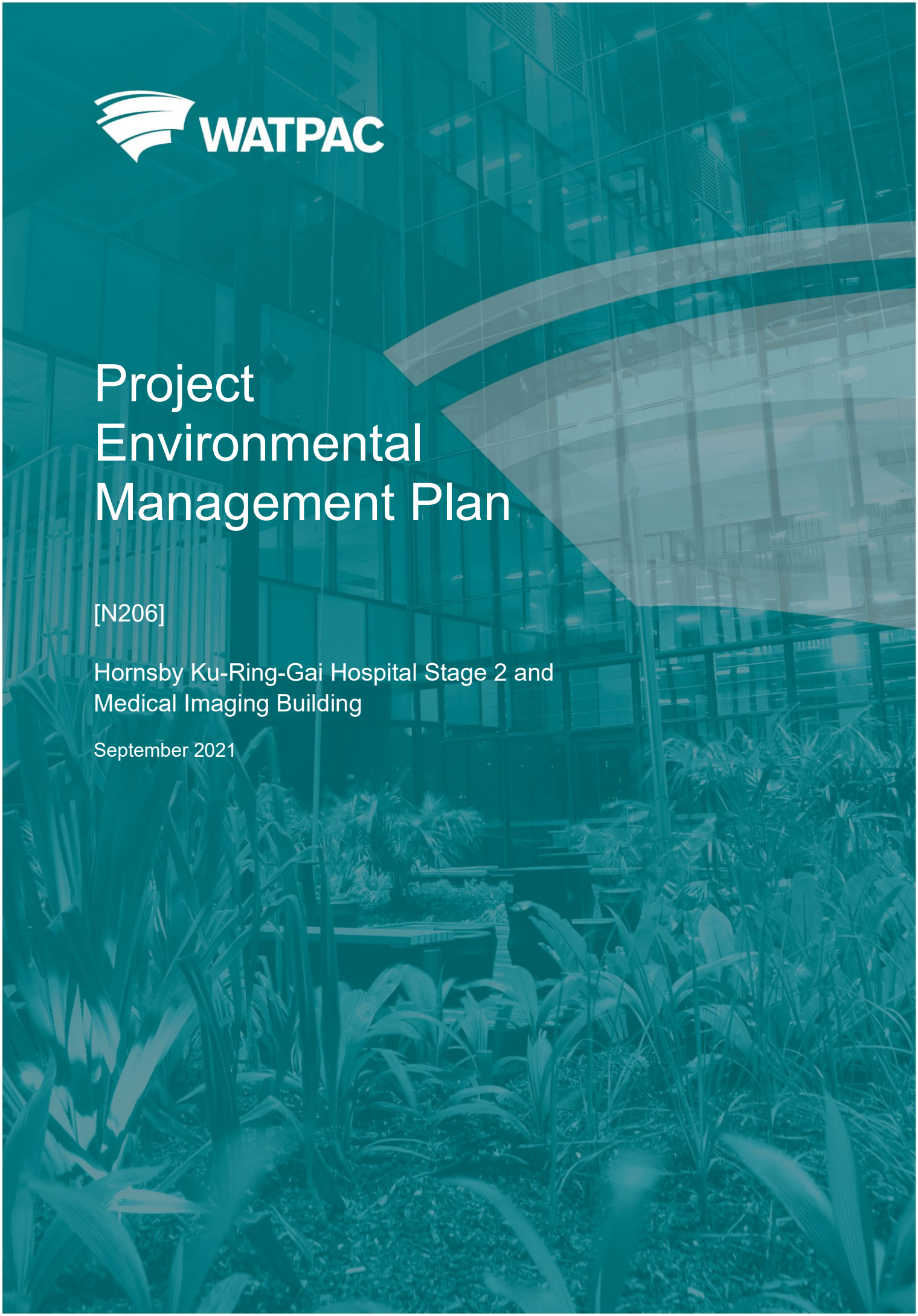


WATPAC

Project Environmental Management Plan

[N206]

Hornsby Ku-Ring-Gai Hospital Stage 2 and Medical Imaging Building

September 2021

Contents

Revision History

Issue	Date	Revision Description	Authorised by
1	March 2018	Contract Issue	Tim Williams (Construction Manager)
2	25 June 2018	SSD	Nick Limbrey (Project Manager)
3	November 2018	General review / update, incorporating recommendations from Independent Audit (Aquas) 26/9/19 and report 17/10/18	Nick Limbrey (Project Manager)
4	January 2019	General review and update, incorporating recommendations from Audit (Morasey) 12/12/18 and review of objectives & targets	Nick Limbrey (Project Manager)
5	July 2019	General update in accordance with requirements of REF 004/2018	Nick Limbrey (Project Manager)
6	December 2019	General Review and Update, including change to template to reflect new branding and new Appendix 1	Nick Limbrey (Project Manager)
7	March 2021	REF 008/2019 Lumby Demolition	Mark Cahalin (Project Manager)
8	September 2021	General review and update, incorporating recommendations from Audit (Aquas) 30/06/21 referencing the WHS Act 2017.	Helena Veljovic (Project Environmental Officer)

Abbreviations

Abbreviation	Meaning
AASS	Actual Acid Sulfate Soil
ARMP	Approved Risk Management Plan
ASS	Acid Sulfate Soil
CAR	Corrective Action Request
CEMP	Construction Environmental Management Plan
CMS	Construction Management System
DAF	Department of Agriculture and Fisheries
DEHP	Department of Environment and Heritage Protection
ECC	Environmental Clearance Certificate
EMP	Environmental Management Plan
EMS	Environmental Management System
EPA	Environmental Protection Act
EPBC	Environmental Protection Biodiversity Conservation Act
ESC	Erosion and Sediment Control
ESCP	Erosion and Sediment Control Plan
ESD	Ecologically Sustainable Development
HMP	Heritage Management Plan
HOTO	Handover Takeover
HSEQ	Health, Safety, Environment and Quality
IECA	International Erosion Control Association
KPI	Key Performance Indicator
MSDS	Material Safety Data Sheet
NCR	Non-conformance Report
NEPM	National Environmental Protection Measure
NGER	National Greenhouse and Energy Reporting
NPI	National Pollutant Inventory
NSMS	National Safety Management System
PASS	Potential Acid Sulfate Soil
PEMP	Project Environmental Management Plan
PERP	Project Emergency Response Plan
PFC	Perfluoronated Compound
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctane Sulfonate
PMCA	Project Manager / Contract Administrator
PPE	Personal Protective Equipment
QMS	Quality Management System
RDO	Rostered Day Off
REO	Regional Environmental Officer
RI	Restricted Items
RIFA	Red Imported Fire Ant
SDS	Safety Data Sheet
UXO	Unexploded Ordnance
WOL	Whole Of Life

1. System Application and Authorisation

1.1. Planning Environmental Management

Watpac is committed to safely construct the project, on time and on budget, without harm to the environment.

In particular Watpac will:

- Comply with the ESD and environmental requirements of the Contract and Contract Specifications
- Comply with relevant regulatory and legislative requirements governing the protection of the environment
- Identify environmental issues, opportunities and potential adverse impacts arising from the project and identify appropriate prevention and or mitigation measures that will be applied to minimise any adverse effects
- Ensure all personnel who work on the project receive a site specific induction, which will include relevant environmental aspects / items.

Watpac also commits to managing the construction of the project in conformance with the Company's broader environmental vision, goals and objectives as documented in the Watpac Environmental Policy.

Specific project performance targets have been documented for each of the key environmental aspects in Section 5 of this Project Environmental Management Plan (PEMP).

1.2. Principal Requirements

The Principal requirements of environmental management for the construction phase of this project are as set out in the Contract documents, various development consents and specifications.

The Principal's Environmental objectives expressed in the Conditions of Contract have been addressed within this PEMP.

The Principal's requirements regarding notification of disruptive works have also been addressed; the notification procedure and templates for the Disruptive Works Notice (DWN) and Watpac's register of DWNs are provided in Appendix 6.7.

1.3. Watpac HSEQ Policy

The Watpac HSEQ Policy is:

> *Watpac considers excellence in health, safety and environmental performance, our quality of service and client satisfaction, essential components to the long term sustainability of its business.*
>
> *Our goal is to achieve a high level of HSEQ performance for the benefit of all stakeholders, including employees, subcontractors, suppliers, clients, shareholders and the local communities in which we work.*

Our Values

Watpac promotes an organisational culture in which the principles of HSEQ are highly valued and upheld through the Watpac core values:

- COMMITMENT: Delivering on promises, safely
- ONE TEAM: Collaborating to accomplish a shared purpose
- INSPIRATION: Leading by example in everything we do
- INNOVATION: Achieving solutions that make a difference
- CANDOUR: Acting with authenticity, integrity and respect

Our Commitments

Watpac is committed to:

- providing a high standard of service.
- conducting our activities in a safe and sustainable manner which includes protection of the environment.
- mitigating foreseeable hazards through proactive risk management practices.
- continual improvement of our health, safety, environmental and quality management systems.
- consistently meeting stakeholder expectations.
- compliance to applicable legal and other requirements and voluntary commitments.
- providing effective HSEQ information, instruction and training to our employees and sub-contractors.

Our Actions

Watpac will achieve this by:

- providing visible support and leadership, with clear accountabilities and expectations that encourages employee, subcontractor and supplier participation in achieving our HSEQ goal.
- establishing and maintaining documented and communicated HSEQ management systems certified to AS/NZS 4801, ISO 14001 and ISO 9001.
- providing and maintaining a proactive HSEQ risk management framework across all aspects of our business.
- ensuring effective consultation and communication strategies and processes are in place which allows all stakeholders to have input and provide feedback on HSEQ matters.
- setting clear, achievable and measurable objectives and targets that promote continual improvement of our HSEQ management systems and performance.

Watpac empowers, promotes and supports all personnel in making the necessary decisions to ensure the intent of this policy is upheld.

1.4. Application

This Project Environmental Management Plan has been prepared by the Watpac Project Team, in consultation with the Watpac Quality and Environment Manager, to document the company's environmental commitments, objectives and procedures for the project. The PEMP is the key environmental management document that the Project Manager and Site Manager relies on to ensure appropriate environmental management practices are followed during construction.

The PEMP has been developed to conform with and satisfy the requirements of:

- AS/NZS ISO 14001: 2015 - Environmental Management Systems
- The environmental performance requirements of the Principal as set out in the Contract and Contract specifications
- The Watpac Environment Management System
- NSW Government Environmental Management System Guidelines (2013), Part 3
- Applicable legal and other requirements
- The broader community's general expectations of an environmentally responsible organisation.
- The Review of Environmental Factors 037/2017 (dated 11 December 2017) prepared by APP for the Medical Imaging Building
- The Review of Environmental Factors 004/2018 (dated 3 April 2018) prepared by APP for the Early Works 1 & 2 (Sewer and Stormwater Infrastructure Works)
- The State Significant Development (SSD) Consent for the Stage 2 Redevelopment (main works) SSD 8647 (dated 30th May 2018).
- The Review of Environmental Factors 008/2019 Condition 12

The PEMP is intended for use on the project and is based on the management systems and procedures currently in place at Watpac.

This PEMP applies to all Watpac Construction personnel, visitors, subcontractors, consultants, Principal Representatives, authority representatives and suppliers involved in the project.

1.5. Scope of Works

The Stage 2 Redevelopment project will deliver the following:

- A new 5-storey building, including:
  - Combined Intensive Care and High Dependency Unit
  - Combined Coronary Care and Cardiac Investigations Unit
  - Cardiorespiratory Inpatient Unit
  - Medical Inpatient Unit (including Dementia / Delirium and Stroke Beds)
  - Rehabilitation Inpatient Units (cold shell). Fit out of each IPU (option).
  - Ambulatory Care Centre providing a centralised location for all Ambulatory Care services
  - Combined Education space with the University of Sydney
  - Main Entry with Retail and Front of House (FoH) area located adjacent to the high-traffic Ambulatory Care Centre and the main Hospital Street.
- A refurbished and expanded Emergency Department within the HOPE Building
- PECC Refurbishment to be tendered as an option.
- Demolition of PECC as a tendered option which may be exercised.
- Fit-out of the co-located Paediatrics Inpatient Unit and Paediatric Allied Health clinics on the second floor of the new Medical Imaging building
- Associated civil and landscaping works throughout the campus
- Sewer main upgrade and Stormwater Infrastructure along Derby Road, this is in order to support the Hospital Building Works.

The Hornsby Ku-ring-gai Hospital is located about 25 kilometres north-west of the Sydney CBD. The hospital is within the local government area of Hornsby Shire and is bounded by Palmerston Road to the west, Burdett Street to the south, Derby Road to the east and Lowe Road to the north.

The hospital campus comprises of Lot 2 in DP14774, Lot 3 in DP14774, Lot B in DP363790, Lot 23 in DP814181, Lot 1 in DP232290 and Lot 189 in DP752053.

Refer to the overarching Project Management Plan for more information.

1.6. Site Contact

Craig Scott (Site Manager)	
Mobile Phone	0431 308 944
Work Phone	02 6561 3301
Email	cscott@watpac.com.au

1.7. Environmental Risk Assessment Process

Watpac implements the following systems on all projects:

- Watpac Quality Management System (QMS)
- Watpac National Safety Management System (NSMS)
- Watpac Environmental Management System (EMS)

This PEMP is consistent with and where applicable directly references Watpac Quality, Environmental and OH&S Procedures.

As documented in its Environment Management System, Watpac adopts a systematic approach to environmental management that is designed to ensure potential environmental risks through all phases of project delivery are:

- Identified

- Evaluated and ranked
- Mitigated and controlled
- Subject to ongoing review and assessment.

Following award of the Contract, Watpac has conducted a comprehensive review of Contractual Conditions; Permit conditions; recommendations documented in environmental specialist reports, applicable environmental laws and regulations; Contract Specifications; and site conditions.

Our project team has conducted a number of pre-start meetings addressing environmental issues and have undertaken a detailed environmental risk assessment for the project. The Risk and Opportunity Assessment process incorporates the development of risk profiles, Risk and Opportunity Assessment, mitigation strategies, the identification of opportunities and the development of project specific procedures.

The Watpac Management Plans are dynamic documents that will be reviewed and revised as warranted to ensure they remain current throughout all phases of the project.

Environmental elements have been integrated where applicable into project documents including:

- Site specific inductions
- Safety Plan
- Quality Plan
- Emergency Plan

Our comprehensive and systematic approach will ensure the Principal and community that Watpac will:

- Employ best environmental practice
- Harmonise safety and environment in planning work
- Exceed required quality and performance criteria without compromising the environment
- Satisfy ESD and environmental objectives

1.8. Watpac EMS

Watpac's Environmental Management System (EMS) has maintained third party Certification status for over 20 years, embracing the current Environment Management Standard AS/NZS ISO 14001:2004 without exception. The system has successfully been applied across a variety of projects with no limit as to the value and variability of the project. Our Environmental Management System has delivered high quality projects across diverse ranges of work including multi-residential, commercial, industrial, infrastructural, medical, Defence, and refurbishment projects.

The key EMS aspects that will be applied on this project include:

- Scheduled inspections, monitoring and maintenance
- Auditing
- Education, training and awareness
- Feedback loop of environmental legislation and continual improvement
- Community Consultation
- Environmental Risk Assessments (C-FRM-018)
- Environmental Legal and Statutory Requirements Register (C-REG-007)

Watpac's core business is separated into modules into which each relevant procedure or form is grouped:

Module	Description
Pre-Contracts	Principal relations, tender opportunities, scoping and pricing tenders
Project Start-Up	Effective planning and coordination
Procurement	Subcontractor assessment for effective safety and quality capabilities
Administration	Financial administration of the project, EOT's, RFI's
Control	Control of the project encompassing quality, environment requirements

Project Completion	Defect management, commissioning, certification and handover
Quality	QMS procedures including document control, record management, audit
Environment	EMS procedures including Aspects, Risk Assessment, Compliance

All elements of AS/NZS ISO 14001 will be required, without exception, in the delivery of our projects and services. Our system is managed into tiers, which inform our integrated approach:

Tier	Type	Description
01	Environmental Policy	Watpac's policy on Environmental Management informs our approach when documenting procedures.
02	Environmental Management System Manual	Outlines Watpac's structure and general principles of the Environmental Management System.
03	Environmental Procedures	These procedures describe how activities within the company are performed. Each Environmental Procedure includes what, how, and when steps are performed; what materials, equipment and documentation are used and, where applicable, how processes are controlled.
04	Environmental Documentation and Records (forms, registers)	These documents prompt the detailed information, work, inspection and review processes. Changes are accommodated with reference to the correct Control of Documents and Data procedures. They will also act as records to document that all due diligence was performed.

1.9. Confidentiality

This PEMP and any attachments shall not be copied or reproduced without the express written permission of the Watpac's Quality and Environment Manager.

1.10. PEMP Authorisation

The issue and use of this PEMP is approved in accordance with the revision history table at the front of this document.

Commitment to implement Watpac's EMS as per this PEMP and internal procedures is made by the **Project Manager**.

Approved by  Date 26 July 2019

1.11. Precedence

Where an ambiguity is detected between the PEMP and the procedures in the Watpac Environmental Management System Manual, the procedures in the Project Environmental Plan shall take precedence.

1.12. Specific Exclusions

Any specific exclusions relative to the requirements of ISO 14001 will be noted in the relevant sections of this PEMP. The works covered by this PEMP are limited to the scope of work as defined by the Contract, drawings, and specification.

1.13. Validity

The currency of this PEMP remains valid from the date of issue until Practical Completion or approved revision and amendment. Construction work cannot commence until this PEMP has been authorised by the HSE Manager. This plan is subject to regular review, generally at minimum 6-monthly increments.

2. Project Environmental Objectives

2.1. Watpac Environment Objectives

Watpac's main environmental objective is to conduct project activities in full consideration of the environmental conditions and requirements of Client Contracts, and environmental legal and other requirements as an environmentally responsible organisation of the broader community.

Watpac will comply with its EMS to control and minimise environmental impacts and preserve the environment through the following: -

- The control and minimisation of contaminate discharges or disturbances to air, land and water
- The control and minimisation of waste
- To review and re-source component materials, as opportunity presents
- Undertake regular review of the EMS against performance targets with the view toward continual improvement and the prevention of pollution.

The objectives of this PEMP are as follows:

- To ensure compliance with environmental legislative requirements
- To ensure the Project Team (including subcontractors) are aware of their environmental responsibilities and are proactive in their approach to environmental management
- To ensure environmental commitments are implemented
- To prevent environmental incidents through the establishment and maintenance of environmental control measures, work practices and the supervision of construction activities
- To minimise environmental, community and system impacts

Proper adherence to the EMS objectives and awareness of environmental issues pertinent to Watpac's activities is a requirement of all Watpac personnel and those entities engaged by Watpac in the delivery of projects.

2.2. Project Environment Commitment

The Watpac Project Team is committed to the implementation of a comprehensive and effective EMS for the design and construction of this project.

Our Project Environmental Management Plan will comply with all elements of the Watpac Environmental System, certified to ISO 14001. The PEMP addresses all environmental elements of managing the design and construction of the Project to ensure full compliance with the requirements of the current legislation and expectations of the Principal and neighbouring community.

The Project Environmental Management Plan and its application will be continuously assessed and improved through processes of review and audit.

All participants in the project are responsible for implementing the PEMP and contributing to its improvement to ensure we meet our objective of providing a project which meets agreed requirements in terms of its construction and operational performance.

2.3. Key Performance Indicators

The environmental performance of the Watpac Project Team is assessed by two Key Performance Indicators (KPIs):

Policy	Objective	Measurement Basis	Target	Responsibility	Compliance Review (WTP)*						
					Dec 2018	Jul 2019	Dec 2019	July 2020	Dec 2020	July 2021	Dec 2021
Minimise Impacts	Minimise the impact of the site works to the receiving environment	Internal audits conducted by Management	No more than 5 environmental Corrective Action items issued to a single project from an internal audit.	Project Manager	✓	✓	✓	✓	✓	✓	
			Zero Non-Conformances issued to a single project from an internal audit.	Project Manager	✓	✓	✓	✓	✓	✓	
			Project is audited within 6 months of being established on site.	Project Manager	✓	✓	✓	✓	✓	✓	
			Receipt of written positive feedback form local stakeholders etc. regarding environmental performance or positive experience.	Project Manager	✓	✓	✓	✓	✓	✓	
			No major negative formal complaints received pertaining to poor environmental management or performance.	Project Manager	✓	✓	✓	✓	✓	✓	
Compliance	Comply with all Statutory Requirements	Commonwealth, State and Local Council regulation	Zero Penalty Infringement Notices issued by Local Council or State EPA	Project Manager	✓	✓	✓	✓	✓	✓	
			Zero Prosecutions issued by Local Council or State EPA	Project Manager	✓	✓	✓	✓	✓	✓	

Note *: evidentiary documentation to substantiate review rating available in the project environmental records.
Compliance with KPI's, objectives and targets should be reviewed and self-assessed by the project team at 6-monthly intervals (aligning with PEMP reviews). Any corrections or adjustments to the indicators, objectives or targets shall be incorporated into subsequent revisions.

3. Project Organisation

3.1. Project Organisation Chart

Refer to Appendix B of the overarching *Project Management Plan*.

3.2. Roles and Responsibilities

3.2.1. Construction/Operations Manager

The Construction/Operations Manager has responsibility to:

- Ensure construction activities are undertaken in accordance with Watpac's HSEQ Policy and the objectives and provisions of the PEMP
- Ensure all personnel carrying out activities which may have a significant impact on the environment are appropriately trained to a level commensurate with their role and responsibilities in the project.

3.2.2. Quality and Environment Manager

The Quality and Environment Manager is responsible for establishing and maintaining the Company's Environment Management System and represents Watpac on all environmental matters pertinent to the EMS.

