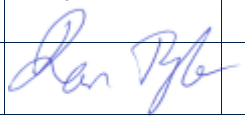
Construction Environmental Management Plan

Campbelltown Hospital Redevelopment Stage 2

Project number: N01052
Document number: CHR-CPB-MPL-QLT-GEN-ALL-00PP10 CEMP
Revision date: **01/07/2021**
Revision: 09

Document Approval

Rev.	Date	Prepared by	Reviewed by	Recommended	Approved by	Remarks
00	01/05/2019	R Thompson	C Kolovos / I Tyler		A Armstrong	
01	12/06/2019	R Thompson	Con Kolovos		A Armstrong	SSD Issue Updates as per PCA feedback
02	13/06/2019	R Thompson	Con Kolovos	T Doczy	A Armstrong	Final
03	20/06/2019	Ian Tyler / Con Kolovos	Ian Tyler		A Armstrong	Updates to address WolfPeak comments
04	27/06/2019	Anthony Armstrong / Con Kolovos	Ian Tyler		A Armstrong	
05	28/06/2019	Iann Agamalis	Con Kolovos		A Armstrong	MWO & Project Scope Update
06	22/01/2020	Ian Tyler	Con Kolovos		R Favotto	SSD C27 condition revision
07	02/11/2020	Ian Tyler			Scott Knight	Revision post external / internal audits
08	31/05/2021	Ian Tyler	Ian Tyler		Scott Knight	Revision post external CCR3 / NGH
09	01/07/2021	Ian Tyler	Ian Tyler		Scott Knight	Revision post external CCR4 / Updated waste Plan
Signature:						

Details of Revision Amendments

Document Control

The Project Director is responsible for ensuring that this plan is reviewed and approved. The SHEQ Manager is responsible for updating this plan to reflect changes to environmental, legal and other requirements, as required.

Amendments

Any revisions or amendments must be approved by the Project Director before being distributed / implemented.

Revision Details

Revision	Details
00	Construction Environmental Management Plan incorporating approval and contract requirements for submission.
01	SSD Certifying Authority Issue; Incorporation of Aviation Subplan and Appendix M Updates to Waste Management Subplan and Energy Management Subplan
02	Final
03	Updates to address WolfPeak comments
04	Updates to address WolfPeak comments
05	Main Works Offer Submission and Project Scope updates
06	SSD C27 Revised Condition Update for dewatering
07	Review post External (WolfPeak and NGH) and Internal Environmental Audit outcomes
08	Revision post external CCR3 / NGH as mandated by SSDA condition C46. No changes required.
09	Revision post external CCR4 No changes required arising from the report. Updated waste Plan Waste Management Subplan- waste supplier etc. Updated SMF referencing.

Contents

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1. Structure of this Plan

This Environmental Management Plan (EMP) outlines how we will achieve acceptable environmental outcomes during demolition works and refurbishment services related to the Campbelltown Hospital Redevelopment, 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
- Safety and Health Management Plan
- Completion Management Plan

The plan has the following structure:

Part A: Overview	This section clearly defines: ▪ Purpose and Scope of the EMP ▪ Environmental Contract Requirements ▪ Objectives and Targets ▪ Structure the Environmental Management System ▪ 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: ▪ Expectations ▪ How they will be met ▪ Responsibilities ▪ 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: ▪ Environmental Policy ▪ Environmental Risk Register ▪ Environmental Roles and Responsibilities ▪ Site Environment Plan

2. Project Overview

2.1 Purpose and Scope

CPB Contractors has been contracted by South West Sydney Health District/NSW Health Infrastructure to provide construction and demolition/refurbishment services as part of the Campbelltown Hospital Redevelopment.

This Plan is established in accordance with 'The Way We Operate' framework and is the key document that integrates Environmental requirements and client environmental requirements during project delivery.

This EMP complies with the State Significant Development (SDD) conditions set by the NSW Department of Planning and Environment (DP&E) (Dated 18 February 2019).

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 Director, with advice and input from senior construction staff, is responsible for the Plan.

2.2 Project Description

The delivery of expanded and new services at Campbelltown Hospital will be achieved through the construction of a new Clinical Services Building (Building CS01) and the refurbishment of sections of the existing facilities.

The design includes a new Clinical Services Building (Building CS01) comprising a three-level podium and two towers; one tower dedicated to acute services and inpatient accommodation and the second tower dedicated to mental health services. Integrated into the new Building CS01 will be a central spine providing connectivity across the precinct. A mixture of new works and refurbishment is anticipated to the existing cancer facilities. The refurbishment works consists of extensive works to areas of Building CSO2 (existing Building A).

The new facility will provide for an increase in beds from 462 to 803 (2026/27). Operating theatres will increase from the current 9 to 21 (2026/27). The new Clinical Services Building CS01, which forms the main component of the Stage 2 Redevelopment will have a building area of approximately 67,750 sqm spread across 12 floor levels.

The Works under the CHR Main Works Project includes the following:

- Emergency Department (including EDSSU)
- Intensive Care Unit
- Perioperative (Operating Theatres, Cath Labs, Interventional Radiology)

- CSSD
- Maternity, Birthing, Special Care Nursery
- Surgical/Medical Inpatient Units
- Maternity Inpatient Units
- Paediatric Inpatient Units
- Paediatric Day Only, Ambulatory
- Mental Health (Integrated) & MHSSU
- Cancer - Radiation Therapy with the addition of a new radiotherapy bunker shell
- Ambulatory Day Care
- Front of House
- Helipad
- Western Pedestrian Link
- Eastern Pedestrian Link
- CSO1 / CSO2 Building Links
- Southern Bridge Link
- Carpark CPO1
- Interface with existing Loading Dock
- Landscaping and Associated Civil Works
- Upgrades to Therry Road and Appin Road Intersections

- The following facilities and departments will be refurbished in the existing buildings:
- Medical Imaging Department
- Nuclear Medicine
- Limited reconfiguration of existing theatres and catheter labs
- Surgical Day Only
- High Volume Short Stay
- Expansion of Cancer Treatment Centre (CTC), including Chemotherapy Services and an addition Linear Accelerator (LINAC).

2.3 Environmental Contract Requirements

The following table sets out the client requirements as defined in MSC GC21 e2 Preliminaries, General and HI Special Conditions. It documents where each requirement has been addressed within this Plan, or the wider CPB Contractors Management System.

Table 2-1: Contract Requirements for Environmental Management

Contract Reference	Content requirements	Where addressed
GC21 Preliminaries 5.6	**Response to Unexpected Discovery** 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. With the initial notification, or as soon as practicable thereafter, submit details, including: ▪ the additional work and additional resources the Contractor estimate to be necessary to deal with the substance so that work and subsequent use of the Work (s) may proceed safely and without risk to health ▪ the Contractor's estimate of the cost of the measures necessary to deal with the substance; and ▪ other details reasonably required by the Principal. The Contractor must, in planning and carrying out any work dealing with the substance take all reasonable steps to: ▪ to carry out the work concurrently with other work wherever possible; and ▪ to minimise otherwise effects of the work on the Contractual Completion Date(s).	Hazardous Substances Sub Plan
GC21 Preliminaries 5.6	**Responsibility for decontamination** Control and decontamination of any hazardous substances is the responsibility of: ▪ where the Contractor does not bear the risk of adverse Site Conditions, the Principal, in respect of any such substances not identified in the Contract Documents, which are discovered on the Site; ▪ where the Contractor bears the risk of adverse Site Conditions, the Contractor in respect of any such substances not identified in the Contract Documents, which are discovered on the Site; and ▪ the Contractor, in respect of any such substances identified in the Contract Documents, or imported onto the Site by the Contractor, regardless of whether the Contractor bears the risk of adverse Site Conditions.	Hazardous Substances Sub Plan
GC21 Preliminaries 5.6	**Decontamination by the Contractor** Where the Contractor is responsible for the control and decontamination of the Site following the discovery of hazardous substances, handle, use, isolate, remove and dispose of such substances in accordance with statutory requirements. The Environment Protection Authority or Waste Service NSW may advise of suitable disposal sites.	Hazardous Substances Sub Plan
GC21 Preliminaries 5.6	**Importing material onto the Site** 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	Hazardous Substances Sub Plan

	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.	
GC21 Preliminaries 5.7	**Asbestos Removal & Air Monitoring** Where the Contractor is responsible for asbestos removal work, comply with the relevant statutory requirements, standards, codes and guidelines, including but not limited to the: ▪ SafeWork NSW Asbestos licensing requirements ▪ Work Health & Safety Act 2011 ▪ Work Health & Safety Regulation 2017 ▪ SafeWork NSW Code of Practice How to manage and control asbestos in the workplace ▪ SafeWork NSW Code of Practice How to safely remove asbestos ▪ Environmentally Hazardous Chemicals Act 1985 (NSW) ▪ Waste Avoidance and Resource Recovery Act 2001 (NSW).	Hazardous Substances Sub Plan Remedial Action Plan Asbestos Control Plan
GC21 Preliminaries 5.7	**Notification and Permit** Not less than seven (7) days prior to commencing any asbestos removal work, notify the local office of SafeWork NSW or SafeWork Asbestos And Demolition Online Notification System and the Principal of the intention to carry out that work. Where the regulations require a license for asbestos removal work, before the work commences, submit a copy of the current license held by the entity that will undertake the work and a copy of any SafeWork NSW permit required for the work.	Hazardous Substances Sub Plan Remedial Action Plan Asbestos Control Plan
GC21 Preliminaries 5.7	**Monitoring** Provide asbestos air monitoring by an independent testing authority engaged by the Contractor, in respect of the following: ▪ for each day that demolition, ground remediation and any works involving existing fill material likely to contain asbestos, are being carried out; and ▪ otherwise on each day during asbestos removal until completion of each area where removal has been undertaken. To avoid any doubt, asbestos air monitoring for demolition and ground remediation is not subject to asbestos being present or removed.	Hazardous Substances Sub Plan Remedial Action Plan Asbestos Control Plan
GC21 Preliminaries 5.16	**Progressive Cleaning & Rubbish Removal** The Contractor must at all times: ▪ Keep the Site and the Works clean and tidy including all access roads;	Waste Sub Plan

	▪ Restrict mud and dust getting on and spreading onto the public roads; ▪ Regularly clean public roads as required when conditions require it and/or at the request of any authority; ▪ Ensure the clean and orderly performance of the Works and shall make full provision for progressive sweeping up, clean up and the daily removal of rubbish, debris, surplus materials and the like, including those of every subcontractor or consultant and for the tidy disposal, stacking and storing of materials; and ▪ Implement a system of recycling with records kept on an on-going basis for the period of the Works (refer to obligations set out in clause 6 of Preliminaries).	
GC21 Preliminaries 5.17	**Dust, Mud, Vibration & Noise Control** The Contractor must take all reasonable precautions to avoid nuisance or trespass of any nature to any surrounding or adjoining areas to the Site, as a result of undertaking the Works, including by way of dust, mud, debris, noise, obstruction, vibration, or by its employees, agents, subcontractors or visitors or any other cause. The Contractor must utilise reasonable methods (having regard to the use and operation of any existing health facilities in close proximity to the Site) of noise and dust suppression on all compressors, jack-hammers and other machinery of whatsoever description to ensure that the noise and dust levels emanating from the Site during the Works are minimised. Without limiting these requirements, the Contractor shall comply with all relevant codes and shall also erect screens (both visual and acoustic) or take other reasonably necessary preventative measures to prevent noise, 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. The Contractor shall comply with all instructions given by the Principal or any Statutory Requirements whether in regard to matters of noise or dust. 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. The Contractor shall not be entitled to any compensation on account of any such suspension, including extensions of time or delay or disruption costs.	Soil and Water/ Noise and Vibration/ Air Quality Sub Plans
GC21 Preliminaries 6.1	**Environmental Management Plan** Environmental Management Systems Guidelines (EMS Guidelines). The EMS Guidelines are available on the ProcurePoint website.	This CEMP

	The Environmental Management Plan must address the following risks: ▪ Erosion and sediment control ▪ Protection of existing trees This list of risks is not exhaustive and must not be relied upon by the Contractor. The Contractor must undertake its own detailed analysis of all environmental risks under the Contract.	
GC21 Preliminaries 6.1	**Environmental Management Monthly Report** Submit an Environmental Management Monthly Report with each claim for payment, signed by the Contractor's representative and including the information specified below, as evidence of implementation of the Environmental Management Plan. Contract details - the names of the Contract, Contractor and Contractor's representative, the report date and the period covered. Implementation of environmental management - details of: ▪ the environmental risks and opportunities, and significant environmental impacts associated with the work; ▪ environmental objectives, targets, and measures of performance (where practical); and ▪ management actions, including environmental controls, training, inspections, and testing. ▪ Implementation of incident management, including emergency response - details of all environmental incidents or emergencies, including non-compliance with environmental procedures and near misses, implementation of incident and emergency response management, and implementation of corrective action. ▪ 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: ▪ monitoring, measurement, evaluation, and review of activities; ▪ the consequences of non-conformances; ▪ investigation, analysis, evaluation, and follow-up verification; and ▪ corrective and preventive action taken.	Element 1, 4, 11 & 12 Noise and Vibration/ Energy Sub Plans
GC21 Preliminaries 6.1	**Incident Reports** Ensure compliance with the notification and other requirements of the *Protection of the Environment Operations Act 1997* (NSW) (POEO Act). Immediately notify the Principal of any pollution incident that may cause material harm to the environment, providing evidence that notification requirements of the POEO Act have been met, where applicable. Report immediately the details of any waste removed from the Site and not disposed of at a lawful facility. When requested, provide an incident	Element 3 & 11 Soil & Water/ Flora and Fauna/ Contamination/ Hazardous

	investigation report, including identification of the cause of the incident and corrective actions taken, in the form directed.	Substances/ Air Quality Sub-Plans
GC21 Preliminaries 6.2	**Ecologically sustainable development** Apply strategies to maximise the achievement of ecologically sustainable development in the design, construction and operation of the Works, including reducing pollutants, greenhouse gas emissions and demand on non-renewable resources such as energy sources and water. Incorporate applicable strategies and objectives in the Environmental Management Plan.	Energy Sub-Plan
GC21 Preliminaries 6.2	**Restricted timbers** Do not use the following timbers or their products for work under the Contract: ▪ rainforest timbers, unless certification is provided that they are plantation grown. ▪ timber from Australian high conservation forests.	Flora and Fauna Sub-Plan
GC21 Preliminaries 6.3	**Waste management** Implement waste minimisation and management measures, including: ▪ recycling and diverting from landfill surplus soil, rock, and other excavated or demolition materials, wherever practical. ▪ 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. 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.	Waste Sub-Plan
GC21 Preliminaries 6.3	**Monitoring** Monitor and record the volumes of waste and the methods and locations of disposal. 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. The Waste Recycling and Purchasing Report, submit waste disposal certificates and/or company certification confirming appropriate, lawful disposal of waste.	Waste Sub Plan
GC21 Preliminaries 6.4	Pest control Do not use any chemical pesticides or termicides for new construction work. Use preventive treatment by physical means to minimise the risk of pest infestations. Chemical treatments may be used in existing buildings only as a last resort for the eradication of pest and termite infestations. Chemical pesticides used for this purpose must be registered	Hazardous Substances Sub-Plan

	by the National Registration Authority for Agricultural and Veterinary Chemicals and applied by a Pest Control Operator licensed by NSW Environment Protection Authority (EPA)*. Pest preventive methods must comply with AS 3660.1-2000 Protection of Buildings from Subterranean Termites (except for references to chemical soil barriers), as well as supplementary standards for existing buildings. *Note: From 1 September 2015 these licenses will be issued by the NSW Environment Protection Authority (NSW EPA).	
GC21 General – Main Works 12	**Statutory Requirements:** 1) The Principal must ensure that the licences, authorisations, approvals and consents listed in Contract Information item 14 are obtained and paid for. 2) The Contractor is responsible for: a. Compliance with all *Statutory Requirements*, subject to clause 49, except if, because of the nature of the requirement, only the Principal can comply; b. Giving all notices necessary to comply with *Statutory Requirements*; c. Obtaining all licences, authorisations, approvals and consents necessary to carry out the work in connection with the Contract, other than those listed in Contract Information item 14; and d. The payment of all necessary fees and charges, other than those listed in Contract Information item 14. 3) As a condition of achieving Completion, the Contractor must give to the Principal originals of all licences, authorisations, approvals, consents, and other documents issued by authorities or providers of services in connection with the Works or the Site.	Environmental Obligations Register
GC21 General – Main Works 18	**Working hours and working days:** The Contractor must observe: ▪ *Statutory Requirements* which regulate working hours and working days; and ▪ Any requirements in Contract Information item 18.	Noise and Vibration Sub Plan
GC21 General – Main Works 25	**Media releases and enquiries:** The Contractor must obtain the Principal's prior written consent for: ▪ Any press release, ceremony, event, promotional advertisement or any other external communication it wishes to make, place or undertake concerning the Contract, the Principal or the Works; and ▪ The release for publication in any media of any information concerning the Contract, the Principal or the Works. The Contractor must refer any media enquiries concerning the Contract, the Principal or the Works to the Principal. The Contractor must not respond to any media enquiry without the Principal's prior written consent.	Element 6

	The Contractor must ensure that all Consultants, Subcontractors and Suppliers comply with clause 25 and obtain the Principal's prior written consent (through the Contractor) before doing anything which, if done by the Contractor, would require the Principal's prior written consent. The Principal may give or refuse its consent, in its absolute discretion.	
GC21 - 32	**Start-up workshop:** The start-up workshop is held to encourage the parties and others concerned with the Works to work co-operatively towards achieving a successful Contract. Start-up workshop guidance material is provided at Attachment 1 of the Contract however does not form part of the Contract. ▪ The Principal must convene a start-up workshop within 28 days after the Date of Contract or such other period as the parties agree. ▪ The parties must attend the start-up workshop and must jointly decide who else will attend. Clause 6.4 applies to the costs of the workshop. ▪ The objective of the start-up workshop is to promote a culture of co-operation and teamwork for the management of the Contract. The parties agree to conduct the workshop collaboratively to achieve this objective.	Element 4
GC21 HI Special 14	**Hazardous materials (HAZMAT):** To the extent the Works include work to any existing structures or installations where there is a risk of encountering or disturbing hazardous materials (including asbestos), the Contractor: 1. warrants that updated and current HAZMAT register(s) (including registers covering asbestos) are in place in relation to such Works; 2. shall not commence these Works until such registers are in place; and 3. shall promptly obtain and provide any such registers to the Principal.	Hazardous Substances Sub-Plan

2.4 Minister's Conditions of Approval

The following table sets out the minimum Minister's requirements as defined in SSD 9241 Minister's Conditions of Approval dated 18 February 2019 and shows where each requirement has been addressed within this Plan or the wider CPB Contractors Management System

Table 2-2: SSD 9241 Minister's Conditions of Approval for environmental management

Condition Reference	Condition requirements	Where addressed
A1	**Obligation to Minimise Harm to the Environment** In addition to meeting the specific performance measures and criteria in this consent, all reasonable and feasible measures must be implemented to prevent, and, if prevention is not reasonable and feasible, minimise any material harm to the environment that may result from the construction and operation of the development.	This CEMP
A2	**Terms of Consent** The development may only be carried out: a) In compliance with the conditions of this consent b) In accordance with all written directions of the Planning Secretary c) Generally, in accordance with the EIS and Response to Submissions d) In accordance with the approved plans in the table below **Refer to Table in Condition A2.*	This CEMP/ Environmental Obligations Register
A10	**Evidence of Consultation** Where conditions of this consent require consultation with an identified party, the Applicant must: a) Consult with the relevant party prior to submitting the subject document for information or approval; and b) Provide details of the consultation undertaken including: i. The outcome of that consultation, matters resolved and unresolved; and ii. Details of any disagreement remaining between the party consulted and the Applicant and how the Applicant has addressed the matters not resolved.	EMS Element 6 & 12 Soil and Water/ Noise/ Vibration Sub-Plans
A19	**Monitoring and Environmental Audits** 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, non-compliance notification, compliance reporting and independent auditing.	EMS Element 6, 8, 11 & 12

	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 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.	
B11	**Community Communication Strategy** A Community Communication Strategy must be prepared to provide mechanisms to facilitate communication between the Applicant, the relevant 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 Community Communication Strategy must: a) identify people to be consulted during the design and construction phases b) set out procedures and mechanisms for the regular distribution of accessible information about or relevant to the development c) provide for the formation of community-based forums, if required, that focus on key environmental management issues for the development d) set out procedures and mechanisms: i. through which the community can discuss or provide feedback to the Applicant ii. through which the Applicant will respond to enquiries or feedback from the community; and 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. 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 Health Infrastructure)
B29	**Environmental Management Plan Requirements** Management plans required under this consent must be prepared in accordance with relevant guidelines, and include: a) detailed baseline data b) details of: i. the relevant statutory requirements (including any relevant approval, licence or lease conditions) ii. any relevant limits or performance measures and criteria; and	This CEMP

