HANSENYUNCKEN

Environmental Management Plan

Project: Coffs Harbour Hospital Expansion (Refurbishment)

Job No: SN101

Rev: 3.1 | June 2022

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1 Document Information

1.1 Review & Approval

Review			
Project Manager	Josh Crilley		
Site Manager	Dan Boot		
Services Manager	Brian Sutton		
Project Engineer	Rick O'Connor		
Site Engineer	Matt Merrick		
Contracts Administrator	Adam Brett		
Contracts Administrator	Roland Ruberto		
Site Foreman	Robbie Clydesdale		
Construction Worker	Daniel Attard		
Construction Worker	James Lang		
HSE Coordinator			
Approval			
Newcastle Operations	Pat McAlister		
NSW HSE Manager	Peter Fay		

1.2 Change Information

Change Information			
Revision	**Description**	**Issued by**	**Issue date**
REV 1	First Issue	HW	March 2021
REV 2	Section 3.7, Section 4.8	ROC	August 2021
REV 3	Section 4.9, Appendix 3	ROC	October 2021
REV 3.1	Review and approve personnel update	MM	June 2022

2 Definitions

The following definitions and abbreviations have been used in this Environmental Management Plan. Further definitions and abbreviations are provided in referenced procedures and plans.

BIM360 Field	Cloud based QHSE field management software application designed specifically for the construction industry.
EMP	Environmental Management Plan (this document)
EPA	State Environment Protection Authority
ESD	Ecologically Sustainable Development
HSE	Health, Safety & Environment
HY	Hansen Yuncken Pty Ltd
HYWAY	An information management platform developed by HY utilising Microsoft SharePoint
NC	Non-Conformance
NGER	National Greenhouse and Energy Reporting
CHHE	Coffs Harbour Hospital Expansion (Refurbishment)
NVMP	Noise and Vibration Management Plan
OEH	Office of Environment and Heritage
PLN	HY Plan
PMP	Project Management Plan
POEO	The Protection of the Environment Operations Act
PROJ	Project Management
REO	Regional Environmental Officer
RMS	Roads and Maritime Services
S/C	Subcontract(s) or Subcontractor(s) as the context requires
Site Safety Supervisor	Site Manager
SSC	Site Safety Coordinator
SSO	Site Safety Advisor
Superintendent	PricewaterhouseCoopers (PwC)
SWMS	Safe Work Method Statement
TMP	Traffic Management Plan

3 Commitment & Policy

3.1 Scope & Application

The CHHE project consists of a strip out (light Demolition) to existing departments followed by full refurbishment throughout various parts of the existing Coffs Harbour Hospital. The CHHE Refurbishment will address the repurposing of the existing campus facilities which are to be relocated into the new Clinical Services Building by re-aligning services roles, functions, and locations. The refurbished locations will include but not be limited to.

- Emergency Medical unit
- Emergency Staff areas
- Mortuary
- Education
- Renal
- Ambulatory Care
- Rehab
- CSSD
- Perioperative
- IPU
- Cath Lab
- IT Admin

This EMP has been generated to satisfy the requirements of "*ISO 14001:2015, Environmental management systems – Requirements with guidance for use*" and the "*NSW Government Environmental management guidelines – Construction procurement (4th edition)*". It establishes guidelines and controls for all HY activities that may impact the surrounding environment for the duration of the works, including but not limited to; air, water, land, natural resource use & waste, flora & fauna, and their respective interrelationship. Furthermore, it has been designed to embrace the environmental management requirements, both in terms of the Contract and generally, to demonstrate HY as an environmentally responsible organisation to the broader community.

