disposed of offsite, with the disposal location and results of testing submitted to the Planning Secretary prior its removal from the site.** | Environmental Manager |
| **Asbestos Management**<br>Asbestos removal and management in NSW is regulated under the Occupational Health and Safety Act 2000 and Occupational Health and Safety Regulation 2001. The handling of asbestos and asbestos work must be carried out in accordance with the following documents published by the NOHS Commission in August 1988, as in force from time to time (clause 259):<br>• "Guide to the Control of Asbestos Hazards in Buildings and Structures [NOHSC: 3002 (1988)]", and,<br>• "Code of Practice for the Safe Removal of Asbestos [NOHSC: 2002 (1988)]".<br>Prior to the commencement of asbestos removal work at the site, the contractor is to prepare a building specific Asbestos Management Plan for the removal of the asbestos containing materials from the building in accordance with the requirements of section 3.4 of the How to Safely Remove Asbestos Code of Practice issued by Safe Work Australia. This asbestos removal control plan is to be kept on site for the duration of the asbestos removal work. The Regulation requires licensed contractors to contact SafeWork NSW of each bonded asbestos removal project of 10m2 or more. The removal of the asbestos containing construction materials from the buildings must only be carried out by contractor holding a Class A license for friable asbestos removal work or a Class B license for non-friable asbestos removal work. Airborne asbestos fibre monitoring is to be undertaken adjacent to each of the asbestos removal work areas for the duration of the asbestos removal and decontamination work. All asbestos contaminated waste from the work is to be double bagged in 0.2 mm asbestos waste bags for disposal at a landfill facility licensed by the NSW Office of Environment and Heritage (NSW OEH). | Environmental Manager |
| The movement of contaminated materials must be tracked via Synergy | Environmental Manager |
| Any existing stockpile material is to be classified in accordance with the NEPM Guidelines and any additional controls identified. | Project Engineer |

| Control | Accountability |
|---|---|
| Water runoff from contaminated land and stockpiles must be contained, treated or disposed to ensure there is no pollution of land or waterways. | Site Manager |
| All vehicles, plant and other machinery operating in contact with contaminated soil must be decontaminated prior to leaving site. | Site Manager |
| Soil, and soil leachate, containing contaminant concentrations below the relevant environmental investigation level will be assessed for unrestricted reuse, subject to other site restrictions and excluding any geotechnical requirements. This assessment must be undertaken by a competent person. | Geotechnical Engineer |
| Soil, and soil leachate, containing contaminant concentrations above the relevant environmental investigation level will be assessed for controlled reuse in non-environmental sensitive areas of the site | Project Engineer |
| All contaminated soils with contamination levels in excess of health investigation levels for Commercial/ Industrial Land Use criteria to be treated | Project Engineer |
| Where the above outcomes are not acceptable, other options such as (re)treatment, off-site disposal or a site-specific risk assessment be considered, as determined by Regulators and Competent Assessors. | Project Engineer |
| **Importing material onto the Site**<br>The Contractor must ensure that *Material* to be imported onto the Site, including fill material, is accompanied by a clearance certificate provided by the supplier. The Contractor shall undertake and provide the Principal with further testing (conducted by an independent person) when the *Material* arrives on Site (and before using or incorporation into the Works) to verify that it is free of contaminants.<br>Only Virgin Excavated Natural Material (VENM), Excavated Natural Material (ENM), or other material approved in writing by EPA to brought onto the site.<br>Provide copies the accurate records of the volume and type of fill to be used.<br>Refer to Due Diligence Process Section 6.3. | Project Engineer |
| All soil types to be separately stockpiled for inspection and verification of contamination | Site Manager |
| Ensure all spills are reported and cleaned up immediately | Site Manager |
| Observation of the underlying soil material and holding tank shall be carried out by a suitably qualified land contamination consultant during any disturbance of hardstand surfaces within vicinity of the emergency shower located at the entrance to the Emergency Department. | Project Engineer |

## 6.5 Monitoring

Contaminated Land monitoring is performed that complies with legal and contract requirements and which is sufficient to identify potential non-compliances before they occur.

Where monitoring determines non-compliance to be a risk or to have occurred, an incident report and corrective actions are raised in Synergy.

Monitoring and analysis of data will be carried out by a competent person. Evidence of competence must be retained.

It is the accountability of the Environmental Manager to ensure all monitoring is performed according to these requirements.

## 6.6 References

Guide to the Control of Asbestos Hazards in Buildings and Structures [NOHSC: 3002 (1988)]

Code of Practice for the Safe Removal of Asbestos [NOHSC: 2002 (1988)]

# 7. Construction Energy Sub Plan

## 7.1 Scope

This Plan addresses the potential and actual use of energy sources and the emission of greenhouse gases (GHG) by Project activities. In particular, it requires:

- The identification of sources
- Measurement and reporting of use and emissions
- Identification, assessment and implementation of opportunities to improve energy efficiency and reduce GHG emissions

Activities conducted on the project that have the potential to use significant amounts of energy or emit significant quantities of GHG are:

Table 7.1: Activities, Hazards and Risks

| Project Activity | Type of Fuel/Emission |
|---|---|
| Plant & equipment operations | Diesel and petrol |
| Construction Operations | Electricity, water |
| Light vehicles | Diesel and petrol |

## 7.2 Energy Reporting

CPB Contractors requires all projects to report on energy consumption monthly, regardless of which company has operational control.

All energy (fuels, oils, greases, gases, electricity, solvents) purchased by CPB Contractors and processed through JDE are captured centrally at the Group level.

Where subcontractors provide their own fuel for use on a project, they must provide a monthly fuel consumption report to the project commercial team along with their claim. This data is then entered into the JDE NGER Module. Subcontractor reporting must be tracked by the Commercial Team, with the Environment Manager to include the % reporting compliance in the monthly environment report via Synergy.

Operational control, which determines which company will be required to report a project under the *National Greenhouse and Energy Reporting Act 2007,* is determined as part of the project start-up process. A copy of the operational control determination can be obtained by contacting the Group Environment Team.

## 7.3 Processes / Controls Used to Manage Energy

Processes adequate to ensure compliance with all requirements and to ensure energy is used efficiently and GHG emissions are minimised are implemented. Processes / Controls used on this project include:

Table 7.2: Energy controls

| Control | Accountability |
|---|---|
| Energy savings initiatives and outcomes must be reported to the BU Environmental Representative at least annually using the Tool 'Energy Case Study'. | Environmental Manager |
| Power and Subcontractor fuel reporting will be tracked by the Project commercial team in JDE. Reporting percentages of subcontractors fuel will be included in the Project Monthly Environment Report in Synergy. | Environmental Manager |
| Energy efficiency principles will be communicated through tool box talks and other site communication forums and tools. The workforce, including subcontractors, will be trained to minimise energy use, including switching off machines and equipment when not in use and purchasing energy efficient plant and equipment. | Site Manager |
| Where relevant, procurement decisions will include energy efficiency and greenhouse gas considerations of the product or service. | Project Manager / Commercial Manager |

## 7.4 Monitoring

Monitoring of energy use complies with legal and contractual requirements and which is sufficient to identify sources of use and emissions, and opportunities for improved energy efficiency.

Energy and GHG monitoring is conducted in line with the CPB Contractors reporting approach outlined above. It is the accountability of the Project Manager to ensure all data is captured and reported according to these requirements.

Monitoring and analysis of data will be carried out by a competent person.

# 8. Construction Hazardous Substances Sub Plan

## 8.1 Scope

This Plan addresses Hazardous substances management on the project and the management of impacts to the environment and/or community. Hazardous substances include those substances used on the project for the purpose of construction of the new works and as defined by the Global Harmonized System of classification and labelling of chemicals (GHS). Hazardous substances found during demolition works or earthworks will be managed in accordance with the Contamination Sub Plan.

Activities conducted on the project that has the potential to create risks associated with hazardous substances are provided below.

Table 8.1: Activities, Hazards and Risks

| Project Activity | Environmental Hazard | Environmental Risk |
|---|---|---|
| Refuelling of plant | Handling of diesel and petrol | Skin/ eye irritation |
| General construction works | Use of hazardous substances such as paints, glues, solvents, cleaning agents, water treatment chemicals, materials containing silica from work involving stone, rock, concrete, masonry | Organ toxicity, carcinogenic |

## 8.2 Project Compliance Requirements

### 8.2.1 Contract Clauses

Specific contract clauses and references which set limits and/or govern hazardous substances on the project include:

Table 8.2: Contract clauses

| Contract Document Reference | Contract Clause/Reference | Limit/Requirement |
|---|---|---|
| Preliminaries | Clause 5.6 Hazardous Substances | 'Hazardous Substance' means a substance that is listed in the document entitled List of Designated Hazardous Substances published by Safe Work Australia;<br><br>All hazardous substances require controlled handling including asbestos, material containing asbestos, polychlorinated biphenyl (PCB) and lead based paints, glues, solvents, cleaning agents, paints, and water treatment chemicals, materials containing silica from work involving stone, rock, concrete, masonry.<br><br>**Response to Unexpected Discovery**<br><br>If any hazardous substance not specified in work under the Contract is discovered on the Site the Contractor must suspend all work which may result in exposure to such hazardous substance and notify the Principal immediately of the type of substance and its location. |

### 8.2.2 Conditions of Project Environmental Approvals

Conditions of local, State and Commonwealth legislation that apply specific criteria to the management hazardous substances on the project include:

Table 8.3: Development Consent Conditions

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Limit/Requirement |
|---|---|---|
| *nil* | | |

## 8.3 Controls Used to Manage Hazardous Substances

Controls that are adequate to manage Hazardous substances and to reduce risk to the lowest acceptable rating achievable are implemented before any relevant works commence. Elimination of the hazard is the first preference of control, followed by engineering, then administrative controls. Controls used on this project include:

Table 8.4: Hazardous substances controls

| Control | Accountability |
|---|---|
| Prior to bringing new chemicals to Site, the Project must be provided with the current (Safety Data Sheet) (SDS). | Project Engineer |
| Storage, handling and labelling of hazardous substances must be in strict accordance with the applicable Standards and SDS. | Site Manager |
| Hazardous substances must be stored in a bunded area with a minimum holding capacity of 110% of the largest container within the bund or 25% of the total capacity of all containers within it, whichever is the greatest. | Site Manager |
| Spill kits must be located adjacent to all hazardous substance storage units, in refuelling and maintenance areas and at designated locations as per the Site Environment Plan (SEP). | Site Manager |
| Type and size of spill kits must be selected based on the type and volume of materials stored. Aquatic spill kits shall be available at worksites in close proximity to waterways. | Site Manager |
| Training in the use of spill kits must be provided. | Environmental Manager |
| Refuelling must not occur within 30m of a waterway (without appropriate controls in place). | Site Manager |
| Management of hazardous materials will be covered in the site induction. Relevant workers will undergo spill response training, as well as safe handling and storage training | Environmental Manager |
| Containment devices, including bunds, separators and catch trays, will be used where ever there is a risk of spillage. | Site Manager |
| Inspections will be carried out [weekly] to assess the storage and handling of hazardous materials as a part of the HSE inspection program. | Site Manager |
| An Emergency Response Plan which incorporates a spill response procedure shall be maintained for the project. | Environmental Manager |

## 8.4 Monitoring

Hazardous substances monitoring is performed that complies with legal and contract requirements and which is sufficient to identify potential non-compliances before they occur.

There are nine hazard pictograms in the GHS that represent the physical, health and environmental hazards of chemicals that should be observed when conduction monitoring for hazardous chemicals on site:

**GHS01—Exploding bomb**
Explosion, blast or projection hazard.

**GHS02 – Flame**
Flammable liquids, solids and gases; including self-heating and self-igniting substances.

**GHS03—Flame over circle**
Oxidising liquids, solids and gases, may cause or intensify fire.

**GHS04—Gas cylinder**
Gases under pressure.

**GHS05—Skull and crossbones**
Fatal or toxic if swallowed, inhaled or in contact with skin.

**GHS06—Exclamation mark**
Low level toxicity. This includes respiratory, skin, and eye irritation, skin sensitisers and chemicals harmful if swallowed, inhaled or in contact with skin.

**GHS07—Corrosion**
Corrosive chemicals, may cause severe skin and eye damage and may be corrosive to metals.

**GHS08—Health Hazard**
Chronic health hazards; this includes aspiratory and respiratory hazards, carcinogenicity, mutagenicity and reproductive toxicity.

**GHS09—Environment**
Hazardous to aquatic life and the environment.

Where monitoring determines non-compliance to be a risk or to have occurred, an incident report and corrective actions are raised in the Synergy.

Monitoring and analysis of data will be carried out by a competent person. Evidence of competence must be retained.

It is the accountability of the Environmental Manager to ensure all monitoring is performed according to these requirements.