	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 c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria d) a program to monitor and report on the: i. impacts and environmental performance of the development ii. effectiveness of the management measures set out pursuant to paragraph c) above 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 f) a program to investigate and implement ways to improve the environmental performance of the development over time g) a protocol for managing and reporting any: i. incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria) ii. complaint iii. failure to comply with statutory requirements; and h) a protocol for periodic review of the plan.	
B30	**Construction Environmental Management Plan** The Applicant must prepare a Construction Environmental Management Plan (CEMP) and it must include, but not be limited to, the following: a) Details of: i. Hours of work ii. 24-hour contact details of site manager iii. Management of dust and odour to protect the amenity of the neighbourhood iv. Stormwater control and discharge v. Measures to ensure that sediment and other materials are not tracked onto the roadway by vehicles leaving the site vi. Groundwater management plan including measures to prevent groundwater contamination vii. External lighting in compliance with AS 4282-1997 Control of the obtrusive effects of outdoor lighting	This CEMP Appendix M - Aviation SSD Report Campbelltown Hospital Redevelopment Appendix P – Site Notice board

	viii. Community consultation and complaints handling ix. Measures to ensure the ongoing safe operation of the existing helipad on the site identified in the review undertaken in accordance with Condition B39. b) Construction Traffic and Pedestrian Management Sub-Plan (see condition B32) c) Construction Noise and Vibration Management Sub-Plan (see condition B33) d) Construction Waste Management Sub-Plan (see condition B34) e) Construction Soil and Water Management Sub-Plan (see condition B35) f) Flood Emergency Response Sub-Plan (see condition B36) g) An unexpected finds protocol for contamination and associated communications procedure h) An unexpected finds protocol for Aboriginal and non-Aboriginal heritage and associated communications procedure i) 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	
B32	**Construction Traffic and Pedestrian Management Sub-Plan** The Construction Traffic and Pedestrian Management Sub-Plan (CTPMSP) must address, but not be limited to, the following: a) be prepared by a suitably qualified and experienced person(s) b) be prepared in consultation with Council, RMS and TfNSW 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 d) detail heavy vehicle routes, access and parking arrangements e) ensure all demolition and construction vehicles (excluding worker vehicles) are to be contained wholly within the Site and vehicles must enter the Site before stopping f) include a Driver Code of Conduct to: i. minimise the impacts of earthworks and construction on the local and regional road network ii. minimise conflicts with other road users iii. minimise road traffic noise; and iv. ensure truck drivers use specified routes g) include a program to monitor the effectiveness of these measures; and h) if necessary, detail procedures for notifying residents and the community (including local school), of any potential disruptions to routes.	Traffic and Pedestrian Management Sub-Plan
B33	**Construction Noise and Vibration Management Sub-Plan** The Construction Noise and Vibration Management Sub-Plan (CNVMSP) must address, but not be limited to, the following: a) be prepared by a suitably qualified and experienced noise expert	Noise and Vibration Management Sub-Plan

	b) describe procedures for achieving the noise management levels in EPA's Interim construction Noise Guideline(DECC, 2009) c) describe the measures to be implemented to manage high noise generating works such as piling, in close proximity to sensitive receivers d) include strategies that have been developed with the community for managing high noise generating works e) describe the community consultation undertaken to develop the strategies in condition B16d); and f) include a complaints management system that would be implemented for the duration of the construction.	
B34	**Construction Waste Management Sub-Plan** The Construction Waste Management Sub-Plan (CWMSP) must address, but not be limited to, the following: a) detail the quantities of each waste type generated during construction and the proposed reuse, recycling, and disposal locations b) 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.	Waste Management Sub-Plan
B35	**Construction Soil and Water Management Sub-Plan** The Applicant must prepare a Construction Soil and Water Management Plan (CSWMSP) and the plan must address, but not be limited to the following: a) be prepared by a suitably qualified expert, in consultation with Council b) describe all erosion and sediment controls to be implemented during construction c) provide a plan of how all construction works will be managed in a wet-weather events (i.e. storage of equipment, stabilisation of the Site) d) detail all off-Site flows from the Site; and e) describe the measures that must be implemented to manage stormwater and flood flows for small and large sized events, including, but not limited to 1 in 1-year ARI, 1 in 5-year ARI and 1 in 100-year ARI).	Soil and Water Management Sub-Plan
B36	**Flood Emergency Response Sub-Plan** The Flood Emergency Response Sub-Plan (FERSP) must address, but not be limited to, the following: a) be prepared by a suitably qualified and experienced person(s) b) address the provisions of the Floodplain Risk Management Guideline (OEH, 2007) c) include details of: i. the flood emergency responses for the construction phase of the development ii. predicted flood levels iii. flood warning time and flood notification	Flood Emergency Response Sub-Plan

	iv. assembly points and evacuation routes v. evacuation and refuge protocols; and vi. awareness training for employees and contractors.	
B39	**Existing Helipad / Helicopter Operations During Construction** Prior to the commencement of construction, helipad / helicopter operations at the site are to be reviewed by a suitably qualified and experienced aviation professional in consultation with relevant stakeholders. The review must consider the proposed construction methodology including plant and equipment to be used (including lighting and cranes) and recommend changes to the construction methodology and / or flight paths where required to ensure safe ongoing helicopter operations at the site. A report summarising the outcome of the review must be submitted to the Certifying Authority.	Aviation Management Sub-Plan
C5	**Construction Hours** Construction, including the delivery of materials to and from the site, may only be carried out between the following hours: a) between 7am and 6pm, Mondays to Fridays inclusive; and b) between 8am and 3pm, Saturdays. Preparatory activities (but no construction work) may also be undertaken from 6.30am Monday to Fridays and from 7am on Saturdays. No work may be carried out on Sundays or public holidays.	Element 3 Noise and Vibration Sub-Plan
C7	**Construction Hours (Noise-Intensive Works)** Rock breaking, rock hammering, sheet piling, pile driving, and similar activities may only be carried out between the following hours: a) 9am to 12pm, Monday to Friday b) 2pm to 5pm, Monday to Friday c) 9am to 12pm, Saturday.	Noise and Vibration Sub-Plan
C9	**Construction Traffic** 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.	Traffic and Pedestrian Management Sub-Plan
C14	**Construction Noise Limits** The development must be constructed to achieve the construction noise management levels detailed in the *Interim Construction Noise Guidelines* (DECC, 2009). All feasible and reasonable 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 and Vibration Sub-Plan
C15	**Construction Noise Limits**	Noise and Vibration Sub-Plan

	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	
C16	**Construction Noise Limits** 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.	Noise and Vibration Sub-Plan
C17	**Construction Noise Limits** 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.	Noise and Vibration Sub-Plan
C18	**Vibration Criteria** Vibration caused by construction at any residence or structure outside the site must be limited to: a) for structural damage, the latest version of DIN 4150-3 (1992-02) Structural vibration - Effects of vibration on structures (German Institute for Standardisation, 1999); and b) for human exposure, the acceptable vibration values set out in the Environmental Noise Management Assessing Vibration: a technical guideline (DEC, 2006) (as may be updated or replaced from time to time).	Noise and Vibration Sub-Plan
C19	**Vibration Criteria** 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.	Noise and Vibration Sub-Plan
C20	**Vibration Criteria** The limits in conditions C18 and C19 apply unless otherwise outlined in a Construction Noise and Vibration Management Plan, approved as part of the CEMP required by condition B33 of this consent.	Noise and Vibration Sub-Plan
C21	**Tree Protection** For the duration of the construction works: a) 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 b) 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 c) all trees on the site that are not approved for removal must be suitably protected during construction as per recommendations of the Arboricultural Impact Assessment prepared by Ecological Australia dated 7 December 2018; and d) 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	Flora and Fauna Management Sub-Plan

	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.	
C22	**Dust Minimisation** The Applicant must take all reasonable steps to minimise dust generated during all works authorised by this consent.	Air Quality Sub-Plans
C23	**Dust Minimisation** During construction, the Applicant must ensure that: a) exposed surfaces and stockpiles are suppressed by regular watering b) all trucks entering or leaving the site with loads have their loads covered c) trucks associated with the development do not track dirt onto the public road network d) public roads used by these trucks are kept clean; and e) land stabilisation works are carried out progressively on site to minimise exposed surfaces.	Air Quality Sub-Plans
C24	**Air Quality Discharges** The Applicant must install and operate equipment in line with best practice to ensure that the development complies with all load limits, air quality criteria/air emission limits and air quality monitoring requirements as specified in the EPL applicable to the site.	Air Quality Sub-Plan
C25	**Erosion and Sediment Control** 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.	Soil and Water Sub-Plan
C26	**Imported Soil** The Applicant must: a) ensure that only VENM, ENM, or other material approved in writing by EPA is brought onto the site b) keep accurate records of the volume and type of ill to be used; and c) make these records available to the department or Certifying Authority upon request.	Soil and Water Management Sub-Plan
C27	**Disposal of Seepage and Stormwater** 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 Council must be obtained to connect or discharge site stormwater to Council's stormwater drainage system or street gutter.	Soil and Water Management Sub-Plan – Dewatering procedure
C28	**Unexpected Finds Protocol – Aboriginal Heritage** 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	Heritage Sub-Plan

	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.	
C29	**Unexpected Finds Protocol – Historic Heritage** 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.	Heritage Sub-Plan
C30	**Waste Storage and Processing** 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.	Waste Management Sub-Plan
C31	**Waste Storage and Processing** All waste generated during construction must be assessed, classified and managed in accordance with the Waste Classification Guidelines Part 1: Classifying Waste (EPA, 2014).	Waste Management Sub-Plan
C32	**Waste Storage and Processing** 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 or 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.	Waste Management Sub-Plan
C33	**Waste Storage and Processing** The Applicant must ensure that concrete waste and rinse water are not disposed of on site and are prevented from entering any natural or artificial watercourse.	Waste Management Sub-Plan
C34	**Handling of Asbestos** The Applicant is to consult with SafeWork NSW concerning the handling of any asbestos waste that may be encountered during construction. The requirements of the Protection of the Environment Operations (Waste) Regulation 2014 with particular reference to Part 7 - 'Transportation and management of asbestos waste' must also be complied with.	Hazardous Substances Sub-Plan
C35	**Independent Environmental Audit** Proposed independent auditors must be agreed to in writing by the Planning Secretary prior to the preparation of an Independent Audit Program or commencement of an Independent Audit.	Element 12

C36	**Independent Environmental Audit** No later than four weeks before 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.	Element 12
C37	**Independent Environmental Audit** Table 1 of the Independent Audit Post Approval Requirements (Department 2009) is amended so that the frequency of audits required in the construction phase is: a) An initial construction Independent Audit must be undertaken within eight weeks of the notified commencement date of construction; and b) A subsequent Independent Audit of construction must be undertaken no later than six months from the date of the initial construction Independent Audit. In all other respects Table 1 remains the same. The Planning Secretary may require the initial and subsequent Independent Audits to be undertaken at different times to those specified above, upon giving at least 4 weeks' notice to the applicant of the date upon which the audit must be commenced.	Element 12
C38	**Independent Environmental Audit** Independent Audits of the development must be carried out in accordance with: a) the Independent Audit Program submitted to the Department and the Certifying Authority under condition C36 of this consent; and b) the requirements for an Independent Audit Methodology and Independent Audit Report in the Independent Audit Post Approval Requirements (Department 2018).	Element 12
C39	**Independent Environmental Audit** In accordance with the specific requirements in the Independent Audit Post Approval Requirements (Department 2018), the Applicant must: a) review and respond to each Independent Audit Report prepared under condition C38(a) of this consent b) submit the response to the Department and the Certifying Authority; and 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	Element 12

C40	**Independent Environmental Audit** 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 be ceased, where it has been demonstrated to the Planning Secretary's satisfaction that an audit has demonstrated operational compliance.	Element 12
C41	**Incident Notification, Reporting and Response** The Department must be notified in writing to compliance@planning.nsw.gov.au immediately after the Applicant becomes aware of an incident. 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.	Element 9
C42	**Incident Notification, Reporting and Response** Subsequent notification must be given, and reports submitted in accordance with the requirements set out in Appendix 1.	Element 9
C43	**Non-Compliance Notification** The Department must be notified in writing to 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.	Element 3 Soil and Water/ Flora & Fauna/ Noise & Vibration/ Heritage/ Contamination/ Hazardous substances/ Air Quality Sub-Plans Appendix B
C44	**Non-Compliance Notification** 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.	Element 3

C46	**Revision of Strategies, Plans and Programs** Within three months of: a) the submission of a compliance report under condition B42 b) the submission of an incident report under condition C42 c) the submission of an Independent Audit under condition C39 d) the approval of any modification of the conditions of this consent; or e) the issue of a direction of the Planning Secretary under condition A2 which requires a review, 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.	Element 11
C47	**Revision of Strategies, Plans and Programs** If necessary, to either improve the environmental performance of the development, cater for a modification or comply with a direction, the strategies, plans and programs required under this consent must be revised, to the satisfaction of the Certifying Authority. Where revisions are required, the revised document must be submitted to the Certifying Authority for approval within six weeks of the review.	Element 11
D28	**Site Audit Report and Site Audit Statement** Prior to occupation of the building, where required by the unexpected contamination procedure prepared under condition B8 the Applicant must obtain from an EPA accredited Site Auditor, a Site Audit Statement and a Site Audit Report which demonstrates that the site is suitable for its intended use(s).	Site Auditor Report / Site Auditor Statement (where required)

2.5 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 2-3: 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

Legislation	Section Reference	Requirements	Where addressed
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.	Heritage Sub-Plan
National Parks and Wildlife Act 1974	s86 & s90	Do not harm or desecrate an Aboriginal object or Aboriginal place without consent.	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.	Heritage Sub-Plan
Contaminated Land Management Act 1997	s60	Notify the EPA if: ▪ 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 ▪ Contaminants in soil are equal to or exceed guideline levels with respect to the current or approved use of the land ▪ Contamination meets other criteria that may be prescribed by the regulations.	Contamination Sub-Plan
	s142A-E	Do not cause or permit land pollution other than under authority of a licence or regulation.	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).	Flora and Fauna Sub-Plan
Sydney Water Act 1994	s47	Do not undertake a scheduled waste activity unless in accordance with an Environmental Protection Licence.	Soil and Water Sub-Plan
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.	Soil and Water Sub-Plan
Protection of the Environment Operations Act 1997	s115, s116 & s117	Do not risk harm the environment by willfully or negligently: ▪ disposing of waste unlawfully. ▪ causing any substance to leak, spill or otherwise escape (whether or not from a container); or ▪ emitting an ozone depleting substance	Waste Management Sub-Plan Energy Management Sub-Plan
	s115	Disposal of waste: Do not:	Waste Management Sub-Plan

Legislation	Section Reference	Requirements	Where addressed
		▪ dispose of waste in a manner that harms, or is likely to harm the environment ▪ deposit or leave on Crown land without approval any: ▪ rubbish, litter, refuse, dead animals, or other similar matter ▪ prescribed matter ▪ unless in a place or receptacle provided.	
	s148	Notify the EPA immediately of pollution incidents where material harm to the environment is caused or threatened	Soil and Water/ Contamination/ Hazardous Substances/ Waste/ Air Quality Sub-Plans
	s120 & s122	Do not cause water pollution (other than to a sewer), except in accordance with the conditions of any Environmental Protection Licence.	Soil and Water/ Waste Sub-Plans
	s124	Do not operate plant which emits air pollution caused by poor maintenance or operation.	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).	Soil and Water/ Hazardous Substances/ Waste Management Sub-Plans
	s143	Only transport the waste to a facility that can lawfully accept the waste.	Waste Management Sub-Plan
	Part 3.2 Schedule 1	Do not undertake a scheduled waste activity unless in accordance with an Environmental Protection Licence. 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: ▪ Is Virgin Excavated Natural Materials (VENM) ▪ Is covered by a 'resource recovery order/exemption'.	Waste Management Sub-Plan

Legislation	Section Reference	Requirements	Where addressed
		(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 1000m^3 on-site at any one time, processing more than 6000 tonnes a year (Regulated Area).	
	Part 5.6A	Do not litter in a public space or an open private place.	Waste Management Sub-Plan
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.	Waste Management Sub-Plan
	Regulation Part 3	Comply with record keeping requirements in relation to the transport of certain types of waste.	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).	Waste Management Sub-Plan

2.6 Campbelltown Hospital Redevelopment Stage 2 Environmental Impact Statement – Construction Environmental Commitments

The following table sets out the minimum Environmental Impact Statement (EIS) construction environmental requirements as defined in the *Campbelltown Hospital Redevelopment (CHR) Clinical Services Building and Associated Works Preliminary Construction Management Plan: Rev E August 2018* and shows where each requirement has been addressed within this Plan or the wider CPB Contractors Management System.

Table 2-4: Campbelltown Hospital Redevelopment Stage 2 Environmental Impact Statement - Construction Environmental Commitments

Section Reference	Commitment	Where addressed	Comments
6.23	Appropriate hoarding/fencing (as specified in Australian Standards and SafeWork NSW requirements) will be installed to prevent public and staff access and to maintain security for the various areas of the works.	Traffic and Pedestrian Management Sub-Plan	

Section Reference	Commitment	Where addressed	Comments
6.23	Site, precinct information and traffic signage and any temporary traffic measures required will be installed and maintained for the duration of the works.	Traffic and Pedestrian Management Sub-Plan	
6.23	Any planned disruptions to hospital operations will be managed through the process of Disruption Notices (DNs).	Community Communication Strategy	
6.23	Contractor and sub-contractors will be advised during their site inductions that there is no parking within the Campbelltown Hospital site.	Traffic and Pedestrian Management Sub-Plan	
6.23	Noise from the construction site shall not exceed the limits set out in the Interim Construction Noise Guidelines, EPA and Australian Standards.	Noise and Vibration Management Sub-Plan	
6.23	No machine work will occur outside the approved working hours set unless approval has been given through the DN process and as per the conditions of consent.	Noise and Vibration Management Sub-Plan	
6.23	As a minimum, the erosion and sediment controls for the works are to be designed, installed and maintained in accordance with the requirements of Managing Urban Stormwater: Soils and Construction “The Blue Book” 2004 (4th edition) and/or details provided by the project engineering consultants.	Soil and Water Management Sub-Plan	
6.23	To control dust generation water will be sprayed where necessary at the source of origin and surrounding areas to prevent airborne dust particles migrating into the surrounding environment.	Air Quality Management Sub-Plan	
6.23	The contractor undertaking the works will be required to comply with *Australian Standard 4970-2009: Protection of Trees on Development Sites* for the proper care and protection of trees retained and integrated into the construction project.	Flora and Fauna Management Sub-Plan	
6.23	Pedestrian and vehicular movements into and around the site will be maintained, or alternate routes determined where necessary, and be defined by clear signage. If	Traffic and Pedestrian Management Sub-Plan	

Section Reference	Commitment	Where addressed	Comments
	necessary, physical traffic management personnel will be used to guide pedestrians and vehicles safely.		
6.8	Any loss of trees will be offset in accordance with the requirements of the Biodiversity Offsets Scheme, as detailed in the Biodiversity Development Assessment Report.	Flora and Fauna Management Sub-Plan	
6.11	To ensure the CSB remains unaffected, an overland flow diversion channel is proposed west of the CSB (Clinical Services Building) that will allow water flows to exit the hospital campus and prevent entry to the CSB.	Flood Emergency Response 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 2-5: Leading indicators

Key Performance Indicator	Target	Time Frame	Actions to be Taken	Accountability
SHEQ observations	One observation conducted per member of leadership team per month	Each month	One observation to be performed by each member of the leadership team per month	Project leadership 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	Site Manager

Table 2-6: 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 Director
Number of actions taken by regulators and/or client	Zero	At all times	Implementation of the EMP	Project Director
Number of unauthorised discharges	Zero	At all times	Implementation of Soil and Water Sub Plan	Project Director
Damage to heritage items or places without relevant approvals	Zero	At all times	Implementation of Heritage Sub Plan	Project Director
Number of unauthorised discharges	Zero	At all times	Implementation of Soil and Water Sub Plan	Project Director
100% of all fuel use and GHG emissions generated by the project is captured and entered JDE (NGER reporting requirement).	All use / emissions entered JDE System	Monthly	Implementation of Energy Sub Plan	Commercial Manager

% of waste reused or recycled	75% of waste generated	12 months	Implementation of Waste Sub Plan	SHEQ Manager

2.8 Key Environmental Stakeholders

Key environmental stakeholders for the Project include:

Stakeholder Name	Representative	Contact Details
Health Infrastructure Senior Project Director	Chris Skeggs	0404020553
CBRE Senior Project Manager	Malcolm Smith	0411515136
Managing Contractor CPB Contractors Pty Ltd Project Director	Scott Knight	0434078611
CPB Business Unit Environmental Manager (NSW/ACT)	Tracey Doczy	0411 952 658, 02 9035 5870 Tracey.Doczy@cpbcon.com.au
CPB Project SHEQ Manager	Ian Tyler	0407428284
Campbelltown City Council	N/A	(02) 4645 4000 council@cambpbelltown.nsw.gov.au
Office of Environment and Heritage (EPA)	N/A	131 555/02 9995 5000 info@environment.nsw.gov.au
Building Compliance – Certifying Authority BCA Logic	Matthew McNamara	0409060066
Safe Work NSW	Various	131050

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 South Western Sydney Local Health District/NSW Health Infrastructure additional Environmental requirements. The Project Management Plan provides more detail about 'The Way We Operate' and the process adopted to deliver against South Western Sydney Local Health District/NSW Health Infrastructure additional 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 A.

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

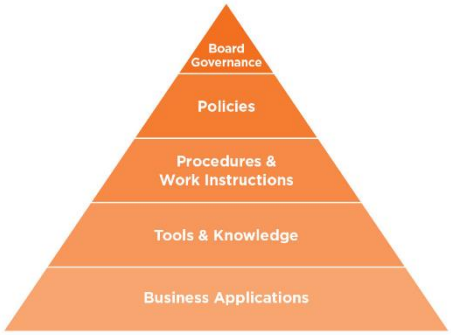

Figure 3-1 CPB Contractors Management System

- 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, Tools and Business Application

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 the 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 3-2 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 Project. The specific linkages that exist between management plans are addressed thoroughly in Part B of this plan.