3.2 EMP Interrelationship with PMP

This EMP forms part of Hansen Yuncken's Environmental Management and interfaces with the company's Quality & WHS Management Systems. Furthermore, this EPM is an integral part of Coffs Harbour Hospital Expansion (Refurbishment) PMP. The following plans referenced within this EMP form part of the overall PMP for the project and contribute to the environmental management procedures:

- **Project Site Induction** – Ensures all workers onsite are aware of the Environmental Management Plan & also trains all workers onsite on the requirements for controlling: dust & windblown debris, dirt & debris on public roads, protection of stormwater drains, tool & equipment washout, chemical spills, noise disturbance, waste collection & disposal, rubbish & food scraps & excess concrete.
- **Project HSE Risk Assessment** – Identifies what subcontractor onsite are impacted by or the risk of; air quality/dust, archaeology & cultural heritage, chemical spill, flora & fauna, littering, noise disturbance, stormwater contamination & watercourse pollution each month. This will be monitored through task observations scheduled for each month.
- **Noise & Vibration Management Plan** – Identifies mitigation methods to minimise the risk of noise & vibration to the workers onsite and the surrounding properties.
- **Traffic Management Plan** – Summarises how construction and pedestrian traffic will be managed on the project to minimise the impact on the existing facility and the neighbours surrounding to the project.
- **Site Layout Plan** – Identifies the location of sediment controls, access routes, truck washout, location of site bins, spill kits, concrete washout.

- **Emergency Response Plan** – Outlines the process to manage the following environmental emergencies; asbestos exposure, water pollution, fire, major fuel spill & chemical spill
- **Audit Management Plan** – Describes the frequency of internal and external environmental audits and the process for closing out any non-conformances raised.

3.3 Policy & Objectives

The HY Environmental Policy Statement provides the framework for the development of this EMP (refer appendix A.1), and details the company's commitment to "*providing a high quality environment, which meets the requirements and expectations of; Clients, Statutory Authorities, Employees and Community Groups*", through the application of "*sustainable development principles, to continually improve environmental performance in minimising impact on, and pollution of, the environment during the construction process"*.

The objective of the Environmental Management Plan is to:

- Satisfy Client requirements related to environmental performance, set out in the Specification for the Works.
- Incorporate and provide mitigation strategies for environmental issues arising from site activities.
- Encourage best practice environmental management through planning, commitment and continuous improvement.
- Prevent and minimize adverse impacts on the environment;
- Identify the potential for, and respond to, environmental incidents and emergency situations and take corrective actions;
- Identify and control possible environmental hazards with the works and HY activities;
- Identify and protect any special environmental characteristics of the site including cultural heritage significance;
- Define roles and responsibilities and allocate the necessary resources
- Ensure environmental training and awareness programmes are provided to employees and subcontractors;
- Establish mechanisms to monitor, evaluate and report progress.

The HY Environment Policy commits the company to achieve the following goals:

- Develop and promote a culture of environmental leadership, responsibility and continual improvement across the HY business;
- Audit, monitor and ensure compliance with environmental legislative and regulatory obligations and other environmental commitments;
- Utilise the resources of HY to lead the way in defining and achieving best environmental practice; and
- Advance and disseminate environmental knowledge and applied environmental management through training, research and engagement with the wider community

A copy of the Environment Policy is contained within the PMP and displayed at the project / site office and induction sheds. HY recognises this implementation will involve effective training of personnel to ensure they fully understand their responsibilities to comply with and monitor the management system. In addition, all site workers are consulted on HY environmental policies & procedures through the following mechanisms: site induction, notice board, site inspections, prestart meetings, subcontractor meetings, team meetings, toolbox talks.

3.4 Targets

3.4.1 Objective: Reduce waste

KPI: Waste minimisation and recycling

Target: Recycle > 80% of construction waste

Responsibility: HY Site Manager

3.4.2 Objective: Comply with all environmental legislation

KPI: Number of identified breaches of State or Commonwealth Environmental legislation

Target: Nil for duration of project.

Responsibility: HY & Subcontractors

3.4.3 Objective: Minimise impacts on the environment

KPI: Number of significant environmental incidents causing serious harm to the environment

Target: Nil for duration of project.