## 8.5 References

Hazardous Chemical Information System (HCIS) published by Safe Work Australia

# 9. Construction Waste Management Sub Plan

## 9.1 Scope

The NSW Government's Waste Reduction and Purchasing Policy aims to minimise waste. This Plan addresses the management and reporting of waste streams generated on the project in accordance with the NSW Protection of the Environment Operations Act, 1997 (POEO Act) and DECCW's "Waste Classification Guidelines (2008)".

Under the POEO Act, waste is defined as:

- any substance (whether solid, liquid or gaseous) that is discharged, emitted or deposited in the environment in such volume, constituency or manner as to cause an alteration in the environment;
- any discarded, rejected, unwanted, surplus or abandoned substance;
- any otherwise discarded, rejected, unwanted, surplus or abandoned substance intended for sale or for recycling, processing, recovery or purification by a separate operation from that which produced the substance;
- any processed, recycled, re-used or recovered substance produced wholly or partly from waste that is applied to land, or used as fuel, but only in the circumstances prescribed by the regulations;
- any substance prescribed by the regulations to be waste;
- a substance is not precluded from being waste merely because it is or may be processed, recycled, re-used or recovered.

Activities conducted on the project that have the potential to generate waste are provided below:

Table 9.1: Activities, Hazards and Risks

| Project Activity | Environmental Hazard | Environmental Risk |
|---|---|---|
| Construction and operational processes | Generation of waste product<br>On-site storage of waste | Soil and water contamination<br>Visual impact, littering<br>Odours<br>Increase in pests |
| Plant maintenance | Generation of waste oil | Soil and water contamination |
| Waste transportation | Handling waste | Noise and dust impacts<br>Mud tracking on roads<br>Unlicensed facilities transporting or receiving waste |

## 9.2 Project Compliance Requirements

### 9.2.1 Contract Clauses

Specific contract clauses and references which set limits and/or govern the management of waste on the project include:

Table 9.2: Contract clauses

| Contract Document Reference | Contract Clause/Reference | Limit/Requirement |
|---|---|---|
| Special Condition Clause 16 | Environmental waste | The Contractor is (or is deemed to be) the owner of Waste absolutely and unconditionally, whether existing at the Site or when generated as part of carrying out the Works, and without limiting its obligations under the Contract, assumes all risk and liability of any nature whatsoever in relation to such Waste, including as the owner of that Waste. |

| Contract Document Reference | Contract Clause/Reference | Limit/Requirement |
|---|---|---|
| Preliminaries Clause 6.3 | Waste Management | Implement waste minimisation and management measures, including:<br>• recycling and diverting from landfill surplus soil, rock, and other excavated or demolition materials, wherever practical;<br>• separately collecting and streaming quantities of waste concrete, bricks, blocks, timber, metals, plasterboard, paper and packaging, glass and plastics, and offering them for recycling where practical.<br>Ensure that no waste from the Site is conveyed to or deposited at any place that cannot lawfully be used as a waste facility for that waste.<br>**Monitoring**<br>Monitor and record the volumes of waste and the methods and locations of disposal.<br>Submit a progress report every two months, and a summary report before Completion, on the implementation of waste management measures, including the total quantity of material purchased, the quantity purchased with recycled content, the total quantity of waste generated, the total quantity recycled, the total quantity disposed of and the method and location of disposal in the form of a Waste Recycling and Purchasing Report available on the ProcurePoint website.<br>With the Waste Recycling and Purchasing Report, submit waste disposal certificates and/or company certification confirming appropriate, lawful disposal of waste. |

### 9.2.2 Conditions of Project Environmental Approvals

Conditions of project environmental approvals that specifically address the management of waste include:

Table 9.3: Development Consent Conditions

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Limit/Requirement |
|---|---|---|
| B4 | Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:<br>(a) detailed baseline data;<br>(b) details of:<br>(i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);<br>(ii) any relevant limits or performance measures and criteria; and | CEMP developed by CPB |

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Limit/Requirement |
|---|---|---|
| | (iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;<br>(c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;<br>(d) a program to monitor and report on the:<br>(i) impacts and environmental performance of the development;<br>(ii) effectiveness of the management measures set out pursuant to paragraph (c) above;<br>(e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;<br>(f) a program to investigate and implement ways to improve the environmental performance of the development over time;<br>(g) a protocol for managing and reporting any:<br>(i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);<br>(ii) complaint;<br>(iii) failure to comply with statutory requirements; and<br>(h) a protocol for periodic review of the plan.<br><br>Note: The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans. | |
| B5 | Prior to commencement of construction, the Applicant must prepare a Construction Environmental Management Plan (CEMP) and it must include, but not be limited to, the following:<br>e) Construction Waste Management Plan | CEMP developed by CPB includes monitoring requirements for each impact. |
| B10 | Prior to the commencement of construction, the Applicant must prepare a Construction Waste Management Plan (CWMP). The CWMP must address, but not be limited to, the following:<br>a) detail the quantities of each waste type generated during construction and the proposed reuse, recycling and disposal locations;<br>b) waste classification (for materials to be removed) and validation (for materials to remain) be undertaken to confirm the contamination status in these areas of the site; removal of hazardous materials, particularly the method of containment and control of emission of fibres to the air, and disposal at an approved waste disposal facility in accordance with the requirements of the relevant legislation, codes, standards and guidelines, prior to the commencement of any building works;<br>c) an Unexpected Contamination Protocol for construction and demolition waste; and<br>d) notifying the RMS Traffic Management Centre of the truck(s) routes to be followed by trucks transporting waste material from the site, prior to the commencement of the removal of any waste material from the site. | CEMP developed by CPB includes this requirement. |
| C25 | The Applicant must:<br>(a) ensure that only Virgin Excavated Natural Material (VENM), Excavated Natural Material (ENM), or other material approved in writing by EPA is brought onto the site; | |

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Limit/Requirement |
|---|---|---|
| | (b) keep accurate records of the volume and type of fill to be used; and<br>(c) make these records available to the Certifying Authority upon request. | |
| C31 | Waste must be secured and maintained within designated waste storage areas at all times and must not leave the site onto neighbouring public or private properties. | Implement Construction Waste Management Sub Plan |
| C32 | All waste generated during construction must be assess, classified and managed in accordance with the Waste Classification Guidelines Part 1: Classifying Waste (EPA, 2014). | Waste receptacles to be inspected as part of weekly environmental inspection. |
| C33 | The body of any vehicle or trailer used to transport waste or excavation spoil must be covered before leaving the premises to prevent any spillage or escape of any dust, waste of spoil. Mud, splatter, dust and other material likely to fall from or be cast off the wheels, underside or body of any vehicle, trailer or motorised plant leaving the site must be removed before leaving the premises. | CPB Soil and Water Management Sub Plan developed by CPB includes this requirement.<br>Refer also to CoA C23. |
| C34 | The Applicant must ensure that concrete waste and rinse water are not disposed of on the site and are prevented from entering any natural of artificial watercourse. | CPB Waste Management Sub Plan developed by CPB includes this requirement.<br>Designated concrete washout bay established on site for wash out activities. |

## 9.3 Waste Streams

The following waste streams and waste classifications have been identified on Coffs Harbour Hospital Expansion.

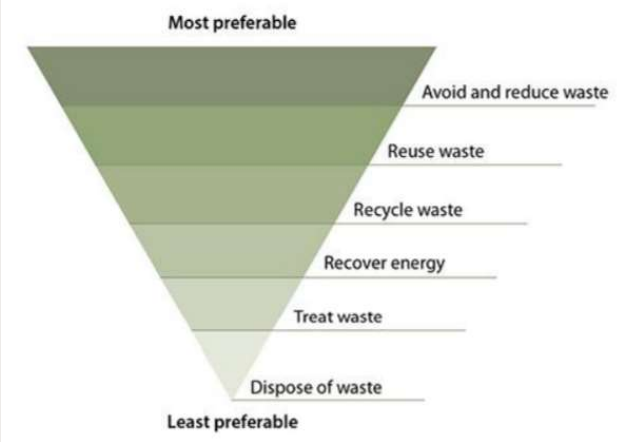
Table 9.4: Waste streams

| Waste Stream | Waste Classification | Expected Quantity | On-site (reuse or recycle) | Destination Off-site |
|---|---|---|---|---|
| Excavated material | General Solid Waste (Non Putrescible) | 500m$^3$ | On-site reuse where required by civil design. Quantities of VENM or ENM to be determined by Geotech for re-use. | Removed by earthworks contractor to licensed facility or through a resource recovery order/exemption for reuse if possible (VENM or ENM) |
| Concrete | General Solid Waste (Non Putrescible) | 100m$^3$ | No on-site reuse | Collected by waste contractor and disposed at recycling facility |
| Timber (formwork and construction) | General Solid Waste (Non Putrescible) | 120m$^3$ | On-site reuse for further formwork where possible. Off-site recycle where not reused. | Unused material separated and collected by waste contractor for disposal at recycling facility |
| General waste | General Solid Waste (Non Putrescible) | 150m$^3$ | No on-site reuse | Collected by waste contractor and disposed at waste facility |
| Mixed Recyclables | General Solid Waste (Non Putrescible) | 150m$^3$ | No on-site reuse | Collected by waste contractor and disposed at recycling facility |
| Waste metals | General Solid Waste (Non Putrescible) | 45m$^3$ | No on-site reuse | Collected by waste contractor and disposed at recycling facility |
| Groundwater from excavation/ potholing | Liquid Waste | 200kl | No on-site reuse | Slurry removed to waste facility by pump-out truck |
| General office waste – paper, cardboard, used printer cartridges. | General Solid Waste (Non Putrescible) | 20m$^3$ | No on-site reuse | Waste contractor/ security waste contractor to collect and dispose at (secure) recycling facility |
| Asbestos or Asbestos Containing Material | Special Waste | tba | No on-site reuse | Licensed asbestos contractor disposal in accordance with Asbestos Control Plan |

## 9.4 Controls Used to Manage Waste

Controls that are adequate to ensure compliance and to reduce risk to the lowest acceptable rating achievable are planned before any relevant works commence. Elimination of the waste is the first preference of control, followed by reuse and recycling. Controls used on this project include:

Table 9.5 Waste controls

| Control | Accountability |
|---|---|
| All wastes need to be classified, stored, tracked, transported and treated in accordance with contractual and regulatory requirements, including the use of licensed transporters and treatment facilities. A Waste Recycling and Purchasing Report is to be completed Monthly and issued to the Principal. | Environmental Manager |
| The waste hierarchy will be adhered to:<br>  <br> | Site Manager |
| Excavation material (removed earth), where feasible, will remain on-site for reuse. | Site Manager |
| Waste must be secured and maintained within designated waste storage areas at all times and must not leave the site onto neighbouring public or private properties. | Site Manager |
| All green waste material will remain on-site (shredded or composted), and be reused in landscape areas around the development if possible. If this is not possible, then CPB will transport the materials off-site for mulching or composting. | Site Manager |
| Bricks will be stockpiled and reused wherever possible. Surplus, unused bricks will be reused in pavement construction or for temporary access tracks etc. if possible. Unusable bricks will be collected and recycled at an appropriate brick/rubble recycling facility to be used in aggregate gravel products. | Site Manager |
| Recyclable timber (untreated) will be collected and recycled at appropriate timber yard. Unrecyclable (treated) timber will be disposed at landfill. Timber that is not of the standard for reuse will be transported to a site for chipping for use as garden mulch if acceptable for this process. | Site Manager |
| All metal materials will be reused or recycled as follows:<br>• Metal drums and packaging to be returned to the supplier<br>• Any metal suitable for recycling will be separated and stored in a designated scrap metal bin for transport to a metal recycling facility. | Site Manager |
| Cardboard and paper will be produced mainly from packaging materials and office paper waste. These should be disposed of into a designated recycling bin and collected regularly as required. | Site Manager |
| Liquid waste may be produced on-site for environmental control measures such as site and vehicle cleaning and dust control waste. The following measures will be taken to minimise the impact of liquid waste:<br>• Ensure water is used in moderation and no taps are left continuously running<br>• Use any grey water produced on-site for irrigation or for dust suppression; and | Site Manager |

| Control | Accountability |
|---|---|
| • Only discharge clean water into storm water. | |
| All actions will be undertaken to avoid pollution entering stormwater drains and for litter generation. The following will be initiated:<br>• Prior to commencement of any works a Safe Work Method Statement will be completed and reviewed to determine potential for stormwater pollution and/or litter generation<br>• CPB will develop a management strategy to manage the potential for these issues to be realised<br>• Site inspections will be conducted during the working day to monitor potential for stormwater pollution generation and where identified, works will cease until appropriate controls are implemented; and<br>• Wastewater and storm water will be managed and disposed of in accordance with Water Authority requirements. | Project Engineer |
| Daily site inspections will be conducted to identify litter, remedy the situation and investigate the cause so as to reduce the potential for the issue to occur in the future.<br>Personnel will be allocated the role of litter management in that they will periodically inspect the site and surrounds for litter and if identified collect and dispose of it. | Site Manager |
| The relevant licences of waste facilities utilised for the disposal or handling of waste will be obtained to ensure they are legally compliant. | Environmental Manager |
| RMS Traffic Management Centre is to be notified of the routes to be followed for all trucks transporting waste material from the site, prior to the commencement of the removal of any waste materials from the site. | Project Manager |
| Storage containers (bins, skips, tanks, etc.) are provided at each work area in sufficient numbers to facilitate segregation of waste at the source of generation, where ever possible. The correct bin type must be used to avoid contamination. These bins will be appropriately signed to indicate what materials are to be deposited into them and located so as to maximise the recovery of reusable/recyclable materials. | Site Manager |
| All waste/recycling bins will have covers so as to ensure that wastes cannot be blown out during windy conditions. The body of any vehicle or trailer used to transport waste or must be covered before leaving the premises to prevent any spillage or escape of any waste. | Site Manager |
| Burial or burning of waste is not permitted. | Site Manager |
| There will be no treatment of wastes or recyclables on-site except for possible removal of contaminants prior to forwarding to off-site recyclers. | Site Manager |
| Excess concrete and concrete washout is not to be discharged to land or stormwater; a concrete washout facility must always be used. An adequate number of fully maintained concrete washout pits will be maintained on the site at all times. | Site Manager |
| All waste data must be collated and entered in to Synergy. | Project Environmental Manager |
| Concrete waste and rinse water is not to be disposed of on the site and are prevented from entering any natural of artificial watercourse. | Site Manager |