	PROJECT MANAGEMENT PLAN 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)
Clearing Works/ Inadvertent damage to vegetation	• Loss of or harm to flora or fauna	Flora and Fauna Management Plan
Demolition Earthworks	• Soil erosion and sedimentation • Impact to natural water courses • Contamination of soil and water	Soil and Water Management Plan
	• Noise and vibration affect to community and residents	Noise & Vibration Sub Plan
	• Environmental impact of contaminated substances • Uncontrolled spills contaminating soil and water • Uncontrolled management of asbestos contamination	Hazardous Substances Sub Plan
	• Uncontrolled waste removal and non-conformance to waste reporting to Government	Waste Management Plan
	• Air pollution affecting people, fauna and water.	Air Sub Plan
Management and storage of hazardous materials	• Off-site water and land quality impacts as a result of poor hydrocarbon/chemical management • Failure to manage/report contaminated materials resulting in offsite soil and water impacts	Soil and Water Management Plan Contaminated Land Sub Plan Unexpected Discovery Contamination process Hazardous Materials Management Plan Safety Management Plan
SSD condition compliance	• Non-compliance sanctions instigated by the NSW Department of Planning, Industry, and Environment	External (independent) SSDA Auditing

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: Auditing, Review and Improvement

Element 1: Leadership, Accountability and Culture

Expectations	How we will meet the Expectations (minimum requirements)	Responsible Key Contributor	Deliverables
Environmental accountabilities, roles and responsibilities for managers, staff, employees and subcontractors are clearly defined, documented and communicated	Roles and Responsibilities 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. The environmental responsibilities contained in Position Descriptions are communicated to each person by their immediate supervisor upon commencing in their role.	P&C Manager Project Director SHEQ Manager Line managers	Position Descriptions
Environmental leadership and commitment are demonstrated through measurable participation in environmental management	Participation and Measurement 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: Regularly review environmental performance against Project KPIs and raise corrective actions to maintain or improve environmental performance as necessary Address pertinent environmental matters at communication forums.	Project Director Line managers Functional managers Supervisory staff SHEQ Manager	Measurement system output to include: Observation records, Incident reviews, HSE Committee meeting attendance (minutes), delivering toolbox talks
Environmental expectations are clearly defined with appropriate reward and disciplinary processes in place.	Environmental Policy The CPB Contractors Environmental Policy will be communicated in project inductions and prominently displayed at the Project. Project Environmental Rules The Project Director and SHEQ Manager will assist in development of “Project Rules” during Project start-up to address key environmental matters. These	Project Director All personnel	Environmental policy displayed and communicated in site inductions Project environmental rules KPIs defined (Part A)

	rules will be documented, communicated and prominently displayed at the Project and will be reviewed at least every six months. Any person who breaches these rules will be managed in accordance with CPB Contractors requirements for counselling, discipline and, if needed, termination.		
	Performance Targets 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 Director SHEQ Manager	Monthly reports
	Managing Personal Performance 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 Director Line Managers	Performance and development reviews

Element 2: Planning

Expectations	How we will meet the Expectations (minimum requirements)	Responsible Key Contributor	Deliverables
Adequate resources are provided to effectively implement the EMP	Resources The Project budget includes sufficient allowances to implement the EMP, including people, technical environmental expertise, equipment, materials, training, plant, and infrastructure. The SHEQ Manager is consulted in setting and revising (forecasting) the Project budget. Sufficient people are appointed to the Project to implement the EMP.	Project Director Commercial Manager SHEQ Manager P & C Manager	Project budget Project forecasts Organisational structure Training matrix Training schedule
	Environmental Monitoring The SHEQ Manager is accountable for developing the Environmental Monitoring Schedule(s) prior to any works commencing on the project. The SHEQ Manager will identify all equipment, equipment maintenance (including calibration) and personnel required to implement the schedule and ensure necessary allowances in the Project budget and forecasts. All environmental monitoring on the Project is planned according to the requirements of the Knowledge document Environmental Monitoring and is defined where relevant in the Environmental Sub-Plans within Part C of this Plan.	SHEQ Manager	Environmental Monitoring Schedule(s) Environmental Sub-Plans Environmental input into Project budget Project forecasts
Business systems are defined and established	Define and set up IT Systems Applications required to management environment on the Project are defined and established prior to works commencing. Systems to be used include: ▪ Synergy - Reporting and recording all environmental incidents, audit results and corrective actions ▪ Synergy - To schedule all inspections and environmental monitoring activities and track completion of scheduled activities ▪ SHE Risk Register – To manage environmental risk registers	SHEQ Manager Commercial Manager Project Director	Applicable business systems

	▪ JD Edwards (NGER module) to capture energy use and emissions, and water and waste data ▪ Aconex – Records and documents management and archiving ▪ Environmental Monitoring Spreadsheet – To capture and analyses all environmental monitoring data.		
Environmental Sub-Plans are prepared and maintained for Significant Environmental Hazards	Identify Significant Environmental Hazards (SEH) 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 SHEQ Manager 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 Sub-Plans contained in Part C
	Environmental Sub-Plans Environmental Sub-Plans (Part C) are reviewed for on-going relevance and accuracy by the SHEQ Manager. The frequency of review is triggered by incident history, changes to the Project, including contract variations, and management review requirements. Reviews are documented and records retained in the Project document management system.	Project Environmental Rep	Reviews of SEH and environmental Sub-Plans

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** The SHEQ Manager has reviewed the Contract, construction methodology and program and identified all: ▪ Contractual conditions specific to environmental management. ▪ Regulatory approvals required and associated conditions. ▪ Specific requirements of local, state and federal laws that are additional to the requirements of Project approvals using CPB Contractors' online subscription to EnviroLaw. ▪ Targets and objectives in CPB Contractors Business Unit or whole of CPB Contractors Business Plans. The sources and details of, and means of compliance with the above, are captured within an Environmental Obligations Register. 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.	**SHEQ Manager** Project Director	Environmental Obligations Register(s) Business critical environmental obligations included in Project's Rights and Obligations Summary Project Management Plan, insert reference to relevant section
3.2 All necessary environmental approvals are obtained prior to commencing relevant works and surrendered on completion	**Obtaining and Surrendering Environmental Approvals** 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. Details of all approvals and licenses (including applications and decision notices where appropriate) are maintained in the Project's Environmental Obligations Register. 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. An Environmental Obligations Register will be updated to include conditions associated with newly received regulatory approvals.	**SHEQ Manager** Engineers Project Director	Environmental approvals in program Environmental approval documentation Approval and license conditions entered into Project's Environmental Obligations Register Updated Environmental Obligations Register

3.3	Work is planned and executed to ensure compliance	**Planning for Compliance** The SHEQ Manager 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). 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. CAPs and Work Packs are reviewed by the SHEQ Manager prior to the commencement of works described in their scope.	**Construction Manager** Supervisors Engineers SHEQ Manager Engineering Manager	Reviewed WAPs and Work Packs by Project Environmental Rep Update project program
3.4	Inspections, observations and monitoring are performed to ensure compliance is maintained	**Implementing Controls** Controls required to achieve compliance, as detailed in the CAPs and Work Packs, will be implemented before relevant works commence. 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** Engineers SHEQ Manager	Engineered (physical) and administrative controls (e.g. procedures, forms, training) in place
		Inspections and Observations 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 Workplace Hazard Inspections and Observations Procedures. Inspections and observations are scheduled using Synergy and detailed in Appendix D. The outcomes of inspections are captured on the inspection checklists. Corrective actions are raised, tracked and closed out in the Synergy – Action Plan Module or through the inspection records (for actions closed out within 72 hours) for all controls found to be inadequate.	**Supervisors** Engineers SHEQ Manager	Observation records Inspection schedules Inspection checklists Corrective actions in Synergy – Action Plan Module or inspection records

		Environmental Monitoring 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). 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 Synergy	**SHEQ Manager**	Environmental Monitoring Schedule Monitoring records Calibration records Corrective actions
3.5	All non-compliances are reported as incidents	**Reporting Non-Compliances** 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.	**SHEQ Manager** All personnel	Incident reports
3.6	All energy and greenhouse data are collected and entered into JDE	**Greenhouse and Energy** *All subcontractor fuel use to be collated and entered the JDE NGER Module at the site level.* *Projects will track subcontractor energy reporting.* *All relevant records relating to the reporting of NGER data will be retained with Project records for seven years.* *Any NGER data to be reported to the Client will be extracted from JDE using the Business Intelligence Tool.* All energy (fuels, oils, greases, gases, electricity, solvents) purchased by CPBCPB Contractors and processed through JDE are captured centrally at the Group level. If a project is not using CPB JDE, both invoiced and contractor energy use must be collated and entered into Synergy monthly by the Environment Manager.	**SHEQ Manager** Commercial Manager Project Director	NGER subcontractor register NGER data checklist Completed NGER subcontractor records Monthly HSE Statistical reports
3.7	Personnel on the site have access to current versions of relevant legislation,	**Updates to Legislation, Standards and Codes of Practice** 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).	**Business Unit Environmental Representative** SHEQ Manager	Updates distributed

standards and codes of practice	Updates to legislation, standards and codes of practice will be reviewed to determine relevance. 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. Regulatory approvals will be obtained or amended as necessary, work practices altered to ensure compliance and all affected personnel informed in a timely manner.		

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** Environmental risks and opportunities associated with activities, products and services of the Project will be identified, recorded and tracked in the Project Environmental Risk and Opportunity Register. The Environmental Risk and Opportunity Register is an excel Spreadsheet contained in the Project Management System. Any environmental risks identified as critical will also be captured and monitored via the Project Risk Register contained in ARM. Environmental risks and opportunities are considered during all subsequent Project risk assessments as per the Project Management Plan. This includes: ▪ The Principal Risk Assessment conducted at bid stage for major tangible risks. ▪ Safety/Environment-in-Design workshops conducted throughout the Project ▪ Construction Area Plan (CAP) risk assessments ▪ Work Pack risk assessments ▪ Project Prestart Meeting The SHEQ Manager 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. **Start-up workshop:** *The start-up workshop is held to encourage the parties and others concerned with the Works to work co-operatively towards achieving a successful Contract. Start-up workshop guidance material is provided at Attachment 1 and does not form part of the Contract.* *1) The Principal shall convene a start-up workshop within 28 days after the Date of Contract or such other period as the parties agree.* *2) The parties must attend the start-up workshop and must jointly decide who else will attend. Clause 6.4 applies to the costs of the workshop.*	**Project Director** SHEQ Manager Engineering Manager Engineers Supervisors	Environmental Risk and Opportunity Register Work Area Plan risk assessments Project Prestart Meeting

		3) The objective of the start-up workshop is to promote a culture of co-operation and teamwork for the management of the Contract. The parties agree to conduct the workshop collaboratively so as to achieve this objective.		
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** Each environmental risk and opportunity will be evaluated and assigned a rating which is determined using the consequence and likelihood criteria in the Risk Management Procedure. The influence of existing controls is considered in determining the risk rating. For each environmental risk: ▪ An owner is assigned by the Project Director, ▪ Existing controls are recorded, including the owner of that control, and ▪ The residual risk will be evaluated. 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. Advice is sought from the SHEQ Manager as necessary by the Project team to ensure CAP, Work Pack and SEP risk assessments are as informed and accurate as possible.	**Project Director** Risk owners SHEQ Manager Engineers	Environmental Risk and Opportunity Register Work Area Plan risk assessments Project Prestart Meeting
4.3	Environmental controls appropriate to the level of risk are identified, documented and implemented	**Identifying Adequate Controls** 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-Plans and project work procedure, along with available "hard controls". Approval to proceed is required prior to commencing 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 SHEQ Manager to achieve the following, in order of preference: ▪ Eliminate the risk by not performing the relevant activity	**Risk owners** SHEQ Manager Project Director Project Engineers	Controls agreed (engineered or administrative)

		▪ Substitute by performing the relevant activity in a way that presents a lower risk ▪ Implement physical (engineered) controls (e.g. sediment basins, check dams) ▪ Implement administrative controls (e.g. procedures, training, inspections).		
		Implementing Controls 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** 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 Director** Opportunity Owner	Monthly reports Case studies
4.5	Identified environmental risks and controls are communicated to all relevant personnel	**Communications in line with Construction Planning** 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 Director** Engineers SHEQ Manager	Toolbox talk content and attendee records Pre-start meeting content Records of communications and meetings
		HSE Communications Environmental risks, controls and accountabilities are also communicated through delivery of HSE communications, including HSE Committee meetings, toolbox talks and pre-start meetings.	**SHEQ Manager** **Site Manager** Engineers Supervisors Project Director	Site induction content Toolbox talk content and attendee records Pre-start meeting content Records of communications and meetings

		Communication through Training 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 Human Resources Management Plan.	**SHEQ Manager** P&C Manager	Training schedule Training matrix Training records
4.6	Regular inspections and monitoring are conducted to check effectiveness of controls	**Inspections, Observations and Monitoring** The processes for inspections, observations and monitoring are described in Expectation 3 of this EMP and detailed in Appendix D.	**SHEQ Manager** Project Director Engineers Supervisors	Observation records Inspection schedules Inspection checklists Corrective actions in Synergy
4.7	Environmental risks and controls are regularly reviewed.	**Risk Review** 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 Director** SHEQ Manager Engineers	Environmental Risk Register Updated risk registers in ARM, 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** Personnel promptly report any 'medium' or 'major' changes that could affect the environment and/or community 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. 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. Personnel have received appropriate training to identify changes and apply change management processes. This includes all supervisory staff being informed of the need to have changes approved prior to commencing relevant works.	**Project Director** SHEQ Manager Area Manager Engineers Supervisors	Change Requests Training matrix Training records
5.2 Risks associated with identified changes are assessed and controlled before changes are implemented	**Risks Associated with Change** 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. All changes are requested or sponsored by a supervisor or manager, who then becomes the change owner. Input from environmental personnel is sought as necessary. The approach to risk assessment and the implementation of controls will follow the requirements of Element 4 of the EMP.	**Project Director** Change owner Supervisors SHEQ Manager	Change Requests Revised risk assessments
5.3 All changes with environmental consequences are authorised before they are implemented	**Approvals of Change** 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 SHEQ Manager.	**Project Director** Construction Manager	Change Requests

			Engineering Manager SHEQ Manager	
5.4	Controls associated with change are communicated to all affected personnel	**Communication of Change** 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** Supervisors	Toolbox talk material Pre-start meetings Attendance records 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** 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 SHEQ Manager will be involved in the analysis process.	**Community & Stakeholder Manager** SHEQ Manager	Stakeholder register or database Stakeholder Analysis
6.2 Relationships with external stakeholders are effectively managed	**Managing Relationships** Activities performed to effectively manage relationships with external stakeholders include: ▪ Identifying environmental risks that relate to stakeholder interests by considering the impacts to stakeholders (documented in Environmental Risk Register) ▪ 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). ▪ Performing inspections, audits, stakeholder engagement and monitoring activities to assess the effectiveness of controls Actively engaging stakeholders through open communication and involvement. **Media releases and enquiries:** 1) CPB will obtain the Principal's prior written consent for: a. Any press release, ceremony, event, promotional advertisement or any other external communication it wishes to make, place or undertake concerning the Contract, the Principal or the Works; and b. The release for publication in any media of any information concerning the Contract, the Principal or the Works.	**SHEQ Manager** Community & Stakeholder Manager Project Director	Environmental Risk Register Risk assessments in CAPs, Work Packs, Environmental Sub-Plans and Procedures Audit reports Monitoring results Communications material Forums and opportunities for stakeholder engagement

		2) CPB will refer any media enquiries concerning the Contract, the Principal or the Works to the Principal. The Contractor must not respond to any media enquiry without the Principal's prior written consent. 3) CPB will ensure that all Consultants, Subcontractors and Suppliers comply with clause 25 and obtain the Principal's prior written consent (through the Contractor) before doing anything which, if done by the Contractor, would require the Principal's prior written consent. 4) The Principal may give or refuse its consent, in its absolute discretion.		
6.3	Internal consultative forums are established with regular meetings scheduled, conducted, documented and communicated	**Consultative Forums** A schedule of communication forums will be developed which includes: ▪ Managers' meetings that are to address environmental matters at least monthly; ▪ Environmental Toolbox Talks at least monthly; ▪ Pre-start meetings prior to commencing a shift; The Project Director 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 Director** Supervisors Site Manager SHEQ Manager H&S Manager	Minutes of meetings Toolbox Talks Pre-Start meetings Attendance records
		Actions from Consultative Forums Actions arising from consultative forums are assigned and communicated to a responsible person and confirmed as being completed. The Project will identify, track and complete environmental related actions using Synergy – Action Plans Module.	**Community & Stakeholder Liaison** SHEQ Manager	Synergy – Action Plans Module
		HSE Signs and Notice Boards Dedicated HSE notice boards will be prominently located and maintained with current environmental information.	**SHEQ Manager**	Signs and notice boards installed with current environmental content
6.4	Environmental complaints and enquiries are recorded	**Responding to Complaints and Enquiries** All complaints will be classified according to the Incident Classification Matrix and recorded in Synergy. Complaints are treated as an incident and managed according	**Community & Stakeholder Manager**	Incident records Records of communications

and responded to appropriately	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 Director.	SHEQ Manager Project Director	
	Changes to Environmental Monitoring 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.	**SHEQ Manager** Site Manager	Monitoring schedule Monitoring records Corrective actions in Synergy
	Client and Internal Notifications The Business Unit Environment Manager and Corporate Communications Manager are notified of complaints that have or are likely to generate media interest. The Client is notified according to the conditions outlined in the Contract.	**Project Director**	Record of communication
6.5The effectiveness of internal and external stakeholder engagement is evaluated and improved	**Evaluation of Internal and External Communications** 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 SHEQ Manager participates in both reviews, which are led by the Project Director and include the Community and Stakeholder Manager. The SHEQ Manager will also regularly attend and review the effectiveness of forums and recommend changes to the scheduling or style of forum.	**Project Director** Community & Stakeholder Manager SHEQ 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** All personnel, subcontractors and visitors will undergo an induction before commencing work on-site. The induction addresses general and Project-specific environmental issues, including: ▪ CPB Contractors' environmental policy ▪ How the EMP will be implemented on-site ▪ High-risk environmental activities on the Project and their controls ▪ What to do in the event of an environmental incident. An assessment will be conducted upon completion of the induction. 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.	**SHEQ Manager** P&C Manager	Induction materials Training attendance records Completed induction assessments
7.2 A training plan is developed and documented	**Identifying Training Needs** 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. The SHEQ Manager will contribute to the development of the training matrix. 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. Subcontractor training and competency responsibilities will be included in subcontractor agreements.	**SHEQ Manager** P&C Manager	Training matrix Performance and Development management plans Subcontractor agreements Subcontractor Start-Up Meeting minutes
	Scheduling Training Needs 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.	**P&C Manager** SHEQ Manager Project Director	Training schedule Training records

7.3	Personnel are trained and assessed according to the training plan	**Provide Training Resources** All resources to deliver the training schedule, including personnel, equipment, funding and materials, will be allowed for in the Project budget.	**Project Director** SHEQ Manager	Project budget
		Delivery of Training 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 SHEQ Manager or Business Unit Environment Manager.	**Project Director** P&C Manager Project SHEQ Manager	Training records
		Training Evaluation and Review 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. The training matrix and schedule will be completely reviewed at least annually or prior to the commencement of major new tasks.	**P&C Manager** SHEQ Manager	Training evaluation forms Training matrix
7.4	Training records are maintained and accessible to relevant personnel.	**Training Records** 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** **SHEQ Manager**	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** Subcontractors engaged on the project are required to undergo a thorough assessment prior to selection. The SHEQ Manager will be consulted on environmental requirements of subcontracts and the adequacy of proposed conditions. Subcontractors will be made aware of CPB Contractors' environmental requirements during the tender process and Start-Up meetings.	**Commercial Manager** Engineers SHEQ Manager	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** 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). These may include the contents of the construction methodology, CAPs, Work Packs, SEPs, and Environmental Sub-Plans in this EMP. 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 SHEQ Manager should review this new documentation to ensure it meets project requirements. In either case, the subcontractor must be formally informed of all requirements prior to commencing works.	**Engineers** SHEQ Manager Commercial Manager	Construction Area Plans (CAPs) Work Packs SEPs Records of subcontractor notification
8.3 Compliance requirements for high risk environmental activities are identified and enforced	**Compliance requirements** For high risk environmental activities, the SHEQ Manager will review the subcontractor's scope of works with the supervising Engineer and: ▪ Identify any new issues relevant to the subcontractor's scope of works; ▪ Identify any additional compliance requirement not captured;	**Engineers** **SHEQ Manager** Commercial Manager	Records of subcontractor notification

		▪ Identify necessary approvals not already in place and obtain those approvals prior to any works commencing; ▪ Update the relevant Environmental Sub-Plans, SEPs, and Environmental Obligations Register with details new approvals and their conditions. The SHEQ Manager will review the CAP and Work Packs, for high risk environmental issues. The subcontractor will be informed of all relevant environmental issues/risks and controls, procedures and documents to be followed and implemented to achieve compliance during the tendering process. This will be reinforced during the Start-Up meeting. 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** 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 SHEQ Manager.	**SHEQ Manager** Engineer Commercial Manager	Subcontractor environmental documentation
8.5	Changes to the scope of work are managed as a Project change	**Manage Changes/Variations** 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** Engineers	Change Requests
8.6	Subcontractors actively participate in environmental management and training on the Project	**Subcontractor Environmental Participation** Subcontractors will participate in HSE communication forums and monitoring activities, as a minimum, including: ▪ Project induction; ▪ Scheduled HSE management meetings, toolbox talks, pre-start meetings, HSE committees (as required); ▪ HSE observations, inspections and audits; ▪ Incident investigations (as required); ▪ Development or review of safe work systems SEPs (as required).	**Commercial Manager** **SHEQ Manager** Subcontractors Supervisors Site Manager Engineers	Attendance records Monitoring records

		Subcontractor Training 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** SHEQ Manager	Subcontractor training records
8.7	Subcontractors are reviewed to assess their performance and compliance with our minimum environmental requirements.	**Subcontractor Audits and Reviews** Subcontractors will be regularly inspected and observed for environmental performance as per Element 3.4 of this EMP.	**SHEQ Manager** Engineers Supervisors	Audit reports 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** 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 SHEQ Manager to ensure that responses do not result in further harm. **Initial Incident Notification** The Project Director and SHEQ Manager are to be notified immediately of the following incidents: All Level 1 and Level 2 environmental incidents, and PL1 and PL2. The SHEQ Manager is also to be notified of any actual Class 3 environmental incident, procedural or legal breach. For Level 1 and Level 2 incidents and PL1 and PL2, the Project Director will immediately notify the Business Unit General Manager and the Business Unit Environment Manager. The Project Director 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. The Client is notified of all environmental incidents as per the agreed contractual arrangements. Environmental incidents will be reported to regulators in accordance with the requirements of local, state and federal government regulations. **Preserve the Incident Scene** Scenes of environmental Level 1 and 2 incidents and PL1's is to be preserved until the incident investigation team has collected relevant data and evidence (see below).	**Project Director** SHEQ Manager Community & Stakeholder Manager Engineers Supervisors Site Manager Construction Manager	Records of incident notifications
9.2 All incidents are entered and managed in Synergy	**Incident Classification and Reporting** Environmental incidents will be classified using the Incident Classification Matrix by the SHEQ Manager in consultation with the Project Director.	**SHEQ Manager** Project Director	Incident records Root cause coding

		All environmental incidents, including community complaints, will be reported using the Synergy within three calendar days. Root causes will be identified and recorded in Synergy for all Class 1, 2 incidents and HPIs (and optionally for Class 3 incidents). All statutory notices received from regulators, including penalty notices and fines, will be entered as Environmental Legal Issue incidents upon receipt.		
9.3	Incident investigations are conducted appropriate to the type of incident	**Project Incident Investigations** 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. Incident investigation reports are to be uploaded to Synergy. **Statutory Authority Investigations** Before any staff member is questioned by officers of a statutory authority, they will endeavour to consult the Project Director to determine whether Legal Counsel is needed. Regulatory inspectors must be given appropriate assistance during their own investigations.	**Project Director** SHEQ Manager Construction Manager Supervisors Engineers	Incident investigation reports
9.4	All personnel conducting incident investigations are trained to competently perform the task	**Incident Investigation Teams Competent and Trained** The selection of the investigation team will be up to the Project Director 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. The following should be considered when selecting an investigation team: ▪ Statutory requirements; ▪ CPB Contractors Corporate requirements; ▪ Technical specialists with an understanding of the work process; ▪ Administrative Support; ▪ Mix of skills and experience;	**Project Director**	

		▪ 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** 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. 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 Director** SHEQ Manager	Corrective action records on Synergy
		HSE Alerts HSE Alerts will be submitted for all Class 1 and 2 incidents and HPIs to the Project Director 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 SHEQ Manager, Project Director or Business Unit Environment Manager.	**SHEQ Manager** Project Director	HSE Alerts
9.6	High potential and repeat incidents are regularly reviewed by the Project management team	Each month the SHEQ Manager 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 Director will approve actions to address incident occurrences and incident and root cause trends. Actions will be managed using Synergy.	**SHEQ Manager** Project Director	Monthly project reports 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** 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 Director** SHEQ Manager	Environmental Risk Register Principal Risk Assessment
10.2 Emergency response plans and procedures are developed and regularly reviewed	**Emergency Response Plan** 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: ▪ Nominated and trained emergency coordinator and emergency wardens ▪ Explanation of communications to be performed during an emergency ▪ Explanation of what a crisis is as compared to an emergency and what to do in the event of a crisis ▪ The details of emergency services contacts ▪ Emergency assembly locations ▪ A detailed location map showing the site in relation to local public roads ▪ A detailed site layout diagram ▪ Information about personnel and facilities available to help emergency services ▪ 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 ▪ Post-emergency actions. 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 Director** SHEQ 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** Resources required to implement the Emergency Response Plan will be available on the Project and be maintained. Necessary resources include but are not limited to: ▪ An emergency coordinator and emergency wardens; ▪ Spill response kits; ▪ Firefighting equipment; ▪ Barricading; ▪ Vehicles.	**Project Director** SHEQ Manager	Project resources for Emergency Response Plan and procedures
10.4	Environmental emergency response drills are conducted	**Environmental Emergency Response Drills** 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. Records will be kept of the results for all drills. 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 Director** **SHEQ Manager** **Site Manager**	Emergency response drill records Corrective action records in Synergy
10.5	Employees, contractors and visitors are given appropriate emergency response training.	**Emergency Training** 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. Visitors are informed of requirements during the visitors' induction. **General Workforce Training and Awareness** 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** **SHEQ Manager** Site Manager	Training matrix Training schedule 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: ▪ Management plans & Procedures ▪ Knowledge and Tools ▪ Templates (e.g. audit template, training matrix) ▪ All electronic records saved in electronic databases such as Synergy, ChemAlert etc. **Document Types** The types of records to be generated on the Project that are to be stored and maintained include: ▪ Environmental monitoring results - 30 years from the date of any incident or completion of the Project, whichever is later ▪ Complaints and enquiries received - 7 years from completion of the Project ▪ Notifications received by regulators - 30 years after the completion of the project ▪ Audit reports - 7 years from completion of the Project ▪ Completed inspections and observations - 30 years from the creation of the record ▪ Waste tracking certificates - 7 years from the creation of the record ▪ Training records - 7 years from the end of the employee's employment ▪ Incident reports - 30 years from the creation of the record ▪ Calibration records for monitoring equipment ▪ 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 ▪ Records as required under the National Greenhouse and Energy Reporting Act 2007 - 7 years from the creation of the record ▪ HSE Alerts Any editing and access restrictions to environmental documents and records and who has authority to dispose of nominated documents and records comprise:	**SHEQ Manager** Project Director	Controlled and maintained documents and records