The Quality and Environment Manager is responsible for:

- Ensuring that approval conditions and environmental specialist recommendations made during the design phase are incorporated into the PEMP
- Assisting the Project Manager with the implementation of the PEMP
- Providing support and technical assistance to the Project Environmental Coordinator
- Manage the implementation of the EMS during the project
- Monitoring the effectiveness of the EMS
- Coordinating environmental audits during the project in accordance with KPIs
- Ensuring record keeping is undertaken as required to demonstrate compliance with the EMS, PEMP, and legal requirements
- Ensuring the Project Team (including subcontractors) receive the appropriate environmental induction (including site-specific environmental requirements)
- Coordinating environmental accident/incident investigations
- Issuing external authority notification regarding environmental incidents (following confirmation with the Client)
- Assessing the environmental capabilities of subcontractors during procurement and review/approve their environmental management documentation (if not working under the Watpac PEMP)

The Quality and Environment Manager is authorised to require all employees to comply with the provisions of the documented Environmental Management System and may issue directions to that effect. The Quality and Environment Manager has the authority to stop work in the event of potential or actual environmental damage.

3.2.3. Project Manager

The Project Manager is responsible to the State Manager through the Construction Manager to ensure effective environmental controls are implemented for the duration of the project.

Specifically, the Project Manager shall be responsible for:

- Implementing and maintaining the PEMP
- Ensuring all works comply with environmental legislative requirements and conditions of any statutory approvals
- Reviewing the environmental aspects at project start-up and ensuring the PEMP addresses all requirements
- Providing guidance, motivation and resources to achieve the provisions of the PEMP

- Ensuring that subcontractors and suppliers are aware of Watpac's environmental policy and objectives, through conditions of contract, tender interviews, scopes of work and site environmental inductions as applicable
- Establishing monitoring records and ensuring the scope and frequency of monitoring activities satisfies the requirements of the PEMP. Ensure that site environmental management information (e.g. records, reports, checklists etc) is maintained and accessible.
- Provide adequate equipment, facilities and training (if required) to the Site Manager
- Plan construction activities to minimise environmental impact and to comply with site environmental management requirements
- Assist the Environment Manager with the investigation of environmental incidents
- Assist the Environment Manager with the close out of "non-conformances" and "action requests" arising from audits, site inspections and incident investigations
- Report all environmental incidents to the Environment Manager

The Project Manager shall have sufficient authority and independence to:

- Identify and record any environmental problems
- Initiate solutions to the environmental problem
- Stop the works, if such a decision becomes necessary, in order to prevent or mitigate adverse environmental conditions, or if corrective measures recommended are not being carried out. The Project Manager must notify the Environment Manager as soon as possible regarding any stop work orders relating to environmental management.
- Provide recommendations for EMS and operational improvements to the Quality and Environment Manager

3.2.4. Project Environmental Coordinator

The Project Environmental Coordinator is responsible to the Project Manager for the maintenance of the Project Environmental Management system.

The Project Environmental Coordinator is the document controller for the PEMP and shall prepare/compile registers, records, plans and forms necessary for the implementation of environmental controls. The Project Environmental Coordinator shall review these as necessary and ensure timely distribution to all relevant parties in the Project.

Responsibilities of the Project Environmental Coordinator shall include:

- Monitor the construction processes to ensure that appropriate environmental protection/procedures are in place. Apply EMS procedures as applicable during the project.
- Identify and record any environmental issues
- Recommend and initiate solutions to environmental problems and verify the implementation of solutions
- Investigate all environmental complaints (which shall be recorded on the project records)
- Control and maintain project environmental records, including indexing records, prior to archiving
- Implement any environmental checklists, field records and procedures as applicable to the works
- Maintenance the PEMP and control of distribution
- Conduct site inspections and audits as required
- Provide recommendations to the Quality and Environment Manager for EMS and operational improvements.

The Project Environmental Coordinator has the authority to stop work in the event of pollution or actual environmental damage. The Project Environmental Coordinator must notify the Site Manager and Project Manager as soon as possible regarding any stop work orders relating to environmental management.

3.2.5. Independent Verification Staff

Individual employees or consultants may be appointed to assist the Project Manager to carry out audits, environmental testing and inspection duties. This testing and inspection may be in addition to and separate from any testing and inspection required for Environmental Management purposes.

Independent Verification staff will not be drawn from personnel who are performing or directly supervising the activities being inspected.

3.2.6. Site Manager

The Site Manager is responsible to the Project Manager to:

- Ensure all work under the Site Manager's control is undertaken in accordance with statutory environmental requirements and the PEMP.
- Identify, recommend and initiate solutions to any project environmental issues
- Ensure that site environmental management information (e.g. records, reports, checklists etc) are maintained and accessible
- Seek advice regarding environmental management issues (if in doubt) from the following: Project Manager, HSE Manager, environmental specialist
- Respond to environmental incidents as per the Incident Management Plan and directions provided by Project Manager
- Report all environmental incidents to the Project Manager
- Ensure all workers and subcontractors under the Site Manager's control are properly inducted in the requirements of the Watpac HSEQ Policy and objectives and the PEMP, and are instructed in the following:
    - The role and environmental responsibilities of the project/works for which they are engaged
    - The use and understanding of any environmental documentation for the work
    - Specific environmental procedures for the project/works.

The Site Manager has the authority to stop work in the event of pollution or actual environmental damage, or non-compliance with contractual requirements. The Site Manager must notify the Project Manager as soon as possible regarding any stop work orders relating to environmental management.

3.2.7. Foremen

The Foremen are responsible to the Site Manager to:

- Ensure all work under the Foreman's control is undertaken in accordance with statutory environmental requirements and the PEMP
- Attend environmental inductions and toolbox meetings
- Undertake remedial action as required to ensure environmental controls are maintained in good working order
- Immediately report all environmental incidents (including near misses) to the Site Manager
- Ensure plant/equipment is maintained in good working order
- Identify, recommend and initiate solutions to any project environmental problem.

3.2.8. Contract Administrator

The Contract Administrator shall be responsible to the Project Manager for:

- Ensuring proper procedures are followed for the procurement of goods and services to ensure that Watpac's HSEQ Policy and objectives and the requirements of the PEMP are achieved.

3.2.9. Direct Labour

Each tradesperson, trades assistant, operator and employee shall be responsible for carrying out their work in accordance with Watpac's stated HSEQ Policy and objectives, the PEMP and as instructed by their supervisor.

3.2.10. Subcontractors and Suppliers

Watpac will ensure all subcontractors and suppliers are responsible for conducting their activities in an environmentally sensitive manner and in compliance with the requirements of this PEMP. While it is envisaged that subcontractors will work under the requirements of this PEMP, there are potentially two situations where this may not be the case:

- Subcontractor requests to perform works under their own EMP
- Watpac requests that subcontractor perform works under their own EMP

In both situations, the approval of approach and EMP documentation is required from the Watpac Project Manager and/or HSE Manager.

Site inductions will include detailed and site specific environmental information. Activities conducted by any trade likely to have a significant impact on the environment is required to submit their own EMP, which is assessed using the Subcontractor EMP assessment checklist to ensure it is comprehensive.

All personnel shall notify the Watpac Site Manager of any activity or incident, or any deviations from work place practices and procedures set out in this PEMP.

Subcontractor audits can be conducted. The checklist C-FRM-082 Environment Audit 100 includes environmental criteria which can be adapted to the nature of the trade work. C-FRM-082 Environment Audit 100 is available on the Watpac intranet.

Contractors shall ensure their personnel working at the site:

- Have the appropriate environmental awareness training and / or qualification for the task undertaken
- Are aware of the potential environmental impacts of their activities on the site and the procedures by which such impacts are to be minimised or prevented.
- Attend environmental inductions and toolbox meetings
- Undertake remedial action as required to ensure environmental controls are maintained in good working order
- Immediately report all environmental incidents (including near misses) to the Site Manager
- Ensure plant/equipment is maintained in good working order

4. Implementation

4.1. Legal and Other Requirements

All activities associated with the Project must comply with the relevant environmental legislative requirements. The Watpac Environmental Legal and Statutory Requirements Register (C-REG-007) provides an overview of existing legislation that is related to environmental matters enacted by the Federal and NSW Governments that could be directly or indirectly related to project activities. A copy of the Watpac Environmental Legal and Statutory Requirements Register can be obtained via request from the Watpac HSE Manager.

The construction activities do not require any State Government licensing arrangements, control approvals or permits for environmental protection at this stage.

The development will be undertaken in accordance with the NCC / Building Code of Australia and relevant Australian Standards, in accordance with the various Development Consents for the project and contract plans and documentation noted therein. Pursuant to the Development Consents, the hours of work shall be:

- Monday to Friday (inclusive): 7.00am to 6.00pm;
- Saturdays: 8.00am to 1.00pm;
- Sundays and Public Holidays: No work permitted.

The Quality and Environment Manager is responsible for identifying and assessing amendments to statutory and regulatory requirements potentially applicable to the project (such as State Government licensing arrangements, control approvals or permits for environmental protection) and initiating a review of the PEMP as warranted.

4.2. Monitoring

The responsibility for general environmental monitoring rests with all personnel engaged in the project.

More specifically the Project Environmental Coordinator shall:

- Monitor each element of the construction process to ensure that appropriate environmental protection/procedures are in place
- Undertake daily monitoring of the implementation and effectiveness of environmental controls
- Conduct and record weekly site inspections of environmental controls and direct such action as may be considered necessary to protect, minimise or rectify any environmental concerns.

The Project team shall undertake random site inspections and direct such action as may be considered necessary to protect, minimise or rectify any environmental concerns.

Before the commencement of works and at the conclusion of works, dilapidation reports shall be undertaken of areas adjacent to the works that may be affected by the works. Such areas may include public roads, internal roads, the exterior of hospital buildings, and the interior of hospital buildings.

4.3. Consultation

Watpac undertakes to advise adjacent property owners/managers of the timing and duration of activities likely to give rise to environmental concerns e.g. ground works or proposed out of normal hours activities.

Where applicable a list of adjoining building managers with their business and out-of-hours contact numbers will be maintained on the project records together with notations of pertinent advices.

4.4. Environmental Complaints

The Project Manager and/or the Project Environmental Coordinator will investigate all environmental complaints. Details of complaints and the remedial action taken will be recorded in the project records.

Watpac will notify the Principal of all applicable complaints received.

Any complaints received by the Principal will be investigated and recorded by Watpac as appropriate.

4.5. Environmental Incidents

Should an environmental incident occur during the course of the works, Watpac shall take prompt action to minimise any impact and inform the Principal or the Principal's Representative accordingly in accordance with the HI Stakeholder Management Procedure. Procedures to respond to an emergency incident have been documented in the Project Emergency Plan.

Subcontractors who become aware of an environmental incident shall report the matter immediately to the Site Manager.

All incidents will be:

- Addressed as expeditiously as possible to minimise the potential environmental impacts
- Investigated; where necessary Watpac will seek the advice of relevant Authorities and comply with their instructions
- Recorded on the Environmental Complaint and Incident Report Form (C-FRM-060).

If the incident has the potential to cause material environmental harm, there is a legal obligation to notify the NSW EPA. As with any environmental incident, the following process should be followed:

- Complete the Environmental Complaint and Incident Report Form (C-FRM-060).
- Send report to your State Environmental Manager.
- Environmental Manager will advise if the incident is a notifiable event, at which point the report form should be issued to the Principal with the recommendation that the incident be reported to the State Environmental Protection Agency.

4.6. Reporting

The Client will be notified of applicable environmental incidents and complaints, as soon as possible thereafter, including notification of the proposed corrective action.

Project Reports submitted to the Client will report on all applicable environmental matters including environmental incidents, non-conformances, complaints, performance and the implementation and effectiveness of the PEMP. This reporting will generally take the form of the monthly Project Control Group (PCG) report.

All communication of information concerning the project environmental performance shall be reported internally via the Monthly Project Review and Quarterly Project Review reporting templates to senior management.

The Development Consents for the project require various informative and compliance reporting to occur to Council and/or Department of Planning. This reporting shall be managed via email correspondence as articulated in the Development Consents.

4.7. Notifiable Events – Duty to Notify

The duty to notify is set out in section 148 of the Protection of the Environment Operations Act 1997 (POEO Act). Pollution incidents causing or threatening material harm to the environment must be notified. A 'pollution incident' includes a leak, spill or escape of a substance, or circumstances in which this is likely to occur. 'Material harm to the environment' is defined in section 147. Material harm includes on-site harm, as well as harm to the environment beyond the premises where the pollution incident occurred.

The duty to report pollution incidents is a legal requirement that ensures that the appropriate regulatory authority (ARA) and other relevant persons are made aware of incidents that may have caused or threaten serious environmental harm or material environmental harm, and that appropriate action can be taken to minimise the extent of environmental harm caused.

Under the POEO Act, he following people have a duty to notify a pollution incident occurring in the course of an activity that causes or threatens material harm to the environment:

- the person carrying on the activity

- an employee or agent carrying on the activity
- an employer carrying on the activity
- the occupier of the premises where the incident occurs.

Notification must be given immediately, i.e. promptly and without delay, after the person becomes aware of the incident.

Only persons engaged in the activity resulting in the pollution incident, and occupiers of the land where the incident occurs, have a duty to report the incident.

Pollution incidents posing material harm to the environment should be notified to each 'relevant authority' as defined in section 148(8) of the POEO Act. 'Relevant authority' means:

- the appropriate regulatory authority (ARA)
- the Environment Protection Authority (EPA) if they are not the ARA
- the Ministry of Health
- SafeWork NSW (formerly WorkCover)
- the local authority, e.g. the local council, if this is not the ARA
- Fire and Rescue NSW

In general terms, sufficient detail of the incident must be reported to enable appropriate follow-up action. The information required is listed in section 150. Any required information that is not known when the incident is notified must be notified immediately once it becomes known.

If you fail to report a pollution incident posing material harm to the environment as required under Part 5.7 of the Act, you commit an offence. The maximum penalty is $2,000,000 for corporations, or $500,000 for individuals.

Under the Act, Watpac is classified an employee, contractor, or agent, who causes or becomes aware of a notifiable event, must notify the person who employs them or engaged them as a contractor or agent (i.e. the Principal) within 24 hours of becoming aware of the event.

The notice must contain sufficient details to provide notice of the event, its nature, and the circumstances in which it happened (for simplicity referred to as the details of the event). Watpac must always keep a record of when and to whom they gave notice of a notifiable event.

If the Principal cannot be contacted, then Watpac must give the administering authority (the State Environmental Authority) written notice with details of the event no later than 24 hours after first becoming aware of the event.

The Principal has a duty to give written notice with details of the event to the administering authority no later than 24 hours after becoming aware of the event.

As soon as possible Watpac must also either:

- Give written notice with details of the event to any combination of the occupiers or registered owners of affected land; or
- Give public notice of the details of the event.

The Environmental Complaint or Incident Report (C-FRM-060) can be used to notify the department (as administering authority) about notifiable events.

In addition to the written notice, if a person becomes aware of a notifiable event, the person should immediately call the State Environmental Protection Authority and report the matter.

Relevant legislative provisions under the POEO Act include:

- section 147: Meaning of material harm to the environment
- section 148: Pollution incidents causing or threatening material harm to the environment
- section 149: Manner and form of notification
- section 150: Relevant information to be given
- section 151: Incidents not required to be reported

- section 152: Offence for breaching duty to notify pollution incidents
- section 153: Incriminating information

4.8. Emergency Response Plan

Actions to respond to foreseeable environmental emergencies are detailed in Aspect 5.19 in Section 5.0 of this PEMP, as well as the Project Emergency Plan (separate document).

The response procedures, emergency contact numbers, responsibilities and required actions for responding to environmental emergencies have been integrated into the Project Emergency Plan.

4.9. Environmental Training & Induction

As part of their site environmental induction/training all personnel engaged in the works shall be made aware of the provisions of this Project Environmental Management Plan in order to promote a general awareness of the environment and to minimise any potential impact upon it. The following inductions are required on the Project:

- Watpac general company induction
- Site-specific induction including environmental component

Watpac General Company Induction

The Watpac general company induction provides an overview of the following items:

- Watpac HSEQ Policy
- Watpac EMS
- Watpac PEMP
- Protection of the Environment Operations Act (POEO Act) 1997
- Environmental responsibilities
- Environmental management issues (e.g. soil and water, flora and fauna, waste, fuel and chemical storage, noise and vibration, air quality and dust, traffic and property access, heritage, community and site restoration)
- Response to and reporting of environmental incidents (including pollution incidents)

This induction is compulsory for all site personnel including subcontractors involved with onsite construction works. Records of inductions are to be documented.

Site-Specific Induction

Prior to any personnel starting work at the project site, they must complete the site-specific environmental induction. This induction will be conducted by the Site Manager or Project Manager and will focus on the environmental management requirements for the project. Records of inductions are to be documented in the Induction Register.

Toolbox Talks

Toolbox talks will be held weekly at the project site. The purpose of the weekly toolbox talks is to facilitate two-way discussion of safety, community, and environment and construction matters at a site level. Details of toolbox meetings held (e.g. site, date, time, Site Manager, topics and attendance record) are to be maintained.

Environmental induction and training will be appropriately commensurate with their roles and environmental responsibilities in the project.

Evidence of environmental induction and training of personnel for this project shall be maintained on the project records.

Contractors shall be responsible for providing evidence to Watpac, as applicable, prior to commencing work that:

- Environmental training needs of their personnel working at the site have been assessed and satisfied
- Contractor personnel have received the appropriate environmental awareness training and / or qualification for the task to be undertaken.

Training requirements for Watpac personnel are identified and planned on appointment to their role, and for each project. The Project Manager will monitor the skills required by Watpac personnel and contractors to effectively implement the PEMP and its procedures on site. Any further training needs will be identified, implemented and recorded in the project records.

4.10. Audits & Site Inspections

To ensure the EMS is implemented and maintained in accordance with the principles of AS/NZ ISO 14001:2004, the Site Manager and/or the Watpac HSE Manager (or delegate) will conduct regular evaluations of the implementation and effectiveness of the PEMP via Weekly Site Inspections.

In addition to Weekly Site Inspections, the HSE Manager (or a third party) will conduct periodic environment audits including an audit of the implementation and effectiveness of this PEMP. The project KPIs include that an audit must be conducted within 6 months of project commencement.

Audits and site inspections will identify any deficiencies in the implementation and effectiveness of environmental management practices at the site. The HSE Manager will issue Non-Conformance Reports (NCRs) or Corrective Action Requests (CARs) as applicable. C-FRM-082 Environment Audit 100 will be used to conduct the site audits and C-FRM-061 Weekly Environmental Inspection will be used to conduct site inspections.

Client, Independent or regulatory audits may also be conducted from time-to-time, however these are not programmed by Watpac. Independent auditing as required by Development Consents will be arranged by the Client.

4.11. Environmental Non-Conformances, Corrective and Preventive Actions

Watpac will identify and evaluate all non-conformances with legal requirements; applicable permits; specifications and the requirements with this PEMP. Non-conformance can be identified via audits, as part of the accident/incident management process and site inspections.

Non-conformance Reports shall be raised as appropriate to clearly identify the nature of the non-conformance and document the proposed remedial action and the person responsible.

The Site Manager will verify follow-up action is implemented and effective. Reports will be filed in the project records.

Corrective and Preventive Action Requests will be raised, where appropriate, as a result of complaints, incidents, non-conformances and deficiencies identified in the implementation of environmental practices and procedures. Corrective and Preventive Action Requests shall be raised, where appropriate, to correct and/or prevent non-conformances in construction activities and in the operation of the Environmental Management System.

Actions as a result of Corrective and Preventive Action requests will be implemented, followed-up and recorded in the Project records.

4.12. Project Environmental Records

The following documents are to be retained in the project records:

- Weekly Environmental Inspection Reports (C-FRM-061)
- Environmental Incident and Complaint Reports (C-FRM-094)
- Environmental Non-Conformance Reports
- Environmental Corrective and Preventive Action Requests
- Environmental Reports (e.g. waste classification, soil/groundwater sampling, geotechnical, external audits)
- Copies of all applicable Environmental Permits

- Environmental Monitoring Records
- Environmental Induction and Training Records
- Environmental Audit Reports (C-FRM-082)
- Project Environmental Risk Assessment (C-FRM-018)
- Any correspondence regarding environmental issues relating to the site.

4.13. Issue and Control of the Project Environmental Management Plan

The Controlled copy of this PEMP is located in the project's environmental folder on the shared network drive. All hard copies of this document are uncontrolled.

The Project Manager is responsible for the issue of the PEMP. Copies of the PEMP shall be distributed electronically via Aconex. The distribution list shall be maintained within Aconex and is available from the Project Document Controller. The PEMP is to be revised with any applicable changes to the environmental requirements for this project.