## 9.5 Licensed Waste Facilities

A search of the POEO Licensed facilities local to the Coffs Harbour area include:

Table 9.6: Licensed Waste Facilities and Transporters of Waste

| License number | Operator | Address | Fee Based Activity | License review due date |
|---|---|---|---|---|
| 6267 | Coffs Harbour City Council | Englands Road Waste Management Facility | Waste disposal by application to land | 8/04/2021 |
| 2640<br>2641<br>2642 | Biomass Solutions (Coffs Harbour) Pty Ltd | Englands Road<br>Coffs Coast Resource Recovery Facility | Composting<br>Non-thermal treatment of general waste<br>Waste storage - other types of waste | 8/10/2023 |
| 20455 | Coffs Coast Liquid Waste Services Pty Ltd | Po Box 8011 Coffs Harbour NSW 2450 | Transport of Category 1 Trackable Waste<br>Transport of Category 2 Trackable Waste | 25/06/2024 |
| 3839<br>3840 | Handybin Waste Services (Coffs Harbour) Pty Ltd | Handybin Waste Services (Coffs Harbour) Pty Ltd<br>25 Englands Road | Recovery of General Waste<br>Waste Storage - Other Types of Waste | 7/07/2021 |
| 4339<br>4340 | Crampo's Tippers Pty Ltd | | Transport of Category 1 Trackable Waste<br>Transport of Category 2 Trackable Waste | 14/11/2022 |
| 20403 | Mid North Coast hydro digging & service locating pty limited | PO Box 244 LAKE CATHIE NSE 2445 | Transport of category 1 trackable waste | 17/02/2024 |

## 9.6 Monitoring

Waste data is collected on the project to allow monthly reporting in accordance with the Waste Recycling and Purchasing Report including the following:

- The quantity of each type of waste sent to landfill
- The quantity of each type of waste recycled
- The quantity of each type of waste reused
- The quantity of each type of hazardous/regulated waste generated on the project and:
  - Its method of treatment and disposal
  - The location of treatment and disposal
  - Copies of records confirming the legal transport, treatment and disposal
- Measurement of any reduction in waste generation that has been achieved

The quantity of waste in each solid waste stream is measured by weight and liquid waste stream by volume, with records provided by the waste transport contractor.

All waste quantities are uploaded in to Synergy each month.

## 9.7 References

NSW EPA Waste Classification Guidelines Part 1: Classifying waste (Nov 2014)

Waste Recycling and Purchasing Report – www.procurepoint.nsw.gov.au

# 10. Construction Dust and Air Quality Sub Plan

## 10.1 Scope

This Plan addresses air quality management on the project and the management of impacts to the environment and/or community, in particular dust and odour management.

Control of dust during the Delivery Phase will be especially important on the hospital site due to the presence of vulnerable people with, for example, suppressed immune systems. In addition to this Air Quality Sub Plan an Infection Control Plan has been developed which includes particular requirements for dust control when working within the Hospital.

Activities conducted on the project that have the potential to impact air quality are provided below. These have been extracted from the project work flow, including activities and materials used.

Table 10.1: Activities, Hazards and Risks

| Project Activity | Environmental Hazard | Environmental Risk |
|---|---|---|
| Earthworks, stockpiling | Dust<br>Sediment on roads | Nuisance dust to personnel<br>Airborne dust/ sediment affecting waterways<br>Effects of dust on persons with suppressed immune systems |
| Plant and Machinery operation | Exhaust fumes | Odour effects and health effects from exposure to carbon monoxide |
| General construction works | Wind-blown rubbish | Nuisance dust to personnel<br>Airborne dust/ litter affecting waterways |

## 10.2 Project Compliance Requirements

### 10.2.1 Contract Clauses

Specific contract clauses and references which set limits and/or govern impacts to air quality on the project include:

Table 10.2: Contract clauses

| Contract Document Reference | Contract Clause/Reference | Limit/Requirement |
|---|---|---|
| Special Condition 6 | Environmental Protection | EMP must address dust management to minimise impact to Hospital users, patients and adjoining neighbours |
| Preliminaries Clause 5.3 | Occupied premises – Noise, Dust and Vibration | The Contractor must address noise, dust and vibration. |
| Preliminaries Clause 5.16 | Progressive Cleaning and Rubbish Removal | Restrict mud and dust getting on and spreading onto the public roads; |
| Preliminaries Clause 5.17 | Dust, Mud, Vibration & Noise Control | If noise, dust or mud (or any other issues the subject of this clause) interfere with normal hospital or health facility operations, surrounding or adjoining areas to the Site or the use of roadways, the progress of the Works (or any part thereof) will be suspended until such time as the Contractor rectifies or implements a more appropriate work method to address these issues. |

### 10.2.2 Conditions of Project Environmental Approvals

Conditions of project environmental approvals that specifically address the management of air quality include:

Table 10.3: Development Consent Conditions

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Limit/Requirement |
|---|---|---|
| B4 | Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:<br>(a) detailed baseline data;<br>(b) details of:<br>(i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);<br>(ii) any relevant limits or performance measures and criteria; and<br>(iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;<br>(c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;<br>(d) a program to monitor and report on the:<br>(i) impacts and environmental performance of the development;<br>(ii) effectiveness of the management measures set out pursuant to paragraph (c) above;<br>(e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;<br>(f) a program to investigate and implement ways to improve the environmental performance of the development over time;<br>(g) a protocol for managing and reporting any:<br>(i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);<br>(ii) complaint;<br>(iii) failure to comply with statutory requirements; and<br>(h) a protocol for periodic review of the plan.<br><br>Note: The Planning Secretary may waive some of these requirements if they are unnecessary or | CEMP developed by CPB |

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Limit/Requirement |
|---|---|---|
| | unwarranted for particular management plans. | |
| B5 | Prior to commencement of construction, the Applicant must prepare a Construction Environmental Management Plan (CEMP) and it must include, but not be limited to, the following:<br>(a)(iii) management of dust and odour to protect the amenity of the neighbourhood;<br>(f) Construction Dust Management Plan | CEMP developed by CPB includes monitoring requirements for each impact. |
| C4 | All plant and equipment used on site, or to monitor the performance of the development must be:<br>(a) maintained in a proper and efficient condition; and<br>(b) operated in a proper and efficient manner. | |
| C11 | All plant and equipment used on site, or to monitor the performance of the development must be:<br>a) maintained in a proper and efficient condition; and<br>b) operated in a proper and efficient manner. | |
| C22 | The Applicant must take all reasonable steps to minimise dust generated during all works authorised by this consent. | Conduct air quality monitoring at regular intervals or if excessive dust is experienced. |
| C23 | During Construction the Applicant must ensure that:<br>a) Exposed surfaces and stockpiles are suppressed by regular watering<br>b) All trucks/vehicles entering or leaving the site with loads have their loads covered<br>c) Trucks/vehicles associated with the development do not track dirt onto the public road network<br>d) Public roads used by these trucks/vehicles are kept clean; and<br>e) Land stabilisation works are carried out progressively on site to minimise exposed surfaces. | CEMP developed by CPB includes this requirement |
| C33 | The body of any vehicle or trailer used to transport waste or excavation spoil must be covered before leaving the premises to prevent any spillage or escape of any dust, waste of spoil. Mud, | CPB Soil and Water Management Sub Plan developed by CPB includes this requirement. |

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Limit/Requirement |
|---|---|---|
| | splatter, dust and other material likely to fall from or be cast off the wheels, underside or body of any vehicle, trailer or motorised plant leaving the site must be removed before leaving the premises. | |

## 10.3 Controls Used to Manage Air Quality

Controls that are adequate to minimise air quality issues and to reduce risk to the lowest acceptable rating achievable are implemented before any relevant works commence. Elimination of the hazard is the first preference of control, followed by engineering, then administrative controls. Controls used on this project include:

Table 10.4: Air quality controls

| Control | Accountability |
|---|---|
| Areas in which vegetation will be removed or disturbed need to be minimised. Rehabilitation, seeding or grassing should occur as soon as they become available. | Site Manager |
| Dust generation activities including disturbed areas, spoil heaps and haul roads are to be visually monitored and where required dust control measures such as water trucks, chemical suppressants, fixed hose water spraying would be implemented, especially in high risk areas and/or on during high risk days. Materials to be stockpiled in locations to best minimize dust and with consideration of downdraft from helicopter. | Site Manager |
| Stabilised access with rumble grids established for the site exit to be installed to minimise mud on public roads (refer Erosion and Sediment Control Plan). Sediment would be promptly removed from roads to minimise dust generation. Sweepers may be used periodically to clean public roads where mud has been deposited. | Site Manager |
| Traffic speed limit(s) are determined to minimise dust generation and must be adhered to at all times. | Site Manager |
| The body of any vehicle or trailer used to transport waste or excavation spoil must be covered before leaving the premises to prevent any spillage or escape of any dust. | Site Manager |
| All construction plant and equipment must be fitted with emission control devices complying with the Australian Design Standards and maintained so they do not emit visible smoke for a period of time greater than 15 seconds.<br>Machinery would be turned off when not in use and not left to idle for prolonged periods. | Site Manager |
| Burning of any materials is prohibited onsite. | Site Manager |
| Air quality monitoring to be conducted based on requirements of project risk assessment, and at a frequency and locations to confirm compliance with the regulatory limits will be conducted. | Project Engineer |
| Rubbish to be placed in waste receptacles with lids to prevent wind-blown rubbish. | Site Manager |
| Perimeter of the building will be fully scaffolded with shade cloth to contain dust. | Project Engineer |
| Monitoring of weather conditions to manage impacts of high winds in dry periods. | Site Manager |
| Shade cloth to be fitted to gates and fencing to minimize dust and litter leaving the site. | Site Manager |

## 10.4 Monitoring

Air quality monitoring is performed that complies with legal and contract requirements and which is sufficient to identify potential non-compliances before they occur.

Where monitoring determines non-compliance to be a risk or to have occurred, an incident report and corrective actions are raised in Synergy.

Monitoring and analysis of data will be carried out by a competent person. Evidence of competence must be retained.

It is the accountability of the Environmental Manager to ensure all monitoring is performed according to these requirements.

## 10.5 References

nil

# 11. Construction Light Pollution Sub Plan

## 11.1 Scope

This Plan addresses light pollution on the project and the management of impacts to the environment and/or community.

Activities conducted on the project that have the potential to generate light pollution are provided below.