		▪ SHEQ Manager to authorise the disposal of any environmental documents or records.		
11.2	Relevant documents and records will be maintained using corporate business applications and systems	Relevant environmental documents and records generated on the Project will be stored and managed using Aconex with the following exceptions: ▪ Environmental monitoring data will be managed and stored using the Project drive ▪ Whole of CPB Contractors environmental performance data will be managed and stored in JDE, including Water, Waste and Energy and Greenhouse Gases ▪ Incident reports and corrective actions will be stored and managed using Synergy ▪ Risk registers will be retained in excel spreadsheet.	**Project Director** Commercial Manager SHEQ Manager	Controlled and maintained documents and records

Element 12: 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** 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. Action plans will be developed to improve performance as required, corrective and preventative actions will be managed using the Synergy – Action Plan Module.	**Project Director** SHEQ Manager	Monthly reports Corrective & Preventative actions in Synergy – Action Plan Module
12.2 A monthly environmental report is produced and distributed	**Monthly Reporting** A monthly environment report will be prepared for the Project Director for inclusion in the monthly project report. This report will include the following: ▪ Analysis of performance against project, business unit and corporate environmental targets as per Section 3 Part A of this EMP ▪ Analysis of performance against targets set in the Environmental Sub-Plans, including monitoring results ▪ Details of each environmental incident on the Project for that period including actions taken and outstanding ▪ Confirmation that the EMP is compliant with the CPB Contractors EMS by referring to the number and results of inspections, audits, observations and monitoring ▪ Confirmation that the NGER procedure has been implemented during the month ▪ Any environmental innovations implemented on the project	**SHEQ Manager**	Monthly environment report
	The Monthly HSE Statistical Report in Synergy will be completed and approved by the Project Director. This includes reporting on the currency of the EMP, compliance with the EMP and issues and initiatives arising during the period	**Project Director**	Monthly HSE Statistical Report
12.3 Regular management reviews are conducted to	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.	**Project Director** Project Leadership Group	Management review report Actions in Synergy

	determine the continuing suitability, adequacy and effectiveness of the Environmental Management System	That review must consider the results of: ▪ Audits undertaken; ▪ Communication, participation and consultation; ▪ Relevant communication including complaints from external stakeholders; ▪ The perform of the Project; ▪ The extent to which the objectives and targets have been met; ▪ The outcomes of incident investigations and any corrective actions; ▪ Changes to legislation; ▪ Actions from previous management reviews and recommendations for improvement.	SHEQ Manager	
12.4	Audits are undertaken to ensure compliance with the requirements of the EMP	**Compliance with Environmental Management Plan** Regular audits and reviews will be conducted to confirm compliance with the EMP and associated Obligations. A schedule of audits and reviews will be developed and maintained, and will include: ▪ Project planning/Start Up reviews (conducted by Business Unit HSE Manager or delegate) ▪ Project mobilisation audits (conducted by Business Unit HSE Manager or delegate) ▪ Subcontractor audits (for subcontractors performing high risk activities) ▪ High-risk activity audits ▪ In accordance with the specific requirements in the Independent Audit Post Approval Requirements (Department 2018), the Applicant must: - review and respond to each Independent Audit Report prepared under condition C38(a) of this consent - submit the response to the Department and the Certifying Authority; and - 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. ▪ Environmental Management Plan audits (conducted by Business Unit Environment Manager or delegate) ▪ Compliance and Legislative audits (conducted by BUEM or competent 3rd party). Action plans will be developed to improve performance as required. Necessary corrective actions will be managed using Synergy.	**Project Director** Business Unit Environmental Management Representative Business Unit HSE Manager	Audit reports Corrective actions in Synergy

12.5	All audits are undertaken by suitably qualified and experienced personnel	**Auditor Competency** 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. Auditors must be approved by the Business Unit Environment Manager.	**Business Unit Environmental Management Representative**	Training records

1. Soil and Water Management Plan

1.1 Scope

Refer to the *Construction Soil and Water Management Plan* developed by Enstruct (Appendix J) which addresses 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.

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

Table 1-1: Activities, Hazards and Risks

Project Activity	Environmental Hazard	Environmental Risk
Clearing and grubbing	Increased sediment load in run-off waters	Impacts to aquatic fauna and flora
Excavation	Damage to watercourse/waterway	Impacts to aquatic fauna and flora
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
Water Runoff from site	Damage to watercourse/waterway	Impacts to aquatic fauna and flora

1.2 Project Compliance Requirements

1.2.1 Conditions of Project Environmental Approvals

The following soil and water requirements are sourced from:

- *CHR Clinical Services Building and Associated Works Construction Management Plan: Rev E August 2018*
- *Environmental Impact Statement Campbelltown Hospital Redevelopment 10 August 2018*
- GC21 HI 18467 contracts
- SSD 9241 Minister's Conditions of Approval Development Consent dated 18 February 2019

Table 1-2: Soil and water requirements

Relevant Condition	Limit/Requirement	Where it's met
CHR Construction Management Plan 6.3	As a minimum, the erosion and sediment controls for the Works shall be designed, installed and maintained in accordance with the requirements of Managing Urban Stormwater: Soils and Construction "The Blue Book" 2004 (4th edition) and/or details provided by the Project engineering consultants (Enstruct).	Soil and Water Controls / Erosion and Sediment Control Plan
CHR Construction Management Plan 6.3	Additional precautions that will be implemented during the Works include the covering of all haulage trucks.	Soil and Water Controls
CHR Construction Management Plan 6.6	Measures will be employed at each stage, and on the site overall, to control soil erosion during construction. These measures will be in accordance with currently accepted principles, as described in Managing Urban Stormwater: Soils and Construction (4th edition, Landcom).	Erosion and Sediment Control Plan
CHR Construction Management Plan 6.6	The site will be continually cleaned of rubble to minimise possible sediment flow during rainfall periods.	Soil and Water Controls
CHR Construction Management Plan 6.6	Stormwater kerbs and drainage lines will have sediment controls in the form of hay bales, sedimentation socks or similar (to be approved by the Project Civil Engineer).	Erosion and Sediment Control Plan
CHR Construction Management Plan 6.6	Should external surface run-off flow into works areas, it may need to be diverted to reduce sediment transportation using hay bales or similar (to be approved by the Project Civil Engineer).	Erosion and Sediment Control Plan
CHR Construction Management Plan 6.6	All drainage control devices will be regularly checked particularly during heavy rainfall periods.	Soil and Water Controls
Erosion and Sediment Control Plan 4.1.1	Provision of sediment and erosion controls at downstream locations from the construction areas (e.g. sediment fences, sediment basins, other as required).	Erosion and Sediment Control Plan
Erosion and Sediment Control Plan 4.1.1	Provision of stormwater diversion to divert clean run-off from undisturbed areas around any disturbed areas.	Erosion and Sediment Control Plan
Erosion and Sediment Control Plan 4.1.1	Designated stockpile location away from gutters, stormwater pits, site boundary, footpaths and roadways or traffic areas.	Soil and Water Controls
Erosion and Sediment Control Plan 4.1.1	Coverage and/or stabilisation of stockpiles as required to minimise erosion.	Soil and Water Controls
Erosion and Sediment Control Plan 4.1.1	Sediment control barriers to be established around the stockpile area to restrict runoff from the stockpile area entering areas beyond the Project site.	Erosion and Sediment Control Plan

Relevant Condition	Limit/Requirement	Where it's met
Erosion and Sediment Control Plan 4.1.1	Work staging to limit the area and duration that soils are exposed.	Soil and Water Controls
Erosion and Sediment Control Plan 4.1.1	Disturbed areas to be stabilised progressively to ensure that no areas remain exposed for any extended period.	Soil and Water Controls / Erosion and Sediment Control Plan
Erosion and Sediment Control Plan 4.1.1	Any water collected from the site and requiring disposal is to be tested and discharged in compliance with ANZECC (2000) water quality guidelines for protection of aquatic ecosystems.	Soil and Water Controls / Erosion and Sediment Control Plan
Erosion and Sediment Control Plan 4.1.1	Regular maintenance and inspection of plant and equipment and of sediment and erosion Controls.	Soil and Water Controls
Erosion and Sediment Control Plan 4.1.1	Soil not to leave the site because of vehicle, plant, and equipment movements.	Soil and Water Controls
Erosion and Sediment Control Plan 4.1.1	Provision of a spill kit on site.	Soil and Water Controls
GC21 Preliminaries 5.15	The Contractor must take all reasonable precautions to avoid nuisance or trespass of any nature to any surrounding or adjoining areas to the Site, as a result of undertaking the Works, including by way of dust, mud, debris, noise, obstruction, vibration, or by its employees, agents, subcontractors or visitors or any other cause. The Contractor must utilise reasonable methods (having regard to the use and operation of any existing health facilities in close proximity to the Site) of noise and dust suppression on all compressors, jack-hammers and other machinery of whatsoever description to ensure that the noise and dust levels emanating from the Site during the Works are minimised. Without limiting these requirements, the Contractor shall comply with all relevant codes and shall also erect screens (both visual and acoustic) or take other reasonably necessary preventative measures to prevent noise, 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. The Contractor shall comply with all instructions given by the Principal or any Statutory Requirements whether regarding matters of noise or dust. 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	Soil and Water Controls

Relevant Condition	Limit/Requirement	Where it's met
	address these issues. The Contractor shall not be entitled to any compensation on account of any such suspension, including extensions of time or delay or disruption costs.	
Condition of Approval B30	The Applicant must prepare a Construction Environmental Management Plan (CEMP) and it must include, but not be limited to, the following: (d) Construction Soil and Water Management Sub-Plan (see condition B35); (e) Flood Emergency Response Sub-Plan (see condition B36);	Soil and Water Controls Appendices E-J & Appendix Q
Condition of Approval C25	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.	Soil and Water Controls
Condition of Approval C26	The Applicant must: ▪ Ensure that only VENM, ENM, or other material approved in writing by EPA is brought onto the site ▪ Keep accurate records of the volume and type of fill to be used; and ▪ Make these records available to the Department or Certifying Authority upon request.	Soil and Water Controls
Condition of Approval C27	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 Council must be obtained to connect or discharge site stormwater to Council's stormwater drainage system or street gutter.	Erosion and Sediment Control Plan

1.2.2 Legislative requirements for soil and water management

The following legislation is relevant to soil and water management on this Project:

Table 1-3 Legislative requirements for soil and water management

Relevant legislation	Limit/Requirement	Where it's met
Protection of the Environment Operations Act 1997 (POEO Act) s148	Notify the EPA immediately of pollution incidents where material harm to the environment is caused or threatened.	Soil and Water Controls
POEO Act s120 & s122	Do not cause water pollution (other than to a sewer), except in accordance with the conditions of any Environmental Protection Licence.	Soil and Water Controls
POEO Act s142 A – 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 EPA as an unlicensed landfill and which is operated in accordance with the regulations).	Soil and Water Controls
Sydney Water Act 1994 s47	Do not undertake a scheduled waste activity unless in accordance with an Environmental Protection Licence.	Soil and Water Controls
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.	Soil and Water Controls

1.3 Project Objectives

Based on the Project requirements, the findings of project risk management processes and the potential impacts to the environment, the following objectives have been set for managing water quality on the Project. Any deviance from the targets will result in Project Management immediately implementing corrective actions.

Table 1-4: Soil and water objectives

Metric/Measure	Objective	Timeframe	Accountability
Number of non-compliant monitoring results at authorised discharge points and external compliance points	Zero	At all times	Project Director
Number of enforcement notices / penalties issued by regulators and/or client	Zero	At all times	Project Director

1.4 Controls Used to Manage Soil and 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. Controls used on this Project include:

Table 1-5: Soil and Water controls

Control	Accountability
Erosion and sediment controls must be designed, installed and maintained in consultation with the construction team and SHEQ Manager. Plant and equipment must also be regularly maintained and inspected.	Project Engineer Supervisors SHEQ Manager
Clean water diversions must be installed prior to the commencement of work.	Supervisor
Erosion and sediment controls 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.	Supervisor
Cleared areas must be kept to a minimum and be progressively rehabilitated/revegetated as they become available.	Supervisor
All materials must be stockpiled away from water flow paths.	Supervisor
Sediment laden water (dirty water), stormwater, recycled water captured onsite must be preferentially reused e.g. dust control.	Supervisor
Water discharged from site is in strict accordance with the site's dewatering procedure, which is approved by the SHEQ Manager.	SHEQ Manager
No transfer/discharge will be made without a Permit To Dewater approved by the SHEQ Manager.	Supervisor SHEQ Manager
Erosion and sediment control measures are to be provided in accordance with Landcom's 'Managing Urban Stormwater, Soils & Construction Guidelines (The Blue Book)' and are to be maintained regularly and after rainfall events.	Supervisor SHEQ Manager
General weather conditions will be continually monitored, and appropriate precautions risk assessed and implemented. Monitoring weather predictions will be through Bureau of Meteorology, using reporting tools such as Satellite, Rain Radar, Met Eye and National Warnings Summary.	SHEQ Manager
Significant wet weather events will be managed by: • Soil and Water Controls / Erosion and Sediment Control Plan strategies will be reviewed • Controls established for surface water mitigation consistent with "Managing Urban Stormwater: Soils and Construction" (NSW Landcom, 2004), (Blue Book), i.e. diversion swales and water ponds • To prevent contamination potential Pollutants and Chemicals will be stored or protected by designed bunded areas/containers where practicable.	SHEQ Manager Site Manager Supervisors
Work will cease if the weather event will potentially compromise the established or extraordinary surface water controls	SHEQ Manager Site Manager Supervisors
Significant wet weather events plant and equipment will be relocated to an elevated position above predicted flood level. These levels will be monitored visually and through Bureau of Meteorology. Frequency of visual inspection will be determined on the actual volume of rain and rising water rates.	SHEQ Manager Site Manager

Disturbance of sediment during demolition must be consistent with "Managing Urban Stormwater: Soils and Construction" (NSW Landcom, 2004), (Blue Book), to ensure containment of sediment to the immediate work site.	Supervisor
All sediment control measures must be regularly inspected and cleaned out and/or repaired as necessary, and all collected silt disposed of appropriately. Stockpiles should also have adequate sediment control measures in place and be located away from the adjacent waterway.	Supervisor
Drainage control devices are to be regularly checked especially during heavy rainfall periods.	Supervisor
All hazardous substances (liquids and solids) are stored and managed according to AS1940.	Supervisor
Erosion and sediment control measures are not to be removed until disturbed areas have stabilised.	Supervisor
Shaker grids to be installed at construction vehicle exits to remove ground materials from the construction vehicle wheels prior to the vehicle leaving the site and discharging material onto the public roadway.	Supervisor
Stabilised access, rumble grids, wash bays or similar must be established for the entries site and exits to the site to minimise mud on public roads. Sweepers shall be used periodically to clean public roads where mud has been deposited.	Supervisor
All trucks leaving the site with dusty loads must be covered.	Supervisor
Stockpiles are to be covered with tarpaulins, stabilized or watered down during works as required.	Supervisor
Stockpiles are to be located away from gutters, stormwater pits, site boundary, footpaths, roads and traffic areas.	Supervisor
Haul Roads will be cleared of rubble to minimise potential sediment flows as required.	Supervisor
Works are to be staged to limit the area and duration that soils are exposed.	Supervisor
A spill kit must be on-site at all times.	Supervisor
Water from the site requiring disposal is to be tested and discharged in compliance with ANZECC (2000) water quality guidelines for protection of aquatic ecosystems.	SHEQ Manager
Appropriate erosion and sediment control measures are to be put in place prior to the commencement of demolition.	Project Engineer
An adequate number of concrete washout pits will be maintained at all times. The washout pits will be isolated from surface water flows with bunds constructed of a suitable material to prevent contamination of clean surface waters and will be lined to prevent contamination of soil and ground water.	Supervisor
Only VENM, ENM, or other material approved in writing by the EPA can be brought on-site.	Supervisor
If VENM, ENM or other approved material are brought on-site, accurate records of the volume and type of fill are to be kept. They will be made available to the Department or Certifying Authority upon request.	SHEQ Manager

If dewatering is to occur the following management options are available: ▪ Pumping, transport, and disposal off-site at a licensed liquid waste facility ▪ On-site treatment and discharge to stormwater connections in accordance with acceptable criteria (e.g. ANZECC (2000), the 'Blue Book' and ANZECC Water Quality Guidelines for Fresh and Marine Waters 2000) ▪ On-site treatment and discharge to Council stormwater drains to criteria acceptable to relevant authorities; and ▪ Treated dewatering effluent may be allowed to be used for dust suppression. Monitoring of discharged water will also be required to demonstrate compliance with the acceptable criteria.	Supervisor
The delivery team, including subcontractors, will receive induction and where required targeted training regarding the requirements for management of soil and water across the site.	Supervisor

Soil and water on the project will be further managed by the sediment and erosion management, and soil and water management plans in Appendices F, G, H and I. There are two stages to the sediment and erosion strategy. Stage 1: (Appendices F and G) earthworks contractor to engage a qualified person to develop and implement detailed sediment and erosion plans during bulk excavation. Stage 2: (Appendices H and I) semi-permanent condition following bulk excavation to be maintained up to when the site discharges directly to stormwater.

1.5 Groundwater Management Plan

This section addresses the EPA's objective to maintain the quality of groundwater and surface water so that environmental values are protected.

The objective is to identify the potential direct and indirect impacts on groundwater flows and/or quality and develop management and monitoring measures that maximise the ongoing protection of groundwater and to maintain the hydrological regimes of groundwater and surface water so that environmental values are protected as per relevant NSW EPA, standards and best practice.

Site investigations have been undertaken, including boreholes identifying groundwater locations. It is anticipated that the ground water table won't be intercepted during excavation works. However, as excavation progress will be monitored continually during rain events when groundwater will enter the site through natural fissures in cut rock faces, due to the topography of the site. It should be noted that the development is the natural low point of the surrounding land and groundwater inflows into the site are far more likely than any outflows.

1.6 Management of Potential Contaminates in Soil

- Fuels will be stored in accordance with Australian Standard AS1940 Storage and Handling of Flammable and Combustible Liquids
- Plant refueling will be undertaken by mobile tanker at a designated refueling location in a controlled bunded area.
- All fuel or chemical Spills to be reported and will be cleaned up immediately to prevent impact to ground water
- Spill kits will be deployed at strategic locations with the project from land contamination.
- Chemical management procedures, such as minimising use and storage of chemicals on site, bunded storage facilities to ensure spills, washing residues, slurries or other contaminated water can be contained, and are managed/disposed of appropriately

- Use of well-maintained plant to minimise the potential for spills to occur
- Procedures to remove, treat and/or dispose soil that becomes contaminated due to a fuel or chemical spill
- Staff training and competence requirements in relation to spills

If the ground water table is intercepted a specialist hydrologist will be engaged to conduct baseline modelling and groundwater sampling to:

- Document groundwater impact levels and quality i.e. salinity
- Identify baseline modelling and groundwater quality at impact and reference sites
- Compare data across impact and reference sites
- Implement a groundwater monitoring program in areas identified as high-risk areas where
- groundwater dependent systems have been identified and potential impacts are significant

Groundwater sampling should be conducted in accordance with the requirements of AS/NZS

5667.11:1998 *Water Quality – Sampling - Guidance on Sampling of Groundwaters*

1.7 Consultation

CPB met and consulted with Campbelltown City Council on the 11/06/19 at 1pm. Subsequently, CPB emailed the following Environmental documents to the Executive Manager Urban Centres David Smith on the 12/06/19 -

- Nosie and vibration
- Soil and Water
- Waste Management
- Construction Traffic and Pedestrian Management
- Flood Emergency Response
- Dilapidation report pertaining to areas around the site.

David Smith confirmed receipt of the information on the 12/06/19.

1.8 Monitoring

The quantity of water used from potable supplies or water obtained under an extraction license or other regulatory authority or agreement, including recycled water obtained from outside the Project, will be captured and reported in JD Edwards. Where the information is not available from an invoice, other processes will be put in place to obtain the data and the information entered manually.

Water 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 the HSE Reporting System.

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 SHEQ Manager to ensure all monitoring is performed according to these requirements.

2. Flood Emergency Response Plan

2.1 Scope

Refer to the *Flood Emergency Response Sub Plan* (Appendix K) developed by Enstruct group for flood emergency management on the Project and the management of impacts to the environment and/or community.

Based on previously referenced flood modelling reports and project flood modelling results and in direct reference to NSW government Floodplain Risk Management Guide 2007 – 2019 the site is not deemed to be at risk from:

- Riverine flooding
- Flash flooding
- Storm surge
- Dam failure
- Coastal or Lacustrine Flooding

Minor localised flooding may occur by way of:

- Detention basins
- Stormwater drains

2.2 Project Compliance Requirements

2.2.1 Conditions of Project Environmental Approvals

The flood emergency requirements are sourced from:

- SSD 9241 Minister's Conditions of Approval Development Consent dated 18 February 2019
- *Environmental Impact Statement Campbelltown Hospital Redevelopment 10 August 2018*

Table 2-1: Flood emergency response approval requirements

Relevant Condition	Limit/Requirement	Where it's met
Condition of Approval B36	The Flood Emergency Response Sub-Plan must address, but not be limited to, the following: a) be prepared by a suitably qualified and experienced person(s) b) address the provisions of the Floodplain Risk Management Guideline (OEH, 2007) c) include details of: i. the flood emergency responses for the construction phase of the development ii. predicted flood levels iii. flood warning time and flood notification iv. assembly points and excavation routes v. evacuation and refuge protocols; and vi. awareness training for employees and contractors.	This Sub-plan
Environmental Impact Statement 6.11	To ensure the CSB remains unaffected, an overland flow diversion channel is proposed west of the CSB (Clinical Services Building) that will allow water flows to exit the hospital campus and prevent entry to the CSB.	This Sub-plan

2.3 Enstruct's Flood Emergency Response Sub Plan

As per the advice received from Enstruct, "detailed analysis of the site and subsequent whole of project stormwater drainage design indicate that the items indicated in the Development Consent Condition of Approval B36 c) (i) to (vi) are not required for this development".