4.14. Environmental Procedures

The Watpac Environmental Management System includes, but is not limited to, written procedures for controlling the following:

Internal Procedure Number	Description
C-PRO-003	Project Start-Up – Environment
C-PRO-004	Project Start-Up – Emergency Planning
C-PRO-014	Control of Non-Conformances
C-PRO-017	Environmental Control
C-PRO-021	Internal Audit
C-PRO-023	Control of Monitoring and Measuring Devices
C-PRO-028	Corrective and Preventive Action
C-PRO-030	Competence, Training and Awareness
C-PRO-031	Evaluation of Compliance
C-PRO-032	Aspects and Risk Assessment
C-PRO-033	Legal, Statutory and Other Requirements
C-PRO-034	Complaint and Incident Management
C-PRO-036	Environmental Responsibilities
C-FRM-060	Complaint and Incident Report
C-FRM-094	Project Complaint and Incident Register Template
C-PLA-014	Erosion and Sediment Control Guidelines
C-PRO-021	Internal Audit (Q&E)
C-PRO-022	External Audit (Q&E)
C-PRO-034	Complaint and Incident Management
C-REG-007	Environmental Legal and Statutory Requirements Register
C-FRM-018	Environmental Risk Assessments
C-FRM-061	Weekly Environmental Inspection
C-FRM-082	Environment Audit 100
C-PLA-004-N	Project Environmental Management Plan (NSW)

5. Aspects Management

5.1. Environmental Risk Assessment

An Environmental Risk Assessment (C-FRM-018) has been conducted for the project and is presented as Appendix 6.2 to this PEMP. The risk assessment includes issues within the following areas:

- Emissions to air
- Releases to water
- Releases to land
- Waste management, energy and resources
- Biodiversity
- Noise and vibration
- Traffic, transport and access
- Heritage
- Visual amenity
- Utilities and services
- Social and economic impacts
- Site restoration

5.2. Environmental Aspects

The Project Team in consultation with the HSE Manager have identified and addressed the environmental aspects associated with this project. They have:

- Reviewed the environmental requirements of the Contract and Contract Specifications
- Reviewed all environmental consent conditions including licence, permit and development approval consent conditions applicable to the project
- Reviewed specialist environmental reports and recommendations developed in the Project Design Phase (e.g. waste classification, soil and groundwater assessments, geotechnical, heritage, noise and vibration, community consultation, air quality etc.)
- Reviewed the site conditions and proposed construction activities
- Reviewed the Watpac Environmental Legal and Statutory Requirements Register (C-REG-007) to identify applicable legal and other statutory requirements
- Identified for each activity, the environmental aspects and associated actual and potential environmental impacts for normal and uncommon circumstances
- Assessed the inherent and residual significance of each identified environmental risk using the likelihood of occurrence of the impact and the consequence of the impact.
- Documented within this PEMP (and in the Environmental Risk Assessment (C-FRM-018)) project specific action plans and control measures to manage each identified environmental aspect and associated impact.

The environmental aspects associated with the project are documented in the Environmental Risk Assessment (C-FRM-018)

5.3. Action Plans and Control Measures for Identified Environmental Aspects

Environmental Action Plans have been developed to manage each environmental aspect pertinent to this project, as identified in the Environmental Risk Assessment (C-FRM-018)

These procedures document the Objective, Management Strategy, Control Measures, and Performance Indicators for each identified aspect. The procedure for each identified environmental aspect is documented in the sections below.

The Environmental Aspects, Actions and Control Measures included herein shall be routinely monitored, reviewed and updated. Generally this shall occur in line with the 6-monthly review of the PEMP, or any major change to the work scope.

Aspect 5.1	
Erosion and Sediment Control (Water Quality Control)	
Objective	Maintain the health of any impacted nearby waterbodies.
Management Strategy	Site environmental induction to address: • The issues concerned with the conservation of water usage in construction activities. • The issue of water quality and protective measures to prevent avoidable discharge into, or contamination of, waterways or established drainage systems.
Control Measures	Project Manager shall ensure: • Any water leaving the site must be compliant with the following discharge limits: • Less than 50mg/L Turbidity, or 50 NTU, or less than 10% of the receiving environment (to IECA guidelines). • pH must be betwn 6.5 and 8.5, and • Zero oils, hydrocarbons, coarse material, cement or other chemicals can be present in discharge (by visible inspection). • Wet discharge must be managed. This includes designated areas for washing out of concrete trucks, concrete pumps, paint, masonry cutting, and plaster. Refer to C-PLA-014 for more information. • Painter to utilise environmental washup facility • Use of water for wet trades' clean-up is minimal. • Paint, solvents, oils etc. are correctly stored. • Stockpiles of bulk materials are located well clear of any waterway or drainage systems, protected by sediment fences, and covered by tarp, seed, mulch or chemical binder wherever possible. • Inspect erosion and sediment control measures daily and after rain events. • Maintain erosion and sediment controls until disturbed surfaces are restored. • Limit plant/equipment movements on surfaces susceptible to erosion and unsealed areas. • Suspend construction during and/or after heavy rain if erosion and sediment cannot be controlled. • Minimise on-site storage time of spoil or other eroding materials in stockpiles and/or skip bins. • Where available, a recycled water source will be used for dust suppression. • If water discharge compliance can't be achieved, contaminated water is to be disposed to sewer under Trade Waste Agreement, or collected by a licenced contractor to licenced facility. • Roadways can be swept, not washed down. Machine operated street sweepers shall be used to ensure spoil and debris does not get tracked onto Council or RMS Roads. The frequency of use shall be increased during periods of unfavourable weather • Work in or around watercourses should be managed to minimise impact in accordance with Watpac plan C-PLA-014. • Sediment basins: Refer to C-PLA-014 for establishing, managing and servicing sediment basins. • During bulk excavation, truck shakers shall be installed at all exit points to manage spoil within the site. These shall be at least 6m in length. The bottom shall be lined with geotech fabric • Provide spill kits and training to relevant workers on the use of spill kits • **Refer to C-PLA-014, Erosion and Sediment Control Guide, for a detailed manual on following ESC Plans and establishing on site.**
Performance Indicators	• No incidents of inadvertent waste of water. • No run-off of sediment • No pollution or contamination of waterways.
Reporting	• Daily monitoring reflected in daily site diary entries when required • Weekly Inspections undertaken and recorded on the Weekly Environment Inspection Form (C-FRM-061)

Applicable Permits	• Authority from local Council and/or NSW EPA required prior to discharge to stormwater. Written authorisation to be obtained. • Trade Waste Permit from Sydney Water required if discharge to sewer infrastructure is required.
Reference	• Managing Urban Stormwater: Soils and Construction. Volume 1, 4th Edition. Blue Book'. • NSW EPA Approved Methods for the Sampling and Analysis of Water Pollutants in NSW • Protection of the Environment Operations Act 1997 (NSW), Section 120 • Standard Methods for the Examination of Water and Wastewater, 20th Edition (APHA). • Water Management Act 2000 (NSW) and Amendment Act 2010 • Water Management (General) Regulation 2011 (NSW) • SSD Conditions: B11, B22, C20, C35, C36 • REF Conditions: 7, 17, 19, 21, 12 • TTW Erosion & Sediment Control Plan (CIV-DNG-00-902) • Training of Responsibilities under National Parks and Wildlife Act 1975 • Department of Environment, Climate Change and Water (DECCW) Waste Classification Guidelines (2008)

Aspect 5.2	
Protection of Existing Trees	
Objective	Protect existing trees from damage and maintain them in their condition as found at time of contractor site possession.
Management Strategy	• Site environmental induction to address the issue of tree protection to prevent damage caused by construction activities. • Establishment of tree protection zones (in accordance with AS4970-2009) around trees identified as significant or otherwise worthy of retention in the Arboricultural Development Assessment Report (*Moore Trees Arborist Report, Hornsby Ku-ring-gai Hospital S2 24/10/2017*, Appendix K of SSD Application 17_8647)
Control Measures	Project Manager shall ensure: • Tree Protection Zones (TPZs) are established around trees identified as significant or significant or otherwise worthy of retention in the Arboricultural Development Assessment Report, and access is restricted to TPZs by the use of protective fencing which is maintained and regularly checked. • If fencing cannot be installed, or must be temporarily removed, other tree protection measures must be used such as: signage, trunk and branch protection, ground protection, root protection during works within the TPZ. All subcontractors engaged by Watpac are to ensure: • Protective measures (i.e. fencing) around TPZs are not disturbed without express written permission from Watpac site management. • Works including but not limited to the following are not undertaken within TPZs: machine excavation including trenching, excavation for silt fencing, removal of turf and topsoil, storage/stacking of items, preparation of chemicals (including cement products), vehicle and plant parking, refuelling, dumping of waste, washing and cleaning of equipment, placement of fill, lighting of fires, changing of soil levels, temporary or permanent installation of utilities and signs, physical damage to the tree.
Performance Indicators	• No damage to protected trees.
Reporting	• Daily monitoring reflected in daily site diary entries when required • Weekly Inspections undertaken and recorded on the Weekly Environment Inspection Form (C-FRM-061)
Reference	• Australian Standards 4970-2009: Protection of trees on development sites • Environment Protection and Biodiversity Conservation Act 1999 • Environment Protection and Biodiversity Conservation Regulations 2000 • Threatened Species Conservation Act 1995 • Native Vegetation Act 2003 • Contract Specifications • SSD Conditions: B42-45 • REF Conditions: 7, 12 • Arboricultural Development Assessment Report (*Moore Trees Arborist Report, Hornsby Ku-ring-gai Hospital S2 24/10/2017*, Appendix K of SSD Application 17_8647)

Aspect 5.3	
Noise and Vibration Management	
Objective	Control, minimise or avoid environmental nuisance caused by 'unreasonable' levels of noise or vibration in ground works or other structural activities.
Management Strategy	• Engage expert consultant (Acoustic Logic) to prepare Noise and Vibration Management Plan • Site environmental induction to address the issue of noise and protective measures to prevent 'unreasonable' noise caused by construction activities. • Site environmental induction to address the issue of vibration and protective measures to prevent disturbance/incidents caused by vibration. • Identify works likely to cause high vibration—communicate this to the Principal and to neighbours. • Where possible and feasible, adjust construction methodology / techniques to implement less obtrusive noise / vibration generating construction or demolition techniques. • If ongoing complaints regarding noise levels are received, review construction methods and where necessary undertake noise monitoring • Abide by the approved site working hours as follows; SSD Approval - M-F 7:00am - 6:00pm - Sat. 8:00am - 1:00pm - Sun & P. Hols. No Work REF Approval for Stormwater and Sewer works - M-F 7:00am - 5:00pm - Sat. 7:00am – 3:30pm - Sun & P. Hols. No Work • Noisy works to be restricted to 9:00am-12:00pm and 2:00-5:00pm M-F and 9:00am-12:00pm Saturday. Respite periods shall be provided at minimum 3 hourly increments.
Control Measures	All subcontractors engaged by Watpac are to ensure: • Works are carried out in accordance with the Noise and Vibration Management Plan prepared by expert consultant Acoustic Logic • Utilise fixed vibration monitoring as identified by Consultant, and routine hand-held noise monitoring. Maintain records.
Performance Indicators	• No repeat complaints concerning noise nuisance from the project site • No structural damage to existing and retained buildings caused by vibration • No fines received from the regulator
Reporting	• Daily monitoring reflected in daily site diary entries when required • Weekly Inspections undertaken and recorded on the Weekly Environment Inspection Form (C-FRM-061)
Reference	• Protection of the Environment Operations Act 1997 (NSW) • Protection of the Environment Operations (Noise Control) Regulation 2008 (NSW) • Contract Specifications • Australian Standard 2436-1981 Guide to Noise Control on Construction, Maintenance and Demolition Sites • Protection of the Environment Operations Act 1997 (NSW) • Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth), s12, 15B, 16, 18, 20, 21, 23, 24B, 24D • Assessing vibration: a technical guideline 2006 • AS 2670.2-1990 Evaluation of human exposure to whole-body vibration Continuous and shock-induced vibration in buildings (1 to 80 Hz) • BS6472 Guide to Evaluate Exposure to Vibration in Building (1Hz to 80Hz) • DIN4150 Part 3 Structural Vibration – Effects of vibration on structures • Interim Construction Noise Guideline (Department of Environment and Climate Change

	NSW) 2009. • SSD Conditions: B14, B24, C4-C10 • REF Conditions: 7, 16, 20, 22, 23

Aspect 5.4	
Dust, fumes & air quality control	
Objective	Avoid, control or minimise contaminant emissions to the atmosphere caused by rising dust, vehicle/plant emissions, noxious fumes/odours, or paint spraying activities.
Management Strategy	• Site environmental induction to address the issue of air quality and protective measures to prevent avoidable discharge of contaminant to the atmosphere • Implement measures for control and suppression of dust
Control Measures	**All subcontractors engaged by Watpac are to ensure:** • Dust is minimised throughout work areas. During the demolition phase dust will be minimised by heavy duty shade cloth, water suppression and demolition strategy. • Materials deliveries such as fill, soil, sand, gravel, landscaping supplies etc, are transported to the site under covered loads. • Stockpiles are dampened down or covered as necessary. • Trucks are not overloaded and load covers are used when excavated material is transported from site. • Plant and equipment is operated and maintained in accordance with acceptable industry standards and will be turned off when not in use. • Putrescible waste is regularly removed from site. • Site conditions are regularly inspected and hand held sprinklers and/or water cart are used as required to minimise dust. • On-site speed restrictions and the need to control dust are formally discussed during site inductions. • Roads bordering the site kept free of dust and mud (regular mechanical and manual sweeping as required). • External paint spraying activities are undertaken in accordance with local authority requirements and not carried out during adverse weather conditions. • Refer Appendix 6.2 • Access roads and materials handling areas to be swept regularly.
Performance Indicators	• Visual observance of dusts levels; vehicle and plant emissions • No dust complaints
Reporting	• Daily monitoring reflected in daily site diary entries when required • Weekly Inspections undertaken and recorded on the Weekly Environment Inspection Form
Reference	• Protection of the Environment Operations Act 1997 (NSW) • Protection of the Environment Operations (Clean Air) Regulation 2010 (NSW) • National Greenhouse and Energy Reporting Act 2007 (NGER Act) • National Environmental Protection Measure (NEPM) for Ambient Air Quality • Contaminated Land Management Act 1997 (NSW) • SSD Conditions: B22, C15 • REF Conditions: 7, 11, 12, 14, 15, 20, 21 • CG21 Preliminaries: 5.17

Aspect 5.5	
Retention of the Timber of Angophora Trees for Use by the Public Artist	
Objective	Avoid, control, or minimise damage to nominated Angophora trees during removal and temporary on-site storage prior to handover to artist engaged by client.
Management Strategy	• Trees removed by others prior to Watpac engagement. Stored off-site. • If transferred to site, timber shall be protected until used by the artist engaged by the client or another authorised client's representative.
Control Measures	Project Manager shall ensure: • Adequate storage is provided to reasonably protect the timber from damage by both human and natural causes.
Performance Indicators	• Acceptance by the artist engaged by the client or another authorised client's representative.
Reporting	• Weekly Inspections undertaken and recorded on the Weekly Environment Inspection Form, in accordance with Aspect 5.2 above.
Reference	• Contract Specifications and Preliminaries

Aspect 5.6	
.Vehicular and Pedestrian Traffic Management	
Objective	Avoid interference of, or obstruction to, roadways, footpaths or access points by the use of appropriate traffic control measures.
Management Strategy	• Site environmental induction to address the issues of access and delivery arrangements for materials including timing and unloading of materials. • Coordinate construction programme and delivery times to avoid hold-ups and traffic congestion. • Provide appropriate fencing/hoardings and protection for the public.
Access	• Access to the site will be determined to minimise impact.
Control Measures	Project Manager shall ensure: • Prior to site establishment ensure a Traffic Management Plan (TMP) has been prepared and approved by appropriate authority (Council or Roads and Maritime Services (RMS)). • Controls documented in the approved Traffic Management Plan are implemented • Refer to approved TMP for specific management actions related to road closures (diversions, signage, barricading etc.). • Control of traffic on public roads to be conducted by RMS-certified Traffic Controller (as per specifications in TMP). • Ensure a Road Occupancy Licence is obtained from the RMS. Confirm times and dates approved under the Road Occupancy Licence and comply with any conditions. • Ensure a Road Opening Permit is obtained from the local Council, where required. • Vehicle entry/exits with shakedown grids will be established to remove the potential for vehicles departing the site to deposit debris on the roads. Watpac will deploy street sweepers as required. Retain records / note in site diary. • Site fencing/hoarding is properly secured and lockable; access points are clearly designated, and appropriate signage erected. • Materials set-down areas are established. • Construction program and delivery times are coordinated to avoid delays and possible traffic congestion. • Access points for each stage of construction are unobstructed to facilitate prompt service to set–down areas within the site. • Materials handling is managed to cause least disruption to traffic and local amenity. • Traffic Controllers are RMS accredited • There shall be no trucks permitted to queue on local roads. All trucks will be required to queue on state roads until they can be wholly accommodated within the site or within an approved work zone. Two-way radios and/or mobile phones shall be used to manage this condition. • Where required, all pedestrians shall be escorted across the site by RMS accredited Traffic Controllers.
Performance Indicators	• Reports or complaints of interruption or interference with pedestrian or vehicular traffic movement around the site.
Reporting	• Daily monitoring reflected in daily site diary entries • Weekly Inspections undertaken and recorded on the Weekly Environment Inspection Form
Applicable Permits	• Road Occupancy Licence (RMS) • Road Opening Permit (Council) • Traffic Control Permit (Traffic Controller)
Reference	• Public Health Act 2010 (NSW) • Road Transport Act 2013 (NSW) • Road Transport (General) Regulation 2013 (NSW) • Roads Act 1993 (NSW)

	• SSD Conditions: B21, B22, B28, C37 • REF Conditions: 7, 15, 20

Aspect 5.7	
Commuting Mass Transport & Local Car Parking	
Objective	Encourage commuting mass transport on site and minimise impact to local neighbourhood associated with car parking congestion.
Management Strategy	Inform and promote alternative transports options on site.
Control Measures	Project Manager shall ensure that: - • Inductions and Safety Meetings address and promote carpooling, company buses, or public transport options. • Nearby public transport hubs should be identified during inductions. • Provide shuttle bus service during peak morning and afternoon times to/from site to local public transport hub/exchange.
Performance Indicators	• Site personnel are using alternative means of transport.
Reporting	• Performance to be noted in monthly PCG report.
Reference	• None • REF Conditions: 7, 11, 12, 14, 20

Aspect 5.8	
Accidental Discovery of Artefacts	
Objective	Avoid damage or disturbance to archaeological/cultural artefacts including skeletal remains, shell middens or other cultural artefacts.
Management Strategy	• Review historical information of the site (where available) to establish, as far as practical, the likelihood of existence of archaeological/cultural artefacts. • Site environmental induction to address possibility of discovery of archaeological/cultural artefacts • Excavation personnel to remain vigilant over ground penetration points.
Control Measures	Project Manager shall ensure: • Where archaeological/cultural artefacts are discovered, personnel cease work in the subject area and call a heritage specialist for advice. • The Client and the NSW Heritage Office is promptly advised of significant discoveries. This would be most likely done through the engagement of a heritage consultant. • Directions from the NSW Heritage Office are followed • If suspected human remains are discovered that work is ceased and the Site Manager, Police and State Coroner's Office are contacted, and if applicable, Aboriginal Affairs NSW • In the event that archaeological 'relics' are unexpectedly discovered during excavation; work must immediately cease in the affected area and the Client and historical specialist contacted to inspect and record the remains. The NSW Heritage Council must be notified in writing of the discovery of any relics. Depending on the nature of the discovery, additional assessment and approval may be required prior to the recommencement of excavation in the affected area. • If any Aboriginal objects are discovered on the site, excavation or disturbance is to cease and the Client and NSW National Parks and Wildlife Service is to be informed.
Performance Indicators	• No damage, or minimal disturbance, to any archaeological/cultural artefacts discovered.
Reporting	• Superintendent is immediately notified of any discovery • Daily monitoring reflected in daily site diary entries • Weekly Inspections undertaken and recorded on the Weekly Environment Inspection Form
Reference	• Environment Protection and Biodiversity Conservation Act 1999 • Heritage Act 1977 • Aboriginal and Torres Strait Islander Heritage Protection Act 1984 • Aboriginal and Torres Strait Islander Heritage Protection Regulations 1984 • Australian Heritage Council Act 2003 • Environmental Planning and Assessment Act 1979 • SSD Conditions: B22, C18 • REF Conditions: 7,11, 12, 14, 20, 24

Aspect 5.9	
Demolition Works	
Objective	Avoid, control, or minimise disruptive or damaging environmental effects of demolition works.
Management Strategy	• Site environmental induction to address issues of air quality, noise, vibration and vermin/pests, and relevant protective measures. • Implement site-wide measures for control and minimisation of dust, odours, fumes, noise, vibration, and vermin/pests.
Control Measures	All subcontractors engaged by Watpac are to ensure: • All demolition work is undertaken in accordance with AS2601-2001: Demolition of Structures. • Dust is minimised throughout work areas. During the demolition phase dust will be minimised by heavy duty shade cloth, water suppression and demolition strategy. • Plant and equipment are operated and maintained in accordance with acceptable industry standards and will be turned off when not in use. • Trucks are not overloaded, and load covers are used when demolished material is transported from site. • All construction activities will be undertaken mindful of the provisions of AS 2436:1981 - Guide to Noise Control on Construction & Demolition Sites. • Each item of plant is fitted with effective noise suppression devices (generally exhaust mufflers) as applicable. • All plant, equipment and machinery are operated and maintained in accordance with acceptable industry standards and turned off when not in use. • Vibration is controlled in accordance with AS 2670.2. • Six weeks prior to the commencement of any demolition, individual blocks, properties and the surrounding area should be inspected in order to identify the presence and extent of any infestations. Where infestations are identified, appropriate treatments must be implemented by licenced Pest Control Contractors to eliminate infestation before demolition.
Performance Indicators	• Visual observance of timber condition before and after felling. • Acceptance by the artist engaged by the client or another authorised client's representative.
Reporting	• Weekly Inspections undertaken and recorded on the Weekly Environment Inspection Form, in accordance with Aspect 5.2 above.
Reference	• Australian Standard 2601-2001: Demolition of Structures • Australian Standard 2436-1981: Guide to Noise Control on Construction, Maintenance and Demolition Sites • SSD Conditions: A6, B26, C22, AN8 • REF Conditions: 6, 7, 11, 12, 14, 15, 20, 25, 26