Table 11.1: Activities, Hazards and Risks

| Project Activity | Environmental Hazard | Environmental Risk |
|---|---|---|
| External lighting for site entrance | Light pointing down in to road users and pedestrians | Persons obstructed by light |
| Night works additional lighting | Light pointing in to residential properties or hospital rooms during night time | Nuisance to residents and hospital users |

## 11.2 Project Compliance Requirements

### 11.2.1 Contract Clauses

Specific contract clauses and references which set limits and/or govern impacts to air quality on the project include:

Table 11.2: Contract clauses

| Contract Document Reference | Contract Clause/Reference | Limit/Requirement |
|---|---|---|
| nil | | |

### 11.2.2 Conditions of Project Environmental Approvals

Conditions of project environmental approvals that specifically address the management of air quality include:

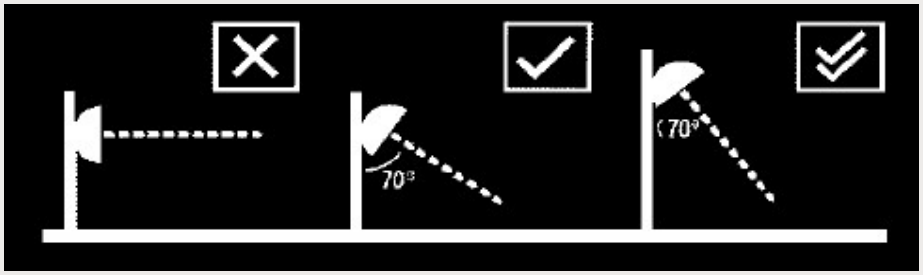
Table 11.3: Development Consent Conditions

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Limit/Requirement |
|---|---|---|
| B5 | Prior to commencement of construction, the Applicant must prepare a Construction Environmental Management Plan (CEMP) and it must include, but not be limited to, the following:<br>(a)(v) external lighting in compliance with AS 4282-1997 Control of the obtrusive effects of outdoor lighting | CEMP developed by CPB includes monitoring requirements for each impact. |
| B22 | All outdoor lighting within the site must comply with AS 1158.3.1:2005 Lighting for roads and public spaces – Pedestrian area (Category P) lighting – Performance and design requirements and AS 4282-1997 Control of the obtrusive effects of outdoor lighting. Details demonstrating compliance with these requirements must be submitted to the satisfaction of the Certifying Authority. | Include in construction certificate requirements submission for external works. |

## 11.3 Controls Used to Manage Light Pollution

Controls that are adequate to minimise light pollution issues and to reduce risk to the lowest acceptable rating achievable are implemented before any relevant works commence. Elimination of the hazard is the first preference of control, followed by engineering, then administrative controls. Controls used on this project include:

Table 11.4: Light controls

| Control | Accountability |
|---|---|
| No use of floodlighting or additional lighting beyond internal lighting and lighting required for safety and access. Ensure external lights are turned off when not in use. | Site Manager |
| Limit upward light and sideways spill light in to properties. Wherever possible direct light downwards. To keep glare to a minimum, ensure that the main beam angle of all lights directed towards any potential observer is kept below $70^0$.<br>  <br>Consider shields and baffles to help reduce spill light to a minimum.<br>Use specifically designed lighting equipment that will minimize spread of light and provide the adequate light for the situation. | Project Engineer |
| Ensure any external lights are mounted, screened and directed in such a manner that they do not create a nuisance to surrounding properties or the public road network. | Project Engineer |

## 11.4 Monitoring

External lights will be monitored daily to ensure they are in full working order and not causing any impacts on pedestrians, motorists or hospital users.

## 11.5 References

AS/NZS 1158.1.2:2010 Lighting for roads and public spaces
AS 4282-1997 Control of the obtrusive effects of outdoor lighting

# 12. Construction Pedestrian and Traffic Management Sub Plan

## 12.1 Scope

This Sub Plan addresses pedestrian, traffic and site access management on the project and is supported by the Construction Traffic Management Plan developed by Complete Traffic Safety Solution provided in Appendix L.

The site is located a few kilometers south of Coffs Harbour CBD and is situated adjacent to the Pacific Highway with the main hospital and construction access being off the Pacific Highway opposite Isles Drive.

Activities conducted on the project that have the potential to impact pedestrian and traffic are provided below.

Table 12.1: Activities, Hazards and Risks

| Project Activity | Environmental Hazard | Environmental Risk |
|---|---|---|
| Construction worker movements to and from site | Increased traffic and pedestrians (workers and visitors to site);<br>Reduced parking<br>Intersection performance affected | Extended travel to work due to extra traffic from construction workers and local parking being used by construction workers therefore limiting parking for hospital users or increasing the time to walk from car to hospital |
| Deliveries to site | Pedestrians and cyclists cross site access points<br>Increase delivery vehicles on roads around the hospital | Extended waiting times for pedestrians, cyclists and road users due to delivery<br>Safety risks due to interaction of pedestrians, road users with heavy vehicles |

## 12.2 Anticipated construction traffic and construction duration

Construction traffic will include construction personnel accessing the project and heavy vehicle/ trucks delivering or removing construction materials. Current anticipated heavy vehicle/ truck movements are 20 trucks per day including for:

- delivery of materials (excluding concrete);
- removal of waste and recyclables;
- delivery of concrete during concrete pours.

Although the truck deliveries will be spread over the working day it is anticipated that at least 25% of deliveries would occur during the peak hour traffic.

The construction program identifies construction related traffic will start to increase from May 2019 with a peak period up to April 2020. Milestone 1 - completion of the hospital is programmed for Q2 2020 which will see the immediate reduction of construction traffic with an anticipated completion of Milestone 3 – refurbishment by Q2 2021.

## 12.3 Project Compliance Requirements

### 12.3.1 Contract Clauses

Specific contract clauses and references which set limits and/or govern impacts to pedestrian and traffic management on the project include:

Table 12.2: Contract clauses

| Contract Document Reference | Contract Clause/Reference | Limit/Requirement |
|---|---|---|
| Preliminaries Clause 5.2 | Site Access and limitations | The Contract is responsible for maintaining the safe access to the Site and the safe movement of vehicles and pedestrians within and through the |

| Contract Document Reference | Contract Clause/Reference | Limit/Requirement |
|---|---|---|
| | | Site, without any substantial detrimental effect to the operation of the Hospital. |
| | | The Contractor's Methodology Plan must include …<br>Traffic Management Plan for all phases of the works; |
| Preliminaries Clause 5.13 | Barriers, Barricades etc | The Contractor must provide and maintain appropriate barricades, guards, signs and adequate lighting at the Site (or for the purposes of the Works) for the protection of the public, residents, staff and others. The Contractor must remove these items when no longer required. Barricades and guards shall be arranged to maintain access for pedestrians as appropriate. |

### 12.3.2 Conditions of Project Environmental Approvals

Conditions of project environmental approvals that specifically address the management of pedestrian and traffic include:

Table 12.3: Development Consent Conditions

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Limit/Requirement |
|---|---|---|
| B4 | Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:<br>(a) detailed baseline data;<br>(b) details of:<br>(i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);<br>(ii) any relevant limits or performance measures and criteria; and<br>(iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;<br>(c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;<br>(d) a program to monitor and report on the:<br>(i) impacts and environmental performance of the development;<br>(ii) effectiveness of the management measures set out pursuant to paragraph (c) above;<br>(e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels | CEMP developed by CPB |

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Limit/Requirement |
|---|---|---|
| | below relevant impact assessment criteria as quickly as possible;<br>(f) a program to investigate and implement ways to improve the environmental performance of the development over time;<br>(g) a protocol for managing and reporting any:<br>(i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);<br>(ii) complaint;<br>(iii) failure to comply with statutory requirements; and<br>(h) a protocol for periodic review of the plan.<br><br>Note: The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans. | |
| B5 | Prior to commencement of construction, the Applicant must prepare a Construction Environmental Management Plan (CEMP) and it must include, but not be limited to, the following:<br>b) Construction Traffic and Pedestrian Management Plan | CEMP developed by CPB includes monitoring requirements for each impact. |
| B7 | The Construction Traffic and Pedestrian Management Plan (CTPMP) must address, but not be limited to, the following:<br>a) be prepared by a suitably qualified and experienced person(s)<br>b) be prepared in consultation with Council, RMS and Mid North Coast Local Health District;<br>c) detail the measures that are to be implemented to ensure road safety and network efficiency during construction in consideration of potential impacts on general traffic, cyclists and pedestrians and bus services<br>d) detail heavy vehicle routes, access and parking arrangements<br>e) include a Driver Code of Conduct to:<br>(i) minimise the impacts of earthworks and construction on the local and regional road network<br>(ii) minimise conflict with other road users<br>(iii) minimise road traffic noise; and<br>(iv) ensure truck drivers use specified routes | CEMP developed by CPB includes monitoring requirements for each impact.<br>Meeting(s) with Council. |

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Limit/Requirement |
|---|---|---|
| | f) include a program to monitor the effectiveness of these measures; and<br>g) if necessary, detail procedures for notifying residents and the community (including local schools), of any potential disruptions to routes. | |
| C13 | All construction vehicles (excluding worker vehicles) are to be contained wholly within the site, except if located in an approved on-street work zone, and vehicles must enter the site before stopping. | CEMP developed by CPB includes this requirement |

## 12.4 Construction Entry into Site

Construction vehicular access to the main site will be from the signalised intersection of the Pacific Highway and Isles Drive and along the hospital access road.

All construction vehicles (excluding worker vehicles) are to be contained wholly within the site, except if located in an approved on-street work zone, and vehicles must enter the site before stopping.

## 12.5 Construction Vehicle Traffic Management

All construction traffic will travel to and from the site along the Pacific Highway and access the site via the existing main entry road opposite Isles Drive. The Pacific Highway provides access to the wider road network for delivery of construction materials and the disposal of waste from the site. Traffic routes in and out of the site will be along the arterial road network which will experience minimal impacts due to the works.

## 12.6 Worker Vehicle Parking

Peak demand levels during construction will be up to a maximum of 30 CPB staff and 180 construction workers.

Parking for construction personnel will not be permitted in any of the hospital car parks identified as A to G. Construction personnel are to park south of the hospital accessing parking from Stadium Drive only and not from the Pacific Highway at the Isles Drive intersection.

Project Inductions and signage will notify workers of requirements and areas to park.

## 12.7 Public Vehicle Traffic, Cyclists and Pedestrian Movements

Public vehicular, cyclists and pedestrian movements throughout the hospital will be maintained throughout the works.

Construction vehicles accessing site will not be permitted to block traffic routes and all waiting trucks will be held at a staging area until called to site.

Vehicular and pedestrian access to the hospital will be maintained at all times. Pedestrian barriers will be used to halt pedestrians during construction vehicle movements across site access gates when entering or exiting the site and to prevent unauthorized access to the site.

There will be minimal impact upon public transport services with no diversions required. The existing bus stops within the site will need to be relocated to work within the various stages of construction. There will be minimal impact for emergency vehicles and delivery vehicles with no diversions required for normal work days.

## 12.8 Controls Used to Manage Pedestrians and Traffic

Controls that are adequate to minimise pedestrian and traffic issues and to reduce risk to the lowest acceptable rating achievable are implemented before any relevant works commence. Elimination of the hazard is the first preference of control, followed by engineering, then administrative controls. Controls used on this project include:

Table 12.4: Pedestrian and traffic controls

| Control | Accountability |
|---|---|
| Heavy vehicles will be restricted to Pacific Highway. A Delivery Driver Induction will be provided to all drivers prior to arrival to the site which includes a Driver Code of Conduct. This will form part of the Subby Pack included in the Subcontract Documents. | Site Manager |
| All deliveries to the site will be managed by a Materials Handling Coordinator who will book all deliveries 24-hours in advance. The traffic controller will control delivery access into the site by checking against the delivery schedule. Deliveries which have not been scheduled in will be directed back to their original place of departure to avoid vehicle congestion on site.<br>In addition to booking deliveries, the Materials Handling Coordinator will also be responsible for scheduling movement equipment to allow the materials to be relocated within the site | Materials Handling Coordinator |
| Construction vehicle activity, including the loading/unloading of trucks and all materials handling to be provided within the construction site boundaries or within the proposed works zone at all times.<br>Accredited site personnel will be provided at each site access during vehicle access to the site to ensure pedestrian safety.<br>Safe pedestrian access along the footpath is to be provided at all times. | Site Manager |
| The necessary permits and approvals from the relevant road authority must be obtained prior to the commencement of road or pavement construction works. | Project Manager |
| Emergency vehicle access will be permitted into the site through the main gate entry and the Emergency Response Team Leader will be responsible for coordinating emergency crew to the first aid shed or point of emergency. The traffic controllers will be responsible for maintaining clear access to the first aid shed for any emergency vehicle. | ERT Leader |

## 12.9 Heavy Vehicle Routes

Heavy vehicle routes accessing and egressing the site will be via the Pacific Highway accessed at the intersection with Isles Drive. All heavy vehicles must enter and exit Coffs Harbour via the Pacific Highway. An exception to this requirement is for deliveries from Coffs Harbour including pre-cast where the most direct route will be agreed with Coffs Harbour City Council.

All delivery drivers will be presented with a Code Of Conduct as part of the delivery driver induction to minimise road traffic noise, minimize conflict with other road users and ensure drivers use the Pacific Highway routes to egress the site.

**Driver Code of Conduct**

1. Respect to other road users must be adhered to at all times to minimise conflicts with other road users. Drivers that are identified as not complying to this Driver Code of Conduct will not be allowed to return to site.
2. Minimise noise from air brakes and running engines at all times. Vehicles are not to be left idling when stationary.
3. Access to site and from site must be via the Princes Highway to minimise the impacts of construction vehicles on the local and regional road network.