3. Flora & Fauna Management Plan

3.1 Scope

This Plan addresses Flora & Fauna management on the Project and the management of impacts to the environment and/or community. A Biodiversity Development Assessment Report advised that there are no threatened flora or fauna on the development site.

3.2 Project Compliance Requirements

3.2.1 Conditions of Project Environmental Approvals

The following flora and fauna requirements are sourced from:

- *CHR Clinical Services Building and Associated Works Construction Management Plan: Rev E August 2018*
- *Environmental Impact Statement Campbelltown Hospital Redevelopment 10 August 2018*
- *Ecological Arboricultural Impact Assessment December 2018*
- *Biodiversity Development Assessment Report July 2018*; and
- SSD 9241 Minister's Conditions of Approval Development Consent dated 18 February 2019

Table 3-1: Flora and fauna approval requirements.

Relevant Condition	Limit/Requirement	Where it's met
CHR Construction Management Plan 6.5	The contractor undertaking the Works will be required to comply with *Australian Standard 4970-2009 Protection of Trees on Development Sites* for the proper care and protection of trees retained and integrated into the construction project.	Flora and Fauna Controls
Environmental Impact Statement 6.8	Any loss of trees will be offset in accordance with the requirements of the Biodiversity Offsets Scheme, as detailed in the Biodiversity Development Assessment Report.	Biodiversity Development Assessment Report
Arboricultural Impact Assessment 4.1	Tree protection fencing must be established around the perimeter of the Tree Protection Zone (TPZ). If the protective fencing requires temporary removal, trunk, branch, and ground protection must be installed and must comply with AS 4970-2009 - Protection of trees on development sites. Existing fencing and site hoarding may be used as tree protection fencing.	Flora and Fauna Controls
Arboricultural Impact Assessment 4.1	If temporary access for machinery is required within the TPZ, ground protection measures will be required. The purpose of ground protection is to prevent root damage and soil compaction within the TPZ. Ground protection may include a permeable membrane such as geotextile fabric beneath a layer of mulch, crushed rock, or rumble boards.	Flora and Fauna Controls
Arboricultural Impact Assessment 4.1	Any additional construction activities within the TPZ of the subject trees must be assessed and approved by the Project arborist and must comply with *AS 4970-2009 - Protection of trees on development sites.*	Flora and Fauna Controls
Condition of Approval C21	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.	Flora and Fauna Controls
Condition of Approval C21	All street trees must always be protected 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.	Flora and Fauna Controls
Condition of Approval C21	All trees on the site that are not approved for removal must be suitably protected during construction as per recommendations of the Arboricultural Impact Assessment prepared by Ecological Australia dated 7 December 2018.	Flora and Fauna Controls

Condition of Approval C21	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.	Flora and Fauna Controls

3.2.2 Legislative requirements for flora and fauna management

In conjunction with the POEO Act, the following legislation is relevant to flora and fauna management on this Project:

Table 3-2: Legislative requirements for flora and fauna

Relevant legislation	Limit/Requirement	Where it's met
Biosecurity Act 2015 s21	Duty to prevent, eliminate or minimise biosecurity risk (in relation to the weeds on-site listed under the Act).	Flora and Fauna Controls

3.3 Project Objectives

Based on the requirements defined at Section 1.1.2 (above), the findings of project risk management processes and the potential impacts to the community, the following targets have been set. Any deviance from the targets will result in Project Management immediately implementing corrective actions:

Table 3-3: Flora and Fauna Objectives

Metric/Measure	Objective	Timeframe	Accountability
Number of native fauna injured	Zero	At all times	Project Director
Tree protection in place	All	At all times	Project Director
Number of actions taken by regulators and/or client	Zero	At all times	Project Director

3.4 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 3-4: Flora & Fauna controls

Control	Accountability
Prior to commencement of works adjacent to treed areas, a TPZ must be established around trees to be protected. Tree protection must be installed and maintained in accordance with the *Australian Standard 4970 Protection of Trees on Development Sites*.	Project Engineer Supervisor SHEQ Manager
If a threat to an animal is evident onsite the Site Supervisor, Site Manager and SHEQ Manager must be notified immediately. Works may need to cease if the animal is in danger or harmed until it has been relocated by a qualified ecologist or licensed wildlife handler.	Supervisor SHEQ Manager Site Manager
CPB shall not use the following timbers or their products for work under the Contract: ▪ rainforest timbers, unless certification is provided that they are plantation grown; ▪ timber from Australian high conservation forests.	Site Engineers

If temporary machine access is required within the TPZ ground protection measures will be implemented including geotextile fabric underneath mulch, crushed rock or rumble boards.	Supervisor SHEQ Manager
The site speed limits must be obeyed at all times, especially areas where vehicle-fauna interactions are identified as high risk.	All
All plant should remain on haul roads as much as possible so as to minimise damage to vegetation.	Supervisor
No-go fencing must be installed prior to construction works.	Project Engineer
No-go zones must be obeyed at all times without a Permit to Enter No-go Zone. Any damage to no-go zone fencing or signage shall be reported to the Supervisor, Site Manager or SHEQ Manager immediately.	All
Cleared/removed vegetation will be beneficially used either on or off the Project where possible (e.g. for habitat, chipped for mulch and reused).	Project Engineer
Where possible revegetation activities will preferentially use only species that are indigenous to the area.	Design Manager
Boundaries of allowable disturbance areas on the Project are clearly marked and delineated.	Project Engineer
Construction site fencing is to be installed around the demolition site. Vehicle and workforce access points and roads to the construction compounds are to be clearly designated and controlled for authorised access only.	Supervisor Site Manager
All plant to exit via controlled site access and to be cleaned in wash out bay prior to leaving site to minimise the spread of weeds.	Supervisor
Street trees will not be trimmed or removed without prior development consent or written approval obtained by Council or to avoid loss of life in an emergency or damage to property.	Supervisor SHEQ Manager
All street trees must be protected at all times. Any tree on the footpath that is damaged or removed during construction will be replaced to the satisfaction of Council.	Supervisor SHEQ Manager
If access to the area within any protective barrier is required during the works, it will be carried out under the supervision of a qualified arborist. Alternative tree protection measures will be installed, as required. The removal of tree protection measures, following completion of the works, will be carried out under the supervision of a qualified arborist and will 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.	Supervisor SHEQ Manager

3.5 Monitoring

Flora & Fauna 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 shall be retained.

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

4. Noise and Vibration Subplan

4.1 Scope

This Plan addresses noise and vibration management requirements associated with the demolition and construction works and the management of impacts to the environment and/or community. Activities conducted on the Project that have the potential to create noise and vibration issues are provided below.

Table 4-1: Activities, Hazards and Risks

Project Activity	Environmental Hazard	Environmental Risk
Piling	High level of noise and vibration	Impacts on adjacent or nearby buildings and/or flora
Site Clearing	Vibration	Impacts on adjacent or nearby buildings and/or flora

4.2 Project Compliance Requirements

4.2.1 Conditions of Project Environmental Approvals

The following noise and vibration requirements are sourced from:

- *CHR Clinical Services Building and Associated Works Construction Management Plan: Rev E August 2018*
- *Environmental Impact Statement Campbelltown Hospital Redevelopment 10 August 2018*
- *SSDA Acoustic Assessment Report July 2018*
- GC21 HI 18467 Contracts
- SSD 9241 Minister's Conditions of Approval Development Consent dated 18 February 2019.

Table 4-2: Noise and vibration requirements

Relevant Condition	Limit/Requirement	Where it's met
CHR Construction Management Plan 6.2	The noise and vibration from the use of any plant equipment and/or building services associated with the premises shall not give rise to an offensive noise as defined under the provisions of the Interim Construction Noise Guidelines, EPA and Australian Standards.	Noise Management Guidelines
CHR Construction Management Plan 6.2	The proponent shall develop a complaints management system and record details of all complaints received and the means of resolution of those complaints. The Complaints Register shall be made available to Council on request.	Element 6 & 11 Complaints Register
CHR Construction Management Plan 6.2	As part of noise mitigation for the Project, the contractor will be responsible for the management, checking of compliant maintenance regimes and statutory supervision of all equipment, such as making sure all trucks and machinery involved in the Works will be checked for defective exhaust systems and general servicing.	Noise and Vibration controls Element 6 & 11 Complaints Register
Acoustic Assessment Report 6.7.2	The location of stationary plant (concrete pumps, air-compressors, generators, etc.) as far away as possible from sensitive receivers.	Noise and Vibration Controls
Acoustic Assessment Report 6.7.2	Using site sheds and other temporary structures or screens/hoarding to limit noise exposure where possible.	Noise and Vibration Controls
Acoustic Assessment Report 6.7.2	The appropriate choice of low-noise construction equipment and/or methods.	Noise and Vibration Controls

Acoustic Assessment Report 6.7.2	Carry out consultation with the community during construction including, but not limited to advance notification of planned activities and expected disruption/effects, construction noise complaints handling procedures.	Noise and Vibration Controls Element 6 Community Stakeholder Engagement Plan
Acoustic Assessment Report 6.7.3	Site managers to periodically check the site and nearby residences for noise problems so that solutions can be quickly applied.	Noise and Vibration Controls
GC21 Preliminaries 5.15	The Contractor must take all reasonable precautions to avoid nuisance or trespass of any nature to any surrounding or adjoining areas to the Site, as a result of undertaking the Works, including by way of dust, mud, debris, noise, obstruction, vibration, or by its employees, agents, subcontractors or visitors or any other cause. The Contractor must utilise reasonable methods (having regard to the use and operation of any existing health facilities in close proximity to the Site) of noise and dust suppression on all compressors, jack-hammers and other machinery of whatsoever description to ensure that the noise and dust levels emanating from the Site during the Works are minimised. Without limiting these requirements, the Contractor shall comply with all relevant codes and shall also erect screens (both visual and acoustic) or take other reasonably necessary preventative measures to prevent noise, 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. The Contractor shall comply with all instructions given by the Principal or any Statutory Requirements whether in regard to matters of noise or dust. 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. The Contractor shall not be entitled to any compensation on account of any such suspension, including extensions of time or delay or disruption costs.	Noise and Vibration Controls
GC21 Preliminaries 6.1	Submit an Environmental Management Monthly Report with each claim for payment, signed by the Contractor's representative and including the information specified below, as evidence of implementation of the Environmental Management Plan. Contract details - the names of the Contract, Contractor and Contractor's representative, the report date and the period covered. Implementation of environmental management - details of: ▪ the environmental risks and opportunities, and significant environmental impacts associated with the work; ▪ environmental objectives, targets, and measures of performance (where practical); and ▪ management actions, including environmental controls, training, inspections and testing. Implementation of incident management, including emergency response - details of all environmental incidents or emergencies, including non-compliance with environmental procedures and near misses, implementation of incident and emergency response management, and implementation of corrective action. 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:	Noise and Vibration Controls

	▪ monitoring, measurement, evaluation and review of activities; ▪ the consequences of non-conformances; ▪ investigation, analysis, evaluation and follow-up verification; and ▪ corrective and preventive action taken.	
GC21 General – Main Works 18	The Contractor must observe: ▪ *Statutory Requirements* which regulate working hours and working days; and ▪ Any requirements in Contract Information item 18.	Noise and Vibration Controls
Condition of Approval B33	The Construction Noise and Vibration Management Sub-plan (CNVMSP) must address, but not be limited to, the following: a) Be prepared by suitability qualified and experienced noise expert; b) Describe procedures for achieving the noise management levels in EPA's *Interim Construction Noise Guideline* (DECC, 2009); c) Describe the measures to be implemented to manage high noise generating works such as piling, in close proximity to sensitive receivers; d) Include strategies that have been developed with community for managing high noise generating works; e) Describe the community consultation undertaken to develop the strategies in condition B16(d); and f) Include a complaints management system that would be implemented for the duration of the construction	Arup's Construction Noise and Vibration Sub-plan Community Stakeholder Communication Strategy (by others)
Condition of Approval C2	A site notice(s) (a) Must be prominently displayed at the boundaries of the site for the purposes of informing the public of project details including, but not limited to the details of the Builder, Certifying Authority and Structural Engineer. (b) Is to satisfy all but not be limited to, the following requirements: (i) Minimum dimensions of the notice must measure 841mm x 594mm (A1) with any text on the notice to be a minimum of 30-point type size; (ii) The notice is to be durable and weatherproof and is to be displayed throughout the works period; (iii) The approved hours of work, the name of the site/project manager, the responsible managing company (if any), its address and 24-hour contact phone number for any inquiries, including construction/noise complaints must be displayed on the site notice; and (iv) The notice(s) is to be mounted at eye level on the perimeter hoarding/fencing and is to state that unauthorised entry to the site is not permitted.	Noise and Vibration Controls Appendix P
Condition of Approval C5	Construction, including the delivery of materials to and from the site, may only be carried out between the following hours: a) Between 7am and 6pm, Mondays to Fridays inclusive; and b) Between 8am and 3pm, Saturdays Preparatory activities (but no construction work) may also be undertaken from 6:30am Mondays to Fridays and from 7am on Saturdays. No work may be carried out on Sundays or public holidays.	Noise and Vibration Controls
Condition of Approval C7	Rock breaking, rock hammering, sheet piling, pile driving, and similar activities may only be carried out between the following hours: a) 9am to 12pm Monday to Friday b) 2pm to 5pm, Monday to Friday; and c) 9am to 12pm, Saturday.	Noise and Vibration Controls
Condition of Approval C14	The development must be constructed to achieve the construction noise management levels detailed in the *Interim Construction Noise Guidelines* (DECC, 2009). All feasible and reasonable construction noise management levels must be identified and managed in accordance with the management and mitigation	Noise and Vibration Controls

	measures identified in the approved Construction Noise and Vibration Management Plan	
Condition of Approval C15	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.	Noise and Vibration Controls
Condition of Approval C16	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.	Noise and Vibration Controls
Condition of Approval C17	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.	Noise and Vibration Controls
Condition of Approval C18	Vibration caused by construction at any residence or structure outside the site must be limited to: a) For structural damage, the latest version of DIN 4150-3 (1999-02) Structural vibration – Effects of vibration on structures (German Institute for Standardisation, 1999); and b) For human exposure, the acceptable vibration values set out in the *Environmental Noise Management Assessing Vibration: a technical guideline* (DEC, 2006) (as may be updated or replaced from time to time).	Vibration Management Guidelines
Condition of Approval C19	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.	Noise and Vibration Controls
Condition of Approval C20	The limits in conditions C18 and C19 apply unless otherwise outlined in a Construction Noise and Vibration Management Plan, approved as part of the CEMP required by condition B33 of this consent.	Noise and Vibration Controls
Condition of Approval C43	The Department must be notified in writing to 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.	Noise and Vibration Controls
Condition of Approval C44	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.	Noise and Vibration Controls
Environmental Impact Statement 6.23	No machine work will occur outside the approved working hours set unless approval has been given through the DN process and as per the conditions of consent.	Noise and Vibration Controls

4.3 Project Objectives

Based on the Project requirements, the findings of project risk management processes and the potential impacts to the community, the following targets have been set. Any deviance from the targets will result in Project Management immediately implementing corrective actions.

Table 4-3: Noise and vibration objectives

Metric/Measure	Objective	Timeframe	Accountability
Number of nuisance complaints	Zero	Annual	Project Director
Number of non-compliant monitoring results	Zero	At all times	Project Director
Number of incidents of damage caused by vibration	Zero	At all times	Project Director
All works to be carried out within permissible working hours.	All	Duration of project	Project Director

4.4 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 4-4: Noise and vibration controls

Control	Accountability
Undertake construction activities within the nominated hours of work to comply with contractual and legal requirements. Any works that need to occur outside these hours must be approved by the Project Director or the SHEQ Manager. Construction, including the delivery of materials to and from the site, may only be carried out between the following hours: a) Between 7am and 6pm, Mondays to Fridays inclusive; and b) Between 8am and 3pm, Saturdays Preparatory activities (but no construction work) may also be undertaken from 6:30am Mondays to Fridays and from 7am on Saturdays. No work may be carried out on Sundays or public holidays.	All
Rock breaking, rock hammering, sheet piling, pile driving, and similar activities will only be carried out between the following hours: a) 9am to 12pm Monday to Friday b) 2pm to 5pm, Monday to Friday; and c) 9am to 12pm, Saturday.	Supervisor Subcontractor
All equipment is serviced and maintained according to, as a minimum, the original equipment manufacturers recommendations, or more frequently if required to minimise noise generated. Where the OEM requirements are not available then industry best practice maintenance is applied.	Supervisor Subcontractor
Stationary plant including concrete pumps, air-compressors, generators etc. will be placed as far away as possible from sensitive receivers.	Supervisor
Vibratory compactors will not be used closer than 30 metres from residential buildings (unless vibration monitoring confirms compliance with the vibration criteria specified in condition C18).	Supervisor
Vibration monitoring conducted in accordance with relevant standards, guidelines and codes and at a frequency and at locations to confirm compliance with the regulatory limits will be conducted.	SHEQ Manager
Undertake high noise generating works in accordance with project obligations.	Supervisor
Where intermittent high frequency noise is a high risk, and pending safety requirements, the least noise-intrusive reversing alarms must be used.	Supervisor
Dilapidation surveys will be completed for properties located within the vicinity of construction activities.	SHEQ Manager
In accordance with contractual requirements early consultation must be conducted with community stakeholders on the likely impacts of activities likely to cause disruption. Specifically, an agreed **Disruption Notice** (DN) procedure shall be prepared and implemented to advise every potential disruption to access, building services and of significant noise, dust and vibration events. The Contractor is to proactively manage, collaborate and prepare all Disruption Notices in accordance with the established Disruption Notice procedure. A DN Schedule will be maintained and updated by the Contractor with the aim of resolving any issues well in advance of potentially disruptive works being carried out. The process for each specific notice (which must be issued in addition to the schedule noted above) is outlined in the disruption Notice Protocol.	Construction Manager
The Department will be notified in writing to compliance@planning.nsw.gov.au within seven days after becoming aware of any non-compliance. 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.	SHEQ Manager
Noise attenuation of fixed and mobile plant as required in order to achieve compliance is installed.	Project Engineer
Review the Project Traffic Management Plan/Plans to minimise noise impacts as required.	Project Engineer
Avoid using vehicle warning devices (such as horns) as signaling devices.	Supervisor

Where practicable, broadband, non-tonal reversing alarms should be utilised on site equipment. Ensure that the difference in volume between the reversing warning devices and the base machine noise level (at maximum governed speed under no load at any given test location) is minimised (in accordance with International Standard ISO9533:1989) and ensure that warning devices are no more than 5 dB above the Australian Standard level.	Project Engineer
Avoid dropping equipment/materials from a height or into trucks. Where practicable, use sound dampening material to cover the surfaces on to which any materials must be dropped.	Supervisor
Conduct consultation with the community during construction including advance notification of planned activities and expected disruption/effects.	Community Stakeholder Management Plan
Complaints received prior to and during the undertaking of works shall be recorded and attended to promptly. On receiving a complaint, works shall be reviewed to determine whether issues relating to the complaint can be avoided or minimised. Feedback shall be provided to the complainant explaining what remedial actions were taken.	Community Stakeholder Management Plan
The proponent shall develop a complaints management system and record details of all complaints received and the means of resolution of those complaints. The Complaints Register shall be made available to Council on request.	Community Stakeholder Management Plan
All reasonable, practicable steps are to be undertaken to reduce noise and vibration from the site.	Supervisor
Monthly Environmental Management Report to be submitted detailing: • Monitoring, measurement, evaluation and review of activities • Consequences of non-conformances • Investigation, analysis, evaluation and follow-up verification; and • Corrective and preventative action taken.	SHEQ Manager
Periodic checks of the site and nearby residences for noise problems in order to quickly apply solutions.	Supervisor
Plant and equipment are to be maintained, checked and calibrated in accordance with the appropriate design requirements and to ensure that maximum sound power levels are not exceeded.	Subcontractor
Plant and equipment (where possible) are to be strategically positioned on site to reduce the emission of noise from the site to the surrounding area, users of the site and on-site personnel.	Supervisor Subcontractor
Unnecessary noise is to be avoided when carrying out manual operations and operating plant.	Supervisor
Avoid the use of radios or stereos outdoors.	Supervisor
'Toolbox talks' will be held at regular intervals with the contractor workers, including discussion of noise and vibration mitigation, monitoring and assessment. These topics will also be covered under induction processes.	SHEQ Manager
Identification of all reasonable and feasible noise mitigation methods will be conducted by the Supervisor and/or SHEQ Manager on a daily basis during noisy works. The Supervisor will have the authority to modify work practices in response to complaints, where this is considered appropriate.	Supervisor SHEQ Manager
Operate two-way radios at the minimum effective volume and avoid shouting or whistling at the site.	Supervisor
Turn off all plant and equipment when not in use.	Supervisor
Keep truck drivers informed of designated vehicle routes, parking locations, acceptable delivery hours or other relevant practices (for example, minimising the use of engine brakes, and no extended periods of engine idling).	Supervisor
Work practices predicted to generate non-compliant vibration must be amended prior to commencing works to the extent required to comply with applicable limits.	SHEQ Manager
Install site notice board with Site Manager 24-hour contact details for inquiries, including construction / noise complaints. Site Manager – Darren Strutt 0423 822 003	Site Manager

Issue Disruption Notices to Health Infrastructure for review / approval and consult with affected stakeholders for any high noise generating works outside the noise criteria set out in Arup's Construction Noise and Vibration Sub-Plan.	Construction Manager Project Engineer
Ensure all complaints raised to Health Infrastructure are investigated and responded to within five days as per Complaints / Issue process within the Community Communication Strategy developed by Health Infrastructure	Construction Manager
Provide timing / methodologies / presentations via the Disruption Notice process to the client which may impact to the hospital to allow their communications team to provide updates and briefings to the affected users as per the engagement strategies set out in the Community Communication Strategy developed by Health Infrastructure.	Construction Manager

4.5 Arup's Construction Noise and Vibration Sub-Plan

As part of the SSD pre-commencement Condition B33, a qualified expert has been engaged to establish a site-specific Construction Noise and Vibration Sub-plan (Appendix L) which goes through the noise and vibration criteria, assessment and management measures. Further to the control measures in table 4.4-1 the management measures in the Arup's CNVP will also be implemented on the project.

4.6 Consultation

CPB consulted Health Infrastructure working group which consistent of the hospital key stakeholders regarding noise and vibration management measures and the issues / complaints strategy on 26/06/2019.

4.7 Monitoring

Noise 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 SHEQ Manager to ensure all monitoring is performed according to these requirements.

Where monitored noise levels are found to be above predictions, the following actions will be undertaken:

- Confirm that monitored levels are not being contaminated by other noise and vibration sources;
- Confirm that all feasible and reasonable measures have been implemented;
- Confirm if the exceedance is due to an uncharacteristically loud or vibratory piece of equipment;
- Identify if equipment can be swapped out for another piece of equipment; and
- Confirm that the modelling reflects the actual activity being undertaken.