Aspect 5.10	
Waste Management	
Objective	To control the disposal of waste generated from construction activities.
Management Strategy	• Site induction to address the issue of waste management and protective measures to prevent environmental incidents caused by inappropriate methods of waste disposal. • Designated bin storage locations (for both wheelie bins & skips), and an appropriate regime for clearance.
Control Measures	Project Manager shall ensure: • A Waste Management Plan (C-PLA-012) is developed and implemented to ensure at least 80% of waste generated during demolition and construction by weight is reused or recycled. • The SDS of Chemicals and Hazardous Substances should be consulted before disposal instructions, which will usually involve dropping of containers to Chemical Waste/Hazardous Collection stations. Containers must not be washed out and disposed of as normal. • Waste is minimised through the use of detailed measurement and conservative ordering to prevent oversupply of materials. • All waste will be sorted (including that from clearing, demolition, off cuts, etc.) into appropriate categories for recycling or disposal. • Spoil is to be loaded directly to appropriate vehicle for transport to approved disposal or recycling facility (if pre-classified) or stockpiled in a designated area on site to enable samples to be collected for chemical testing. Spoil that can be classified as VENM by observation does not require chemical testing. VENM classifications are to be made by an environmental specialist and documented. • All waste (liquid and non-liquid) must be classified prior to disposal/ reuse/ recycling. Contact the Watpac HSE Manager to confirm waste classification requirements or refer to the Watpac Waste Classification Procedure. • Where required, ensure waste transportation company is appropriately licensed (refer Watpac Waste Classification Procedure). • Ensure hazardous waste transporters and receiving facilities are licenced to transport and receive hazardous waste. Obtain copies of licences. • Watpac will ensure that all recyclables are placed into appropriate recycling processes and uses (e.g. scrap metal, mulch, road base) and that wastes are safely disposed of. • Work with the waste contractor engaged for the project to ensure that all practicable initiatives to minimise, segregate, re-use and recycle construction waste are identified and implemented. • “Ship to point of use” techniques will be deployed where practical to minimise protective wrappings or enclosures. • Waste skips/bins are covered and located to be easily accessible and protected from weather. • A recycling bin will be provided separately to the bin for Construction waste material and general waste (food scraps, cans, etc). • Paper and toner waste will be collected and recycled in specific office bins. • The construction site is kept free from build-up of waste materials by directing regular clean-ups by subcontractors. • No burning of waste takes place on-site. • Concrete washouts will be provided on site, allowing evaporation of slurry water. Refer to C-PLA-014 for more info on correct establishment. • Paint washouts will be provided. • Neither Watpac nor any subcontractor will discharge or dump any deleterious materials into the drainage system, onto any roads or at any locations that have not been reviewed and approved by the Principal. • Limit the storage of chemicals (e.g. fuels, lubricants, hydraulic fluids, etc) on site. Where chemicals are stored on site, they must be stored appropriately (location and storage) in accordance with the WHS Act and Regulation 2017, and AS 1940 – 2004: The Storage and Handling of Flammable and Combustible Liquids and the chemical’s

	Safety Data Sheet (SDS). • The SDS for Hazardous Chemicals should be consulted for disposal instructions, which will usually involve dropping of containers to Chemical Waste/Hazardous Collection stations (or collection by supplier). Containers must not be washed out and disposed of as general waste. • Any liquid waste, including backwash of wet trades, should be collected by a licensed liquid waste collection contractor (look for 'Waste Reduction and Disposal Services')
Performance Indicators	• No incidents arising from the disposal of end waste.
Reporting	• Waste Reports including details of the percentage of waste diverted from landfill, to be maintained, where applicable • Daily monitoring of waste facilities reflected in daily site diary entries • Weekly Inspections undertaken and recorded on the Weekly Environment Inspection (C-FRM-061)
Reference	• National Environment Protection (Movement of Controlled Waste between States and Territories) Measure. • Protection of the Environment Operations Act 1997 • Protection of the Environment Operations (Waste) Regulation 2014 • Waste Avoidance and Resource Recovery Act 2001 • EPA Waste Classification Guidelines 2014 • Construction and Demolition Waste Guide - Recycling and Reuse across the Supply Chain • National Waste Policy: less waste, more resources 2009 • National Packaging Covenant • Work Health and Safety Act 2017 • Work Health and Safety Regulation 2017 • AS 1940 – 2004: The Storage and Handling of Flammable and Combustible Liquids and the chemical's Safety Data Sheet (SDS)SSD Conditions: B17, B22, B26, C14-16, C32-34. • REF Conditions: 7,11, 12, 14, 20 • CG21 Preliminaries: 5.16, 6.3

Aspect 5.11	
Hazardous Substances and Dangerous Goods	
Objective	To avoid contamination of the environment or risk to human health To appropriately manage the discovery of Hazardous Materials on site
Management Strategy	Site environmental induction to make personnel aware of the project handling and storage procedures to manage Hazardous Substances and Dangerous Goods • All hazardous materials introduced onto site must be accompanied by a MSDS and the material entered onto the project register. • All hazardous materials must be stored in compliance with the manufacturer's recommendations and in accordance with Australian Standards • No bulk fuels are to be retained on site. Refuelling of plant is to be undertaken on as required basis and only within a prepared designated area (or as otherwise approved). • Any discovery of a hazardous material is immediately reported to the client.
Control Measures	**All subcontractors engaged by Watpac are to ensure:** • The quantities of Hazardous Substances and Dangerous Goods on site are minimised • Fuelling and maintenance of vehicles and equipment on site is avoided. Where refuelling is unavoidable, the location and procedures will be strictly controlled. • Subcontractors advise the Site Manager of the type of material, location, volume and any special handling / storing precautions in relation to any dangerous gases or flammable materials that are proposed to be brought on site. • Subcontractors do not use any materials which are classified as Hazardous in or adjacent to occupied areas without the prior approval of the Site Manager. • Subcontractors provide a current MSDS for all Hazardous Substances and Dangerous Goods proposed to be brought onto site. • A Site MSDS Register is developed and maintained. • Storage and handling of hazardous materials is monitored daily. • A Spill Kit and Site Emergency Plan are readily accessible. • Clean up materials are disposed of in compliance with regulatory requirements. • All oxygen and acetylene cylinders are properly stored in an upright position and adequately restrained away from heat sources.
Performance Indicators	• No spillages, incidents or complaints
Reporting	• Licenced removal contractor to provide site safety clearance certificate and documented evidence of proper disposal. • Health Infrastructure must be notified in accordance with the HI Stakeholder Management Plan Process. Refer to Appendix 6.1
Reference	• Work Health and Safety Regulation 2017 (NSW), s 357 • National Code of Practice for the Storage and Handing of Workplace Dangerous Goods [NOHSC: 2017 (2001)]. • Environmentally Hazardous Chemicals Act 1985 (NSW) • SSD Conditions: B5-8, B17, B26, C12-17, C35, AN8, AN9 • REF Conditions: 7, 10, 14, 15, 20, 25, 26 • CG21 Preliminaries: 5.6, 5.7

Aspect 5.12	
Spill Management and Response	
Objective	Control, minimise or avoid spillage of hazardous or prohibited substances, and react quickly to contain spills in the event they occur.
Management Strategy	• Induct all personnel to handle chemicals with care. • Provide spill kits to all sites.
Control Measures	In event of spill: • Assess: Evaluate the spill to determine if it can be dealt with by an individual, the spill response team or if outside assistance is required i.e. hazchem, police, fire brigade, specialist spill response company. • Secure: Make the site safe for all personnel and the general public. • Contain: Spill response equipment such as spill booms, drain covers or bunding can be used to contain the spill. For solids, tarps may be used to cover and prevent dampness to granules or possible dispersion by wind. • PPE: Identify the liquid and check the MSDS to ascertain the required PPE. • Absorb: Once the liquid is contained, it will need to be converted to a solid by absorption. Use the appropriate absorbing pads or absorbent (according to the type of material spilled) to soak up the spill by placing them over the liquid. Remove the saturated pads and replace as necessary. On porous surfaces, sprinkle loose absorbent over the spill and broom through until surface appears dry. • Dispose: Place the spent absorbent in the disposal bags. Correctly dispose of contaminants off site using a licensed contaminated waste disposal contractor. • Report: Document the incident and include what happened, when it happened, where it happened; and what was done to eliminate or minimise the impact. • Restock: Order and replace used up PPE and absorption materials. Project Manager shall ensure: • Spill containment and treatment equipment and materials will be available near storage areas of hazardous materials. Spill kits and other suitable incident response equipment will also be located at other key points around the site and maintained ready for use. • Subcontractors will be required to maintain their own spill kits where required. • Spills of hazardous materials will be collected by licensed contractor and collected for treatment at a licensed waste disposal facility. • All hazardous waste will be tracked as per the Protection of the Environment Operations (Waste) Regulation 2014 and the NSW EPA Waste Classification Guidelines 2014 • Contaminated ground is remediated in accordance with the Contaminated Land Management Act 1997 and Regulation 2013. • SWMS must be submitted and approved for the handling and use of hazardous chemicals. • Any waste oils, lubricants and contaminated cloths, resulting from maintenance of plant on-site, are placed in suitable containers prior to removal and disposal at an approved waste receiving facility. • Wastes generated on site are to be managed in accordance with the Watpac Waste Management Plan (C-PLA_012). • Project Environment Consultant to prepare a Remediation Plan for the management of all contaminated soil. The Remediation Plan shall be submitted to Principal for approval.
Performance Indicators	• No spillages. • Spill kits readily accessible.
Reporting	• Daily monitoring reflected in daily site diary entries when required • Weekly Inspections undertaken and recorded on the Weekly Environment Inspection Form (C-FRM-061) • Health Infrastructure must be notified in accordance with the HI Stakeholder Management Plan Process. Refer to Appendix 6.1
Reference	• Work Health and Safety Regulation 2017 (NSW)

- Protection of the Environment Operations Act 1997 (NSW)
- Protection of the Environment Operations (Waste) Regulation 2014
- EPA Waste Classification Guidelines 2014
- National Code of Practice for the Storage and Handing of Workplace Dangerous Goods [NOHSC: 2017 (2001)].
- SSD Conditions: B22, C15, C35
- REF Conditions: 7, 11, 12, 14, 17, 19, 20, 21

Aspect 5.13	
Management of Radiation and Radioactive Material	
Objective	To avoid contamination of the environment or risk to human health during demolition, construction, commissioning and post-handover operation.
Management Strategy	Site induction to make personnel aware of the radiation-specific design and construction requirements of the Medical Imaging building and any other location where radiation-related activities will be required during operation of the facility. Certification of compliance with the *Radiation Control Act 1990* and *Radiation Control Regulation 2013* before commencement of construction works and again before commencement of hospital operation by a suitably qualified radiation consultant.
Control Measures	**Project Manager shall ensure:** • Site induction makes personnel aware of the radiation-specific design and construction requirements of the Medical Imaging building and any other location where radiation-related activities will be required during operation of the facility. • Prior to the release of the certificate under Section 109R of the EP&A Act 1979, certification of design compliance with the *Radiation Control Act 1990* and *Radiation Control Regulation 2013* is provided to the certifying authority. • Construction works are undertaken in accordance with the Radiation Shielding Assessment Report (dated 22/04/2016 by Radiation Services Group, received as part of the tender documentation). • Prior to commencement of hospital operation, certification from a suitably qualitied radiation consultant is provided to verify that the construction of the work satisfies all relevant requirements. **All subcontractors engaged by Watpac are to ensure:** • They are aware of the radiation-specific design and construction requirements of the Medical Imaging building and any other location where radiation-related activities will be required during operation of the facility as detailed in the site induction. • Their works are undertaken in accordance with the Radiation Shielding Assessment Report (dated 22/04/2016 by Radiation Services Group, received as part of the tender documentation), as well as the *Radiation Control Act 1990* and *Radiation Control Regulation 2013*.
Performance Indicators	• Certifications of compliance received. • No incidents or complaints.
Reporting	• Works to be certified by a suitably qualified radiation consultant; certifications to be provided to the Principal.
Reference	• Work Health and Safety Regulation 2017 (NSW) • Radiation Control Act 1990 • Radiation Control Regulation 2013 • Radiation Shielding Assessment Report (dated 22/04/2016 by Radiation Services Group, received as part of the tender documentation) • REF Conditions: 7, 11, 12, 13, 14, 28

Aspect 5.14	
Landscape Maintenance	
Objective	Avoid, control, or minimise damage to landscaped areas within the contractor's site boundary and associated loss of amenity for hospital users/stakeholders.
Management Strategy	• Site environmental induction to address preservation of landscaped areas that are within the contractor's site boundary but are not targeted for construction/demolition works. • Allow for landscaping subcontractor to make good any damaged landscaped areas that are not included with the scope of works for new landscaping.
Control Measures	All subcontractors engaged by Watpac are to ensure: • Vehicles are not driven or parked on landscaped areas. • Landscaped areas are not used as materials storage areas.
Performance Indicators	• Visual observance of landscaped areas.
Reporting	• Daily monitoring reflected in daily site diary entries when required. • Weekly Inspections undertaken and recorded on the Weekly Environment Inspection Form, in accordance with Aspect 5.2 above.
Reference	• Protection of the Environment Operations Act 1997 (NSW) • Environmental Planning and Assessment Act 1979 (NSW) • Native Vegetation Act 2003 (NSW) • SSD Conditions: D8, E7 • REF Conditions: 27

Aspect 5.15	
Construction Site Management	
Objective	To avoid nuisance, disruption or danger to local residents and hospital staff, patients and visitors.
Management Strategy	Site induction to make personnel aware of the rules and requirements of the site, and relevant workplace safety legislation and principles. Vigilant monitoring of site conditions and subcontractor behaviour by Watpac staff.
Control Measures	**Project Manager shall ensure:** • Site induction makes personnel aware of the rules and requirements of the site, and relevant workplace safety legislation and principles. • Construction fencing is installed and maintained along the site boundary, and around any zones of work that are required outside of the established boundary. Vehicle and workforce access points and roads to the construction compounds are clearly designated and controlled for authorised access only. • The worksite is left tidy and free of rubbish each day prior to leaving the site and at the completion of works. • Suitable arrangements are made for temporary parking for hospital staff, visitors, patients and construction workers for the duration of the construction program. • All materials on-site or being delivered to the site are 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. • The public roadway and internal roadway are not obstructed by any materials, vehicles, refuse, skips or the like, under any circumstances, except without prior approval of the road authority under the *Roads Act 1993*. • 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. • Any contractor(s) meets all workplace safety legislation and requirements. • Any loose material stockpiles are stored within the temporary construction compound(s) and are protected from possible erosion.
Performance Indicators	• No incidents or complaints.
Reporting	• Daily monitoring reflected in daily site diary entries when required. • Weekly Inspections undertaken and recorded on the Weekly Environment Inspection Form.
Reference	• Work Health and Safety Regulation 2017 (NSW) • Protection of the Environment Operations Act 1997 (NSW) • Environmental Planning and Assessment Act 1979 (NSW) • SSD Conditions: A23, B22, B23-31, C1-C37 • REF Conditions: 7, 11, 12, 14, 20

Aspect 5.16	
Site Accommodation	
Objective	• Control, minimise or avoid contamination or spoiling of areas in the establishment, operation and disestablishment of temporary site accommodation facilities.
Management Strategy	• Establish temporary site offices, amenities and ablution facilities, including provision for sanitary waste, in accordance with the requirements of the relevant local authority, all relevant Acts and Regulations and industry best practice. • Remove all temporary buildings and facilities from site when no longer needed and make good all disturbed areas, including landscaping where required.
Control Measures	Project Manager shall ensure: • Site offices, amenities and ablution facilities are located and operated in such a manner as not to cause environmental concern • Site offices, hoarding, crossovers and fencing complies with the approved Site Plan or approved revision • The site is made good upon disestablishment of the site accommodation facilities. • Adequate firefighting equipment is provided and maintained for the works • Required permits and approvals are received prior to commencing works • Install automatic shut-off taps to water points and utilise low voltage luminaries to site facilities • No trees or vegetation is damaged or removed for site accommodation facilities. Adequate tree protection will be provided. • The Contractor must ensure that construction routes are cleaned regularly at weekly intervals or as required. • The hours of work for the project are: - Monday to Friday – 7:00am – 6:00pm - Saturday 8:00am – 1:00pm - Excluding Public Holidays • No work is undertaken outside the specified Hours of Work without Contract Administrator approval
Performance Indicators	• Appropriate location and operation of all facilities. • Site reinstated upon completion of project.
Reporting	• Daily monitoring reflected in daily site diary entries when required • Weekly Inspections undertaken and recorded on the Weekly Environment Inspection Form (C-FRM-061)
Reference	• Approved Site Plan • Australian Standard 2436-1981 Guide to Noise Control on Construction, Maintenance and Demolition Sites • Hornsby Shire Council Local Environment Plan • Environmental Planning and Assessment Act 1979 (NSW) • Native Vegetation Act 2003 (NSW) • Protection of the Environment Operations (Noise Control) Regulation 2008 (NSW)

Aspect 5.17	
Site Amenities	
Objective	Maintain hygiene and reduce nuisance created by site accommodation.
Management Strategy	• Keep site clean and tidy • Monitor area
Control Measures	Project Manager shall ensure that: - • Septic waste issues from overflowing portable toilets and unaccounted sewerage pipe burst is avoided. • Adequate lavatory systems are provided within reasonable proximity of working areas • Septic waste removal service is scheduled • Toilet facilities are well maintained • Clean up procedures are included in induction • There is bunting around temporary septic systems • There is a suitable and adequate amount of signage • Site induction demonstrate proper site behaviour • Waste paper waste from site office is collected in paper recycling bins and regularly collected. • Cardboard waste bin is provided on site. • All putrescible waste is stored in secure containers until removal and disposal off site. • A daily 'sweep' of the entire area is done to remove any stray/windblown litter. • Designate specific areas on site for the temporary management of waste; i.e. general domestic waste, works waste and contaminated waste. • Waste streams will be segregated to enhance recycling opportunities where practicable i.e. general domestic waste, works waste and contaminated waste. • All domestic and hazardous waste to be disposed of in dedicated industrial bins. • Waste bin lids to be closed at all times to avoid rainwater ingress, windblown littering, access by birds and scavenging by vermin, birds or native wildlife. • Waste oils to be recycled where practicable. • No waste will be burnt on site.
Performance Indicators	• No odour or vermin present
Reporting	• Monthly waste reports from waste contractor
Reference	• None

Aspect 5.18	
Identification and Protection of Existing Utility Services	
Objective	Avoid damage to, or unplanned interruption of, utility, overhead and underground services.
Management Strategy	• Site environmental induction to address location of and protective measures for utility services. • Identify, mark and protect utility services (electricity, water, gas etc.). • Ensure all necessary interruptions to utility services are planned and communicated to all relevant persons and Authorities.
Control Measures	Project Manager shall ensure: • Existing services plans will be studied, and services will be located and marked prior to commencing any works. • Comprehensive "consolidated services plans" will be procured and prepared for all works areas including type, location, depth etc. of all known or identifiable services (to be prepared by surveyor). • Services Detection will be undertaken wherever services are likely to be encountered. • Non-destructive excavation techniques to be implemented wherever possible, especially around existing services. • Contact telephone numbers for emergency services for utilities are established and readily available in the Site Emergency Plan • Storage areas are located remote from utility services. • Access ways, haul roads and turning points are arranged to avoid possible clashes with utility services. • Overhead protection/warning is provided for high loads, vehicles, cranes etc. • Spotters are provided when work is undertaken beneath overhead power lines. • Where it is found necessary to temporarily interrupt, remove, divert or make connection to an existing service or other existing work beyond the control of the Watpac, written approval from the Principal will be sought prior to undertaking Works.
Performance Indicators	• No unplanned interruptions to any utility service.
Reporting	• Health Infrastructure must be notified in accordance with the HI Stakeholder Management Plan Process. Refer to Appendix 6.1 • Notification to relevant authorities • Daily monitoring reflected in daily site diary entries • Weekly Inspections undertaken and recorded on the Weekly Environment Inspection Form
Applicable Permits	• Dial Before You Dig • Permit to Dig (Watpac NSMS Form)
Reference	• Work Health and Safety Act 2017 • Energy and Utilities Administration Act 1987 (NSW) • SSD Conditions: B32, B33, C33 • REF Conditions: 7, 11, 12, 14, 18, 20 • CG21 Preliminaries: 5.4, 5.15

Aspect 5.19	
Vermin and Pest Control	
Objective	Minimise the possibility of infestation from rats, mice, insects, bats, possums etc.
Management Strategy	• Keep site clean and tidy • Monitor area for infestation • Consult Pest Management Contractor if required
Control Measures	Project Manager shall ensure that: - • Keep site clean and tidy with daily clean-ups. • Ensure all putrescible waste is disposed of in an appropriately sealed receptacle. • Six weeks prior to the commencement of any demolition, individual blocks, properties and the surrounding area should be inspected in order to identify the presence and extent of any infestations. Where infestations are identified, appropriate treatments must be implemented by licenced Pest Control Contractors to eliminate infestation before demolition. • Minimise ponding and exposed water sources to prevent mosquitos and midgeys. • Ideally, licenced Pest Control Contractors should be consulted for management strategies after the substructure is completed. Frequently the dark cold environment can be a pest habitat which presents an unacceptable working environment. • To prevent rat egress from live drains and sewers to new systems, the live systems should be temporarily sealed off with expanding drainage stoppers until connection to new drainage is completed. • Where vermin present itself as a problem on site, consult a Pest Control company for advice. Do not attempt to address the problem internally.
Performance Indicators	• No infestations.
Reporting	• None
Reference	• Work Health and Safety Regulation 2017 • CG21 Preliminaries: 6.4