## 12.10 Traffic Control and Pedestrian Management Plans

Traffic Control Plans and Pedestrian Management Plans have been generated for the project in consultation with RMS and are provided in Appendix L, including Road Occupancy Licences. The Plans include necessary signage and parking restrictions required for the safe operation of the access and egress of construction vehicles to the site.

## 12.11 Maintenance of roads

Following consultation with Coffs Harbour City Council and CPB, road condition will be inspected regularly by CPB and any deterioration reported to Council who are responsible for maintenance works.

## 12.12 References

Appendix L Construction Traffic Management Plan prepared by Complete Traffic Safety Solutions

# 13. Construction Flooding Emergency Response Plan

## 13.1 Scope

This Plan describes how CPB Contractors will minimise the risk of damage from flooding, to determine warning and evacuation procedures and address the potential for flooding and manage flood impacts on Construction.

The objective of this plan is to:

- ensure appropriate measures are implemented and maintained during Construction to minimise / avoid adverse impacts from flood events,
- proactively identify potential flood events that could impact the Project; and
- ensure site preparation and staff preparedness for flood events during Construction.

The main guidelines relevant to this plan is the *Floodplain Risk Management Guideline (OEH 2007).*

## 13.2 Project Compliance Requirements

### 13.2.1 Conditions of Project Environmental Approvals

Conditions of project environmental approvals that specifically address the management of water quality include:

Table 1.3: Development Consent Conditions

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Compliance Requirement |
|---|---|---|
| B4 | Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:<br>(a) detailed baseline data;<br>(b) details of:<br>(i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);<br>(ii) any relevant limits or performance measures and criteria; and<br>(iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;<br>(c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;<br>(d) a program to monitor and report on the:<br>(i) impacts and environmental performance of the development;<br>(ii) effectiveness of the management measures set out pursuant to paragraph (c) above;<br>(e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;<br>(f) a program to investigate and implement ways to improve the environmental performance of the development over time; | CEMP developed by CPB |

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Compliance Requirement |
|---|---|---|
| | (g) a protocol for managing and reporting any:<br>(i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);<br>(ii) complaint;<br>(iii) failure to comply with statutory requirements; and<br>(h) a protocol for periodic review of the plan.<br><br>Note: The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans. | |
| B11 | Prior to the commencement of construction, the Applicant must prepare a Flood Emergency Response Plan (FERP). The FERP must address, but not limited to, the following:<br>e) be prepared by a suitably qualified and experienced person(s);<br>f) address the provisions of the Floodplain Risk Management Guideline (OEH 2007);<br>g) include details of:<br>h) the flood emergency responses for both construction and operation phases of the development;<br>(ii) predicted flood levels;<br>(iii) flood warning time and flood notification;<br>(iv) assembly points and evacuation routes;<br>(v) evacuation and refuge protocols; and<br>(vi) awareness training for employees and contractors. | The Construction Flood Emergency Response Plan is a sub-plan within this CEMP.<br>The Operation Flood Emergency Response Plan has been included as an appendix to this CEMP. |

## 13.3 Predicted Flood Levels

The site is affected by flooding. Flood levels fall from the west of the site to the east of the site. Existing flood levels have been obtained from the Boambee Newports Creek Floodplain Risk Management Study (prepared for Coffs Harbour City Council by GHD July 2016).

The identified 1% AEP flood level at the west of the Campus is approximately RL 5.6m AHD and approximately RL 3.7m AHD at the east of the Campus. The identified 1% AEP flood level at the existing building entrance is approximately RL 5.5m AHD. The existing Hospital Building floor level is RL 5.6m AHD. It is noted that the existing hospital has been subject to flooding in the past 10 years.

The proposed new Clinical Services Building will be protected to the PMF level, by ensuring that entrances are located where the ground floor level is at or above the PMF level, or protected from the PMF level by road kerbs or other measures. Design of the building fabric is to consider that flood levels may be higher than the exterior ground level adjacent to the new Clinical Services Building. The floor level of the new Clinical Services Building will be set at RL 5.9m AHD.

The existing TUFLOW model and flood afflux diagrams indicate that the proposed new Clinical Services Building has a negligible impact on surrounding flood levels. The increase in flood levels in the 1% AEP event is less than 20mm.

Flood hazard classification for the hospital campus is noted as low. Generally, flood levels increased with increased rainfall and sea level (up to 0.5m increase for 30% rainfall increase and up to 0.63m increase for sea level rise in Boambee Creek upstream of Hogbin Drive).

## 13.4 Flood Planning

Where there is an increase in impermeable surface extent due to Construction sites, there is also the increased potential of runoff to catchments during heavy rainfall. Local flooding upstream may result from earthworks or other Construction activities partially blocking or temporarily diverting existing drainage infrastructure.

Flooding has the potential to impact Construction sites, temporary ancillary facilities and cause damage to Construction vehicles, plant and equipment. Construction compounds and material stockpiles may also increase potential runoff to catchments in the Project area.

All Construction ancillary facilities and stockpile locations will be located at least 50 meters from concentrated flow areas and will be located on land above the 20-year ARI flood event level.

## 13.5 Flood Mitigation and Management Controls

| Control | When to Implement | Accountability |
|---|---|---|
| Environmental awareness training will be provided to all site personnel and sub-contractors. The environmental awareness training will be delivered through inductions, toolbox talks and pre-start briefs. The training will include (as a minimum):<br>▪ Emergency procedures in a flood event including flood evacuation<br>▪ Environmentally sensitive locations and/or no-go zones<br>▪ Requirements and the process of reporting environmental issues on site<br>▪ Requirements and the process of reporting damaged environmental controls<br>▪ Erosion and sediment control<br>Incident management process | Prior to and during Construction | Environmental Site Representative / Project Engineer / Foreman |
| A procedure establishing the proactive monitoring of Bureau of Meteorology (BoM) flood warning services (heavy rainfall events) and real-time river data will ensure the Project always has the most accurate information regarding any potential flood events and impacts, which will in turn ensure the Project is able to effectively manage and protect flood-prone areas | Prior to and during Construction | Environmental Site Representative / Project Engineer / Foreman |
| In the event of a potential flood event, the Flood Warning and Response Procedure (Flood Event Contingency and Emergency Plan) will be implemented. | Prior to and during Construction | Project Manager Superintendent |
| Rain events will be monitored daily during Construction and appropriate trigger points established to best manage site preparedness during flood events. | Construction | Environmental Site Representative Project Manager<br>Superintendent |
| Flood response planning will be undertaken prior to Construction and includes methods for monitoring rising water, key trigger points, actions and establishing communication protocols. | Construction | Project Manager / Environmental Site Representative |

| Control | When to Implement | Accountability |
|---|---|---|
| Progressively revegetate and stabilise any new waterway diversions resulting from Construction related activities prior to commissioning. | Construction | Environmental Site Representative<br>Project Manager<br>Superintendent |
| Vehicle wash downs and/or concrete truck washouts will be undertaken within a designated sealed bunded area located at least 50 meters from any drainage line (natural or built) and 100 meters from flood-prone areas or undertaken off-site. | Construction | Project Manager / Environmental Site Representative |
| There will be no stockpiling of soil or Construction materials within utility easement corridors. | Construction | Project Manager / Environmental Site Representative |
| Storage of dangerous goods and hazardous materials will occur in accordance with suppliers' instructions and relevant Australian Standards and may include bulk storage tanks, chemical storage cabinets / containers or impervious bunds. | Construction | Project Manager / Environmental Site Representative |
| Storage, handling and use of dangerous goods and hazardous substances will be in accordance with the Work Health and Safety Act 2011 and the Storage and Handling of Dangerous Goods Code of Practice (WorkCover NSW, 2005). | Construction | Project Manager / Environmental Site Representative |
| Secure bunded areas will be provided around storage areas for oils, fuels and other hazardous liquids | Construction | Project Manager / Environmental Site Representative |
| All fuels, chemicals and hazardous liquids will be stored on flat land within an impervious bunded area at least 50 meters away from waterways (including existing stormwater drainage systems) and flood-prone areas and in accordance with Australian Standards and EPA guidelines. Spill kits will be provided at all chemical storage facilities/compound sites. | Construction | Project Manager / Environmental Site Representative |
| The refuelling and maintenance of land-based plant and equipment will be undertaken in a designated sealed bunded area where spill kits are available. Refuelling will not be undertaken within 50 meters of any waterway, unless approved by the Principal. Refuelling activities will be supervised at all times. | Construction | Project Manager / Environmental Site Representative |

## 13.6 Construction Flood Emergency Responses

The SES is the designated authority for dealing with floods and is responsible for coordinating the evacuation and welfare of affected communities (SES Act 1989; EMPLAN, 2012). In response to a flood event, SES will operate a 24-hours a day, 7 days a week "Operations Centre" to manage the Emergency Assistance telephone number (132 500) and co-ordinate their activities.

Upon the issuing of a "Flood Warning", CPB will continue to implement the monitoring measures identified in Section 4.2 and maintain open communications with the SES.

To prepare the site for a potential flood event, the following actions are to be undertaken (but not limited too):

- inform all site staff well in advance of a predicted flood event and confirm flood emergency procedures;
- ensure no materials are stockpiled in areas of concentrated overland flow;
- all dangerous goods (e.g. oils, fuels) will be returned/stored at site compound(s) in a dangerous goods (shipping) container which is purpose-built and compliant with the Australian Standard for the storage and handling of flammable and combustible liquids (AS 1940:2004);
- all plant and equipment which is in low-lying land or within 50 metres of a river or stream is to be moved and parked in areas outside the 100-year ARI flood extent;
- secure all items in ancillary facilities that could become hazardous and cause damage if moved by flood water;
- back-up all computer files and network information off-site;
- store sandbags on site to respond to potential ingress of floodwaters into buildings or stockpile areas when a flood is predicted to exceed the 20-year ARI event; and
- store geofabric (or similar) to place around material stockpiles that cannot be located outside of the 20-year ARI flood event, to prevent erosion and loss of material.

It should be noted that a “Flood Watch” can be issued without an actual flood occurring. Therefore, consideration of the actions listed above and the timeframe for securing the work site and moving plant and equipment is to be considered on a case-by-case basis, depending on the most current information available and advice received from State Emergency Service (SES).

There will be permanent staff as well as sub-contractors and visitors on site during Construction. All site personnel (permanent staff, sub-contractors and visitors) will be trained and inducted on all emergency procedures and periodically during toolbox talks to ensure they are prepared for flood events. Should evacuation of the site be required, it is essential that site personnel are familiar with the site evacuation procedure.

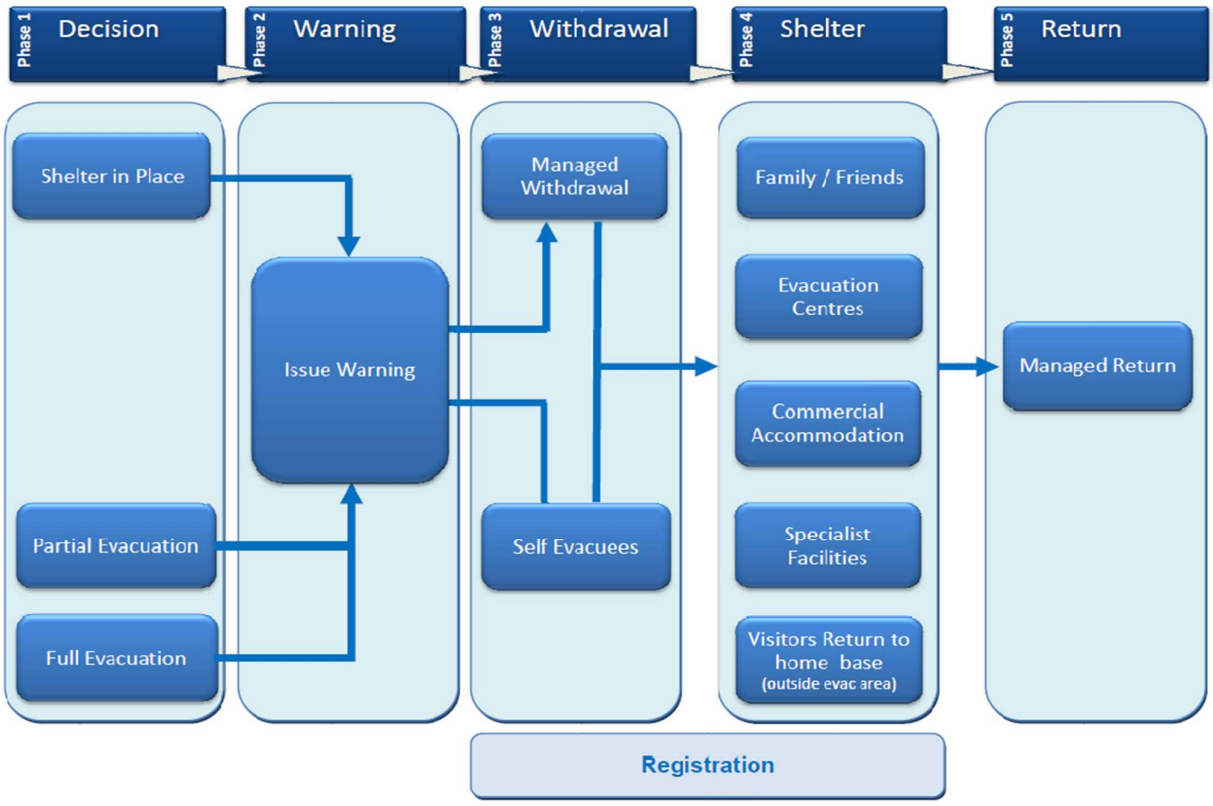
If evacuating the site, ensure all utilities (e.g. gas, electricity and water) connected to a site office have been put to the OFF position and main valves closed.