Responsibility: HY & Subcontractors

3.4.4 Objective: Conduct environmental site inspections to validate environmental conformance

KPI: Schedule and undertake regular site inspections

Target: > 90% of scheduled HSE inspections

Responsibility: HY Site Manager

3.4.5 Objective: Minimise and manage environmental complaints

KPI: Consult with impacted neighbours and promptly address all complaints

Target: ≤ 1 complaint per significant construction milestone

Responsibility: HY Site Manager

3.5 ESD Vision & Principles

The project provides an opportunity for HY to expand its practical and theoretical knowledge of ESD to a level that is considered 'best practice' status.

As such, the ESD vision and principles for HY involves:

- Identification and prioritisation of environmental risk based on AS/NZS ISO 31000:2009 and Guidelines HB158:2010, using qualitative likelihood vs. consequence methods.
- Development of management systems which build knowledge and capacity on environmental issues, principles and sustainable behaviours including training and communication.
- Reduced energy and water consumption as well as waste minimisation during the construction process.
- Environmental training and management of trade contractor's activities to ensure that the project ESD objectives are obtained.
- Efficient and effective use of natural resources in a way that maintains the ecological processes on which life depends
- Sustainable use of renewable energy resources.

3.6 Environmental Planning

In accordance with the contractual requirements, applicable legislation, and in keeping with proper environmental practices, Hansen Yuncken has instituted a methodology which is reflective of observes the requirement, as set out in ISO 14001:2015.

3.6.1 Environmental Aspects & Impact

All activities related to the Coffs Harbour Hospital Expansion (Refurbishment), which are enacted by or on behalf of Hansen Yuncken, are identified in the Project HSE Risk Assessment (attached in the PMP as Appendix 7). For each activity the environmental aspects and associated actual and potential impacts are identified as they relate to the following environmental elements:

- Location and Land Use;
- Noise & Vibration;
- Traffic and Access;
- Air Quality;
- Soils, Erosion and Water Quality;
- Terrestrial Flora and Fauna;

- Cultural Heritage;
- Site Contamination; and
- Waste Management.

Environmental impacts are detailed in the "**Project HSE Risk Assessment**" and assessed for significance by using the Risk Matrix. Each identified potential impact is rated (Risk rating) in relation to its predicted likelihood and consequence. Environmental Impacts as applicable to the Coffs Harbour Hospital Expansion (Refurbishment) are summarised in this EMP "Environmental Risk Register" (Section 4.3).

3.6.2 WORK METHOD STATEMENTS

For each activity rated as a significant risk (i.e. Risk class >M/Medium) to the environment, a further Risk assessment is undertaken and any additional controls identified in a Work Method Statement, detailing the; steps involved, hazards, control measures and persons responsible. Furthermore, a Tool Box Talk will be completed, involving all workers responsible for completing the "Significant Risk" activity.

3.6.3 Legal Compliance and Other Requirements

Hansen Yuncken has developed a procedure ("*Legislation Standards and Codes of Practice*"), available on HYWAY to identify legal and other requirements that are applicable to the Coffs Harbour Hospital Expansion (Refurbishment) and to ensure the accessibility of the information. The procedure shall be referenced and is applicable to those activities and functions that have the potential to interact with the environment.

Furthermore (URL) links are supplied on HYWAY to regulatory body websites and relevant NSW legislation relevant to environmental Aspects and management of the same.

3.7 Contact Details & Hours of Work

Site Working Hours:

A. between 7am and 6pm Mondays to Fridays inclusive; and

B. between 8am and 1pm, Saturdays

24-hour contact details of Site Manager:

A. Daniel Boot – Site Manager

B. Ph: 0439 850 357

4 Implementation

4.1 Environmental Awareness

All HY and S/C employees shall receive an induction into the project in accordance with the Site Induction procedure including completing the Site Induction Record Form (FM-CORP-HSE-001).

The induction shall include the requirements for the conduct of activities which have the potential for significant environmental impacts on the project which shall be outlined in the project specific Site Induction Handbook.

This document applies to all HY and S/C employees, environmental awareness is the responsibility of every person working on and associated with the project.

4.2 Environmental Impacts of Subcontractor Activities

The environmental impacts of subcontractor activities shall be assessed during the S/C pre-award meeting in accordance with pre-award meeting procedure and the project HSE risk assessment.