Aspect 5.20	
Environmental Emergency Plans	
Objective	The Project Manager shall ensure that: - • A Spill kit is available on site at all times • All reasonable measures are taken to prevent environmental emergencies • The Project Emergency Plan is readily accessible to all site personnel • Emergency Plans are part of site Inductions
Reporting	• Health Infrastructure must be notified in accordance with the HI Stakeholder Management Plan Process. Refer to Appendix 6.1 • All emergency situations to be reported, investigated and recorded
In the event of an environmental incident	• Stop work and secure the area if safe to do so • Initiate the Project Crisis Checklist • Prevent the incident from escalating • Notify applicable management, emergency services and authorities • Clean up the affected area. Engage specialist help if required • Investigate the circumstances • Record the incident • Implement actions to prevent a recurrence • Follow-up to ensure the actions were correctly implemented and effective
In the event of an incident involving a dangerous goods spill, leak or explosion;	In event of spill: • Assess: Evaluate the spill to determine if it can be dealt with by an individual, the spill response team or if outside assistance is required. • Secure: Make the site safe for all personnel and the general public. • Contain: Spill response equipment such as spill booms, drain covers or bunding can be used to contain the spill. For solids, tarps may be used to cover and prevent dampness to granules or possible dispersion by wind. • PPE: Identify the liquid and check the MSDS to ascertain the required PPE. • Absorb: Once the liquid is contained, it will need to be converted to a solid by absorption. Use the appropriate absorbing pads or absorbent to soak up the spill by placing them over the liquid. Remove the saturated pads and replace as necessary. On porous surfaces, sprinkle loose absorbent over the spill and broom through until surface appears dry. • Dispose: Place the spent absorbent in the disposal bags. Correctly dispose of contaminants off site using a licensed contaminated waste disposal contractor. • Report: Document the incident and include what happened, when it happened, where it happened; and what was done to eliminate or minimise the impact. • Restock: Order and replace used up PPE and absorption materials.
Extreme Wet Weather	• Alert site personnel and stop all external work on if applicable • Check site for plant, equipment and materials and secure anything not in immediate use • Check water outlets, water catchments, stormwater and sedimentation controls
Unplanned Interruptions to Existing Services	• Shut down and isolate plant if safe to do so • Immediately notify relevant emergency services and service providers • Secure the area and erect hazard markers as required • Protect stormwater outlets, implement controls if required. • Do not recommence work until approved by the relevant authority
High Wind Warning	• Alert outdoor workers of potential dangers and stop all external work • Secure any loose object that could become missiles
Discharge to Trade Waste	• Immediately notify relevant authorities of any event relating to a discharge to sewer that may: cause a breach of the trade waste agreement; endanger the life or compromise the safety of water authority workers; prevent or disrupt the operation of any sewerage; treatment plant; detrimentally affect any aspect of the environment

Aspect 5.21	
Earthworks and Groundwater Contamination	
Objective	To detect and manage contaminated land, prevent leaching of contaminated materials or groundwater infiltration during earthworks, and detect services prior to commencement Mitigate potential environmental and operational consequences of encountering groundwater during excavation and piling. Avoid or minimise contamination of land caused by the use of imported materials, or by spillage of fuels, paint, form oil, chemicals etc.
Management Strategy	• Expert consultants are engaged to investigate project site geotechnical conditions and provide a detailed assessment of the quality of the earth, and existence of groundwater table, before earthworks begin. • Services will be identified before earthworks commences • Controls are in place to capture and treat contaminated soil and groundwater. • An 'unexpected finds protocol' would be prepared and included to assist with the identification, assessment, management, health and safety implications, remediation and/or disposal (at an appropriately licenced facility) of any potentially contaminated soil and/or water. • If dewatering is required during construction, the water would be tested (and treated if necessary) prior to re-use, discharge or disposal.
Control Measures	Project Manager shall ensure: • Obtain soil testing for waste classification prior to excavation and removal off site. Tests would confirm the presence and type of any contaminants and classify the soil for the purpose of spoil management and removal. • Hoarding is in place prior to any excavations being undertaken on-site. • Dial Before You Dig permits will be obtained before earthworks commence. • All materials on-site or being delivered to the site shall be contained within the site. The requirements of the Protection of the Environment Operations Act 1997 shall 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. • Cease work in the immediate vicinity of any areas of suspected contamination that are identified prior to or during work. Ensure that these areas are not disturbed and are cordoned off as a safety risk. • In the event that indicators of contamination are encountered during construction (e.g. odours or visually contaminated materials), work in the area will cease until an occupational hygienist can advise on the need for remediation or other action. • If remediation is required, then a Remedial Action Plan is to be prepared and remediation works are to be carried out in accordance with State Environmental Planning Policy No. 55 – Remediation of Land. • Plant and equipment to be inspected prior to start up. Any defects that may result in an environmental incident (spills, leaks, etc.) are to be repaired prior to operation. - Check machinery daily for oil, fuel or other liquid leaks. - No water used or generated by machinery or equipment is to be discharged to stormwater, drainage lines, water course/bodies, or the sewage system unless a permit/license is acquired. • Where reasonably practicable, contingent timing of earthworks when water levels are low, that is, avoiding periods of heavy rain to avoid extensive soil saturation. • Remediation plans will be developed if required. This will either involve off-site disposal or on-site remediation, which may be stockpiling and treating. - If disposal, a permit for removal and disposal of contaminated soil will be required • Imported materials will be certified as being as per the specifications and free from deleterious organic matter. - All imported materials are procured from known sources and must be validated to ensure it is suitable for the proposed land use from a contamination perspective in accordance with National Environment

	Protection Measure (NEPM: Assessment of Site Contamination) measure which defines criteria for different land uses. - Validation as suitable clean fill must either be in the form of suitable documentation from the supplier or by sampling and analysis in accordance with relevant legislative requirements • Manage stockpiles by implementing sediment and erosion control devices in accordance with Managing Urban Stormwater, Soils & Construction, Volume 1 (Landcom, 2004). - Stockpiling will be in approved locations, and tested for contamination/suitability before being re-used on site - Stockpiles will be surrounded by sediment fences/screens and covered to prevent weather effects. - Any proposed re-use on site to be considered in accordance with NEPM (Assessment of Site Contamination) • Stabilisation of any excavated areas occurs as soon as reasonably practicable. - Sediment traps and cut-off drains are provided to control surface drainage. • Any contamination caused by construction related activities must be notified to the PM/CA in accordance with the environmental incident report outlined in this PEMP and fully remediated to satisfaction. All contaminated material to be managed in strict compliance with the approved remediation plan. • All waste generated from earthworks/civil works will be classified and immobilised as per EPA Waste Classification Guidelines. • If Asbestos or other extremely hazardous material (PAHs,TRHs and leads) are encountered, a hygienist will be engaged to develop a Remediation Plan. Certified asbestos removalists will be engaged and monitored by the Hygienist. - Asbestos removal and management in NSW is regulated under the WHS Act 2017 and WHS Regulation 2017. The handling of asbestos and asbestos work will be carried out in accordance with relevant codes/guides including, but not limited to, Code of Practice: How to Safely Remove Asbestos (Safe Work Australia, 2016) and Code of Practice for the Safe Removal of Asbestos 2nd Edition (NOHSC: 2002 (2005). - If leads, fuels or other NPI trackable substances that do not present an immediate extreme danger are encountered, soil is to be stockpiled and the civil engineer or geotechnical engineer consulted for treatment purposes. • If any suspicious material is encountered the 'Unexpected find checklist' is followed and completed (see appendix 6.8)
Performance Indicators	• No pollution or contamination of waterways • No release of contaminated materials or compromised water from the site • Zero harm – no harm to anyone (worker/PCBU/hospital staff or patrons/public)
Reporting	• All spillages and discovery of contaminated material to be reported to the Project Manager or Contract Administrator • Daily monitoring during associated works, reflected in daily site diaries when required • Weekly Inspections undertaken and recorded on the Weekly Environment Inspection Form
Applicable Permits	• Permits for removal and disposal of contaminated soil
Reference	• NSW State Groundwater Quality Protection Policy (Department of Land & Water Conservation 1998) • Environmental Planning and Assessment Act 1979 • Protection of the Environment Operations Act 1997 • State Environmental Planning Policy No. 55 – Remediation of Land (July, 2014) • Managing Urban Stormwater, Soils & Construction, Volume 1 (Landcom, 2004) • EPA Waste Classification Guidelines (2014) • Workplace Health and Safety (WHS) Act 2017 • Workplace Health and Safety (WHS) Regulation 2017 • Code of Practice: How to Safely Remove Asbestos (Safe Work Australia, 2016) • Code of Practice for the Safe Removal of Asbestos 2nd Edition (NOHSC: 2002 (2005))

	• SSD Conditions: C12, C13, C34, AN9 • REF Conditions: 7, 11, 12, 10, 14, 15, 20, 25, 26

Aspect 5.22	
External Lighting	
Objective	Control or minimize the obtrusive effects of outdoor lighting used on the project site for works, safety and/or security.
Management Strategy	Outdoor/external lighting designed and implemented in accordance with AS4282 - 1997 Control of the Obtrusive Effects of Outdoor Lighting
Control Measures	Project Manager shall ensure: Outdoor lighting is controlled in accordance with AS4282 - 1997. External lighting principles, as described in Appendix A - AS4282, are adhered to where reasonably practicable: - Switch off lights when not required for safety, security or enhancement of the night-time scene. (In this respect, one can introduce the concept of a curfew with further limitations on lighting levels between agreed hours, e.g. the reduction or switching of advertising and decorative floodlighting between 11pm and dawn. - Whenever possible, direct light downwards, not upwards, to illuminate the target area. If there is no alternative to up-lighting, then the use of shield and baffles will help reduce spill light to a minimum. - Use specifically designed lighting equipment that, once installed, minimises the spread of light near to, or above, the horizontal. - Do not 'over' light. It is a cause of light pollution and a waste of money. Recommended light levels exist for some applications – see relevant standards. - To keep glare to a minimum, ensure that the main beam angle of all lights directed towards any potential observer is kept below 70º. It should be noted that the higher the mounting height, the lower can be the main beam angle. In places with low ambient light, glare can be very obtrusive and extra care should be taken in positioning and aiming. - Wherever possible use floodlights with asymmetric beams that permit the front glazing to be kept at or near parallel to the surface being lit. Lighting that efficiently directs the light into the area required, thereby minimising the energy consumption and waste light. Illuminance calculated as per Section 5 *Calculation of Light Technical Parameters*, AS4282. A survey of properties in the immediate precinct of the site is undertaken and notes made, particularly on buildings within the hospital grounds and residential buildings along Derby Road. Lighting is sufficient to safely carry out any works required in any given area
Performance Indicators	No disturbances/incidents or complaints.
Reporting	Monitoring records to be maintained during any activities with potential to generate obtrusive light infliction on local environment. Weekly Inspections undertaken and recorded on the Weekly Environment Inspection Form
Reference	AS4282 - 1997 Control of the Obtrusive Effects of Outdoor Lighting • SSD Conditions: B4, E8

6. Appendices

6.1. HI Incident Stakeholder Management Plan

HEALTH INFRASTRUCTURE

Incident Communications & Stakeholder Management Plan

SEPTEMBER 2016

NSW GOVERNMENT Health Infrastructure

Contents

Appendix 1

Incident Media Response Protocols – for communications staff liaison with Minister's Office and Local Health Districts

	Version Control				
Version	**Date**	**Document Author**	**Reviewed**	**Endorsed By**	**Document owner**
1.0	02/05/16	HI Communications team	Martin Cook, Executive Director Delivery	Sam Sangster, Chief Executive	Martin Cook, Executive Director Delivery
	September 2016	HI Communications team	HI Board	Sam Sangster, Chief Executive	

1. Overview

Health Infrastructure is the NSW Government's dedicated health capital works arm, with the overarching responsibility for the planning, design and delivery of hospitals and associated facilities in metropolitan, regional and rural New South Wales.

The organisation is, as at early 2016, planning or delivering more than 80 hospitals, ambulance stations, multipurpose services and other health related infrastructure across the state. Of the $5 billion investment allocated to the health portfolio in the current term of government, Health Infrastructure is delivering projects with a capital value of around $1.4 billion in 2015-16, which is around 11 per cent of the State's total capital works program.

Health Infrastructure's projects include major civil works at hospitals, including brownfield projects where entire hospital campuses are reconfigured and redeveloped, extensive refurbishments to existing civil structures, and greenfield developments involving the construction of entirely new major structures.

While the organisation co-ordinates and manages the health capital works program, on the ground, all Health Infrastructure projects are delivered by the market, via competitively tendered contracts, with the aim of engaging suitably qualified and capable construction firms to undertake the physical work. Projects are delivered through contractors and sub-contractors who engage their own staff.

As the co-ordinating body for the health capital works program, with direct reporting lines to the NSW Government and day-to-day responsibility for high level stakeholder management and public communications, Health Infrastructure reinforces with its contractors the importance of safety on projects – safety for construction workers, safety for employees on 'live' hospital sites, and safety for local communities and the environment near our projects.

As such, Health Infrastructure has developed this Incident Communications & Stakeholder Management Plan, to be deployed in the event of safety or other incidents at our sites. The plan establishes an Incident Management Framework (Section 2), to be put into action in the event of incidents on our projects. It also includes a high-level overview of incident management response management (Section 3), stakeholder relationship managers (Section 4), an incident checklist (Section 5), a list of communications tools (Section 6), a key message guide (Section 7) and a template media holding statement (Section 8). Incident media response protocols are enclosed.

While a major driver for the development of this plan is project safety, key aspects of the plan can also be adapted and deployed in the event of major non-safety related incidents, for example, incidents with the potential for severe corporate reputational impacts.

The protocols and tools contained in this plan will be deployed, in the case of Critical and Major Incidents, when the Chief Executive declares an incident to have taken place. This plan is a 'living document' and will be reviewed and updated at frequent intervals over time to ensure it remains current and up-to-date.

2. Links to other policies and plans

NSW Health Incident Management Policy

This Health Infrastructure Incident Communications & Stakeholder Management Plan has been developed for the purposes of providing an incident-specific, proactive framework for the management of incidents and issues with the potential to arise in the construction of major capital works. Health Infrastructure, as the dedicated planning and delivery arm of NSW Health, is also subject to the policies and procedures developed and implemented from time to time by the Ministry of Health.

As such, this plan underpins Ministry of Health policy directive PD2014_004 – Incident Management Policy – as published by the Ministry in February 2014. This policy directive sets out the Ministry's incident management protocols, reporting requirements and evaluation and review processes in dealing with clinical, operational and corporate issues and incidents.

As the Ministry's Incident Management Policy is focused primarily on, and tailored to meet the needs of Local Health Districts or respond to high-level corporate issues at the Ministry level, Health Infrastructure has developed this plan to ensure an incident response process is in place specific to the needs of potential incidents likely to impact the construction/infrastructure sector and projects. These may include incidents during the planning phase of hospital redevelopments (eg. discovery of hazardous materials on work sites) and incidents during the delivery phase (eg. incidents or accidents that may pose a risk to life or property).

To the extent that there are inconsistencies between the Ministry's Incident Management Policy and HI's Incident Communications & Stakeholder Management Plan, the provisions contained within the Ministry's policy will prevail.

Trigger Action Response Plans

The Ministry of Health has requested that, for certain critical issues which require a longer term risk / incident management approach, agencies in the Health portfolio should consider the development of Targeted Action Response Plans (TARPs). TARPs should take the form of a useful escalation tool that can be quickly referenced by staff and contractors in the field including specific information on who to contact in the event of issues and incidents.

The Ministry has advised that the precise form of TARPs may be tailored to suit the business model of the agency. Health Infrastructure considers that the Incident Management Framework on page five of this document meets the requirements of the TARP escalation, notification and incident response / management process, on a whole-of-organisation basis. Given this, specific TARPs developed for the management of individual likely risks and issues may also be developed, and would underpin the overall plan.

3.Incident Management Framework

Category 1 – Critical Incident **Trigger**: Incident involving fatality or severe injury or incident resulting in potential severe corporate reputational damage, or major impact to critical hospital operations.	**Category 2 – Significant Incident** **Trigger**: Incident involving major detrimental impact to project, including damage to civil structures, extreme weather impacts, and threats to life or property or major environmental impact, or significant impact to critical hospital operations.	**Category 3 – Minor Incident** **Trigger**: Incident involving impact on project delivery which may involve regulatory investigation eg. injury resulting in LTI, minor environmental impact, or significant near miss.	**Category 4 – Local Incident** **Trigger:** Minor incident on worksite, eg. medical treatment not likely to lead to an LTI.
Step 1 – Immediate **Contractor informs:** Project Manager Regulators HI Senior Project Directors	**Step 1 – Immediate** **Contractor informs:** Project Manager Regulators HI Senior Project Directors	**Step 1 – Within 1 hour** **Contractor informs:** Project Manager Regulators HI Senior Project Director	**Step 1 – Within 4 hours** **Contractor informs:** Project Manager HI Project Directors
Step 2 – Immediate **Senior Project Director informs:** HI Chief Executive Executive Director Delivery	**Step 2 – Immediate** **Senior Project Director informs:** HI Chief Executive Executive Director Delivery	**Step 2 – Within 1 hour** Senior Project Director / Project Director and Inform Minister, Ministry, Local Health District/s engage with Director Communications and Engagement	**Step 2 – Within 8 hours** **Project Director:** Engage with HI Communications as required
Step 3 – Immediate **Chief Executive and Executive Director:** Inform Minister, Ministry, Local Health District/s Informs the HI Board Chair Engage with Director Communications and Engagement	**Step 3 – Immediate** **Chief Executive and Executive Director:** Inform Minister, Ministry, Local Health District/s Informs the HI Board Chair Engage with Director Communications and Engagement	**Step 3 – Within 4 hours** **HI Communications:** Deploy communications strategy as required	**Notes:** Incident Management Team not required – managed through routine project governance and reporting
Step 4 – Immediate **HI Chief Executive / Executive Director Delivery** officially declare incident	**Step 4 – Immediate** **HI Chief Executive / Executive Director Delivery** officially declare incident	**Step 4 – If required** Incident Management Team not required Managed through routine project governance and reporting Employee status monitored and incident escalated if condition becomes serious	
Step 5 – Within 1 hour Upon CE / ED officially declaring incident, a **HI Incident Management Team is formed** – see Section 2 below	**Step 5 – Within 1 hour** Upon CE / ED officially declaring incident, a **HI Incident Management Team is formed** – see Section 2 below		
Step 6 – Ongoing **Incident Management Team assumes control of incident response** **Media and stakeholder communication** managed in line with Section 3 – Stakeholder Relationship Managers and Appendix 1 – Incident Media Protocols	**Step 6 – Ongoing** **Incident Management Team assumes control of incident response** **Media and stakeholder communication** managed in line with Section 3 – Stakeholder Relationship Managers and Appendix 1 – Incident Media Protocols		

4. Incident Management Team

In accordance with the Incident Management Framework in Section 2 (on page 5 above), the Chief Executive of Health Infrastructure may declare an incident meeting the criteria for category 1 or 2 incidents, as either 'Critical Incidents' or 'Major Incidents' respectively.

In the event such a declaration is made, Health Infrastructure will then manage the incident via a dedicated 'offline' Incident Management Team, until such time the Chief Executive declares the incident closed.

The Incident Management Team will have a dedicated workspace made available in Health Infrastructure's office at North Sydney. The team will comprise of five senior staff, acting in the following capacities:

Role	Responsibility	HI Equivalent
Incident Controller	Ultimate responsibility for control of incident response	Chief Executive / Executive Director Delivery
Incident Technical Manager	To provide engineering and technical advice	Executive Director Delivery / Senior Project Director
Incident Planning Manager	To co-ordinate response planning	Senior Project Director
Incident Logistics Manager	To provide logistical support to the response and to ensure the response is being managed in line with HI's policies and procedures	Project Director
Incident Communications Manager	To act as a dedicated resource on all communications issues during the life of the incident	Director Communications and Engagement

The Health Infrastructure Chief Executive will have ultimate responsibility for the management of the incident response. The Chief Executive and Executive Director Delivery will also have responsibility for ensuring:

- Staff engaged on the Incident Management Team during the course of an incident, will disengage from their day-to-day duties, to ensure a focused response to the incident
- Project Directors will be allocated from within Health Infrastructure to ensure projects whose staff are temporarily deployed in the Incident Management Team are appropriately resourced on an interim basis
- If an incident is expected to continue for several days and may require overnight resources, members of the Incident Management Team will be provided with adequate breaks and rest periods, with 'alternate' team members replacing them at regular intervals.

5. Stakeholder Relationship Managers

While the Chief Executive of Health Infrastructure is ultimately responsible for stakeholder management and liaison during the course of managing an incident, on-going communication with key stakeholders will be assigned to dedicated officers at Health Infrastructure. See below a stakeholder relationship framework, to be used as a guide in assigning relationship management for individual stakeholders during the course of an incident. This guide is most relevant to Critical Incidents and Major Incidents.

Stakeholder	Primary contact	Secondary contact
NSW Premier	Chief Executive	NA
NSW Minister for Health	Chief Executive	NA
Minister's Chief of Staff	Chief Executive	Director Communications and Engagement
Minister's Office (staff)	Director Communications and Engagement	Chief Executive
HI Board Chair	Chief Executive	Executive Director Delivery
NSW Health Secretary	Chief Executive	Executive Director Delivery
Ministry of Health (Dep Secs)	Chief Executive	Executive Director Delivery
Ministry of Health (staff)	Executive Director Delivery / Senior Project Director	Director Communications and Engagement
Ministry of Health Communications and Media teams	Director Communications and Engagement	NA
Local Health District Boards	Chief Executive	Executive Director Delivery
Local Health District Staff	Senior Project Director	Project Director
Local Health District Communications and Media	Director Communications and Engagement	Senior Project Director
Hospital GM / Management	Chief Executive	Senior Project Director
Hospital staff	Senior Project Director	Project Director
Local Councils	Senior Project Director	Director Communications and Engagement
Local Member of Parliament	Senior Project Director	Director Communications and Engagement
Project Manager	Senior Project Director	Project Director
Lead Contractor	Senior Project Director	Project Director
Health Infrastructure Staff	CE / EDD / DC&E	NA
Regulators	EDD	Senior Project Director
Emergency Services	Senior Project Director	Project Director
Local community	Director Communications and Engagement	Local project / LHD comms resource
General public	Director Communications and Engagement	Local project / LHD comms resource
General media (interviews and inquiries)	Chief Executive	Director Communications and Engagement

6. Incident Checklist

The checklist below has been developed as a guide for the Health Infrastructure Incident Controller, Health Infrastructure Incident Management Team and Health Infrastructure Project Directors to ensure appropriate steps are taken and relevant stakeholders are informed at the appropriate time in the event of a critical incident. The checklist is a useful guide to ensure a number of significant steps are followed during the incident response, but it in no way limits the response actions available to the Incident Controller and Incident Management Team.