### 13.6.1 Assembly points and evacuation routes

Emergency Evacuation Points will be identified on the site notice board and communicated through the Emergency Response Plan. These will be updated as required on site and further communicated in pre-starts.

### 13.6.2 Evacuation and refuge protocols

Following receipt of an evacuation order from emergency services or on-site monitoring prompts the decision to evacuate the site, the process outlined below should be followed.




### 13.6.3 Awareness training for employees and contractors

The CPB Site Emergency Response Team will be trained and inducted in to this Plan to ensure that they are prepared for potential flood events and can effectively manage flooding impacts.

### 13.6.4 Flood recovery

A flood event during Construction has the potential to cause considerable damage to property and the environment. If the site and site personnel are properly prepared for the flood event, damage can be minimised. The following list of actions must be considered when returning to site:

- wait until authorities have declared the area safe before re-entering;
- access roads to the site may have been damaged during the flood event so drive carefully and approach the site safely;
- check power boxes and electrical equipment on site. These may have been inundated and require a qualified electrician to check for damage;
- do not turn power back on until all electrical equipment on site has been checked and certified by a qualified electrician;
- check the structural integrity of all buildings on site by a suitably qualified professional. Buildings on site will be of a temporary nature so may not be designed to withstand extreme flood flows and depths. Even if floodwaters have not entered the buildings, check foundations for erosion;
- check to see if any equipment has been moved by flood waters and relocate equipment back to a safe position/location;
- check material stockpiles for erosion and losses;
- check water and wastewater systems on site. Water systems may need to be flushed or repaired following the flood event. Clean up any ponded water around the site to prevent the spread of waterborne disease;

- prepare an incident report on the flood event. Include information on how the site was evacuated and document the resulting flood depths and damage to the site; and
- the site is only to re-open when it is deemed safe to continue work.
- Following re-opening of the site, priority will be given to the:
- clearing away of debris;
- removal of sedimentation and blockage of uncompleted and temporary flood mitigation structures;
- repairs due to failures from overtopping of any temporary or partially constructed embankments; and
- repairs to damage to partially constructed scour protection.

## 13.7 Monitoring

### 13.7.1 Weather monitoring

Proactive monitoring of BoM flood warning services and real-time river data will ensure the most accurate information regarding any potential flood impacts, which will in turn ensure CPBs ESR is able to effectively manage and protect flood-prone areas.

Rainfall at the site office will be measured and recorded in millimetres per 24-hour period at the same time each day from the time that the site office associated with the activities is established.

CPB will measure and record rainfall at the Construction site office in millimetres per 24-hour period at the same time each day from the time that the site office is established. CPB will install automatic weather stations (AWS) and manual rainfall gauges at representative locations throughout the Project area.

CPB will review the weather forecasts at the start of each day and prior to undertaking new work activities that may be affected by rainfall or adverse weather. Where weather forecasts predict conditions that may pose an environmental risk, site environmental controls will be inspected and secured to reduce erosion and sediment control impacts. Contingency planning to prevent spills will also involve monitoring for predicted flood events and the removal of fuels and chemicals from flood prone areas.

### 13.7.2 Flood warning

The BoM Flood Warning Service Program, whose primary function is the provision of an effective flood forecasting and warning service, will be consulted daily to ascertain if any flood warnings have been issued. This service is provided in co-operation with other government agencies such as State emergency management agencies, water authorities and local Councils, coordinated through Flood Warning Consultative Committees and established cooperative working arrangements in each State/Territory.

Flood warnings, watches and river height bulletins are available via the following means:

- Local response organisations: these include the Council, Police, and State Emergency Service in the local area;
- Bureau of Meteorology (BoM): flood warnings, flood watches and general information are available directly from BoM via the web (www.bom.gov.au/australia/warnings) or telephone weather warnings service
  (1300 659 218); and
- Radio: radio stations, particularly local ABC and local commercial stations broadcast flood warning information as part of their news bulletins, or whenever practicable.

A “Flood Watch” is issued first when flooding is possible. A “Flood Warning” is issued when a flood is likely. A “Flood Watch” is typically issued several days before the event is anticipated to occur, e.g. there could be 3-4 days of rain in the upper catchment before this runoff (increasing river height and velocity) impacts the site.

## 13.8 References

Floodplain Risk Management Guideline (OEH 2007).

The Operation Flood Emergency Response Plan has been attached in Appendix K.

# 14. Community Communication Strategy

## 14.1 Scope

The Community Communication Strategy was approved by the Department of Planning on 14 June and is attached in Section 14.3.

## 14.2 Project Compliance Requirements

### 14.2.1 Conditions of Project Environmental Approvals

Conditions of project environmental approvals that specifically address the management of community consultation include:

Table 1.3: Development Consent Conditions

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Where addressed |
|---|---|---|
| B4 | Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:<br>(a) detailed baseline data;<br>(b) details of:<br>(i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);<br>(ii) any relevant limits or performance measures and criteria; and<br>(iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;<br>(c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;<br>(d) a program to monitor and report on the:<br>(i) impacts and environmental performance of the development;<br>(ii) effectiveness of the management measures set out pursuant to paragraph (c) above;<br>(e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;<br>(f) a program to investigate and implement ways to improve the environmental performance of the development over time;<br>(g) a protocol for managing and reporting any:<br>(i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);<br>(ii) complaint;<br>(iii) failure to comply with statutory requirements; and<br>(h) a protocol for periodic review of the plan.<br><br>Note: The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans. | This CEMP |
| B5 | Prior to commencement of construction, the Applicant must prepare a Construction Environmental Management Plan (CEMP) and it must include, but not be limited to, the following:<br>(a) Details of:<br>(i) hours of work;<br>(ii) 24-hour contact details of site manager;<br>(iii) management of dust and odour to protect the amenity of the neighbourhood;<br>(iv) measures to ensure that sediment and other materials are not tracked onto the roadway by vehicles leaving the site; | Community Communication Strategy developed by LHD and HI. |

| Development Consent SSD 8981 (28/02/2019) | Relevant Condition | Where addressed |
|---|---|---|
| | (v) external lighting in compliance with AS 4282-1997 Control of the obtrusive effects of outdoor lighting; and<br>(vi) community consultation and complaints handling;<br>(b) Construction Traffic and Pedestrian Management Plan (see condition B7);<br>(c) Construction Noise and Vibration Management Plan (see condition B8);<br>(d) Construction Soil and Water Management Plan (see condition B9);<br>(e) Construction Waste Management Plan (see condition B10);<br>(f) Construction Dust Management Plan;<br>(g) Flooding Emergency Response Plan (see condition B11);<br>(h) Community Communication Strategy (see condition B12); and<br>(i) an Unexpected Finds Protocol for Aboriginal and Non-Aboriginal Heritage and associated communications procedure. | |
| B12 | Prior to the commencement of construction, the Applicant must prepare a Community Communication Strategy (CCS). The CCS must be prepared to provide mechanisms to facilitate communication between the Applicant, Council and the community (including adjoining affected landowners and businesses, and others directly impacted by the development), during the design and construction of the development and for a minimum of 12 months following the completion of construction. The CCS must:<br>(a) identify people to be consulted during the design and construction phases;<br>(b) set out procedures and mechanisms for the regular distribution of accessible information about or<br>relevant to the development;<br>(c) provide for the formation of community-based forums, if required, that focus on key environmental<br>management issues for the development;<br>(d) set out procedures and mechanisms:<br>(i) through which the community can discuss or provide feedback to the Applicant;<br>(ii) through which the Applicant will respond to enquiries or feedback from the community; and<br>(iii) to resolve any issues and mediate any disputes that may arise in relation to construction and operation of the development, including disputes regarding rectification or compensation.<br>The Community Communication Strategy must be submitted to the Planning Secretary for approval no later than two weeks before the commencement of any work. Work for the purposes of the development must not commence until the Community Communication Strategy has been approved by the Planning Secretary, or within another timeframe agreed with the Planning Secretary. | Community Communication Strategy developed by LHD and HI. |

## 14.3 Community Communication Strategy

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## Appendix A: CPB Contractors Environment Policy

## Appendix B: CPB Contractors Environmental Certification

# Appendix C: Environmental Roles and Responsibilities

| | | Project Manager | Project Environmental Rep. | Engineering Manager | Engineers | Construction Manager | Supervisors | Line Manager | P&C Manager | Commercial Manager | Comm & S' hold Manager | H&S Manager | Other positions |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Element 1:** | **Leadership, Accountability and Culture** | | | | | | | | | | | | |
| 1.1. | Environmental accountabilities, roles and responsibilities for managers, staff, employees and subcontractors are clearly defined, documented and communicated | | C | | | | | C | R | | | | |
| 1.2. | Environmental leadership and commitment is demonstrated through measurable participation in environmental management | R | C | | | | C | C | | | | | |
| 1.3. | Environmental expectations are clearly defined with appropriate reward and disciplinary processes in place. | R | C | | | | | C | | | | | |
| **Element 2:** | **Planning** | | | | | | | | | | | | |
| 2.1. | Adequate resources are provided to effectively implement the EMP | R | C | | | C | | | C | C | | | |
| 2.2. | Business systems are defined and established | | R | | | | | | | | | | |
| 2.3. | Environmental Sub-Plans are prepared and maintained for Significant Environmental Hazards | | R | | | | | | | | | | |
| **Element 3:** | **Legal and Other Requirements** | | | | | | | | | | | | |
| 3.1. | Relevant legal, contractual and other requirements are identified and maintained in a legal and other obligations register | C | R | | | | | | | | | | |
| 3.2. | All necessary environmental approvals are obtained prior to commencing relevant works and surrendered on completion | C | R | | C | | | | | | | | |
| 3.3. | Work is planned and executed to ensure compliance | | C | C | C | R | C | | | | | | |
| 3.4. | Inspections, observations and monitoring are performed to ensure compliance is maintained | | C | | C | | R | | | | | | |
| 3.5. | All non-compliances are reported as incidents | | R | | | | | | | | | | |
| 3.6. | All energy and greenhouse data are collected and entered into JDE | C | R | | | | | | | C | | | |
| 3.7. | Personnel on the site have access to current versions of relevant legislation, standards and codes of practice | | C | | | | | | | | | | R |
| **Element 4:** | **Risk and Opportunity Management** | | | | | | | | | | | | |
| 4.1. | Systematic processes are defined and implemented for identifying environmental risks and opportunities at all stages of the Project | R | C | C | C | | C | | | | | | |
| 4.2. | Identified risks and opportunities are analysed and evaluated according to agreed criteria and recorded in a risk register | R | C | | C | | | | | | | | C |
| 4.3. | Environmental controls appropriate to the level of risk are identified, documented and implemented | C | C | | C | | | | | | | | R |
| 4.4. | Feasible opportunities are implemented | R | | | | | | | | | | | C |
| 4.5. | Identified environmental risks and controls are communicated to all relevant personnel | R | C | | C | | C | | C | | | C | |
| 4.6. | Regular inspections and monitoring are conducted to check effectiveness of controls | C | R | | C | | C | | | | | | |
| 4.7. | Environmental risks and controls are regularly reviewed. | R | C | | C | | | | | | | | |
| **Element 5:** | **Change Management** | | | | | | | | | | | | |
| 5.1. | Changes to planned operations that have potential environmental consequences are identified | R | C | C | C | | C | | | | | | |
| 5.2. | Risks associated with identified changes are assessed and controlled before changes are implemented | R | C | | | | C | | | | | | C |
| 5.3. | All changes with environmental consequences are authorised before they are implemented | R | | C | | C | C | | | | | | |
| 5.4. | Controls associated with change are communicated to all affected personnel | | | | | | C | | | | | | R |
| **Element 6:** | **Communication and Consultation** | | | | | | | | | | | | |
| 6.1. | External environmental stakeholders are identified | | C | | | | | | | | R | | |
| 6.2. | Relationships with external stakeholders are effectively managed | | R | | | | | | | | C | | |
| 6.3. | Internal consultative forums are established with regular meetings scheduled, conducted, documented and communicated | R | C | | | | | | | | C | C | |
| 6.4. | Environmental complaints and enquiries are recorded and responded to appropriately | C | C | | | | | | | | R | | |
| 6.5. | The effectiveness of internal and external stakeholder engagement is evaluated and improved. | R | C | | | | | | | | C | C | |