5. Heritage Management Subplan

5.1 Scope

This plan addresses heritage management associated with the Project works and the management of impacts to the environment and/or community. It is noted that the potential for uncovering of heritage discoveries in the construction site is low as summarised in the 2018 Biosis report for the Campbelltown Hospital Redevelopment Stage 2.

5.2 Project Compliance Requirements

5.2.1 Conditions of Project Environmental Approvals

As determined through the *Biosis Statement of Heritage Impact July 2018,* no heritage areas have been identified at the Project site.

However, the Unexpected Finds Protocol for Aboriginal and non-Aboriginal heritage must be followed should heritage items or suspected heritage items be found during construction activities.

The contractual requirements and the SSD 9241 Minister's Conditions of Approval Development Consent dated 18 February 2019 are as follows:

Table 5-1: Heritage requirements

Relevant Condition	Limit/Requirement	Where it's met
Condition of Approval C28	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 shall only recommence with the written approval of OEH.	Unexpected Finds Protocol for Aboriginal and non-Aboriginal heritage
Condition of Approval C29	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 Protocol for Aboriginal and non-Aboriginal heritage
Condition of Approval C43	The Department must be notified in writing to 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.	Unexpected Finds Protocol for Aboriginal and non-Aboriginal heritage
Condition of Approval C44	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.	Unexpected Finds Protocol for Aboriginal and non-Aboriginal heritage

5.2.2 Legislative requirements for heritage management

In conjunction with the POEO Act, the following legislation are relevant to heritage management:

Table 5-2: Legislative requirements for heritage

Relevant Legislation	Limit/Requirement	Where it's met

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.	Unexpected Finds Protocol for Aboriginal and non-Aboriginal heritage
National Parks and Wildlife Act 1974 s86 & s90	Do not harm or desecrate an Aboriginal object or Aboriginal place without consent.	Heritage controls / Unexpected Finds Protocol for Aboriginal and non-Aboriginal heritage
National Parks and Wildlife Act 1974 s89A	Notify the Office of Environment and Heritage (OEH) within reasonable time of becoming aware of the location or discovery of certain Aboriginal objects.	Unexpected Finds Protocol for Aboriginal and non-Aboriginal heritage

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.

Table 5-3: Heritage management controls

Control	Accountability
Ground disturbance must not take place until a Permit to Excavate Permit has been authorised.	SHEQ Manager
All necessary approvals will be obtained prior to commencing any works in areas of known or potential heritage items.	Project Director
All Personnel will undertake a Site Induction which includes management of heritage items, (both Aboriginal and non-Aboriginal) and prevention of damage.	SHEQ Manager
If an object is discovered that may be a suspected heritage item, work must cease immediately and the Site Supervisor and SHEQ Manager must be notified. No Works will be allowed to continue until approval has been received from the SHEQ Manager.	All
An archaeologist must be contacted, and they will assess the find. If the find is determined to be an Aboriginal object the archaeologist will provide further recommendations.	SHEQ Manager
If any suspected human remains are discovered during any activity the following must be done: • Immediately cease all work at that location and not further move or disturb the remains • Notify the NSW Police and OEH's Environmental Line on 131 555 as soon as practicable and provide details of the remains and their location • Not recommence work at that location unless authorised in writing by OEH.	SHEQ Manager

5.4 Monitoring

Heritage 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 SHEQ Manager to ensure all monitoring is performed according to these requirements.

6. Contamination Management Subplan

6.1 Scope

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

Activities conducted on the project that have the potential to create soil contamination are listed in the table below.

Table 6-1: Activities, Hazards and Risks

Project Activity	Environmental Hazard	Environmental Risk
Bulk earthworks and general excavation	Discovery of unexpected contamination	Contamination of land or potentially groundwater
Demolition works	Discovery of unexpected contamination	Contamination of land or potentially groundwater.

6.2 Project Compliance Requirements

With reference to The Environmental Impact Statement and Douglas Partners 2018 geotechnical investigation, the assessments confirm that the Hospital Site is suitable for the proposed hospital use from a contamination perspective.

6.2.1 Conditions of Project Environmental Approvals

The following contamination requirements are sourced from:

- *CHR Clinical Services Building and Associated Works Construction Management Plan: Rev E August 2018*
- *Environmental Impact Statement Campbelltown Hospital Redevelopment 10 August 2018*
- *Douglas Partners Detailed Site Investigation Report August 2018*
- GC21 HI 18467 contracts
- SSD 9241 Minister's Conditions of Approval Development Consent dated 18 February 2019.

Table 6-2: Project Contamination compliance requirements

Contract Document Reference	Limit/Requirement	Where it's met
CHR Construction Management Plan 8.1	Dangerous goods (such as petrol, diesel, oxy-acetylene, oils etc.) will be stored in a lockable compound with sufficient ventilation in accordance with relevant codes of practice and standards. Safety data sheets on all of these flammable and potentially harmful liquids will be maintained by the contractor undertaking the Works.	Contamination controls
Environmental Impact Statement 6.18	Excavated material must be classified by a qualified environmental consultant in accordance with the NSW EPA Waste Classification Guidelines.	Contamination controls / Waste Classification
Environmental Impact Statement 6.18	An Unexpected Finds Protocol is to be established for use during bulk excavation.	Douglas Partners and CPB Unexpected Finds Protocol

Douglas Partners Report 9.1	Prior to off-site disposal of any excavated surplus material generated as part of bulk earthworks, an appropriate waste classification must be conducted by a qualified environmental consultant in accordance with NSW EPA *Waste Classification Guidelines, Part 1: Classifying Waste*.	Contamination controls / Waste Classification
Douglas Partners Report 9.1	Any material transported and/or disposed of off-site must be accompanied by appropriate reporting and material tracking in accordance with the POEO Act and NSW EPA 2014 guidance.	Contamination controls / Project Reporting
GC21 Preliminaries 6.1	Ensure compliance with the notification and other requirements of the *Protection of the Environment Operations Act 1997* (NSW) (POEO Act). Immediately notify the Principal of any pollution incident that may cause material harm to the environment, providing evidence that notification requirements of the POEO Act have been met, where applicable. Report immediately the details of any waste removed from the Site and not disposed of at a lawful facility. When requested, provide an incident investigation report, including identification of the cause of the incident and corrective actions taken, in the form directed.	Douglas Partners and CPB Unexpected Finds Protocol
Condition of Approval B6	Following demolition works, further investigation of building footprints is to be undertaken in accordance with *the Detailed Site Investigation prepared by Douglas Partners dated August 2018*. A report outlining the findings of the investigations and a review of the report by an NSW EPA accredited Site Auditor are to be submitted to the satisfaction of the Certifying Authority. Should the investigations identify that remediation works are required, a Remediation Action Plan (RAP) is to be prepared and reviewed by an NSW EPA accredited Site Auditor to confirm that the RAP is appropriate.	Site Auditor Report
Condition of Approval B7	Within one month of the completion of remediation works (where required) the Applicant must submit a Site Audit Report and Section A Site Audit Statement for the relevant part of the site prepared by an NSW EPA accredited Site Auditor. The Site Audit Report and Section A Site Audit Statement must verify the relevant part of the site is suitable for the ongoing use as a hospital and be provided to the satisfaction of the Certifying Authority.	Site Auditor Report
Condition of Approval B8	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 CEMP in accordance with condition B30 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.	Douglas Partners and CPB Unexpected Finds Protocol
Condition of Approval C43	The Department must be notified in writing to 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.	Douglas Partners and CPB Unexpected Finds Protocol
Condition of Approval C44	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.	Douglas Partners and CPB Unexpected Finds Protocol

Condition of Approval D28	Prior to occupation of the building, where required by the unexpected contamination procedure prepared under condition B8 the Applicant must obtain from an EPA accredited Site Auditor, a Site Audit Statement and a Site Audit Report which demonstrates that the site is suitable for its intended use(s).	Site Auditor Statement and Report (where required)
Condition of Approval B30	**Construction Environmental Management Plan** The Applicant must prepare a Construction Environmental Management Plan (CEMP) and it must include, but not be limited to, the following: a) Details of: iv) Groundwater management plan including measures to prevent groundwater contamination g) An unexpected finds protocol for contamination and associated communications procedure	Contamination Controls Appendix N

6.2.2 Legislative requirements for contamination management

In conjunction with the POEO Act, the following legislation is relevant to flora and fauna management on this Project:

Table 6-3: Legislative requirements for contamination management

Relevant legislation	Limit/Requirement	Where it's met
Contaminated Land Management Act 1997 s60	Notify the EPA if: ▪ 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 ▪ Contaminants in soil are equal to or exceed guideline levels with respect to the current or approved use of the land ▪ Contamination meets other criteria that may be prescribed by the regulations.	Douglas Partners and CPB Unexpected Finds Protocol
Contaminated Land Management Act 1997 s142A-E	Do not cause or permit land pollution other than under authority of a licence or regulation.	Contamination controls
Protection of the Environment Operations Act 1997 s148	Notify the EPA immediately of pollution incidents where material harm to the environment is caused or threatened.	Douglas Partners and CPB Unexpected Finds Protocol

6.2.3 Project Objectives

Based on the requirements defined at Section 5.2.1, the findings of project risk management processes and the potential impacts to the community, the following targets have been set. Any deviance from the targets will result in Project Management immediately implementing corrective actions:

Table 6-4: Contamination objectives for Campbelltown Hospital Project

Metric/Measure	Objective	Timeframe	Accountability
All soil types to be separately stockpiled for inspection and verification of contamination	All types	At all times	Supervisor
Minimise contamination / degradation to the soil environment within the project area	All contaminated soil is managed and disposed in accordance with the EPA	At all times	Project Director

All contaminated soils with contamination levels in excess of health investigation levels for Commercial/ Industrial Land Use criteria to be treated	All	At all times	Project Engineer
All contaminated soils with contamination levels in excess of the relevant environmental investigation levels criteria to be only used for re-use in non-environmental sensitive areas	All	At all times	Project Engineer
Ensure all spills are reported and cleaned up immediately	Zero un-reported spills	At all times	Supervisor

6.3 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 6-5: Contamination Controls

Control	Accountability
Whenever contaminated materials are discovered or suspected, works must cease and the Supervisor and SHEQ Manager notified immediately. The Unexpected Finds Protocol must then be followed.	Supervisor / SHEQ Manager
CPB shall notify the EPA if: - 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 - Contaminants in soil are equal to or exceed guideline levels with respect to the current or approved use of the land - Contamination meets other criteria that may be prescribed by the regulations.	SHEQ Manager
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 SHEQ Manager
All vehicles, plant and other machinery operating in contact with contaminated soil must be decontaminated prior to leaving site.	Site Manager Supervisor
Testing and classification by a trained and competent person occurs whenever contaminated material is present or believed to be present at the project.	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
Dangerous goods (such as petrol, diesel, oxy-acetylene, oils etc.) are to be stored in a lockable compound with sufficient ventilation in accordance with relevant codes of practice and standards. Safety data sheets on all of these flammable and potentially harmful liquids will be maintained by the contractor undertaking the Works.	Site Manager

6.4 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 SHEQ Manager to ensure all monitoring is performed according to these requirements.

7. Acid Sulfate Soil Management Subplan

Douglas Partners have confirmed within the Detailed Site Investigation Report for Stage 2 Proposed Redevelopment Campbelltown Hospital in August 2018 that the site is not located in an Acid Sulfate Soil risk area.

8. Energy Management Subplan

8.1 Scope

This Plan addresses the potential and actual use of energy sources and the emission of greenhouse gases (GHG) by Project activities. It outlines:

- 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 8-1: Energy Related Activities and Emission Sources

Project Activity	Type of Fuel/Emission
Plant & Equipment	Diesel and Petrol
Construction Operations	Electricity and Water
Site Accommodation	Electricity and Water
Light Vehicles	Diesel and Petrol

8.2 Project Compliance Requirements

8.2.1 Conditions of Project Environmental Approval

Specific contract clauses and references which set limits and/or specify requirements relating to use of energy, energy efficiency requirements, or controls on GHG emissions on the project have been sourced from:

- *Environmental Impact Statement Campbelltown Hospital Redevelopment* 10 August 2018
- GC21 HI 18467 contracts

Table 8-2: Project Emission requirements

Contract Clause/Reference	Limit/Requirement	Where it's met
GC21 Preliminaries 6.1	Submit an Environmental Management Monthly Report with each claim for payment, signed by the Contractor's representative and including the information specified below, as evidence of implementation of the Environmental Management Plan. Contract details - the names of the Contract, Contractor and Contractor's representative, the report date and the period covered. Implementation of environmental management - details of: • the environmental risks and opportunities, and significant environmental impacts associated with the work; • environmental objectives, targets and measures of performance (where practical); and • management actions, including environmental controls, training, inspections and testing. Implementation of incident management, including emergency response - details of all environmental incidents or emergencies, including non-compliance with environmental	Element 11 / Environmental Management Monthly Report

	procedures and near misses, implementation of incident and emergency response management, and implementation of corrective action. 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: • monitoring, measurement, evaluation and review of activities; • the consequences of non-conformances; • investigation, analysis, evaluation and follow-up verification; and • corrective and preventive action taken.	
GC21 Preliminaries 6.2	Apply strategies to maximise the achievement of ecologically sustainable development in the design, construction and operation of the Works, including reducing pollutants, greenhouse gas emissions and demand on non-renewable resources such as energy sources and water. Incorporate applicable strategies and objectives in the Environmental Management Plan.	This Plan
Condition of Approval B30	The applicant must prepare a Construction Environmental Management Plan (CEMP) and it must include, but not be limited to the following: a) Details of: vii. External lighting in compliance with AS 4282-1997 Control of the obtrusive effects of outdoor lighting.	This Plan

8.3 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.

If a project is not using CPB JDE, both invoiced and contractor energy use must be collated and entered into Synergy monthly by the SHEQ Manager.

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.

8.4 Energy Opportunity Tracking

All projects valued at over $150 million are required to complete an energy efficiency assessment at tender phase or project start-up. The outcomes of this assessment are documented below.

The objective of this process is to:

- Provide a focus on energy efficiency opportunities available to the project
- Reduce the energy intensity of CPB Contractors' activities.
- Achieve quantifiable energy and cost savings wherever practicable
- Support the achievement of CPB Contractors' Sustainability objectives.

8.4.1 Energy efficiency opportunities

To assist in the identification of energy efficiency and greenhouse gas abatement opportunities, refer to the Template: Energy Opportunities Calculator. This tool will assist in the completion of the below table.

	Opportunity A	Opportunity B	Opportunity C	Opportunity D
Title				
Description of opportunity				
Person Responsible (Position Title)				
Energy Type (Diesel; Electricity)				
Estimated Savings (Litres; kWh)				
Estimated reduction (GHG emissions – TCO2-e)				
Estimated savings ($)				
Payback Period (years)				
To Be Implemented? Y/N				
Measurement of success (KPI) to be tracked				

8.5 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 8-3: Control to Manager Energy Consumption

Control	Accountability
An energy opportunities assessment will be undertaken to identify opportunities for energy efficiency in both construction and operation. As a minimum, this can involve the use of the Energy Opportunities Calculator.	Tender Manager
Energy savings initiatives and outcomes must be reported to the BU Environmental Representative at least annually using the Tool 'Energy Case Study'.	SHEQ Manager
Subcontractor fuel reporting will be tracked by the Project commercial team, with reporting percentages included in the Project Monthly Environment Report in Synergy.	SHEQ 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	SHEQ Manager

machines and equipment when not in use and purchasing energy efficient plant and equipment.	
Where relevant, procurement decisions will include energy efficiency and greenhouse gas considerations of the product or service.	Project Director / Procurement Manager
All external lighting will be in compliance with AS4282-1997 Control of the obtrusive effects of outdoor lighting.	Service (Project Engineer)

8.6 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 are conducted in line with the CPB Contractors reporting approach outlined above. It is the accountability of the Project Director 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.

9. Hazardous Chemicals Management Subplan

9.1 Scope

A hazardous chemical is any substance, mixture or article that satisfies the criteria of one or more hazard classes in the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), as modified by Schedule 6 of the WHS Regulation 2017This Plan addresses hazardous substances management on the Project and the management of impacts to the environment and/or community.

The Hazardous Building Materials Assessment included within Vol 3 of the RFT details recommendations in relation to the proposed demolition works. It details that low traces of asbestos within building B and suspects further similar instances could be present throughout the refurbishment works.

Materials containing Synthetic Mineral Fibres (SMF) were identified in the form of metal clad insulation to pipework, air conditioning ductwork insulation and ceiling tiles/ All materials were in good condition at the time of the inspection. The report states that *"removed by an appropriately experienced contractor under controlled conditions".*

Activities conducted on the project that have the potential to create contamination are listed in the table below.

Table 9-1: Activities, Hazards and Risks

Project Activity	Environmental Hazard	Environmental Risk
Demolition works	Discovery of asbestos	Inhalation of asbestos fibres
Fit out activities	Spills of chemical/ hazardous materials	Inadvertent contamination of water and/ or land
Refueling of plant and vehicles General Plant operation	Spills of hydrocarbons	Inadvertent contamination of land

9.2 Project Compliance Requirements

9.2.1 Conditions of Project Environmental Approvals

The following contamination requirements are sourced from:

- GC21 HI 18467 contracts
- SSD 9241 Minister's Conditions of Approval Development Consent dated 18 February 2019.
- *CHR Clinical Services Building and Associated Works Construction Management Plan: Rev E August 2018*

Table 9-2: Hazardous substances requirements

Relevant Condition	Limit/Requirement	Where it's met
GC21 Preliminaries 5.4	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. With the initial notification, or as soon as practicable thereafter, submit details, including: ▪ the additional work and additional resources the Contractor estimate to be necessary to deal with the substance so that work and subsequent use of the Works may proceed safely and without risk to health ▪ the Contractor's estimate of the cost of the measures necessary to deal with the substance; and ▪ other details reasonably required by the Principal. The Contractor must, in planning and carrying out any work dealing with the substance take all reasonable steps to: ▪ to carry out the work concurrently with other work wherever possible; and ▪ to minimise otherwise effects of the work on the Contractual Completion Date(s).	Hazardous Substances Controls/ Unexpected Finds Protocol
GC21 Preliminaries 5.4	Control and decontamination of any hazardous substances is the responsibility of: ▪ where the Contractor does not bear the risk of adverse Site Conditions, the Principal, in respect of any such substances not identified in the Contract Documents, which are discovered on the Site; ▪ where the Contractor bears the risk of adverse Site Conditions, the Contractor in respect of any such substances not identified in the Contract Documents, which are discovered on the Site; and the Contractor, in respect of any such substances identified in the Contract Documents, or imported onto the Site by the Contractor, regardless of whether the Contractor bears the risk of adverse Site Conditions.	Douglas Partners and CPB Unexpected Finds Protocol
GC21 Preliminaries 5.4	Where the Contractor is responsible for the control and decontamination of the Site following the discovery of hazardous substances, handle, use, isolate, remove and dispose of such substances in accordance with statutory requirements. The Environment Protection Authority or Waste Service NSW may advise of suitable disposal sites.	Douglas Partners and CPB Unexpected Finds Protocol
GC21 Preliminaries 5.4	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.	Hazardous Substances Controls
GC21 Preliminaries 5.4	Where the Contractor is responsible for asbestos removal work, comply with the relevant statutory requirements, standards, codes and guidelines, including but not limited to the: ▪ SafeWork NSW requirements ▪ SafeWork NSW Code of Practice How to manage and control asbestos in the workplace ▪ SafeWork NSW Code of Practice How to safely remove asbestos ▪ *Environmentally Hazardous Chemicals Act 1985* (NSW)	Douglas Partners and CPB Unexpected Finds Protocol

	▪ *Waste Avoidance and Resource Recovery Act 2001* (NSW).	
GC21 Preliminaries 5.5	Not less than seven (7) days prior to commencing any asbestos removal work, notify the local office of SafeWork NSW and the Principal of the intention to carry out that work. Where the regulations require a licence for asbestos removal work, before the work commences, submit a copy of the current licence held by the entity that will undertake the work and a copy of any SafeWork NSW permit required for the work.	Douglas Partners and CPB Unexpected Finds Protocol
GC21 Preliminaries 5.5	Provide asbestos air monitoring by an independent testing authority engaged by the Contractor, in respect of the following: ▪ for each day that demolition, ground remediation and any works involving existing fill material likely to contain asbestos, are being carried out; and ▪ otherwise on each day during asbestos removal until completion of each area where removal has been undertaken. To avoid any doubt, asbestos air monitoring for demolition and ground remediation is not subject to asbestos being present or removed.	Hazardous Substances Controls
GC21 Preliminaries 6.1	Ensure compliance with the notification and other requirements of the *Protection of the Environment Operations Act 1997* (NSW) (POEO Act). Immediately notify the Principal of any pollution incident that may cause material harm to the environment, providing evidence that notification requirements of the POEO Act have been met, where applicable. Report immediately the details of any waste removed from the Site and not disposed of at a lawful facility. When requested, provide an incident investigation report, including identification of the cause of the incident and corrective actions taken, in the form directed.	Douglas Partners and CPB Unexpected Finds Protocol
GC21 Preliminaries 6.4	Do not use any chemical pesticides or termicides for new construction work. Use preventive treatment by physical means to minimise the risk of pest infestations. Chemical treatments may be used in existing buildings only as a last resort for the eradication of pest and termite infestations. Chemical pesticides used for this purpose must be registered by the National Registration Authority for Agricultural and Veterinary Chemicals and applied by a Pest Control Operator licensed by SafeWork NSW. Pest preventive methods must comply with AS 3660.1-2000 Protection of Buildings from Subterranean Termites (except for references to chemical soil barriers), as well as supplementary standards for existing buildings.	Hazardous Substances Controls
GC21 HI Special 14	To the extent the Works include work to any existing structures or installations where there is a risk of encountering or disturbing hazardous materials (including asbestos), the Contractor: 1. warrants that updated and current HAZMAT register(s) (including registers covering asbestos) are in place in relation to such Works; 2. shall not commence these Works until such registers are in place; and 3. shall promptly obtain and provide any such registers to the Principal.	Hazardous Substances Controls
Condition of Approval B34	The Construction Waste Management Sub-Plan (CWMSP) must address, but not be limited to, the following: b) 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	This Sub-plan's controls

	facility in accordance with the requirements of the relevant legislation, codes, standards and guidelines, prior to the commencement of any building works.	
Condition of Approval C34	The Applicant is to consult with SafeWork NSW concerning the handling of any asbestos waste that may be encountered during construction. The requirements of *the Protection of the Environment Operations (Waste) Regulation 2014* with particular reference to Part 7 - 'Transportation and management of asbestos waste' must also be complied with.	Douglas Partners and CPB Unexpected Finds Protocol
Condition of Approval C43	The Department must be notified in writing to 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.	Douglas Partners and CPB Unexpected Finds Protocol
Condition of Approval C44	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.	Douglas Partners and CPB Unexpected Finds Protocol
CHR Construction Management Plan 8.1	Dangerous goods (such as petrol, diesel, oxy-acetylene, oils etc.) will be stored in a lockable compound with sufficient ventilation in accordance with relevant codes of practice and standards. Safety data sheets on all of these flammable and potentially harmful liquids will be maintained by the contractor undertaking the Works.	Hazardous Substances Controls

9.2.2 Legislative requirements for hazardous substances management

Table 9-3: Legislative requirements for hazardous substances

Relevant legislation	Limit/Requirement	Where it's met
Protection of the Environment Operations Act 1997 (POEO Act) s148	Notify the EPA immediately of pollution incidents where material harm to the environment is caused or threatened.	Hazardous Substances Controls Douglas Partners and CPB Unexpected Finds Protocol
POEO Act 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).	Hazardous Substances Controls
Contaminated Land Management Act 1997 s60	Notify the EPA if: ▪ contaminants exceed thresholds contained in guidelines or the regulations where contamination has entered or will foreseeably	Hazardous Substances Control

	enter neighbourhood, the atmosphere, groundwater or surface water ▪ contaminants in soil are equal to or exceed guideline levels with respect to the current or approved use of the land ▪ contamination meets other criteria that may be prescribed by the regulations.	
WHS Regulation 2017	Chapter 7 Hazardous chemicals applies to: (a) the use, handling and storage of hazardous chemicals at a workplace and the generation of hazardous substances at a workplace, and (b) a pipeline used to convey a hazardous chemical.	Hazardous Substances Control
Managing risks of hazardous chemicals in the workplace Code of Practice 2018	Code of Practice on how to manage the risks associated with hazardous chemicals in the workplace	Hazardous Substances Control
Code of Practice for the Safe Use of Synthetic Mineral Fibres	To provide a safe and healthy workplace by outlining safe work practices and general responsibilities when handling synthetic mineral fibres (SMF). Compliance with this should eliminate or control the level of respirable SMF fibres in the atmosphere.	Hazardous Substances Control Remedial Action Plans

9.3 Project Objectives

Based on the Project requirements, the findings of project risk management processes and the potential impacts to the workers and the community, the following targets have been set. Any deviance from the targets will result in Project Management immediately implementing corrective actions.