Task	Responsibility	Completed
Incident Controller appointed	Chief Executive	☐
Engage immediately with lead contractor and establish points of contact	Chief Executive, Executive Director Delivery, Senior Project Director	☐
Advise contractors / project managers of media protocols – all media inquiries directed to HI	Senior Project Director	☐
Declaration of critical incident once facts are known (under categories 1 and 2)	Chief Executive	☐
Incident Management Team selected	Chief Executive, Executive Director Delivery	☐
Text message to relevant project staff to advise an incident is declared	Senior Project Director / Project Director	☐
Establish incident co-ordination centre	Executive Director Delivery	☐
Appoint incident contact at project site	Senior Project Director / Project Director	☐
Establish contact point with key authorities / emergency services	Senior Project Director / Project Director	☐
Inform Minister's Office / Ministry within an hour of declaration of Category 1 or 2 incident	Chief Executive / Director Communications and Engagement	☐
Appoint media spokesperson and develop immediate key messages and media statement	Chief Executive / Director Communications and Engagement	☐
Inform HI staff of incident by 8am on the next working day	Chief Executive / Director Communications and Engagement	☐
Continue to engage with contractor and any external specialists required to manage response	Executive Director, Delivery / Senior Project Director / Project Director	☐
Monitor stakeholder and media response during deployment of incident management measures	Communications Lead	☐

7. Communications Tools

During a critical incident, the Health Infrastructure Communications Lead on the incident management team, working in conjunction with the Chief Executive and team members, will be solely responsible for communications activities relating to the incident and will be 'offline' from any other HI communications tasks.

See below a list of proactive communications tools that should be deployed when an incident is declared. These tools are available for use across any Health Infrastructure incidents, although they are particularly relevant to category 1 and 2 incidents:

- Key messages – developed immediately and continuously updated
- Media Holding Statement (early stage when detail is limited)
- Media Release (once more information is known)
- Direct contact with Minister / NSW Health Secretary
- Regular formal briefing notes to the Minister and Ministry
- Regular updates to Minister's staff
- Automated text message to internal staff
- All Health Infrastructure staff email/s throughout incident response
- Liaison with local media re: site safety, security
- Hourly Situation Reports (generated by incident management team)
- Media conference on site by Chief Executive
- Direct communication with families of injured / deceased workers
- Door-knocking local community if threat to life / property
- Monitoring media and stakeholder public response
- Proactive / reactive interviews with media
- Use of social media channels (eg. Twitter) to disseminate information
- Project website to provide updates

8. Draft Key Message Guide

At the onset of an incident being declared, the Incident Management Team will develop an immediate set of key messages about the nature of the incident, based on information that has been received and is verifiable. In the early stages of a major incident, it is very common that information received is later found to be incorrect or missing key elements.

It is therefore crucial that the early key messages only include verified information – it is often better to provide more details to the media and public as an incident unfolds, rather than providing detail later found to be inaccurate early in the incident. See below a list of initial details to be included, if possible, in the initial key messages.

Key message guide:

- Time of incident
- Location / name of hospital
- Basic description of what occurred
- HI initial steps to manage incident
- Initial lines of communication established between Health Infrastructure, contractors and authorities
- What HI will do over the initial hours
- Assurance HI will keep community, staff, families of those impacted informed as more detail is known

9. Draft Holding Statement

See below a template media holding statement for the initial response to a critical incident (categories 1 and 2). This is a guide only and will be tailored for the individual circumstances of incidents.

Date

TITLE

At [time] Health Infrastructure became aware of a serious incident at [project / location].

The initial reports received by Health Infrastructure indicate [details of incident].

Health Infrastructure has declared this to be a critical incident, and a comprehensive incident management plan has been put in place.

Safety is Health Infrastructure's highest priority and we are working with the principal contractor for the project [contractor name] to address immediate issues including [eg. contacting relatives of injured worker, securing the site, setting up exclusion zone etc].

Health Infrastructure and [contractor] have been in immediate contact with the [relevant authorities eg. NSW Emergency Services authorities, NSW Police, NSW Fire Brigade etc] to ensure the area is safe. Health Infrastructure has also notified the appropriate safety [or other eg EPA] regulators.

HI's immediate concern is the wellbeing of the [impacted worker/s, staff, local community etc].

[Any other steps Health Infrastructure has taken immediately].

Detailed investigations will take place into this incident in due course. In the immediate future, however, Health Infrastructure's priority is to work with the contractor and authorities to ensure the site is safe and secure. No work will take place on the project until it can be certain that it is safe to do so.

Health Infrastructure will continue to keep the [public / local community] informed as the incident management plan is put in place and further details become known.

[Contact / communication channels]

APPENDIX 1

PROJECT INCIDENT MEDIA RESPONSE PROTOCOLS

All media enquiries in regard to project incidents should be referred to HI Communications in the first instance. HI Communications will then discuss the enquiry with the Senior Project Director / Project Director, to determine a response strategy, while keeping key stakeholders informed. Relevant parties may approve responses, including the Ministry of Health, LHD, and the Minister's Office.

Project Directors, LHDs, hospitals, contractors and project managers are required to refer all project incident-related media enquiries to HI Communications as soon as possible after the incident occurs. The overarching management of project incidents will be in accordance with the *HI Incident Management Communications & Stakeholder Management Plan* and *Incident Management Framework*.

ROLE OF HI COMMUNICATIONS

HI Communications takes the lead on all project incident media enquiries related to HI hospital redevelopments, Multipurpose Services, Primary and Integrated Care and ambulance station upgrade projects. This includes print, radio, television and online media. HI Communications will liaise with the Project Director/s and Local Health Districts and hospitals as required, in the development of media responses. HI Communications will liaise with the Minister's Office / Ministry of Health, to ensure a co-ordinated response.

ROLE OF CONTRACTORS / PROJECT MANAGERS

Contractors, project managers and their staff at work **sites must not comment to the media on any issues, under any circumstances.** All media requests or enquiries, including journalists approaching staff on work sites or filming nearby, should be referred to the HI Project Director/s, who will in turn alert HI Communications.

ROLE OF PROJECT DIRECTOR/S

For non-critical incidents (categories 3 and 4 in the *Incident Communications & Stakeholder Management Plan*), HI Project Directors have over-arching responsibility for incident media response material issued by HI Communications in consultation with LHDs / hospitals.

For matters declared by the Chief Executive or Executive Director Delivery as critical or significant incidents (categories 1 and 2 in the *Incident Communications & Stakeholder Management Plan*), the HI Executive will take the lead in managing incident media responses.

ROLE OF HI EXECUTIVE – CRITICAL OR SIGNIFICANT INCIDENTS

Certain major incidents, involving potential threat to life or major damage to property, may be declared **critical or significant incidents** by the HI Chief Executive and Executive Directors, hereafter referred to as 'the Executive'. In this case, the Executive assumes overall control and approvals of incident response and media strategy. Critical or significant incident responses will be developed by the Incident Management Team formed as per Section 3 of the *Incident Communications & Stakeholder Management Plan*.

ROLE OF LHDS / HOSPITALS / PROACTIVE PROJECT COMMUNICATIONS LEADS

In the event of an incident relating to a HI capital works project, HI assumes overall responsibility for responding to media enquiries. HI will consult with LHDs and hospitals in formulating a response.

The LHD media teams and hospital General Managers remain responsible for media enquiries on operational matters and are authorised to provide comment on the on-going operational status of a hospital in the event of an incident (eg. hospital remaining open, certain wards closed, patient and staff relocations and impacts etc).

The LHDs and individual health facilities will also act in compliance with relevant policy directives and their local incident management processes. Project Communications Resources should familiarise themselves with such local processes so they can provide appropriate advice and coordination across Health Infrastructure, the LHDs and hospitals.

HI project communications leads, working with LHDs or at hospitals, are generally responsible for proactive, non-incident communications, and should refer all enquiries to HI. After hours media enquiries can be referred to the HI Communications after hours contact phone number.

[After hours contact - Kara Giltinan, Director Communications and Engagement: 0411 897 570]

Diagram 1 – HI Non-Critical Incident Media Approvals Process

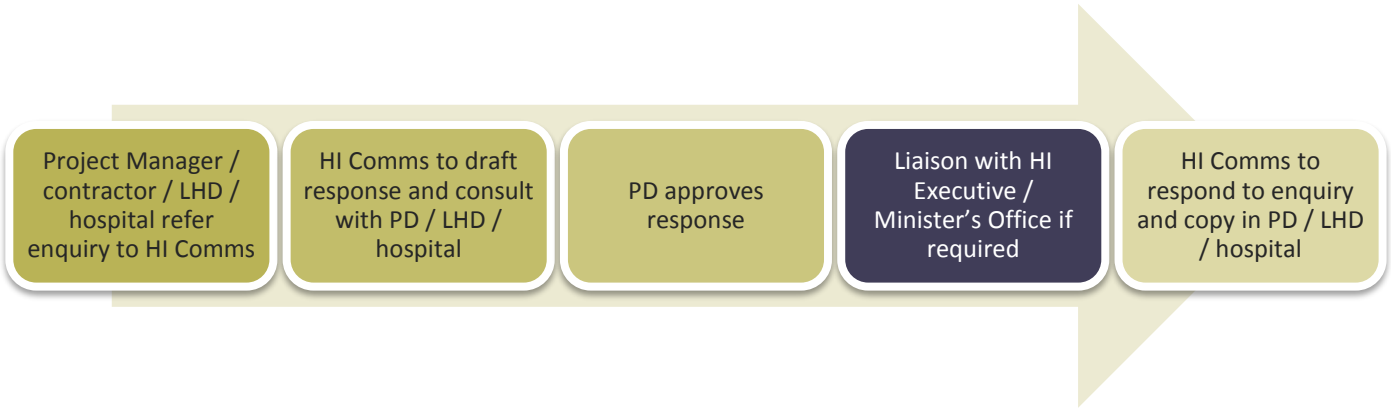
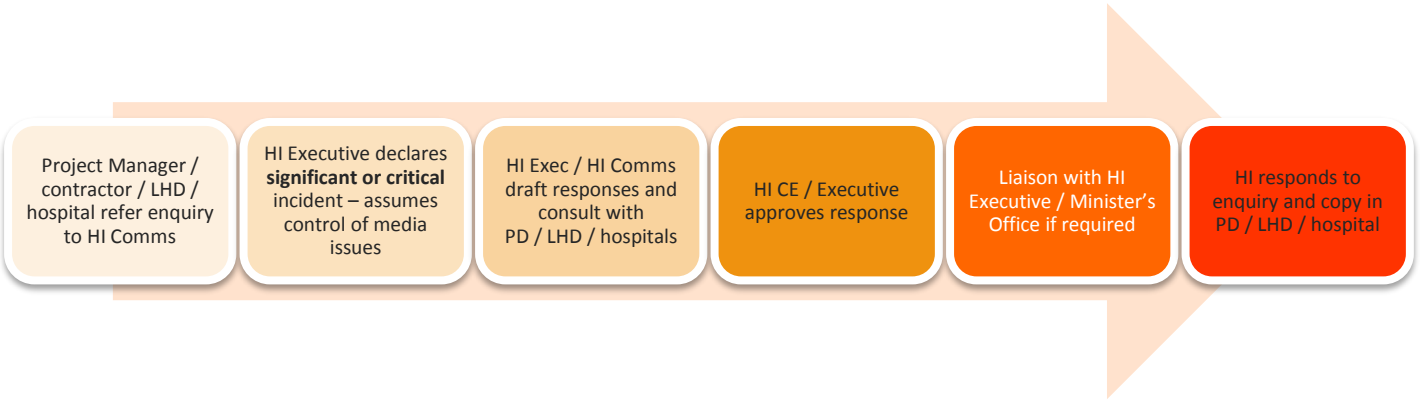


Diagram 2 – HI Critical or Significant Incident Media Approvals Process



6.2. Environmental Risk Assessment

Environmental Risk Assessment

C-FRM-018

PROJECT: Hornsby Ku-ring-gai Stage 2 Redevelopment & Medical Imaging Building **Prepared By: Tim Williams**

Date: 12/03/17 **Version: 1**

1 Emissions to Air
2 Releases to Water
3 Releases to Land
4 Use of Raw Materials, Natural Resources
5 Community and Neighbours
6 Flora and Fauna
7 Heritage and Cultural
8 Hazardous Substances including Asbestos

1 EMISSIONS TO AIR				INHERENT RISK			RESIDUAL RISK	
				Likelihood	Consequence	Risk	Likelihood	Risk
				Possible	Minor	Medium	Unlikely	Low
	Environmental ASPECT	Associated IMPACT	LEGAL & OTHER REQUIREMENT Relevant Document Title/Section/Clause	CONTROLS		COMPLIANCE	VERIFICATION/RECORD	
1.1	Exhaust Fumes	Air Pollution Annoyance Nuisance	Protection of the Environment Operations (Clean Air) Regulation, 2010 Part 4 Div 2 (cl 1 5and 165) - Part 4, Div 4 (cl 21 and 22) Protection of the Environment Act, 1997 Part 5.4 Div 1 - (Cl 124 - 132)	Ensure vehicles, plant & equipment are regularly maintained and assess if an air polution device is required to be fitted. Air quality monitor to be used when deemed necessary. Switch off engines when not in use. Do not operate a motor vehicle which emits visible emissions for more than 10 seconds after start-up Do not cause air pollution by failing to maintain and operate plant, or carry out maintenance work on plant, in a proper and efficient manner		Check trucks / plant on arrival to site for defects to exhausts and mufflers. Check service records to ensure machines/trucks are regularly maintained. Ensure pre-start plant inspections	Plant and Equipment induction records Site Diary Environment Inspection Records Project Induction Records	
1.2	Excavation Dust Demolition Dust Construction Dust	Air Pollution Annoyance Nuisance	Protection of the Environment Operations Act 1997 - Part 5, Div 1, (Cl 124&125), Part 5.4 Div 1 (Cl 126) Protection of the Environment Operations (Clean Air) Regulation, 2010 Part 5 Div 2&3 (cl32-46) Protection of the Environment Operations (General) Regulation 2009 (Schedule 6 - 123-124 and 126) Protection Enviornmental Legislation Environmental Ammendment Act 2011 Cl148	Implement dust suppression methods: • barriers to prevent the spread of dust • cover loads, restrict vehicle speeds • minimise areas being worked • use water cart and water sprays Do not pollute the atmosphere so that it becomes potentially harmful to the health, welfare, safety or property of people; detrimental to any beneficial use. Notify parties potentially impacted by activities Cease activities if dust is not controlled. under Ammendment act report immediately instead of as soon as reasonable practicable		Monitor site conditions Conduct site inspections Penalties not incurred as per the POEO General Regs	Plant and Equipment induction records Site Diary Environment Inspection Records Project Induction Records	

1.3	Chemical Fumes and odours from products or excavation of contaminated soils	Air Pollution Annoyance Nuisance	Protection of the Environment Operations (Clean Air) Regulation, 2010 Part 5 Divison 2 (Cl 36,28,39,40,42.) , Division 5 (cl 55) Div 2 60&61	Use low VOC products such as paints, waterproofing and adhesives. Provide correct waste containers for disposal. Do not allow any odours to be emitted which may be offensive to the sense of human beings or a nuisance to any persons beyond the boundary of the premises.	Monitor site conditions Conduct site inspections	Plant and Equipment induction records Site Diary Environment Inspection Records Project Induction Records
1.4	Environmental Emergency (Fire, Explosion, Chemical Spill)	Air Pollution Annoyance Nuisance	Protection of the Environment Act,1997 (Cl91,284)	Minimise volumes of materials stored on site Provide initial-response fire fighting equipment and appropriate spill kits.	Induct staff and subcontractors in Emergency Preparedness and Response. And ensure are adequately trained in site procedures.	Plant and Equipment induction records Site Diary Environment Inspection Records Project Induction Records

2 RELEASES TO WATER:				INHERENT RISK			RESIDUAL RISK	
				Likelihood	Consequence	Risk	Likelihood	Risk
				Possible	Minor	Medium	Unlikely	Low
	Environmental ASPECT	Associated IMPACT	LEGAL & OTHER REQUIREMENT Relevant Document Title/Section/Clause	CONTROLS		COMPLIANCE	VERIFICATION/RECORD	
2.1	Potential Spills - General spills - Leaks from plant and equipment - Refuelling spills	Stormwater and / or groundwater pollution	Protection of the Environment Act,1997 Part 5.3 (cl120,121,123,125) Environmentally Hazardous Chemical Act 1985, part 3, Div 2&3 (Cl 10,11,13)	• Ensure all liquids are stored in appropriate containers. • Ensure availability of appropriate spill kits and conduct induction / training in their use. • Maintain an MSDS register for all products on site • Locate chemicals away from water courses and protect waterways in the event of a spill • Store minimal amounts on site • Clean up spills immediately • Contain any spills on site Do not cause water pollution (other than to a sewer), except in accordance with the conditions of any EPA licence Ensure that in each area of the premises where dangerous goods are stored or handled, provision is made for spill containment that will so far as is practicable, contain the spill within the premises.		Induct staff and subcontractors in Emergency Preparedness and Response.	Induction Records Environmental Inspection Records SDS Register Site Diary Trade Waste Agreement and discharge records (where applicable)	
2.2	Pollutants entering the Stormwater System • litter • sediment from contaminated runoff • water from wash-down • wash out of concrete trucks and pumps • brick and paver cutting	Stormwater Pollution	Project Sedimentation and Stormwater Management Plan and Project Environmental Management Plan Protection of the Environment Act 1997 (cl 120-123) - Water Management Act, 2000, Div 7 (cl 34) Protection of the Environment Operations (General) Regulation 2009 Chapter 3 Part 1 (cl 56,59)	Implement a Sediment and Erosion Management Plan • Minimise and control all stormwater run-off from site • Identify and protect stormwater outlets using geo-fabric, gravel sausages and silt fences • Plan and protect stockpiles and locate away from stormwater drains and low points • Establish hard stand haul roads and site entrance/exit • Contaminated waste water to be disposed of to sewer in compliance with a Trade Waste Agreement or by licensed contractor to a licensed facility • Establish designated areas for washdown of concrete chutes etc. and for wet trades • Plan and protect stockpiles. Locate away from stormwater drains and low points Establish stormwater connections as soon as practicable Control water from wheel wash, rumble strip and road cleaning No washing of roadways into unprotected drains All stormwater discharges to be in accordance with regulatory requirements Ensure that discharges to stormwater drains, surface waters and groundwater do not put at risk any beneficial use of these waters.		Induct staff and subcontractors in Stormwater and Erosion Management Daily monitoring of site conditions Weekly inspection to be undertaken and recorded Controls inspected before, during and after storm events. All incidents and non-compliance with controls to be reported, investigated and recorded	Induction Records Environmental Inspection Records SDS Register Site Diary Trade Waste Agreement and discharge records (where applicable)	

2.3	Environmental Emergency (Fire, Explosion, Chemical Spill)	Stormwater Pollution	Water Management Act, 2000 Div 7 (cl 34) Protection of the Environment Act 1997 (cl 120-123)	Provision of initial response fire fighting equipment and appropriate spill kits. Induction and training staff of staff/Subcontractors in Emergency Preparedness and Response. Manage construction work to minimise land disturbance, soil erosion and discharge of sediments and other pollutants to surface waters Do not pollute any waters so they become poisonous, harmful or potentially harmful to animals, vegetation or to the detriment of any beneficial use made of those waters. Do not place waste is a position where it might reasonably be expected to pollute surface water or groundwater, or where it does not comply with any prescribed standard. Take all practicable measures to prevent the pollution of groundwater. Do not cause or permit anything other than sewerage or trade waste discharged in accordance with a Trade Waste Agreement to be discharged into the sewerage system.	Induction of staff subcontractors in Emergency Preparedness and Response.	Induction Records Environmental Inspection Records SDS Register Site Diary Trade Waste Agreement and discharge records (where applicable)