| | Project Manager | Project Environmental Rep. | Engineering Manager | Engineers | Construction Manager | Supervisors | Line Manager | P&C Manager | Commercial Manager | Comm & S' hold Manager | H&S Manager | Other positions |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Element 7: Training and Competency** | | | | | | | | | | | | |
| 7.1. All personnel have completed an induction containing relevant environmental information before they are authorised to work on the Project | | R | | | | | | C | | | C | |
| 7.2. A training plan is developed and documented | | R | | | | | | C | | | | |
| 7.3. Personnel are trained and assessed according to the training plan | R | C | | | | | | C | | | | |
| 7.4. Training records are maintained and accessible to relevant personnel. | | C | | | | | | R | | | | |
| **Element 8: Subcontractor Relationships** | | | | | | | | | | | | |
| 8.1. Selection processes ensure that subcontractors meet CPB Contractors' minimum environmental requirements | | C | | C | | | | | R | | | |
| 8.2. Planning requirements of all subcontractor work scopes are completed and communicated prior to commencing work | | C | | R | | | | | C | | | |
| 8.3. Compliance requirements for high risk environmental activities are identified and enforced | | C | | R | | | | | C | | | |
| 8.4. Subcontractor documentation is submitted and reviewed to meet Project requirements | | R | | C | | | | | C | | | |
| 8.5. Changes to the scope of work are managed as a Project change | | | | C | | | | | R | | | |
| 8.6. Subcontractors actively participate in environmental management and training on the Project | | C | | C | | | | | R | | | C |
| 8.7. Subcontractors are reviewed to assess their performance and compliance with our minimum environmental requirements. | | R | | C | | C | | | | | | |
| **Element 9: Incident Management** | | | | | | | | | | | | |
| 9.1. All incidents are followed by appropriate response and notification | R | C | | C | | C | | | | C | | |
| 9.2. All incidents are entered and managed in Synergy | C | R | | | | | | | | | | |
| 9.3. Incident investigations are conducted appropriate to the type of incident | R | C | | C | | C | | | | | | |
| 9.4. All personnel conducting incident investigations are trained to competently perform the task | R | | | | | | | | | | | |
| 9.5. Corrective and preventive actions are taken after incidents and lessons are shared with other projects | R | C | | | | | | | | | | |
| 9.6. High potential and repeat incidents are regularly reviewed by the project management team | C | R | | | | | | | | | | |
| **Element 10: Emergency Planning and Response** | | | | | | | | | | | | |
| 10.1. Potential emergencies are identified using a formal risk assessment process | R | C | | | | | | | | | | |
| 10.2. Emergency response plans and procedures are developed and regularly reviewed | R | C | | | | | | | | | C | |
| 10.3. Adequate resources are provided to effectively implement emergency response plans and procedures | R | C | | | | | | | | | C | |
| 10.4. Environmental emergency response drills are conducted | R | C | | | | | | | | | C | |
| 10.5. Employees, contractors and visitors are given appropriate emergency response training. | | C | | | | | | R | | | C | |
| **Element 11: Document and Record Management** | | | | | | | | | | | | |
| 11.1. Current versions of all relevant documents and records are available and controlled. | C | R | | | | | | | | | | |
| 11.2. Relevant documents and records will be maintained using corporate business applications and systems | R | | | | | | | | | | | |
| **Element 12: Reporting, Auditing, Review and Improvement** | | | | | | | | | | | | |
| 12.1. Environmental performance trends are identified, and corrective actions are implemented as required | R | C | | | | | | | | | | |
| 12.2. A monthly environmental report is produced and distributed | C | R | | | | | | | | | | |
| 12.3. Regular management reviews are conducted to determine the continuing suitability, adequacy and effectiveness of the Environmental Management System | R | C | | | | | | | | | | C |
| 12.4. Audits are undertaken to ensure compliance with the requirements of the EMP | R | C | | | | | | | | | | C |
| 12.5. All audits are undertaken by suitably qualified and experienced personnel | | | | | | | | | | | | R |

**R** = Responsible, **C** = Key Contributor

## Appendix D: Development Consent Compliance Register

## Appendix E: MIRRA Schedule

**(Monitoring, Inspections, Reporting, Review, Audit) Schedule**

| Name | Detail | Frequency | By Whom | Resources |
|---|---|---|---|---|
| **MONITORING** | | | | |
| Water Quality prior to discharge | Water quality parameters including pH, NTU | Prior to discharge to stormwater | Environment Advisor | Environmental Monitoring form |
| Air Quality | As required depending on the receiver | As determined by site conditions | Environment Advisor | Environmental Monitoring form |
| Noise monitoring | As required depending on the receiver | As determined by site conditions | Environment Advisor | Environmental Monitoring form |
| Traffic and Pedestrian Management | Development Consent Condition B7(f) – monitoring effectiveness of road safety and network efficiency | Monthly or after new control installed | Site Manager | Traffic and Pedestrian Management/ Control Plans |
| **INSPECTIONS** | | | | |
| General Site Inspection | Environmental zone inspections | As per Monitoring Schedule | Environment Advisor | Environmental Inspection Checklist |
| Soil and Water Management | Development Consent Condition B9(d) – inspection regime for erosion and sediment controls | Weekly and pre/post heavy rainfall events | Environment Advisor | Environmental Inspection Checklist and ERSED Plan |
| **REPORTING** | | | | |
| Environmental Report | Detail on Environmental achievements, monitoring results, incidents, audit outcomes | Monthly | Environment Advisor | As part of Monthly Project Report |
| **REVIEW** | | | | |
| EMP Review | Review of sub plans and Appendices | Bi-annual | SHEQ Manager | EMP |
| Risk Register Review | Review risks in relation to changes to work activity onsite | Monthly | Project Team | Project Risk Register |
| Site Env Plan | Review site environmental controls in relation to work activity onsite to ensure reflective of site conditions | Fortnightly | Environment Advisor | Project ERSED Plan |
| **AUDIT** | | | | |
| CPB Contractors Internal SHEQ Audit | Review of EMP compliance to CPB Contractors EMS/ ISO14001 | Bi-annual | SHEQ Team | Synergy |

## Appendix F: Legal and Other Requirements Register

| Activity/ Aspect | Act/Regulation | Summary | Sections | Obligations | Due Diligence Strategy |
|---|---|---|---|---|---|
| | **Planning / Pollution** | | | | |
| Administrative | Protection of the Environment Administration Act 1991 | This Act establishes the EPA, the Board of the EPA (including Chairperson), two community consultation forums, and the NSW Council on Environmental Education requires the EPA to make a report on the state of the environment every three years. Objectives of the EPA are listed in section 6 of the Act. The overriding objective of the EPA is to protect, restore and enhance the quality of the environment in NSW, having regard to the need to maintain ecologically sustainable development. The EPA is a statutory body representing the Crown and is generally subject to Ministerial control, but not in relation to: the making of a report or recommendation to the Minister the release of a state of the environment report (although the Minister can require more information in the report) the making of a decision to institute criminal or related proceedings. | | If the Minister gives any direction or makes any determination concerning a licensing function, a report of the direction must be tabled in Parliament. | Environmental Obligations Table / Induction Awareness Training/ Compliance Tracking |
| Planning Approval | Environmental Planning and Assessment Act, 1979 | The EP&A Act details the appropriate approval processes for development in NSW. | | Comply with the terms Minister for Planning's approval for the project. Obtain the Minister's approval for any project modifications that are not consistent with the planning approval. | A change management process to determine if modifications are consistent with the planning approval is outlined in Element 5 of CEMP. |
| | - | | | | |

| Activity/ Aspect | Act/Regulation | Summary | Sections | Obligations | Due Diligence Strategy |
|---|---|---|---|---|---|
| Pollution | Protection of the Environment Operations Act, 1997 | The POEO Act details offences and penalties for a range of environmental issues including water, noise, air and land pollution and sets out the duty to notify. The Act also details scheduled activities that require an Environment Protection Licence (EPL). | | | Environmental Obligations Table/ Inductions/ Compliance Tracking |
| Environmental Protection Licences | Protection of the Environment Operations Act, 1997 | The POEO Act details offences and penalties for a range of environmental issues including water, noise, air and land pollution and sets out the duty to notify. The Act also details scheduled activities that require an Environment Protection Licence (EPL). | S47/ S48 | Do not carry out or allow an activity listed in Schedule 1, or carry out work to enable such an activity (scheduled development work), unless the premises are licensed by the EPA.<br>Note: This includes road construction: meaning the construction, widening or re-routing of roads if it results in the existence of 4 or more traffic lanes (other than bicycle lanes or lanes used for entry or exit) for 1 kilometres of their length in the metropolitan area, or 5 kilometres in length in any other area, where the road is classified, or proposed to be classified, as a freeway or tollway under the Roads Act 1993. | Environmental Obligations Table/ Inductions/ Compliance Tracking |
| Pollution | Protection of the Environment Operations Act, 1997 | The POEO Act details offences and penalties for a range of environmental issues including water, noise, air and land pollution and sets out the duty to notify. The Act also details scheduled activities that require an Environment Protection Licence (EPL). | S115<br>S116<br>S117 | Do not risk harming the environment by wilfully or negligently:<br>• disposing of waste unlawfully.<br>• causing any substance to leak, spill or otherwise escape (whether or not from a container); or<br>• emitting an ozone depleting substance | Environmental Obligations Table/ Inductions/ Compliance Tracking |
| Pollution | Protection of the Environment Operations Act, 1997 | The POEO Act details offences and penalties for a range of environmental issues including water, noise, air and land pollution and sets out the duty to notify. The Act also details scheduled activities that require an Environment Protection Licence (EPL). | S148 | Notify the EPA immediately of pollution incidents where material harm to the environment is caused or threatened. | Environmental Obligations Table/ Inductions/ Compliance Tracking |
| Pollution | Protection of the Environment Operations Act, 1997 | The POEO Act details offences and penalties for a range of environmental issues including water, noise, air and land pollution and sets out the duty to notify. The Act also details scheduled activities that require an Environment Protection Licence (EPL). | S120<br>S122 | Do not cause water pollution (other than to a sewer), except in accordance with the conditions of any Environmental Protection Licence. | Environmental Obligations Table/ Inductions/ Compliance Tracking |

| Activity/ Aspect | Act/Regulation | Summary | Sections | Obligations | Due Diligence Strategy |
|---|---|---|---|---|---|
| Pollution | Protection of the Environment Operations Act, 1997 | The POEO Act details offences and penalties for a range of environmental issues including water, noise, air and land pollution and sets out the duty to notify. The Act also details scheduled activities that require an Environment Protection Licence (EPL). | S124 | Do not operate plant which emits air pollution caused by poor maintenance or operation. | Environmental Obligations Table/ Inductions/ Compliance Tracking |
| Noise | Protection of the Environment Operations Act, 1997 | The POEO Act details offences and penalties for a range of environmental issues including water, noise, air and land pollution and sets out the duty to notify. The Act also details scheduled activities that require an Environment Protection Licence (EPL). | S139 | Do not operate plant if it emits noise caused by poor maintenance or operation. | Environmental Obligations Table/ Inductions/ Compliance Tracking |
| Noise | Protection of the Environment Operations Act, 1997 | The POEO Act details offences and penalties for a range of environmental issues including water, noise, air and land pollution and sets out the duty to notify. The Act also details scheduled activities that require an Environment Protection Licence (EPL). | S140 | Do not cause noise by failing to properly and efficiently deal with materials. | Environmental Obligations Table/ Inductions/ Compliance Tracking |
| Pollution | Protection of the Environment Operations Act, 1997 | The POEO Act details offences and penalties for a range of environmental issues including water, noise, air and land pollution and sets out the duty to notify. The Act also details scheduled activities that require an Environment Protection Licence (EPL). | S142A – S142E | Do not cause or permit land pollution other than under authority of a licence or regulation. (However it is not a land pollution offence to place virgin excavated natural material (VENM) or lawful pesticides and fertilisers on land, or by placing matter on land that has been notified to the Environment Protection Authority (EPA) as an unlicensed landfill and which is operated in accordance with the regulations.) | Environmental Obligations Table/ Inductions/ Compliance Tracking |
| Control equipment | Protection of the Environment Operations Act, 1997 | The POEO Act details offences and penalties for a range of environmental issues including water, noise, air and land pollution and sets out the duty to notify. The Act also details scheduled activities that require an Environment Protection Licence (EPL). | S167 | Properly and efficiently maintain and operate any installed pollution control equipment (including monitoring devices). | Environmental Obligations Table/ Inductions/ Compliance Tracking |
| Waste | Protection of the Environment Operations Act, 1997 | The POEO Act details offences and penalties for a range of environmental issues including water, noise, air and land pollution and sets out the duty to notify. The Act also details scheduled activities that require an Environment Protection Licence (EPL). | Part 5.6A | Do not litter in a public place or an open private place. Do not litter from a vehicle.<br><br>Only deposit advertising material in receptacles provided for mail or newspapers or under the door of the premises.<br>Do not deposit advertising material on or in vehicles. | Environmental Obligations Table/ Inductions/ Compliance Tracking |