Table 9-4: Project Targets

Metric/Measure	Objective	Timeframe	Accountability
Environmental Spills reported	All	Duration of project	Supervisors
No Class 1 or 2 Incidents in relation to Hazardous Materials or Chemicals	Zero	Duration of project	Supervisors
No noticeable impact in water quality as identified through water quality monitoring	Zero impact to water quality	Duration of project	Supervisors
All spills are reported to the HSE Database within 3 days of occurring, and all actions closed out in a timely manner	All spills reported on HSE Database	Duration of project	SHEQ Manager

9.4 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.

Table 9-5: Hazardous Substances Controls

Control	Accountability
A destructive hazardous materials survey of the buildings be undertaken in accordance with the requirement of AS 2601: 2001 The Demolition of Structures, Part 1.6.1. and prior to any demolition works commencing on-site.	Project Director
Prior to bringing new chemicals to Site, the Project must be provided with the current (Safety Data Sheet) (SDS).	Project Engineer Supervisor SHEQ Manager
PCB containing electrical equipment shall be dealt with in accordance with the *Polychlorinated Biphenyls Management Plan, Environmental Protection & Heritage Council, Revised Edition April 2003.* This briefly includes: ▪ Prior to demolition when the power is disconnected, inspect the light fittings. ▪ Metal PCB containing capacitors are to be removed, placed in plastic lined 200 litre drums and disposed of as PCB Scheduled Waste. Any light fitting that shows signs of oil staining from capacitors is to be disposed of as PCB contaminated. ▪ Protective clothing including eye protection, PCB resistant gloves and overalls are to be worn. ▪ Contaminated gloves and disposable coveralls are to be disposed of as PCB contaminated waste. ▪ Contractors licensed to transport, and handle PCBs must be used for transport and disposal. PCBs are a scheduled waste with strict guidelines regarding transport and handling. If any metal cased capacitors are found during demolition works that were previously unidentified, they should be treated as containing PCBs. Details on storing, conveying and disposing of PCB material or PCB wastes can be found in *Polychlorinated Biphenyls Management Plan, Environmental Protection & Heritage Council, Revised Edition April 2003.*	SHEQ Manager
Sources of SMF containing materials are present as insulation material throughout the building. All SMF containing materials must be removed in accordance with the following national Standard and codes. https://www.safework.nsw.gov.au/resource-library/manufacturing/safe-management-of-synthetic-mineral-fibres-smf-glasswool-and-rockwool • Work Health and Safety Regulation 2017 • workplace exposure standards for airborne contaminants 2013 • SafeWork Australia's guide to handling refractory ceramic fibres 2013 • National Occupational Health and Safety Commission's national standard for synthetic mineral fibres and National Code of Practice for the Safe Use of Synthetic Mineral Fibres May 1990	Project Director SHEQ Manager
If previously unidentified materials (suspected of containing asbestos and/or other hazardous substance/s) are identified during the demolition phase, the Unexpected Finds Protocol should be followed.	Supervisor
Updated and current HAZMAT register(s) (including registers covering asbestos) are in place in relation to such Works where it is expected there is potential to encounter hazardous substances such as asbestos. Works will not commence until such registers are in place and the registers will be provided to the Principal.	Supervisor SHEQ Manager
Material imported onto the site, including fill material, must be accompanied by a clearance certificate provided by the supplier. Further testing by an independent person will be conducted when the material arrives on-site to verify it is contaminant-free. The results of this testing will be provided to the Principal.	Supervisor Project Engineer

Storage and handling of hazardous substances must be in strict accordance with the applicable Standards and SDS.	Supervisor 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. They will be stored in a lockable compound with sufficient ventilation in accordance with relevant codes of practice and standards.	Supervisor
Safety data sheets on all flammable and potentially harmful liquids will be maintained during the undertaking of the Works.	Supervisor SHEQ Manager
Spill kits must be located adjacent to all hazardous substance storage units, in refueling and maintenance areas and at designated locations as per the Site Environment Plan (SEP).	Supervisor Site Manager SHEQ 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.	Supervisor Site Manager Supervisor
Training in the use of spill kits must be provided.	SHEQ 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.	SHEQ Manager
Any hazardous substances (such as asbestos, polychlorinated biphenyls, synthetic mineral fibres, lead dusts, paint containing lead and ozone depleting substances) identified during the undertaking of works are to be classified, and then stored, transported and disposed of in accordance with the relevant DECCW requirements, and any other applicable legislation, Australian Standards or guidelines.	SHEQ Manager
Asbestos air monitoring will be conducted by an independent testing authority in respect to the following: ▪ For each day that demolition, ground remediation and any works involving existing fill material likely to contain asbestos, are being carried out; and ▪ Otherwise on each day during asbestos removal until completion of each area where removal has been undertaken. To avoid any doubt, asbestos air monitoring for demolition and ground remediation is not subject to asbestos being present or removed.	SHEQ Manager
Inspections will be carried out [weekly] to assess the storage and handling of hazardous materials as a part of the HSE inspection program.	Supervisor
Undertake routine maintenance of plant and equipment for prevention of fuel leaks, visible exhaust emissions or other maintenance issues.	Supervisor
An Emergency Response Plan which incorporates a spill response procedure shall be maintained for the Project	SHEQ Manager
No chemical pesticides or termicides will be used for new work. Preventative treatment by physical means will be used to minimise the risk of pest infestations.	Supervisor
Pest preventative methods must comply with AS 3660.1-2000 Protection of Buildings from Subterranean Termites (except for references to chemical soil barriers), as well as supplementary standards for existing buildings.	Supervisor
Chemical treatments will be used as a last resort for existing buildings only. Chemical pesticides used for this purpose must be registered by the National Registration Authority for Agricultural and Veterinary Chemicals and applied by a Pest Control Operator licensed by SafeWork NSW.	Supervisor

9.5 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.

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 SHEQ Manager to ensure all monitoring is performed according to these requirements.

10. Waste Management Plan

10.1 Scope

This plan addresses the management and reporting of waste streams generated on the Project.

Under the *NSW Protection of the Environment Operations Act, 1997 (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, or
- any discarded, rejected, unwanted, surplus or abandoned substance, or
- 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, or
- 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, or
- 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 10-1: Activities, Hazards and Risks

Project Activity	Environmental Hazard	Environmental Risk
Construction and demolition processes	Generation of waste product	Soil and water contamination
Plant maintenance	Generation of waste oil	Soil and water contamination
Operation and maintenance of offices, crib huts and camp facilities	Generation of general wastes	Unnecessary load on landfill availability

10.2 Project Compliance Requirements

10.2.1 Conditions of Project Environmental Approvals

The following contamination requirements are sourced from:

- *The Campbelltown Hospital Redevelopment Waste Management Plan by S2DVersion 03A2*
- *CHR Clinical Services Building and Associated Works Construction Management Plan: Rev E August 2018*
- GC21 HI 18467 contracts
- SSD 9241 Minister's Conditions of Approval Development Consent dated 18 February 2019.

Table 10-2: Project requirements

Relevant Condition	Limit/Requirement	Where it's met
CHR Waste Management Plan 6.3.1	Where feasible, earth will remain on-site for reuse. Any excavation material unsuitable for reuse or recycling will be disposed of at an appropriate landfill.	Waste Controls

CHR Waste Management Plan 6.3.2	All green waste material will remain onsite (shredded and or composted) and be reused in landscape areas around the development if possible. If this is not possible, then the contractor will transport the materials off-site for mulching or composting.	Waste Controls
CHR Waste Management Plan 6.4.3	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. Sufficient quantities of bins (and/or bin space), will be made available so as to avoid dumping of materials outside bins.	Waste Controls
CHR Waste Management Plan 6.4.4	All waste and recycling materials will be stored in bins provided by the appointed contractor(s). These bins will be appropriately coloured and signed to indicate what materials are to be deposited into them and located so as to maximise the recovery of reusable/recyclable materials. As demolition and construction activities progress, the designated bins may be re-located so as to maximise the collection of materials that will be diverted from landfill. This will also involve relocating signage advising as to correct waste management. All locations where waste/recycling bins are located will be designed so as to avoid contaminating surface/ stormwaters and have active litter control measures.	Waste Controls
CHR Construction Management Plan 8	The Contractor will be required to recycle and reuse materials where possible. The contractor will be committed to achieving compliance with the EPA guidelines.	Waste Controls
GC21 Preliminaries 5.14	The Contractor must at all times: ▪ Keep the Site and the Works clean and tidy including all access roads; ▪ Restrict mud and dust getting on and spreading onto the public roads; ▪ Regularly clean public roads as required when conditions require it and/or at the request of any authority; ▪ Ensure the clean and orderly performance of the Works and shall make full provision for progressive sweeping up, clean up and the daily removal of rubbish, debris, surplus materials and the like, including those of every subcontractor or consultant and for the tidy disposal, stacking and storing of materials; and ▪ Implement a system of recycling with records kept on an on-going basis for the period of the Works (refer to obligations set out in clause 6 of Preliminaries).	Waste controls
GC21 Preliminaries 6.3	Implement waste minimisation and management measures, including: ▪ recycling and diverting from landfill surplus soil, rock, and other excavated or demolition materials, wherever practical; ▪ 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.	Waste Controls

	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.	
GC21 Preliminaries 6.3	Monitor and record the volumes of waste and the methods and locations of disposal. 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. The Report, waste disposal certificates and/or company certification confirming appropriate, lawful disposal of waste.	Waste Controls
Condition of Approval B30	The Applicant must prepare a Construction Environmental Management Plan (CEMP) and it must include, but not be limited to, the following: (d) Construction Soil and Water Management Sub-Plan (see condition B35); (e) Flood Emergency Response Sub-Plan (see condition B36); (i) 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	Waste Controls Appendix I Appendix J
Condition of Approval B34	The Construction Waste Management Sub-Plan (CWMSP) must address, but not be limited to, the following: (a) detail the quantities of each waste type generated during construction and the proposed reuse, recycling and disposal locations; (b) 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.	Section 10.3 Waste Controls Hazardous Chemicals Management Subplan
Condition of Approval C30	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.	Waste Controls
Condition of Approval C31	All waste generated during construction must be assessed, classified and managed in accordance with the Waste Classification Guidelines Part 1: Classifying Waste (EPA, 2014).	Waste Controls
Condition of Approval C32	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 or 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.	Waste Controls
Condition of Approval C33	The Applicant must ensure that concrete waste and rinse water are not disposed of on site and are prevented from entering any natural or artificial watercourse.	Waste Controls

10.2.2 Legislative requirements for waste management

Table 10-3: Legislative requirements for waste

Relevant legislation	Limit/Requirement	Where it's met
Protection of the Environment Operations Act 1997 (POEO Act) s115, s116 & s117	Do not risk harming the environment by willfully or negligently: ▪ disposing of waste unlawfully. ▪ causing any substance to leak, spill or otherwise escape (whether or not from a container); or ▪ emitting an ozone depleting substance.	Waste Controls
POEO Act s115	Do not: ▪ dispose of waste in a manner that harms, or is likely to harm the environment ▪ deposit or leave on Crown land without approval any: ▪ rubbish, litter, refuse, dead animals, or other similar matter ▪ prescribed matter ▪ unless in a place or receptacle provided.	Waste Controls
POEO Act s120 & s122	Do not cause water pollution (other than to a sewer), except in accordance with the conditions of any Environmental Protection Licence.	Waste Controls
POEO Act 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).	Waste Controls
POEO Act s143	Only transport the waste to a facility that can lawfully accept the waste.	Waste Controls
POEO Act Part 3.2 Schedule 1	Do not undertake a scheduled waste activity unless in accordance with an Environmental Protection Licence. 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: ▪ Is Virgin Excavated Natural Materials (VENM) ▪ 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).	Waste Controls
POEO Act Part 5.6 A	Do not litter in a public space or an open private place.	Waste Controls
POEO (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	Waste Controls

	so as to prevent spillage of waste. For some wastes only licensed transporters can be used.	
POEO (Waste) Regulation 2014 Regulation Part 3	Comply with record keeping requirements in relation to the transport of certain types of waste.	Waste Controls
POEO (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).	Waste Controls

10.3 Waste Streams

The following waste streams and waste classifications have been identified below.

Bulk Excavation volumes (excl. detail excavation) have been defined by the project Civil Engineer Enstruct, approximately **58,773m3** of material will be cut and removed from site. It is assumed the majority of the material will be classified as VENM and small percentage of material will fall into other waste streams as listed in Table 10.4 below.

Table 10-4 Waste Streams

Waste	Classification	Potential Recovery/Reuse	Disposal (all tracked)
Green waste from pruning and timber off cuts	General Solid Waste (Non-Putrescible)	• Green waste would be reused as mulch onsite o	• Green waste from pruning to be removed by subcontractor. • Timber off cuts to be segregated and removed by licensed contractor to licensed waste facility for mulching or composting
Excavated Natural Material (ENM)	General Solid Waste (Non-Putrescible) – Resource Recovery Exemption	• Where possible, all suitable fill materials would be used on site	• Wherever possible, ENM would be used on the Project and excess material would be transferred to appropriately approved sites requiring ENM.
Mixed Spoil	General Solid Waste (Non-Putrescible)	• Where possible, all suitable fill materials would be used on site.	• Mixed unsuitable spoil would be transferred to appropriately approved waste facilities.
Demolition concrete	General Solid Waste (Non-Putrescible)	• Stockpiled and transported to recycling centre and recycled for project construction activities.	• Nil. Valuable resource.
Building rubble and structural element demolition materials	General Solid Waste (Non-Putrescible)	• Collected in designated collection areas and reused as much as practically possible.	• Mixed unsuitable materials would be transferred to appropriately approved waste facilities.
Waste metals	General Solid Waste (Non-Putrescible)	• Stockpiled and transported to recycling centre.	• Nil. Valuable resource.

Waste	Classification	Potential Recovery/Reuse	Disposal (all tracked)
General office waste – paper, cardboard, used printer cartridges.	General Solid Waste (Non-Putrescible)	• Office waste such as paper, cardboard boxes, comingled wastes (Cans, plastic bottles etc.) and used printer cartridges would be recycled.	• Food wastes and non-recyclables will be sent to landfill.
Asbestos or Asbestos Containing Material	Special Waste	• None currently identified/ Disposal	• A licensed waste collection contractor would collect the liquid wastes generated on site and dispose to appropriately approved special waste facilities.
PCB containing capacitors	Special Waste	• None currently identified/ Disposal	• Prior to demolition when the power is disconnected, inspect the light fittings. • Metal PCB containing capacitors are to be removed, placed in plastic lined 200 litre drums and disposed of as PCB Scheduled Waste.

10.4 Project Objectives

Based on the Project requirements, the findings of project risk management processes and the potential impacts to the environment or community, the following targets have been set for managing waste on the Project.

Table 10-5: Waste management targets

Metric/Measure	Target	Timeframe	Accountability
% of waste quantified in waste management reports	100%	At all times	SHEQ Manager
% of regulated/hazardous wastes for which transfer certificates are retained	100%	At all times	SHEQ Manager
Number of enforcement notices and penalties received from regulators and/or client	Zero	At all times	SHEQ Manager
% waste recycled	90%	Project Duration	Project Director

10.5 Controls Used to Manage Waste

CPB Campbelltown Hospital has engaged Bingo / Indigi Bins to removed and process all construction and demolition waste. Bingo is contracted to separate waste for recycling and dispose of waste (that cannot be recycled). 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 10-6: Waste management 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	Supervisor Subcontractor

and treatment facilities. Where possible, all waste suitable for reuse or recycle will be used for that purpose.	Commercial Manager
All waste from site to be disposed of to landfill must be sent to a site that can lawfully take it.	SHEQ Manager
All waste will be monitored, and the volumes recorded, and the methods and location of disposal will be tracked.	SHEQ Manager
A progress report will be submitted every month, and a summary report before Operation commences. It will report 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.	SHEQ Manager
Waste disposal certificates and/or company certification confirming appropriate, lawful disposal of waste will be submitted alongside the Waste Recycling and Purchasing Report.	SHEQ Manager
Earth will remain on-site where feasible. Any excavated material not suitable for reuse or recycling will be disposed of at an appropriate landfill.	SHEQ Manager
All green waste material will remain onsite (shredded and or composted) and be reused in landscape areas around the development if possible. If this is not possible then the materials will be transported off-site for mulching and/or composting.	SHEQ Manager
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.	Supervisor
The relevant licenses of waste facilities utilised for the disposal or handling of waste will be obtained to ensure they are legally compliant.	SHEQ 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, wherever possible. The correct bin type must be used to avoid contamination.	All
Containers are clearly sign posted to inform all Project personnel of the correct material to be placed within each bin type. Containers are emptied at a frequency that is sufficient to ensure their correct use. If a bin needs to be collected contact your supervisor or SHEQ Manager	Supervisor
Burial or burning of waste is not permitted.	All
Excess concrete and concrete washout are not to be discharged to land or stormwater; a concrete washout facility must always be used.	Supervisor
All waste data must be collated and tracked using Material Tracking Forms.	SHEQ Manager
An adequate number of fully maintained concrete washout pits will be maintained on the site at all times.	Supervisor
The worksite should be left tidy and rubbish free each day prior to leaving the site and at the completion of works.	Supervisor
No hazardous materials or dangerous goods are to be used or stored on site.	Supervisor

All materials on-site or being delivered to the site must be wholly contained within the site. The requirements of *the Protection of the Environment Operations Act 1997* are to be complied with when placing/stockpiling loose material or when disposing of waste products or during any other activities likely to pollute drains or watercourses.	Supervisor
Any vehicle or trailer used to transport waste or excavation spill will be covered before leaving the site. If mud, dust, splatter and other material are likely to fall off or be cast off during transportation the vehicle, trailer or motorized plant must be removed prior to leaving the site.	Supervisor
The public way must not be obstructed by any materials, vehicles, refuse, skips or the like, under any circumstances.	Supervisor
All equipment and machinery should be secured against vandalism outside of working hours.	Supervisor
A copy of the approved and certified plans, specifications and documentation shall be kept on site at all times and shall be available for perusal by any officer of Council.	All
Any contractor(s) must meet all workplace safety legislation and requirements.	All
No vehicle maintenance is permitted in the demolition areas except in emergencies.	Supervisor
Public roads impacted by our works will be regularly cleaned when conditions require it or at the request of any authority.	Supervisor
Any loose material stockpiles are to be stored within the temporary construction compound(s) and are to be protected from possible erosion.	Supervisor/SHEQ Manager
Where available, recyclable site and construction waste are to be recycled in accordance with the NSW Government's Waste Reduction and Purchasing Policy (WRAPP guidelines). Any waste oil is to be sent to an approved recycler.	Supervisor
Non-recyclable waste and containers are to be regularly collected and disposed of at a licensed landfill or other disposal site in the area.	Supervisor
Any bulk garbage bins delivered by Authorised Waste Contractors are to be placed and kept within the property boundary.	Project Engineer
Waste management practices for the proposal are to follow the resource management hierarchy principles embodied in the Waste Avoidance and Resource Recovery Act 2001.	SHEQ Manager
No burning of vegetation or other materials is permitted on site or at the compound.	Supervisor
For the 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, refer to the Hazardous Chemicals Management Subplan.	
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	Project Engineer Subcontractor

10.6 Waste Management License Facilities

Bingo is contracted to separate waste for recycling and dispose of waste (that cannot be recycled). The majority of the waste is processed at BINGO Recycling Centres listed immediately below:

- BINGO Recycling Centre Revesby - EPL No. 20607

- BINGO Recycling Ecology Park Eastern Creek - EPL No. 20121

Other supplementary recycling centre managed by Bingo Industries may be used at the waste contractor's discretion. These are listed below

- BINGO Recycling Centre Alexandria - EPL No. 4679
- BINGO Recycling Centre Artarmon EPL No. 20763
- BINGO Recycling Centre Auburn EPL No. 10935
- BINGO Recycling Centre Greenacre -EPL No. 20847
- BINGO Recycling Centre Kembla Grange - EPL No. 20601
- BINGO Recycling Centre Mortdale - EPL No. 20622
- BINGO Recycling Centre Patons Lane - EPL No. 21259
- BINGO Recycling Centre Tomago - EPL No. 20585

10.7 Monitoring

Waste data is collected on the Project to allow monthly reporting of 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. Alternative measures may only be used when an economical alternative is not available. All relevant information is included in the Project environmental monthly report.

Additionally, a progress report will be submitted every two months, and a summary report before Operation commences. It will report 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.

11. Air Quality Management Subplan

11.1 Scope

This Plan addresses air quality management on the Project and the management of impacts to the environment and/or community.

Activities conducted on the Project that have the potential to impact air quality are provided below.

Table 11-1: Air quality Activities, Hazards and Risks

Project Activity	Environmental Hazard	Environmental Risk
Demolition	Dust Sediment on roads	Nuisance dust to personnel Airborne dust/ sediment affecting waterways
Plant and Machinery operation	Exhaust fumes	Effects on health/ exposed to carbon monoxide
General construction works	Wind-blown rubbish/dust	Nuisance dust to personnel Airborne dust/ sediment affecting waterways

11.2 Project Compliance Requirements

11.2.1 Conditions of Project Environmental Approvals

The following contamination requirements are sourced from:

- *Environmental Impact Statement Campbelltown Hospital Redevelopment 10 August 2018*
- *The Campbelltown Hospital Redevelopment Waste Management Plan by S2DVersion 03A2*
- *CHR Clinical Services Building and Associated Works Construction Management Plan: Rev E August 2018*
- GC21 HI 18467 contracts
- SSD 9241 Minister's Conditions of Approval Development Consent dated 18 February 2019.