3 RELEASES TO LAND:				INHERENT RISK			RESIDUAL RISK	
				Likelihood	Consequence	Risk	Likelihood	Risk
				Possible	Minor	Medium	Unlikely	Low
	Environmental ASPECT	Associated IMPACT	LEGAL & OTHER REQUIREMENT Relevant Document Title/Section/Clause	CONTROLS		COMPLIANCE	VERIFICATION/RECORD	
3.1	Construction activities	Significant impacts	Environment Protection and Biodiversity Conservation Act 1999 s26, 27, 29	Receive approval from the Environmental Minister before work commences		Do not take an action on Commonwealth land that could have a significant impact on the environment without approval from the Commonwealth Environment Minister.	Environmental Inspection Records Audit PEMP	
3.2	Site accommodation and setup	Significant impacts	Environment Protection and Biodiversity Conservation Act 1999 s26, 27, 29 Client Specifications	Contain works to approved Site Plan. Remediate the site on removal of the site sheds. If assessing site contamination, ensure samples are taken and analysed.		Any significant spill event is immediately reported, investigated and prevented from recurring.	Approved Site Plan Environment Inspection Records	
3.3	Contamination on site through relocation or import of contaminated material	Significant impacts	Protection of the Environment Act 1997 Part 5.6 Divisons 1,2,3 - Part 5.7 and 5.7A	Engage Environment Specialist to assess, test and classify excavated material to be transported off-site. No contaminated material to be reused on site without the written approval of the Client. Do not transport prescribed industrial waste except to a licensed receiver without EPA approval.		Nil non conformances of fines by EPA	Enviropnment Inspection records Environmental Audits	
3.4	Transport and disposal of contaminated material offsite	Significant impacts		All excavated materials transported off-site to be disposed of in compliance with EPA regulations. Do not transport prescribed industrial waste except to a licensed receiver without EPA approval. Do not transport prescribed industrial waste except to a licensed receiver without EPA approval. Take reasonable steps to ensure receiver of prescribed industrial waste is licenced.		Nil non conformances of fines by EPA	Enviropnment Inspection records Environmental Audits	
3.5	Weed control	Significant impacts	Environment Protection and Biodiversity Conservation Act 1999 s26, 27, 29 Client Specifications	Strictly maintain vehicle hygiene to prevent weed transfer. Imported materials, particularly landscape supplies to be certified to be weed free, of local provenance and drawn from known sources. Do not remove machinery or other equipment from land onto a road without first taking reasonable precautions to ensure that the equipment is free from noxious weeds and the seeds of noxious weeds.		Nil non conformances of fines by EPA	Enviropnment Inspection records Environmental Audits	
3.6	Spill of dangerous goods or hazardous substance	Significant impacts	Waste Avoidance and Resource Recovery Act, 2001	Do not dilute, mix or treat prescribed industrial waste without approval. Ensure that in each area where dangerous goods are stored or handled, provision is made for spill containment that will eliminate/reduce as far as is practicable, the risk of any spill.		Nil Incident	Enviropnment Inspection records Environmental Audits	

4 USE OF RAW MATERIALS, NATURAL RESOURCES				INHERENT RISK			RESIDUAL RISK	
				Likelihood	Consequence	Risk	Likelihood	Risk
				Possible	Minor	Medium	Unlikely	Low
	Environmental ASPECT	Associated IMPACT	LEGAL & OTHER REQUIREMENT Relevant Document Title/Section/Clause	CONTROLS		COMPLIANCE	VERIFICATION/RECORD	
4.1	Water	Unnecessary use and waste of natural resource	Protection of the Environment Operations (General) Regulation, 2009 Chapter 3 (cl 56-59)	•Comply with any water restrictions and exemptions granted by the relevant water authority. Use water saving taps and devices during construction. • Use captured water for irrigation, wash down and dust suppression. • Ensure all hoses/pipework is watertight / leaks free. • Reuse topsoil, excavated material and green waste		complying with standards set by the relevant authorites and audits to PEMP	Induction Records Environmental Inspection Records MSDS Register Site Diary Plant Induction Records	
4.2	Fossil Fuels	Use of non-renewable resource	**Project PEMP**	Vehicles and plant & equipment to be regularly maintained. Engines to be switched off when not in use. As a land owner or occupier, take reasonable steps to: • Avoid causing or contributing to land degradation which causes or may cause damage to the land of another land owner • conserve soil • protect water resources		complying with standards set by the relevant authorites and audits to PEMP	Induction Records Environmental Inspection Records MSDS Register Site Diary Plant Induction Records	
4.3	Electricity	Non-Renewable Resource Greenhouse Gas Emission	**Project PEMP**	Promote water and energy savings. • Use energy efficient electrical installations with sensor switching. • Use timer switches for high voltage security lighting. • Use natural lighting where practicable. • Switch off all stand-by equipment and office lighting at the end of each day.		Office monitoring	Office Inspections	
4.4	Material selection	Reduced use of natural resources	Protection of the Environment Operations (Waste) Regulation 2014Part 8	Use products made from recycled materials Recycle office, construction and demolition waste		Selection of materials	verficication that a recycled product has been used	
4.5	Excavated Materials	Use of Landfill	Environment Protection & Biodiversity Conservation Regulation, 2000 Subdivision 12.2.2—General offences 12.11	All practicable measures taken to recycle/re-use excavated materials transported from site as clean fill Minimise amount of material being sent to landfill			Civil subcontractor to supply monthly recycling report for all spoil removed from site.	
4.6	Construction Waste	Use of Landfill	Environment Protection & Biodiversity Conservation Regulation, 2000 Subdivision 12.2.2—General offences 12.14	Waste contractor engaged to segregate materials offsite for recycling. Agreement with suppliers and subcontractors to where practicable minimise packaging or to return packaging to manufacturing plant/factory for re-use. Provision of and regular emptying of readily accessible waste containers.Minimise amount of material being sent to landfill		Waste contractor to provide monthly waste reports documenting waste and recycling volumes.	Waste recycling subcontractor to supply monthly recycling report for all construction waste removed from site.	

5 COMMUNITY & NEIGHBOURS:				INHERENT RISK			RESIDUAL RISK	
				Likelihood	Consequence	Risk	Likelihood	Risk
				Likely	Moderate	High	Unlikely	Moderate
	Environmental ASPECT	Associated IMPACT	LEGAL & OTHER REQUIREMENT Relevant Document Title/Section/Clause	CONTROLS		COMPLIANCE	VERIFICATION/RECORD	
5.1	Noise	Disturbance to nearby residents	Protection of the Environment Act, 1997 - Part 55 (Cl136-141) Protection of the Environment Operations (Noise Control) Regulation, 2008Part 4 - Subdivision1 (cl36&37), Subdivion 3 (cl44,46&47) Part 5, Schedule 1 and 2 Contract Specifications	Comply with specified operating hours. Maintain noise suppression devices on all applicable plant and equipment. Advise neighbours of planned noisy activities and duration. Do not emit unreasonable noise (having regard to its volume, intensity, duration). Construction equipment cannot be operated outside of 7am - 10pm M-F and 9 to 10 weekends and public holidays (depending on project, location and contract specifications)		Monitor noise levels. Record and address all complaints.	Dilapidation survey.	
5.2	Dust	Disturbance to nearby residents	Protection of the Environment Act, 1997-part 5.4Divison 1 (cl126) Protection of the Environment (clean air) Regulation 2010 Contract Specifications	Use dust suppression/control techniques by: - wetting down floors; - use wet cutting of stone & tiles; - use vacuum attachments to drilling/cutting tools; - isolate areas where possible; and - use barriers to prevent spread of dust. Do not allow dust, water, mud/silt, paint, oil or other chemicals to be blown, deposited or discharged into a public place.		Monitor activities and control all dust. Cease works if dust is not controlled.	Dilapidation survey.	
5.3	Vibration	Disturbance to nearby residents. Damage to physical assets	Contract Specifications	Minimise inconvenience to adjoining property owners. Conduct a dilapidation survey prior to commencing works. Monitor and control vibration levels. Avoid disturbance caused by vibration.		Carry out surveys and monitoring as required	Dilapidation survey.	
5.4	Traffic and pedestrian management	Disturbance to nearby residents, road users and pedestrians	ROADS ACT 1993 -PART 4 ROADS REGULATION 2008 - PART 2 - DIV 4 Contract Specifications	Comply with approved Traffic Management Plan • Vehicle wheels to be checked and cleaned before leaving site. • Use street sweeper if required • Do not overload vehicles. Cover applicable loads to and from site • Provide signage, traffic controllers in conformance with the TMP The wheels and undercarriage of vehicles driven onto public roads must be free of earth, clay and refuse. Do not allow dust, water, mud/silt, paint, oil or other chemicals to be blown, deposited or discharged into a public place.		Monitor compliance with approved Traffic Management Plan. Record and address all complaints.	Inspections to confirm compliance	
5.5	Protection of Existing Services	Interruption of services to other users	WHS Regulation 2011 - Part 3 .1 (cl32-38) Part 6.2 Div 3 Div 7 (cl 166) CoP Excavation Work 2014 3.5 Contract Specifications	Identify and protect overhead and inground services. Contact Dial-before-you-dig and client records. Ensure service authority requirements are met. Notify Client prior to planned interruptions to services. Project Emergency Plan in place with correct emergency contact numbers on display. Excavation Permits approved before commencing excavations.		Monitor activities, implementation of site identification and protection, compliance with Excavation Permits.	Excavation Permits. Notifications to Client of planned interruptions Project Emergency Plan Dial-before-you-dig Records	

6 FLORA & FAUNA:				INHERENT RISK			RESIDUAL RISK	
				Likelihood	Consequence	Risk	Likelihood	Risk
				Possible	Moderate	High	Unlikely	Low
	Environmental ASPECT	Associated IMPACT	LEGAL & OTHER REQUIREMENT Relevant Document Title/Section/Clause	CONTROLS		COMPLIANCE	VERIFICATION/RECORD	
6.1	Destruction/Removal of Habitat	Loss Of Habitat	Native Vegetation Act 2003 Part 3 Native Vegetation Regulation 2013 Part 2 National Parks and Wildlife Act, 1974 PART 7	Site clearance to comply with approved Site Plan. Trees to be removed to be marked. Site inspection to be conducted with Client prior to felling. Tree protection zones to be established as required at the drip line of trees to be retained. Where practicable, topsoil to be stripped and retained for reuse on site. Site induction to address awareness of Base Flora and Fauna Management Strategy If planning to do works or other activities which might kill, injure or disturb protected native plants, obtain a permit under the		Monitor damage to Flora and Fauna and contact WIRES or the EPA for any toher requirements.	Site Induction Environmental Inspections Environmental Audits	

7 HERITAGE & CULTURAL:				INHERENT RISK			RESIDUAL RISK	
				Likelihood	Consequence	Risk	Likelihood	Risk
				Possible	Minor	Medium	Unlikely	Low
	Environmental ASPECT	Associated IMPACT	LEGAL & OTHER REQUIREMENT Relevant Document Title/Section/Clause	CONTROLS		COMPLIANCE	VERIFICATION/RECORD	
7.1	Discovery of Aboriginal and or Cultural Objects	Loss of cultural history	Aboriginal and Torres Strait Islander Heritage Protection Act, 1984 - National Parks and Wildlife Act, 1974 PART 6	Cease works in the event that artefacts believed to be of Aboriginal culture are discovered. Client to be immediately advised and instructions to be followed. Do not disturb or damage an Aboriginal place, object or relic without the consent or authorisation. Notify within reasonable time of becoming aware of the location or discovery of certain Aboriginal objects and relics Ensure that objects and areas with significance to Aboriginals are treated in accordance with Aboriginal tradition and are preserved and protected from injury and desecration. Do not fail to report to the Minister the discovery of remains which are believed to be Aboriginal remains. Report the discovery to the DVC as soon as practicable.		Generate procedures identifying action to be taken on discovery of artefacts/remains.	Environmental inspections	

8 HAZARDOUS SUBSTANCES INCLUDING ASBESTOS				INHERENT RISK			RESIDUAL RISK	
				Likelihood	Consequence	Risk	Likelihood	Risk
				Possible	Catastrophic	Extreme	Unlikely	High
	Environmental ASPECT	Associated IMPACT	LEGAL & OTHER REQUIREMENT Relevant Document Title/Section/Clause	CONTROLS		COMPLIANCE	VERIFICATION/RECORD	

8.1	Asbestos		WHS Regulations 2011 Chapter 8 - Asbestos CoP how to manage and control asbestos in the workplace 2011 Protection of the Environment Operations (Waste) Regulation 2014 Part 7 Transportation and management of asbestos waste	Review the Asbestos Register. If asbestos is located on site, engage the project Hygienist and licensed asbestos contractor to conduct Risk Assessment, develop an Asbestos Management Plan and to remove and dispose of all asbestos. Site induction to make personnel aware of the potential presence of asbestos contaminated materials and the procedures of its identification and removal. Ensure that waste asbestos is only removed by a person holding an asbestos removal licence; contained to prevent the release of airborne asbestos fibres; transported in an EPA permitted vehicle; and disposed of as soon as practicable at a site licensed by the EPA		When applicable: • Asbestos Management Plan • Clearance Certificates

6.3. Weekly Environmental Inspection Checklist

Environment Inspection Checklist

C-FRM-016

Project: _____

Reviewed By: _____ **Date:** _____

Recent Storm Event?: _____

Condition or Practice		Status ✓/✗/NA	Comments
Site Accommodation			
1	Spill kit(s) accessible, stocked		
2	Site and surrounding area are clean, tidy		
3	Noise levels are acceptable		
Water Discharge			
4	Concrete washout controlled or offsite		
5	Concrete/masonry cutting and grinding controlled; no slurry run-off escaping		
6	Paint and Plaster washout functional, not discharging unclean water		
7	No visible leakages on site		
Erosion and Sediment Control			
8	Sediment fences as per ESC plans, no breaks or failures		
9	Stormwater inlets protected with sediment traps and filter fabric, clean		
10	Stockpiles effectively protected from weather, bunded with sediment fencing		
11	Sediment basin functional and dirty run-off is not escaping site; basin is not overfull		
12	Site entry/exit functional; surrounding roads are clean		
13	Wash down bays isolated from stormwater and prevented from seepage and leakage		
Air Quality Management			
14	Dust levels are acceptable		
15	Are any plant or vehicles producing visually noticeable emissions		
16	Vehicles sticking to haul roads, haul roads are not producing dust		
17	There are no noticeable odours		
Protection of Flora and Fauna			
18	Tree Protection Zones clearly established		
19	No wildlife or nests noticed during inspection		
20	As required: no fire ant mounds detected		
Comments and Action Plan			

6.4. Project Complaint and Incident Register

Project Complaint and Incident Register

C-FRM-061

Project: Hornsby Ku-Ring-Gai Hosptial [N206]

PROJECT COMPLAINT AND INCIDENT REGISTER							
Date	Complaint/Incident Description	Source / Contact	Action / Rectification	Client Advised	CAR Req'd	CAR Closed	Recorded By

6.5. Complaint and Incident Report Form

Environment Complaint or Incident Report

C-FRM-060

Project Number: _____ **Incident Report #:** _____

Project Name: _____

1 Brief description of incident or complaint

2 Time and date of incident

3 **Details of incident**

4 Location of incident

5 Did the incident cause evident harm to the receiving environment? If so, please describe:

6 Did any discharge escape from the site boundary in any way? If so, please describe:

7 Activity being performed at the time of incident

8 Organisations involved/responsible

9 Root cause of incident

10 Immediate actions taken

11 Restorative actions taken, if any

12 Corrective actions taken to prevent future recurrence

13 Were emergency services required? **Yes / No**

14 Details of person submitting this form:

Name: .....

Position/Title: .....

Contact Telephone No: ..... Date: .....

15 Communication

Client Advised: Yes / No

Project Manager Advised Yes / No

Quality and Environment Manager Advised: Yes / No

16 Diagram of Incident:

Location:

(Diagram of Incident)

Notes

- Forward completed forms to your State Environmental Manager to make a determination on the reporting actions required.
- If the incident presents a threat to human health or property, dial 000 and arrange for Emergency Services.
- Remember that reporting pollution events is a civic duty, and penalty should not be feared when all measures were taken to mitigate or avoid pollution. The following hotlines can be contacted in the event of pollution:
    - Queensland: DES – 1300 130 372
    - Victoria: EPA – 1300 372 842
    - NSW: EPA – 131 555
    - SA: EPA – (08) 8204 2004

6.6. Environmental Legal and Statutory Requirements Register

Item	Description	Executor	Access	Last Updated	Extracted Legal Requirements
1	**General Environmental Duties**				
1.1	Protection of the Environment Operations Act 1997 (NSW)	State of NSW	Link	Mar-14	The Regulation contains provisions relating to: • environment protection licences, including the calculation of administrative and load-based licence fees, • the definition of water pollution and exemptions from the offence of polluting waters under the Act, • compliance with the National Environment Protection (National Pollutant Inventory) Measure made under the National Environment Protection Council Act 1994 (Cth), • vehicle testing and inspection requirements in accordance with a notice given under s207 of the Act, • the issuing of penalty notices under the Act and certain related environmental legislation, • the appropriate regulatory authority for certain type of activities, • exemptions from certain provisions of the Act, • the prohibition on the burning of native forest bio-material in electricity generating works, • fees for environmental protection notices, • notification of pollution incidents, • forms for police warrants of entry to premises concerning noise, • time for making an appeal against a control notice relating to the keeping of animals, • the evaluation of green offset schemes or green offset works, • restrictions on requirements for financial assurances, and • matters to be included in the public register kept under s308 of the Act.
1.2	Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)	Commonwealth	Link	Oct-13	Biodiversity Conservation: If undertaking development or other activities that may have a significant impact on matters of national environmental significance, comply with the Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth). Do not take an action on Commonwealth land that could have a significant impact on the environment (or on land outside Commonwealth areas where the significant impact would be on Commonwealth land), without approval from the Commonwealth Environment Minister (or State Government if a relevant bilateral agreement is in place). Note that further obligations apply to work in Commonwealth Reserves. Offences for breaching the EPBC Act: Action that is likely to have a significant impact on a matter of national significance, without first obtaining approval - Civil Penalty of up to $550,000 to individual, Up to $5.5m to body corporate; Criminal Penalty of Up to 7 years jail and/or $46,200. Action that is likely to have a significant impact on Commonwealth land, without first obtaining approval - Civil Penalty of up to $110,000 to individual, up to $1.1m to body corporate; Criminal Penalty of up to 2 years jail and/or $13,200. A person who takes, or fails to take, an action that results in contravening a condition of their approval - Civil Penalty of up to $110,000 to individual, up to $1m to body corporate; Criminal Penalty of up to 2 years jail and/or $13,200. A person who provides false or misleading information to obtain approval or permit - Criminal Penalty of up to 2 years jail and/or $13,200.
1.3	Native Vegetation Act 2003 (NSW)	State of NSW	Link	Mar-14	Do not take, use, keep or interfere with a cultural or natural resource of a protected area, unless under a management intent, a conservation agreement, or a lease, agreement, licence, permit or other authority under an Act; or a licence, permit or other authority issued under a regulation; or if the area is a conservation park, resources reserve, nature refuge, coordinated conservation area, wilderness area, World Heritage management area or international agreement area - an exemption under a regulation.
1.4	Environmental Planning and Assessment Act 1979	State of NSW	Link	Mar-14	Obtain a development permit before carrying out assessable development. When seeking approval, be aware of the requirements for code assessment that may apply to the application for a development permit. Be aware that prescribed matters may also be made by the Authority. For development requiring compliance assessment, obtain a compliance permit before carrying out the development. If the holder of a development permit, obtain a new development permit before making any alteration to plant, equipment or premises if the changes will result in a material increase in the intensity or scale of the activity. See material change of use.
2	**Emissions to Air**				
2.1	Protection of the Environment Operations (Clean Air) Regulation 2010	State of NSW	Link	Mar-14	The Regulation deals with the sale of domestic solid fuel heaters (generally wood heaters) and requires the heaters to be certified as complying with emission limits set out in the relevant Australian Standard. It also prohibits tampering with such heaters. In relation to motor vehicles and motor vehicle fuels, the Regulation deals with the following matters: • the emission of air impurities, including excessive smoke from motor vehicles; • the compulsory fitting and maintenance of anti-pollution devices, and exemptions from these requirements; and • the method of transfer of petrol into a vehicle's fuel tank; • the volatility of petrol; and • vapour recovery at petrol service stations. In relation to industry, the Regulation: • sets maximum limits on emissions from activities and plant for a number of substances, including chlorine, dioxins, furans, smoke, solid particles and sulphur; • deals with the transport and storage of volatile organic liquids; • restricts the use of high sulphur liquid fuel; • imposes operational requirements for certain afterburners, flares, vapour recovery units and other treatment plant.