| Activity/ Aspect | Act/Regulation | Summary | Sections | Obligations | Due Diligence Strategy |
|---|---|---|---|---|---|
| Pollution Incident Response Management Plan | Protection of the Environment Operations Act, 1997 | The POEO Act details offences and penalties for a range of environmental issues including water, noise, air and land pollution and sets out the duty to notify. The Act also details scheduled activities that require an Environment Protection Licence (EPL). | Part 5.7A | Requirements of a licensee to prepare, implement and test a Pollution Incident Response Management Plan (PIRMP). | Environmental Obligations Table/ Inductions/ Compliance Tracking |
| Waste | Protection of the Environment Operations Act, 1997 | The POEO Act details offences and penalties for a range of environmental issues including water, noise, air and land pollution and sets out the duty to notify. The Act also details scheduled activities that require an Environment Protection Licence (EPL). | Part 3.2 Schedule 1 | Do not undertake a scheduled waste activity unless in accordance with an environmental protection licence.<br>A licence must be obtained when construction and demolition wastes are applied to land under certain circumstances. This includes the reincorporation of crushed road base material back into roads and the placing of excess fill material onto properties. A licence is not required if the material:<br>• Is Virgin Excavated Natural Materials (VENM)<br>• Is covered by a "resource recovery order/exemption". (Current exempted materials are Excavation Natural Materials (ENM), recycled aggregates and raw mulch. These exemptions are conditional and require some chemical testing of materials before they are placed onto land).Does not exceed 1000 tonnes or 1000 m3 on-site at any one time, processing more than 6000 tonnes a year (Regulated Area) | Environmental Obligations Table/ Inductions/ Compliance Tracking |
| Waste | Protection of the Environment Operations Act, 1997 | The POEO Act details offences and penalties for a range of environmental issues including water, noise, air and land pollution and sets out the duty to notify. The Act also details scheduled activities that require an Environment Protection Licence (EPL). | S143 | Only transport waste to a facility that can lawfully accept the waste. | Environmental Obligations Table/ Inductions/ Compliance Tracking |
| Waste | Protection of the Environment Operations Act, 1997 | The POEO Act details offences and penalties for a range of environmental issues including water, noise, air and land pollution and sets out the duty to notify. The Act also details scheduled activities that require an Environment Protection Licence (EPL). | S115 | Disposal of WasteDo not: dispose of waste in a manner that harms, or is likely to harm the environmentdeposit or leave on Crown land without approval any: rubbish, litter, refuse, dead animals, or other similar matterprescribed matterunless in a place or receptacle provided. | Environmental Obligations Table/ Inductions/ Compliance Tracking |

| Activity/ Aspect | Act/Regulation | Summary | Sections | Obligations | Due Diligence Strategy |
|---|---|---|---|---|---|
| Waste | Protection of the Environment Operations (Waste) Regulation 2014 | Provides for the contributions to be paid by the occupiers of scheduled waste facilities for each tonne of waste received at the facility or generated in a particular area;<br>Exempts certain occupiers or types of waste from these contributions;<br>Allows rebates to be claimed in relation to certain types of waste;<br>Provides for certain reporting and record-keeping requirements in relation to scheduled waste facilities and scheduled landfill sites;<br>Exempts certain waste streams from the full waste tracking and recordkeeping requirements;<br>Makes requirements relating to the transport of waste to interstate destinations;<br>Makes special requirements including reporting requirements relating to asbestos waste as well as prohibiting the re-use and recycling of asbestos waste;<br>Imposes requirements on brand owners and retailers to recover, re-use and recycle packaging;<br>Allows the EPA to issue exemptions from certain provisions of the Act and Regulations;<br>Allows the EPA to approve the immobilisation of contaminants in waste; and<br>Makes it an offence to apply, or to cause or permit the application of, residue waste to land that is used for the purpose of growing vegetation, subject to any exemptions. | Regulation cl.49 | Comply with general requirements for the transport of waste. For example, any vehicle used by the person to transport waste must be kept in a clean condition and be maintained so as to prevent spillage of waste. For some wastes only licensed transporters can be used. | Environmental Obligations Table/ Inductions/ Compliance Tracking |
| Waste | Protection of the Environment Operations (Waste) Regulation 2014 | | Regulation Part 3 | Comply with record keeping requirements in relation to the transport of certain types of waste. | Environmental Obligations Table/ Inductions/ Compliance Tracking |
| Waste | Protection of the Environment Operations (Waste) Regulation 2014 | | S71 | The Protection of the Environment Operations (Waste) Regulation 2014 (the Waste Regulation) makes it an offence to transport waste generated in NSW by motor vehicle for disposal more than 150 kilometres from the place of generation, unless the waste is transported to one of the two nearest lawful disposal facilities to the place of generation (even if that facility is located more than 150 kilometres from its place of generation). | Environmental Obligations Table/ Inductions/ Compliance Tracking |

| Activity/ Aspect | Act/Regulation | Summary | Sections | Obligations | Due Diligence Strategy |
|---|---|---|---|---|---|
| | - | | | | |
| | Rural Fires Act, 1997 | The RF Act aims to provide for the prevention, mitigation and suppression of bush and other fires across the State. | | | |
| | | | | | |
| Hazards and risks | Dangerous Goods (Road and Rail Transport) Act 2008 | | S9 | Ensure that dangerous goods are transported in a safe manner. | Environmental Obligations Table/ Inductions/ Compliance Tracking |
| | | | | | |
| Hazards and risks | Environmentally Hazardous Chemicals Act 1985 | | S28 | Obtain a licence to undertake prescribed activities involving environmentally hazardous chemicals or declared chemical wastes. | Environmental Obligations Table. Inductions |
| | | | | | |
| Hazards and risks | Pesticides Act 1999 | This Act controls and regulates the use of pesticides in NSW. The Act prohibits the misuse of pesticides that harms people, property, animals or plants. Under the Act the EPA can issue a person with a clean-up notice, prevention notice and compliance cost notice.<br><br>The EPA may make pesticide control orders under the Act which prohibit or control the use of pesticides, or which permit the use or possession of restricted pesticides. The Act provides that certain pesticides may only be used by a person who has obtained a certificate of competence authorising such use. There are also provisions to regulate foodstuffs that contain prohibited residues of pesticides, and to prescribe methods of controlling the application of pesticides from aircraft, with the EPA being required to licence pilots and aircraft operators that conduct aerial spraying.<br>The Act gives the Pesticides Implementation Committee a role in matters relating to the implementation of the Act, for example, for formulating regulations, pesticide control orders | S12<br>S13<br>S14<br>S15<br>S17 | Use pesticides in an environmentally sensitive manner.<br>Do not use an unregistered pesticide without a permit.<br>Read the label or permit for the pesticide.<br>Use registered pesticides in accordance with instructions on the label.<br>Do not use any restricted pesticide unless authorised by a certificate of competency or a pesticide control order under the Act.<br>Compliance with pesticide codes of practice is required. | Environmental Obligations Table. Inductions |

| Activity/ Aspect | Act/Regulation | Summary | Sections | Obligations | Due Diligence Strategy |
|---|---|---|---|---|---|
| | | and pesticide codes of practice dealing with issues such as training of pesticide users and record keeping. | | | |
| Administrative | Transport Administration Act 1988 | Created TfNSW and defines its principal role. | | Created TfNSW and defines its principal role. | |

## Appendix G: Environmental Obligations Register

| Source Document | Obligation Extent | Authority | Impact on Project | Owner | Means of Compliance | Actions Required | Due date / Review date / Complete | Evidence Reference |
|---|---|---|---|---|---|---|---|---|
| Contract | EMP to be developed | DPE | To be approved prior to commencement | CPB SHEQ Manager | EMP to be issued to DPE | EMP to be developed and approved by Blackett Maguire & Goldsmith | Prior to Commencement | Aconex Correspondence |
| | Waste Management | EPA | All waste to be monitored and reported to HI | CPB SHEQ Manager | Waste reporting every 2 months to Client | Waste tracking document and tip dockets to be maintained | Bi-monthly | Client Monthly Report<br>Synergy |
| | Incident Notification | EPA | Possible stop work | CPB Project Manager | PM to notify EPA | PM to notify EPA | As required | Aconex correspondence |
| Development Consent | Compliance Reporting | DPE | Consent requirement | CPB SHEQ Manager<br>BCA Certifier | Reporting to DPE | Notify DPE as per Condition requirements | As required | Aconex correspondence |
| | Traffic Management | Coffs Harbour City Council | Approvals for Traffic and Pedestrian Plans | CPB Project Manager | Consultation with CHCC | Traffic and Pedestrian plans to be inserted in to CEMP and issued to Coffs Harbour City Council | Prior to commencement | Aconex correspondence |
| Asbestos Management Plan | Reporting of Asbestos finds | SafeWork NSW | Possible stop work | CPB Project Manager | Engage asbestos removalist | Asbestos removalist to notify SafeWork | As required | Aconex correspondence |

## Appendix H: Site Environment Plans

## Appendix I: Environmental Incident Notification Template

A written incident notification addressing the requirements set out below must be emailed to the Department at the following address: compliance@planning.nsw.gov.au within seven days after the Applicant becomes aware of an incident. Notification is required to be given under this condition even if the Applicant fails to give the notification required under condition C39 or, having given such notification, subsequently forms the view that an incident has not occurred.

| Details required | |
|---|---|
| identify the development and application number; | **Development Consent SSD 8981**<br>Expansion of the Coffs Harbour Hospital |
| provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident); | |
| identify how the incident was detected; | |
| identify when the applicant became aware of the incident; | |
| identify any actual or potential non-compliance with conditions of consent; | |
| describe what immediate steps were taken in relation to the incident; | |
| identify further action(s) that will be taken in relation to the incident; and | |
| identify a project contact for further communication regarding the incident. | Project Manager Brad Sugar<br>M: 0447 177 556<br>E: Brad.Sugar@cpbcon.com.au |

1. Within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, the Applicant must provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below, and such further reports as may be requested.
2. The Incident Report must include:
   - a summary of the incident;
   - outcomes of an incident investigation, including identification of the cause of the incident;
   - details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and
   - details of any communication with other stakeholders regarding the incident.

## Appendix J: Unexpected Finds Procedure

If the following is identified on site:

- Suspected heritage artefacts (Aboriginal or non-aboriginal)
- Human remains
- Contaminated material including asbestos
- Uncontained spill of hazardous materials
- Injured wildlife

1. **STOP** the works immediately
2. ADVISE the CPB Project Manager or Site Manager
    a. Type of unexpected find
    b. Location of the find
3. ISOLATE the area and CPB to erect warning signs
4. DO NOT GO BACK IN TO THE AREA UNTIL ADVISED BY CPB

| CPB POINTS OF CONTACT | | |
|---|---|---|
| CPB Project Manager | Brad Sugar | 0447 177 556 |
| CPB Site Manager | Brett Mills | 0439 302 407 |
| CPB Environmental Manager | Andrew Zvirzdinas | 0480 212 828 |

### FURTHER ACTIONS REQUIRED:

**IF contaminated material:** CPB to call hygienist for classification. All contaminated material must be disposed off-site, with the disposal location and results of testing recorded.

**IF Aboriginal object:** CPB to notify archaeologist and the registered Aboriginal representatives to determine the significance of the objects. The site is to be registered in the Aboriginal Heritage Information Management System (AHIMS) which is managed by OEH and the management outcome for the site included in the information provided to AHIMS. The Applicant must consult with the Aboriginal community representatives, the archaeologists and OEH to develop and implement management strategies for all objects/sites. Works shall only recommence with the written approval of OEH.

**IF other archaeological relics:** CPB to notify archaeologist and the OEH Heritage Division. Depending on the possible significance of the relics, an archaeological assessment and management strategy may be required before further works can continue in that area. Works may only recommence with the written approval of Heritage Division of the OEH.

**IF asbestos** - CPB to call hygienist for classification and air monitoring.

**IF injured wildlife** - CPB to call WIRES Mid North Coast on 02 6652 7119

**IF human** remains - CPB to call Police 000

# Appendix K: Operation Flood Emergency Response Plan

# Appendix L: Construction Traffic Management Plan