Table 11-2: Air quality requirements

Relevant Condition	Limit/Requirement	Where it's met
Environmental Impact Statement 6.23	To control dust generation water will be sprayed where necessary at the source of origin and surrounding areas to prevent airborne dust particles migrating into the surrounding environment.	Air Quality Controls
CHR Construction Management Plan 6.4	Odours associated with demolition for the site will be assessed and minimised. All plant and machinery involved in the Works will be regularly serviced and checked for exhaust emissions and catalytic converters are to be utilised.	Air Quality Controls
GC21 Preliminaries 5.15	The Contractor must take all reasonable precautions to avoid nuisance or trespass of any nature to any surrounding or adjoining areas to the Site, as a result of undertaking the Works, including by way of dust, mud, debris, noise, obstruction, vibration, or by its employees, agents, subcontractors or visitors or any other cause.	Air Quality Controls

GC21 Preliminaries 5.15	The Contractor must utilise reasonable methods (having regard to the use and operation of any existing health facilities in close proximity to the Site) of noise and dust suppression on all compressors, jack-hammers and other machinery of whatsoever description to ensure that the noise and dust levels emanating from the Site during the Works are minimised.	Air Quality Controls
GC21 Preliminaries 5.15	Without limiting these requirements, the Contractor shall comply with all relevant codes and shall also erect screens (both visual and acoustic) or take other reasonably necessary preventative measures to prevent noise, 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.	Air Quality Controls
GC21 Preliminaries 6.2	Ensure compliance with the notification and other requirements of the *Protection of the Environment Operations Act 1997* (NSW) (POEO Act). Immediately notify the Principal of any pollution incident that may cause material harm to the environment, providing evidence that notification requirements of the POEO Act have been met, where applicable. Report immediately the details of any waste removed from the Site and not disposed of at a lawful facility. When requested, provide an incident investigation report, including identification of the cause of the incident and corrective actions taken, in the form directed.	Air Quality Controls
Condition C22	The Applicant must take all reasonable steps to minimise dust generated during all works authorised by this consent.	Air Quality Controls
Condition C23	During construction, the Applicant must ensure that: a) Exposed surfaces and stockpiles are suppressed by regular watering b) All trucks entering or leaving the site with loads have their loads covered c) Trucks associated with the development do not track dirt onto the public road network d) Public roads used by these trucks are kept clean; and e) Land stabilisation works are carried out progressively on site to minimise exposed surfaces.	Air Quality Controls
Condition C24	The Applicant must install and operate equipment in line with best practice to ensure that the development complies with all load limits, air quality criteria/air emission and air quality monitoring requirements as specified in the EPL applicable to the site.	Air Quality Controls
Condition C43	The Department must be notified in writing to 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	Air Quality Controls

	compliance@planning.nsw.gov.au within seven days after they identify any non-compliance.	
Condition C44	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.	Air Quality Controls

11.2.2 Legislative requirements for air quality management

The following legislative requirements are relevant to air quality management.

Table 11-3 Legislative requirements for air quality management

Relevant Legislation	Limit/Requirement	Where it's met
Protection of the Environment Operations Act 1997 s124	Do not operate plant which emits air pollution caused by poor maintenance or operation.	Air Quality Controls
Protection of the Environment Operations Act 1997 s148	Notify the EPA immediately of pollution incidents where material harm to the environment is caused or threatened.	Air Quality Controls

11.3 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 11-4: Air quality controls

Control	Accountability
Areas in which vegetation will be removed or disturbed will be minimised. Rehabilitation, seeding or grassing should occur as soon as they become available.	Supervisor
Disturbed areas and haul roads must be treated with dust suppressants (e.g. water trucks or chemical suppressants) especially in high risk areas and/or on during high risk days.	Supervisor
All haulage trucks will be covered, and stockpiles covered with tarpaulins or watered down during Works.	Supervisor
Plant and machinery involved in the Works will be regularly serviced and checked for exhaust emissions and catalytic converters are to be utilised.	Supervisor
Weather conditions will be monitored, and additional management and contingency plans will be developed for any foreseeable impacts from dust.	SHEQ Manager
Stabilised access, rumble grids, wash bays or similar must be established for the entries site and exits to the site to minimise mud on public roads. Sweepers shall be used periodically to clean public roads where mud has been deposited.	Supervisor
Traffic speed limit(s) are determined to minimise dust generation and must be adhered to at all times.	All

Burning of any materials is prohibited onsite.	All
Competently designed and constructed rumble pads shall be established for the ingress and egress of all vehicles.	Project Engineer
Air quality monitored frequently and at locations to confirm compliance with the regulatory limits.	SHEQ Manager
Demolition-related odours will be assessed and minimised.	SHEQ Manager
Reasonably necessary preventative measures to prevent noise, dust and damage to adjoin or surrounding properties will be erected/ implemented to avoid or minimise any such issues occurring.	SHEQ Manager
No burning of vegetation or other materials is permitted	All
Dust generated during demolition activities is to be controlled by regular control measures such as on-site watering	Supervisor
All necessary maintenance for construction vehicles and equipment is to be undertaken during the demolition period.	Project Engineer
Excessive use of vehicles and powered demolition equipment is to be avoided.	Supervisor
Exposed areas are to be progressively revegetated as soon as practical.	Supervisor
All vehicles involved in any demolition and departing the site with demolition materials, spoil or loose matter must have their loads fully covered before entering the public roadway and ensure they do not track dirt.	Supervisor
Any mud deposited on the road network due to truck movements to and from the site is to be cleaned up immediately.	Supervisor
The Principal will be immediately notified of any pollution incident that may cause material harm to the environment in accordance with the POEO Act. Details of any waste removed from site and not disposed of at a lawful facility will be reported immediately to the Principal. When requested, an incident investigation report including identification of the cause of the incident and corrective actions taken will be provided to the Principal.	SHEQ Manager
The Department will be notified in writing to compliance@planning.nsw.gov.au within seven days after becoming 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.	SHEQ Manager

11.4 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 SHEQ Manager to ensure all monitoring is performed according to these requirements.

12. Traffic and Pedestrian Management Subplan

Refer to the *Construction Traffic and Pedestrian Management Sub Plan* (Appendix M) developed by ptc. dated 10 April 2019 which addresses traffic and pedestrian management on the Project and the management of impacts to the environment and/or community.

12.1 Project Compliance Requirements

12.1.1 Conditions of Project Environmental Approvals

The traffic and pedestrian requirements are sourced from:

- SSD 9241 Minister's Conditions of Approval Development Consent dated 18 February 2019
- *Environmental Impact Statement Campbelltown Hospital Redevelopment 10 August 2018*

Table 12-1: Traffic and pedestrian requirements

Relevant Condition	Limit/Requirement	Where it's met
Condition of Approval B32	The Construction Traffic and Pedestrian Management Sub-Plan (CTPMSP) must address, but not be limited to, the following: a) be prepared by a suitably qualified and experienced person(s) b) be prepared in consultation with Council, RMS and TfNSW 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 d) detail heavy vehicle routes, access and parking arrangements e) ensure all demolition and construction vehicles (excluding worker vehicles) are to be contained wholly within the Site and vehicles must enter the Site before stopping f) include a Driver Code of Conduct to: i) minimise the impacts of earthworks and construction on the local and regional road network ii) minimise conflicts with other road users iii) minimise road traffic noise; and iv) ensure truck drivers use specified routes v) include a program to monitor the effectiveness of these measures; and vi) if necessary, detail procedures for notifying residents and the community (including local school), of any potential disruptions to routes.	Construction Traffic and Pedestrian Management Sub-Plan (developed by ptc. Traffic Engineers / Consultants)
Condition of Approval C9	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.	This Sub-plan

Environmental Impact Statement 6.23	Appropriate hoarding/fencing (as specified in Australian Standards and SafeWork NSW requirements) will be installed to prevent public and staff access and to maintain security for the various areas of the works.	This Sub-plan
Environmental Impact Statement 6.23	Site, precinct information and traffic signage and any temporary traffic measures required will be installed and maintained for the duration of the works.	This Sub-plan
Environmental Impact Statement 6.23	Contractor and sub-contractors will be advised during their site inductions that there is no parking within the Campbelltown Hospital site.	This Sub-plan
Environmental Impact Statement 6.23	Pedestrian and vehicular movements into and around the site will be maintained, or alternate routes determined where necessary, and be defined by clear signage. If necessary, physical traffic management personnel will be used to guide pedestrians and vehicles safely.	This Sub-plan

12.2 Controls Used to Manage Traffic and Pedestrians

Controls that are adequate to minimise traffic and pedestrian incidents, 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. Controls used on this Project include:

Table 12-2 Traffic and Pedestrian controls

Control	Accountability
Construction workers are not to park within the hospital site.	All
All staff and subcontractors engaged on site will be required to undergo a site induction. The induction will cover the Driver Code of Conduct, permitted ingress/egress routes to and from the construction site for all vehicles, as well as standard environmental, WH&S, driver protocols and emergency procedures.	All
Construction traffic activity shall only occur within the permitted hours of work to minimise road traffic noise.	Subcontractor Supervisor
Construction vehicles are to access the site via the Therry road and Appin Road access points.	Subcontractor Supervisor
Construction vehicle activity, including the loading/unloading of trucks and all materials handling to be provided within the construction site boundaries or within proposed works zones at all times.	Subcontractor Supervisor
The movement of trucks to/from the construction site is to be managed and controlled by accredited traffic control personnel with no through traffic to be affected during construction.	Subcontractor Supervisor

All heavy vehicle drivers are required to follow the ingress and egress routes in a "forward in, forward out" manner, whilst adhering to all road rules and regulations.	Subcontractor Supervisor
Any traffic controllers engaged on-site shall be accredited by RMS, and act in accordance with RMS Conditions, including: ▪ No stopping of traffic on public roads; and ▪ No stopping of pedestrians in anticipation of truck movements. Pedestrians may only be held for short periods, for their safety, whilst a truck is entering or leaving the site.	Subcontractor Supervisor
No marshalling or queuing of trucks shall be permitted on public roads.	Subcontractor Supervisor
Any interfaces between pedestrian movements and construction activity will be mitigated by the use of appropriate hoarding and fencing to contain all activities to occur wholly within the site.	Subcontractor Supervisor
The site will be secured by perimeter fencing (complying with SafeWork NSW codes of practice) and hoardings with designated vehicle and pedestrian entry gates.	Subcontractor Supervisor
Vehicle entry points will be manned while in operation to ensure protection of the public when vehicles are entering or leaving the site. All gates will be appropriately secured after hours.	Subcontractor Supervisor
All other relevant controls as specified in the ptc. *Construction Traffic and Pedestrian Management Sub Plan* (Appendix M) will also be adhered to.	Subcontractor Supervisor

12.3 Consultation

Refer to emails to Traffic Management Centre dated 18/06/19 and Campbelltown City Council dated 12/06/19.

13. Aviation Management Subplan

Refer to the *Aviation SSD Report: Campbelltown Hospital Redevelopment* (Appendix M) developed by AviPro dated 15 April 2019 which addresses aviation management on the Project and the management of impacts to the environment and/or community.

13.1 Project Compliance Requirements

13.1.1 Conditions of Project Environmental Approvals

The aviation requirements are sourced from:

- SSD 9241 Minister's Conditions of Approval Development Consent dated 18 February 2019

Table 13-1: Aviation requirements

Relevant Condition	Limit/Requirement	Where it's met
Condition of Approval B30	The Applicant must prepare a Construction Environmental Management Plan (CEMP) and it must include, but not be limited to, the following: ix) measures to ensure the ongoing safe operation of the existing helipad on the site identified in the review undertaken in accordance with Condition B39.	Appendix M Aviation SSD Report: Campbelltown Hospital Redevelopment (prepared by AviPro) This Subplan
Condition of Approval B39	Prior to the commencement of construction, helipad / helicopter operations at the site are to be reviewed by a suitably qualified and experienced aviation professional in consultation with relevant stakeholders. The review must consider the proposed construction methodology including plant and equipment to be used (including lighting and cranes) and recommend changes to the construction methodology and / or flight paths where required to ensure safe ongoing helicopter operations at the site. A report summarising the outcome of the review must be submitted to the Certifying Authority.	Appendix M Aviation SSD Report: Campbelltown Hospital Redevelopment (prepared by AviPro)

13.2 Controls Used to Manage Aviation

Controls that are adequate to minimise aviation 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 13-2: Aviation controls

Control	Accountability
Concrete tower booms will be positioned below, and within the arcs of, the tower cranes.	Project Engineer
Mobile cranes will operate clear of existing approach and departure paths during construction and post-construction phase.	Subcontractor Supervisor

The flight paths and construction activity (cranes and construction site) have been considered and will be detailed in the ‘crane/helicopter operations procedure’ to manage concurrent construction activities and helicopter operations.	Project Engineer
Notify Airspace authorities details to ensure the construction activity does not impact prescribed airspace or any formal aircraft instrument flight path: • The dates of crane erection and disassembly, • The location (in MGA94 reference) of the crane base, • The type of crane • The RL of the base, • The RL of the top of the crane, • The RL of the highest point ASB development	Project Engineer
In addition to the crane/helicopter operations procedure, crane illumination is essential and will be over and above the requirements of the Civil Aviation Safety Authority (CASA) Manual of Standards (MOS Part 139).	Project Engineer
The development of the crane/helicopter operations procedure will ensure all stakeholders are aware of the necessary steps that are required to be undertaken to ensure the mitigation of the effects of rotorwash and reduce the impact of construction activities on helicopter operations.	Project Engineer

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Appendix A: CPB Contractors Environment Policy

Purpose

This Policy sets out the minimum mandatory requirements for the management of environmental risks and impacts from our construction activities.

Application

This Policy applies to all business entities controlled by the business, including alliances, joint ventures and consortia where the business exerts management control. It applies at all levels of the organisation including Corporate, Business Unit and Project.

Minimum Requirements

- Senior leaders must demonstrate a personal visible commitment to our SH&E Cultural Framework and ensure all workers understand the requirements of the Management System as it applies to the work they are undertaking, so that work is undertaken to minimise our environmental impact.
- Environment Management Plans (EMP) must be developed and implemented for each Project to outline how the project environmental risk will be managed and controlled.
- Environmental objectives, targets and key performance indicators must be established at all levels of the organisation, with performance against these monitored and analysed to provide a baseline for continual improvement.
- The Environment Procedures must be used to eliminate or minimise environmental risk from construction activities.
- Construction Area Plans and Work Packs must be developed and include an assessment of environmental risk and associated controls.
- Site Environment Plans must be developed for Work Packs where environmental risk dictates; these must be used to inform as content of Daily Pre-Starts.
- As part of the risk management process, personnel and teams at the Project, Business Unit and Corporate level should seek to identify opportunities for improving efficiency in the use of natural resources, enhancing positive environmental impacts and driving innovation.
- All environmental incidents must be reported in accordance with the incident notification requirements. They must be thoroughly investigated, and appropriate corrective action undertaken with the aim of preventing recurrence of the incident.
- Reporting of energy consumption, water use and waste generation, as well as reporting on initiatives and environmental achievements must be completed by projects and business units as requested.
- All levels of the organisation must be prepared to respond to an emergency and in the event of an emergency, plans and capabilities are in place to eliminate or minimise damage to the environment, preserve ongoing operations and our reputation.

- Effective communication, cooperation and consultation channels must be in place to consult with workers who may impact upon the environment.
- All project personnel responsible for environmental risk shall be appropriately trained and competent and understand their legal obligations with regard to environment management.

Appendix B: Environmental Roles and Responsibilities

Listed project-specific roles, after responsibilities in Part B have been assigned

		Project Director	SHEQ Manager	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 are 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			
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	C	R		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.	**Error! Reference source not found.**	R	C								C	C	

	Project Director	SHEQ Manager	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: 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 C: Environmental Risk Register

To be developed and updated progressively as project continues

Appendix D: MIRRA Schedule

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

MIRRA Schedule provided below.

INSPECTIONS				
Site Inspection	Environmental zone inspections	Monthly	SHEQ Manager	Weekly Environmental Inspection Checklist
REPORTING				
Environmental Report	Detail on Environmental achievements, monitoring results, incidents, audit outcomes	Monthly	SHEQ Manager	As part of Monthly Project Report
REVIEW				
EMP Review	Review of sub plans and Appendices	Yearly	SHEQ Manager	CEMP
Risk Register Review	Review risks in relation to changes to work activity onsite	Monthly	SHEQ Manager	Risk Register
Site Env Plan	Review site environmental controls in relation to work activity onsite to ensure reflective of site conditions	Quarterly	SHEQ Manager	SEP
AUDIT				
CPB Contractors Internal SHEQ Audit	Review of EMP compliance to CPB Contractors EMS/ ISO14001	As required	SHEQ Team	TBC

Appendix E: Soil and Sedimentation Runoff Plan – Stage 1 Zone 2

Reference – Enstruct Report

Appendix F: Enstruct Campbelltown Hospital Campus Redevelopment Construction Soil and Water Management Plan

Appendix G: Enstruct Campbelltown Campus Redevelopment Flood Emergency Response Sub Plan

Appendix H: ARUP Campbelltown Hospital Redevelopment Stage 2 Construction Noise and Vibration Management Sub-Plan

Reference ARUP plan

Appendix I: ptc. Campbelltown Hospital Development – Main Works Construction Traffic and Pedestrian Management Sub Plan

Appendix J: Aviation SSD Report Campbelltown Hospital Redevelopment

Separate Plan

PP25_Helicopter Management Plan Rev01

Appendix K: Unexpected Finds Protocol

---------- PART A ----------

Refer to Douglas Partners Unexpected Finds Protocol for all unexpected contaminated material finds.

---------- PART B ----------

Detailed below are the contractual and legal requirements for dealing with unexpected contaminated material finds.

Is the contaminated material discovery classified as a site condition?1	Yes / No
Is the contaminated material discovery classified as an incident? If yes to above, PART C of this document must be completed.	Yes / No

1 Contaminated material discovery is classified as a Site Condition if previously unidentified asbestos contamination is discovered by CPB. Site Conditions do not include items identified in the Contract Documents as for demolition containing asbestos. The GC21 General conditions defines a site condition as: “Any physical conditions of the Site (including sub-surface conditions, but excluding weather conditions or physical conditions which are a consequence of weather conditions) encountered in carrying out work in connection with the Contract”.

NOTE: In circumstances where previously, unidentified asbestos contamination is discovered CPB must promptly notify the Principal and cease all work activities within the vicinity of actual or suspected asbestos contamination. Construction work cannot recommence until CPB has satisfied the prerequisites stated in GC21 Preliminaries HI 18467 CHR Main Works sections 5.4 and 5.5.

GC21 Preliminaries section 5.4 – Response to Unexpected Discovery

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.

With the initial notification, or as soon as practicable thereafter, submit details, including:

- the additional work and additional resources the Contractor estimate to be necessary to deal with the substance so that work and subsequent use of the Works may proceed safely and without risk to health
- the Contractor’s estimate of the cost of the measures necessary to deal with the substance; and
- other details reasonably required by the Principal.

The Contractor must, in planning and carrying out any work dealing with the substance take all reasonable steps to:

- to carry out the work concurrently with other work wherever possible; and
- to minimise otherwise effects of the work on the Contractual Completion Date(s).

C21 Preliminaries section 5.4 – Decontamination by the Contractor

Where the Contractor is responsible for the control and decontamination of the Site following the discovery of hazardous substances, handle, use, isolate, remove and dispose of such substances in accordance with statutory requirements.

The Environment Protection Authority or Waste Service NSW may advise of suitable disposal sites.

GC21 Preliminaries section 5.5 – Asbestos Removal & Air Monitoring

Requirement

Where the Contractor is responsible for asbestos removal work, comply with the relevant statutory requirements, standards, codes and guidelines, including but not limited to the:

- SafeWork NSW requirements
- SafeWork NSW Code of Practice *How to manage and control asbestos in the workplace*
- SafeWork NSW Code of Practice *How to safely remove asbestos*
- *Environmentally Hazardous Chemicals Act 1985* (NSW)
- *Waste Avoidance and Resource Recovery Act 2001* (NSW)

Notification and Permit

Not less than seven (7) days prior to commencing any asbestos removal work, notify the local office of SafeWork NSW and the Principal of the intention to carry out that work.

Where the regulations require a licence for asbestos removal work, before the work commences, submit a copy of the current licence held by the entity that will undertake the work and a copy of any SafeWork NSW permit required for the work.

Monitoring

Provide asbestos air monitoring by an independent testing authority engaged by the Contractor, in respect of the following:

- for each day that demolition, ground remediation and any works involving existing fill material likely to contain asbestos, are being carried out; and
- otherwise on each day during asbestos removal until completion of each area where removal has been undertaken.

To avoid any doubt, asbestos air monitoring for demolition and ground remediation is not subject to asbestos being present or removed.

Clearance Certificate

Submit to the Principal a clearance certificate from an independent testing authority at the completion of the asbestos removal work.

***Protection of the Environment Operations Act 1997* s148**

Notify the EPA immediately of pollution incidents where material harm to the environment is caused or threatened.

Action: Refer Issue to CPB Environmental Manager immediately

Appendix L: Unexpected Finds Protocol for Aboriginal and non-Aboriginal Heritage

Unexpected finds protocol for Aboriginal and non-Aboriginal heritage

All relics are protected under the *Heritage Act 1977* and all Aboriginal objects and Places are protected under the *NSW National Parks and Wildlife Act 1974*. It is an offence to knowingly disturb a heritage site without a consent permit issued by the Office of Environment and Heritage (OEH). Should heritage items or suspected heritage items be found during the course of the Project the following procedure must be followed:

1. Work in the vicinity must cease immediately and the Site Supervisor and Project Environmental Representative must be notified.
    a. The area must be secured and cordoned off and protection signage installed.
    b. The Project Environmental Representative must contact an Archaeologist to make a preliminary assessment of the find.
2. If human remains are suspected the following additional procedure must be followed:
    a. Notify the NSW Police and OEH's Environmental Line on 131 555 as soon as practicable and provide details of the remains and their location.
    b. Do not recommence work at that location unless authorised in writing by OEH.
3. If the find is assessed to not be a heritage item, then work can recommence in the area.
4. If the find is confirmed to be a heritage item the Project Environmental Representative must notify the Heritage Council, OEH and the Department of Planning and Environment (DP&E) and any relevant Aboriginal stakeholder groups (if it is an Indigenous artefact).
5. The Archaeologist will officially record the find.
6. The Archaeologist will assess the item's significance and determine management options. This may include preserve or removal of the item.
7. The Project Environmental Representative will obtain any relevant approvals or permits (including clearance from DP&E to recommence works – as applicable).
8. Once clearance has been obtained from relevant stakeholders, works may recommence.
9. The Project Environmental Representative will close out and submit the final report to the Heritage Council, OEH and DP&E and any other relevant authorities as applicable.

Appendix M: Dewatering Procedure

See Work Instruction for Dewatering