Item	Description	Executor	Access	Last Updated	Extracted Legal Requirements
					In relation to household burning, the Regulation: • controls burning in the open or in incinerators in local government areas; • allows the OEH or local councils to grant approvals for burning in the open or in an incinerator in certain circumstances; • prohibits the burning of certain articles (including tyres, paint and solvent containers, and certain treated timbers); • imposes a general duty on persons to prevent or minimise air pollution when burning in the open or in an incinerator; and • allows the OEH to grant a written exemption to a public authority in certain circumstances
2.2	National Environment Protection (Diesel Vehicle Emissions) Measure 2001	Commonwealth	Link	Sep-13	Ensure emission from all internal combustion engines including diesel engines are not visible for a continuous period of 10 or more seconds. Otherwise the vehicle must not be used until serviced.
2.3	Ozone Protection and Synthetic Greenhouse Gas Management Act 1989 and Regulations 1995 (Commonwealth)	Commonwealth	Link	Sep-13	Do not allow an ODS or SGG to be discharged to the atmosphere. Ozone Depleting Substances include: - Chlorofluorocarbons (CFCs) - Halon - Carbon tetrachloride (CCl4) - Methyl chloroform (CH3CCl3) - Hydrobromofluorocarbons (HBFCs) - Hydrochlorofluorocarbons (HCFCs) - Methyl bromide (CH3Br) - Bromochloromethane (CH2BrCl) SGG or synthetic greenhouse gas means an HFC, a PFC, or sulfur hexafluoride (SF6).
2.4	Greenhouse and Energy Minimum Standards Act 2012 (Commonwealth)	Commonwealt	Link	Sep-13	Ensure all appliances, electronics, Refrigeration and Air Conditioning units (RAC), lighting, and power units are certified energy efficient.
3	**Releases to Water**				
3.1	Protection of the Environment Operations Act 1997 (NSW)	State of NSW	Link	Sep-13	Do not deposit prescribed water contaminants in a roadside gutter, stormwater drain or waterway. Do not store material where environmental harm could result from pollution of water.Water contaminants include: 1 a chemical, or chemical waste containing a chemical (e.g. biocide, including herbicide, fungicide and pesticide chemical that causes biochemical or chemical oxygen demand, chemical toxicant for which guidelines are prescribed in the document 'Australian and New Zealand guidelines for fresh and marine water quality' , degreasing agent) 2 a gas other than oxygen 3 a liquid containing suspended or dissolved solids 4 a liquid that has a temperature different by more than 2&#deg;C from ambient water temperature 5 animal matter, including dead animals, animal remains and animal excreta, and water used to clean animals, animal enclosures or vehicles used for transporting animals 6 ashes, clay, gravel, sediment, stones and similar organic or inorganic matter 7 a substance that has a pH outside the range 6.5 to 8.5 8 building and construction materials, including bitumen, brick, cement, concrete and plaster 9 building, construction and demolition waste, including bitumen, brick, concrete cuttings, plaster and waste water generated by building, construction or demolition 10 clinical waste 11 glass, metal parts, paper, piping, plastic and scrap metal 12 industrial waste 13 oil, including, for example, petroleum or vegetable based oil 14 paint, paint scrapings or residues, paint sludge, water used for diluting paint or washing painting utensils, and waste from paint stripping 15 plant matter, including, for example, bark, lawn clippings, leaves, mulch, pruning waste, sawdust, shavings, woodchip and other waste from forest products 16 putrescible waste, including, for example, food scraps 17 sewage and sewage residues, whether treated or untreated, and any other matter containing faecal coliforms or faecal streptococci, including, for example, waste water pumped out from a septic tank 18 vehicles and components of vehicles, including, for example, batteries and tyres 19 waste and waste water, generated from indoor cleaning, including, for example, waste from carpet or upholstery cleaning and steam cleaning 20 waste and waste water, generated from outdoor cleaning, including, for example, waste generated from high pressure water blasting of commercial or industrial premises, fuel dispensing areas, plant or equipment, roofs, streets, vehicles and wharves 21 waste generated from repairing or servicing motor vehicles, including, for example, engine coolant, grease, lubricants and oil 22 waste water, including backwash from swimming pools, condensate from compressors, water from air-conditioning or cooling systems and waste water from grease traps
3.4	Water Efficiency Labelling and Standards (New South Wales) Act 2005	State of NSW	Link	Mar-14	Specify, procure and install WELS certified water efficient hydraulic fixtures where possible.
3.5	Water Management Act 2000	State of NSW	Link	Sep-14	To the extent it is reasonable to do so, release of waste water or contaminants to waters must be dealt with using the following hierarchy of preferred procedures— (a) step 1—evaluate water conservation measures to reduce the use of water and the production of waste water or contaminants; (b) step 2—evaluate waste prevention options and implement appropriate waste prevention measures; (c) step 3—if waste prevention does not, or is not likely to, eliminate the release of waste water or contaminants to waters, evaluate treatment and recycling options and implement appropriate treatment and recycling; (d) step 4—if treatment and recycling does not, or is not likely to, eliminate the release of waste water or contaminants to waters, evaluate the following options for waste water or contaminants, in the order in which they are listed— (i) appropriate treatment and release to a waste facility or sewer; (ii) appropriate treatment and release to land; (iii) appropriate treatment and release to surface waters or ground waters.
4	**Releases to Land**				
4.1	Protection of the Environment Operations Act 1997 (NSW)	State of NSW	Link	Mar-14	Do not release a contaminant where it could cause serious or material environmental harm or an environmental nuisance.

Item	Description	Executor	Access	Last Updated	Extracted Legal Requirements
					Advise the Department of Environment and Heritage Protection (EHP) if an activity listed in Schedule 3 to the Act is carried out, or if the land has been or is being contaminated by a hazardous contaminant, within 22 business days Comply with a notice to prepare or commission a site management plan for a contaminated site unless a waiver is received from the Department of Environment and Heritage Protection (EHP).
4.2	Environmental Planning and Assessment Act 1979	State of NSW	Link	Dec-14	Obtain development approval before undertaking development on land wholly or partly in a coastal management control district, as defined under the Coastal Protection and Management Act, other than an area declared as a coastal district under section 54(2) of that Act. The objective of the amending Act (December 2014) is to substantially increase the maximum penalties for offences against the Environmental Planning and Assessment Act 1979 and the Environmental Planning and Assessment Regulation 2000, including to prescribe a maximum penalty of $5 million in the case of a corporation or $1 million in the case of an individual, and additional daily penalties, for an intentional offence that caused, or was likely to cause, significant harm to the environment, or the death of or serious injury or illness to a person.
4.3	Native Vegetation Act 2003 (NSW)	State of NSW	Link	Oct-13	Do not destroy vegetation within an area of declared high nature conservation value or declared vulnerability to land degradation. Do not clear vegetation in an area where an area management plan is in force for specified activities without giving notification of your intention, in the approved form, to the Department of Environment and Heritage Protection (EHP). Do not unlawfully destroy vegetation, excavate or place fill in a watercourse, lake or spring. A permit may be sought under section 269 of the Water Act 2000. Lawfully permitted exemptions are in the regulation. Do not destroy a forest product, construct a road or carry out excavation works on land within the Wet Tropics Area without a licence issued by the Authority or issued under other legislation. Comply with the list of prohibited activities in the Wet Tropics Area.
4.5	National Parks and Wildlife Act 1974 (NSW)	State of NSW	Link	Oct-13	Identifies forest reserves.
5	**Cultural and Heritage**				
5.1	Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Commonwealth)	Commonwealth	Link	Oct-13	Do not fail to report (to the Minister) the discovery of remains which are believed to be Aboriginal remains. Details of the remains and their location must be given. Do not engage in conduct which contravenes the terms of a declaration relating to an Aboriginal place or object. Do not (without consent) do any act which is likely to endanger, cause damage to, deface or interfere with an Aboriginal object or place. Protection of Areas and Objects: Ensure that objects and areas with significance to Aboriginals are treated in accordance with Aboriginal tradition and are preserved and protected from injury and desecration. Comply with any declaration made by the Commonwealth Minister in relation to a particular area to protect or preserve Aboriginal heritage. Declarations are published in the Government Gazette and local newspapers, and a register of declarations is kept in the library of the Australian Institute of Aboriginal Studies.
5.2	Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cth)	Commonwealth	Link	Mar-14	Cultural Heritage Management Plan A cultural heritage management plan may be developed voluntarily, however it is mandatory if: a. a lease, licence, permit, approval or other authority is required for the project, and an EIS or any other environmental assessment is required for the project; or b. a development application is made relating to the project, and the chief executive is a concurrence agency for the application; or c. Prescribed by any legislation. Ensure that: • all reasonable and practicable measures are taken to ensure an activity does not harm Aboriginal cultural heritage; • Aboriginal cultural heritage is not harmed; • Aboriginal cultural heritage is not excavated, relocated or taken away; and • an object that is Aboriginal cultural heritage is not in your possession. It is a defence to prove that at the time of the alleged offence the defendant could not be reasonably expected to know that the thing to which the charge relates is Aboriginal cultural heritage.
5.3	Australian Heritage Council Act 2003 (Cth)	Commonwealth	Link	Mar-14	Report the discovery of any archaeological artefact that is an important source of information about an aspect of Queensland's history to the chief executive. Do not interfere with an artefact about which notice has been given for at least 20 business days Obtain a development permit before commencing work at a place listed in the heritage register, unless an exemption certificate has been obtained from the chief executive. An exemption certificate can be issued for development that: • is permitted under a heritage agreement for the place; or • will not have a detrimental impact on the cultural heritage significance of the place.
5.4	Environmental Planning and Assessment Act 1979	State of NSW	Link	Mar-14	Work at a Heritage Registered Place Obtain a development permit before commencing work at a place listed in the heritage register, unless an exemption certificate has been obtained from the chief executive. An exemption certificate can be issued for development that: • is permitted under a heritage agreement for the place; or • will not have a detrimental impact on the cultural heritage significance of the place.
6	**Flora and Fauna**				
6.1	Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)	Commonwealth	Link	Oct-13	Damage to Sensitive Environments: Do not take an action that may: • result in the death, injury, taking, trading, keeping or moving of a member of a listed threatened species or ecological community • result in the death, injury, taking, trading, keeping or moving of a member of a listed migratory species • knowingly cause significant damage to critical habitat of a listed threatened species or ecological community • result in the death, injury, taking, trading, keeping, moving of, or interfering with, a cetacean (eg whales, dolphins, porpoises, narwhals) • result in the death, injury, taking, trading, keeping or moving of a member of a listed marine species • result in a significant ecological impact on a relevant wetland.

Item	Description	Executor	Access	Last Updated	Extracted Legal Requirements
					Ensure that the Department of Sustainability, Environment, Water, Population and Communities (SEWPaC) is notified within 7 days if an action results in the death, injury, taking, trading, keeping, moving of, or interfering with: • a listed threatened species or ecological community • a member of a listed migratory species • a cetacean • a listed marine species.
6.3	Threatened Species Conservation Act 1995 (NSW)	State of NSW	Link	Oct-13	Do not take a protected plant unless as specified in Section 89 of the Nature Conservation Act 1992. Do not take a protected animal unless the taking is authorised under the Nature Conservation Act 1992. Restriction on Taking Native Wildlife in Areas of Major Interest and Critical Habitats Do not take, use, keep or interfere with native wildlife in an area of major interest or critical habitat (as identified in a conservation plan), unless permitted under a conservation plan; or a licence, permit or other authority issued under a regulation
6.5	Soil Conservation Act 1938 (NSW)	State of NSW	Link	Mar-14	Land Conservation Do not destroy vegetation within an area of declared high nature conservation value or declared vulnerability to land degradation. Do not clear vegetation in an area where an area management plan is in force for specified activities without giving notification of your intention, in the approved form, to the Department of Environment and Heritage Protection (EHP). Do not unlawfully destroy vegetation, excavate or place fill in a watercourse, lake or spring. A permit may be sought under section 269 of the Water Act 2000. Lawfully permitted exemptions are in the regulation. Do not destroy a forest product, construct a road or carry out excavation works on land within the Wet Tropics Area without a licence issued by the Authority or issued under other legislation. Comply with the list of prohibited activities in the Wet Tropics Area.
7	**Waste Management**				
7.1	Protection of the Environment Operations (Waste) Regulation 2005	State of NSW	Link	Mar-14	This Regulation: • makes requirements relating to non-licensed landfill sites, non-licensed waste activities and non-licensed waste transporting, for e.g. the way in which waste must be stored or transported, reporting and record-keeping requirements; • provides for the contributions to be paid by the occupiers of scheduled waste facilities for each tonne of waste received at the facility or generated in a particular area; • exempts certain occupiers or types of waste from these contributions; • allows rebates to be claimed in relation to certain types of waste; • provides for certain reporting and record-keeping requirements in relation to scheduled waste facilities and scheduled landfill sites; • exempts certain waste streams from the full waste tracking and recordkeeping requirements; • makes requirements relating to the transport of controlled waste to interstate destinations; • allows the OEH to approve the immobilisation of contaminants in waste; • makes special requirements relating to asbestos and clinical waste; and • makes it an offence to apply, or to cause or permit the application of, residue waste to land that is used for the purpose of growing vegetation, subject to any exemptions Do not deposit litter or conduct dangerous littering at a place. For places other than a road, exemptions apply for littering. Do not litter from a vehicle. Dumping of Waste Do not dump 200L or more of waste at a place or from a vehicle. Dumping of waste at a place other than a road is exempted if: • done by the occupier of the place, or • with the consent of the occupier, or • to a litter bin or other container provided Ensure waste is managed in accordance with the waste and resource management hierarchy and principles and any State waste management strategy.
7.3	Waste Avoidance and Resource Recovery Act 2001 (NSW)	State of NSW	Link	Mar-14	An Act which promotes waste avoidance and resource recovery and establishes a scheme to promote extended producer responsibility in place of industry waste reduction plans.
8	**Nuisance**				
8.1	Protection of the Environment Operations (Noise Control) Regulation 2008	State of NSW	Link	Mar-14	This Regulation repeals and remakes, with minor amendments, the provisions of the Protection of the Environment Operations (Noise Control) Regulation 2000. The Regulation makes provision with respect to the following: • the selling or using of motor vehicles with a temporary noise reduction device or with temporary noise reduction packing and the modification or repair of a vehicle to include any such device or packing • the selling or using of certain classes of motor vehicles and motor vehicle accessories that are capable of emitting noise levels above a prescribed level, • the use of motor vehicle horns and motor vehicle intruder alarms, • the times during which it is not permissible to use certain motor vehicles if they emit noise that can be heard in other residential premises, • the sounding of sirens and similar devices and the use of sound systems on vessels, • the emission of noise from the engines or exhausts of motor vehicles and vessels, • the maintenance of noise control equipment on motor vehicles and vessels, • the issue of defective vehicle notices and defective vessel notices, • the prohibition on selling certain articles that are capable of emitting noise levels above a prescribed level, • the obligation to label certain articles,

Item	Description	Executor	Access	Last Updated	Extracted Legal Requirements
					• the times during which it is not permissible to use certain articles (including musical instruments) if they emit noise that can be heard in any residential premises, • the inspection and testing procedures for the purpose of determining noise emission levels of certain motor vehicles, motor vehicle accessories, vessels, articles or equipment.

6.7. Disruptive Works Notices – Process and Templates

a) Disruptive Works Notices Process

For the construction of Hornsby Ku-ring-gai Stage 2 Redevelopment and Medical Imaging Building, Watpac proposes to implement a full and partial DWN system, whereby a full DWN would be submitted for works directly affecting the NSLHD interfaces and a partial DWN as a courtesy notice for works where a Contractor may be outside the site undertaking minor works or when works are undertaken within the site that may be perceived as out of the ordinary, such as additional hours on site (if approved by the relevant authority) or increased noise or vibration.

The procedures and process for both full and partial DWN's will be consistent with the following steps undertaken:

STEP 1: PRE-PLANNING OF WORKS

- Works will be assessed with the following items considered and documented within the DWN form
  - Durations of works
  - Sequencing of works
  - – Stakeholders affected
  - – Disruptions with services shutdowns and reconnections
  - – Impacts to access and egress
  - – Temporary signage
  - – Traffic Management
  - – Potential Industrial Relations issues and sensitive matters
  - – Environmental impact
- Drawings to be provided to articulate intent of works with sequencing where required.
- DWN form to be reviewed and approved internally prior to submission to Health Infrastructure and APP

STEP 2: DRAFT DWN SUBMITTED

- Watpac will submit the DWN form to APP for review, discussion and approval
- Should any amendments be required Watpac will update the form accordingly and re-submit

STEP 3: SUBMIT DWN FORM TO APP / STAKEHOLDER

- APP will submit the DWN to the relevant stakeholder.
- If required APP will arrange a meeting with the stakeholders to discuss the works in more detail. Watpac will facilitate the meeting and incorporate any amendment to the DWN before resubmitting for final approval

STEP 4: PRIOR TO WORKS COMMENCING

- Subcontractors and direct employees involved in the works will be required to participate in a Tool Box Talk to review the proposed risk control measures and to confirm the control measures are appropriate before works proceed. A copy of the Notice of Disruptive Works Form will be attached to the Tool Box Talk.
- 24 hours prior to the work commencing Watpac will send a notice to APP confirming works will proceed as scheduled.

STEP 5: WORKS UNDERTAKEN

- Works will be undertaken in line with DWN. If these works are scheduled over a long duration Watpac will provide APP with status updates to ensure works as progressing as scheduled.

STEP 6: COMPLETION OF WORKS

- Upon completion of the works subcontractors and direct employees involved will sign off the DWN form to confirm all works are complete.
- When works are completed Watpac will send APP a notification identifying all works have ceased and confirm the area of work has been re-instated to its original condition or to the agreed condition endorsed within the DWN.

Coordination of Services Shutdowns, Diversions and Reconnection

Watpac recognises the importance of full coordination and planning when undertaking services shutdown, diversions and reconnections in order to maintain stakeholders, LHD staff and public safety at all times and minimise disruption to surrounding operational buildings business continuity. For a successful outcome all

activities must be appropriately managed through open communication and collaboration with the relevant stakeholders and staff during all stages of the process.

Watpac personnel have extensive experience with undertaking an array of different types of shutdowns, diversions and reconnection successfully on health and science projects and provide the following key principles and methodologies that apply to all situations.

Planning for the Works
When planning shutdowns, diversions and reconnections the involvement of all key stakeholders in the development of the plan facilitates a collaborative approach, avoids incorrect assumptions being made and promotes a streamlined process by reducing the production of unnecessarily documents.

Early Warning
When undertaking shutdowns, diversions and reconnections stakeholders and LHD staff will require sufficient time to coordinate and communicate the proposed activities to the relevant people affected by the works. Depending on the complexity of works several meetings may be required to confirm activities. Engineering may require a supplier / vendor / authority to undertake pre works, checks and balances prior to the commencement of the shutdown, diversion and reconnection, or supplier / vendor / authority may be required on site during the works.

Timing
Depending on the type of shutdown, diversion, and reconnection stakeholders and LHD staff may request the works are undertaken on certain days that are quieter, days when particular staff are rostered on or when case lists are not scheduled.

Open communication
Maintaining open communication channels throughout the entire process is paramount. Shutdowns, diversions, and reconnections often require real time communication on the day to coordinate the exact timing and ensure all parties aware of the situation.

Delaying or Postponing Works
If the shutdown, diversion, and reconnection affecting critical areas works may need to be delayed or postponed if for some reason there is an issue relating to safety. Typically these type of issues will normally not be known until a few minutes prior to the agreed time. Should this occur, all parties must be patient and understanding, as works must only be carried out if all parties agree it is safe to continue. While Watpac acknowledge most shutdowns, diversions and reconnection have specific methodologies and or processes to implement, the following steps outline the overarching principles for works to be implemented.

b) Disruptive Works Notice Template

Health
Northern Sydney
Local Health District

Application for Disruption to Safety or Services

A minimum of **10 days** notice is to be given for any works that may interfere with the operation of the Hospital.

Disruption Notice no.

No: ____

To:	APP / LHD			
From:	Watpac Construction			
Date:			**Date Access Required:**	
Explanation of Works				
Dates of Works	**Day 1**	**Start date**		
		Finish date		
		Duration in Hours		
	Day 2	**Start date**		
		Finish date		
		Duration in Hours		
Work Method Statement Attached:			**Yes / ~~No~~**	
Locations of activity / area affecting: (attach location plan if required) Refer attachment				
Consultation: • HKH Engineering & Maintenance				

	EFFECT:	**YES**	**NO**
Noise (noisy work to be completed prior to 17:00)			
Vibration (to be completed prior to 13:00)			
Dust (Non destructive works)			
Fumes			
Restricted Access to patients / public / staff			
Interruption to traffic – limited			

Interruption to pedestrian access		
Infection Control: **Construction Activity Type – N/A** **Infection Control Risk Group – N/A** **Construction Activity Matrix Class – N/A** **Infection Control Construction Guidelines to be implemented – refer WTP Infection Control Plan and NSLHD Guidelines for Infection Prevention & Control during Construction, Renovation and Maintenance**		

CONTACT SCHEDULE

	Rep's Name	Contract Phone No.
Watpac - Head Contractor ***Primary Contact***	Mark Cahalin (Project Manager) Craig Scott (Site Manager)	0411 679 160 0431 308 944
Secondary Contact	Boris Djakovic (Senior Project Engineer)	0412 354 747
APP - Project Manager	Brad Embury	0408 896 635

ENDORSEMENT

We the undersigned have reviewed the details of the proposed disruption to safety and/or services and have made an assessment of the proposed work methods, allocation of tasks and risk mitigation methods and endorse the application as follows:

Representatives	Signature	Date	Agree	Reject
Head Contractor – Watpac (Project manager)				
Head Contractor – Watpac (Site Manager)				
Head Contractor – Watpac (Area Foreman)				
Project Manager – APP				
NSLHD Engineering & Building Services Operations Manager				
NSLHD Transition Manager				

ARE NSLHD representatives to be present during work: ☐ **YES** ☒ **NO**

Health
Northern Sydney
Local Health District

COMMENTS

c) Disruptive Works Notices Register Template

DISRUPTIVE WORKS NOTICES REGISTER

Project: Hornsby Ku-ring-gai Hospital - Stage 2 and Medical Imaging Building

#	TITLE	DESCRIPTION	ISSUED TO	SUBMISSION (ACONEX)	DATE ISSUED	APPROVAL (ACONEX)	DATE APPROVED	PROPOSED COMMENCEMENT DATE	ACTUAL COMMENCEMENT DATE	PROPOSED COMPLETION DATE	ACTUAL COMPLETION DATE	STATUS	COMMENTS
1												Complete	*Conditional Approval - See Aconex correspondance for details*
2													
3													
4													
5													
6													
7													
8													
9													
10													
FORECAST DWN WORKS													
A													
B													
C													
D													
E													
F													
G													
H													
I													
J													

6.8. Unexpected Finds Checklist

S08-04-70.02
Unexpected Finds Checklist

Business Unit Details

Business Unit Name: Watpac Construction **State :** Choose an item.

Project No: **Project Name:**

Location of Project:

Watpac Representative Name: **Date:**

Subcontracting Business Name: **Time:**

Subcontractor Representative Name: **Mobile:**

UNEXPECTED FIND CHECKLIST

Location on Project:

Specific works being carried out:

Details of work crew and equipment being used:

Suspected Material identified:

Weather conditions at the time:

Was direct contact made with the material by the workers and equipment? ☐ Yes ☐ No ☐ Unknown

What actions were taken:

What actions were made to make area safe:

Name of OH/LAA*/ Environmental Consultant contacted: **Date Contacted:** / /

Date OH/LAA*/ Environmental Consultant arrived on site: / / **Time On-Site:** : ☐ AM ☐ PM

Samples taken? ☐ Yes ☐ No

Was any specialist advice provided?

Was any risk to worker health or environment identified?

Action to be taken

Actions taken to remediate contamination or mitigate risk during works

Work recommencement date: / /

Other Comments:

*OH/LAA (Occupational Hygienist / Licensed Asbestos Assessor