4.3 Environmental Risk Register

Environmental Risk Register Summary & Responsibilities		
Environmental Issue	Risk to Project	Responsible Personnel
Location & Land use Residential properties may be impacted with construction works due to construction noise and dust	Low	PM, SM
Noise & Vibration Construction of the development may result in short term impacts during the project due to the use of heavy machinery and plant as well as construction personnel and vehicle movements.	Medium	PM, SM
Traffic & Access During construction there will be impacts on the existing facility and the public roads surrounding the project from construction vehicles and deliveries for site.	Medium	PM, SM

Environmental Risk Register Summary & Responsibilities		
Air Quality During the earthworks, stage of the project there is a risk of poor air quality generated by the constructions works.	Low	PM, SM, S/C
Soils, Erosion, & Water Quality There is a risk of water pollution from the construction works caused by wind or water movement causing sediment and other materials leaving site.	Nil	
Terrestrial Flora & Fauna The removal of trees during construction works poses minimal risk to landscaped species throughout the area.	Nil	
Cultural Heritage It is unlikely that construction works will impact any undisturbed aboriginal artefacts due to the construction zone being in an existing site.	Low	PM, SM
Site Contamination There is a risk of contamination based on testing conducted prior to construction works commencing (There is a risk of unexpected finds being an existing site).	Low	PM, SM
Waste Management The risk of the constructions works waste management is low/medium pending the results of existing materials onsite.	Low	PM, SM
Visual There are no risks during construction.	Nil	
Socio-Economic There are no risks during construction.	Nil	

PM - Project Manager, SM - Site Manager, FM - Foreman, S/C – Subcontractor, PCA - Private Certifier

4.4 Location and Land Use

4.4.1 Site Location

The site is located at 345 Pacific Hwy, Coffs Harbour NSW 2450 within an active public hospital amongst an industrial/commercial area. Site will be access via the rear using Phil Hawthorne Drive, which is shared with the local business traffic and hospital visitor's activity.

4.4.2 Likely Impacts

The construction works would be short term in nature and would not interfere with the current use of the site as a hospital. All construction activities would be carried out with due diligence, duty of care and best management practices.

Given the location of local business within proximity to the works area, some impacts associated with construction traffic, noise and dust are likely to affect adjacent properties. These likely impacts will be addressed below.

4.4.3 Mitigation Strategies

- The neighbouring landowners are to be consulted regarding the construction works, predicted program and any access requirements.
- Land disturbance during construction is to be limited to that required to undertake the construction works
- Construction works to be undertaken in consideration of adjacent vegetation
- Areas disturbed during construction to be returned to the pre-construction condition.

4.5 Noise and Vibration

4.5.1 Likely Impacts

Construction of the proposed development will result in short term noise impacts during the construction period.

4.5.2 Mitigation Strategies

- Site construction noise will be managed in accordance Noise and Vibration Management Plan (NVMP) developed for this project. The NVMP is based on the proposed construction methodology, activities, durations and equipment type and numbers.
- Keep the community informed in relation to noise intensive activities in the immediate area.
- Provide consultation where prolonged or consecutive periods of construction works are planned.
- Construction activities shall be restricted to the normal EPA specified daytime construction hours. If it were deemed necessary to undertake work outside these hours, prior approval would be sought from the Council.
- Any noise complaint received will be investigated as soon as practicable. Any practicable and feasible measures to minimise noise will be identified and implemented if required.
- All possible steps to be taken to silence construction equipment where possible.

- Optimum siting of work areas, vehicle and plant parking areas, materials stockpiles and equipment storage areas in locations where potential acoustical impacts will be minimised.
- All plant and machinery used for the project shall be well maintained.

4.6 Traffic & Access

4.6.1 Likely Impacts

Construction of new site facilities will occur over the duration of the build with some increase in traffic in the local area expected. Construction workers will be instructed not to park either within precinct grounds or on-street within the typical daily precinct parking catchment. The construction workforce would vary according to the work being carried out, the construction method and contractor's program.

The increased traffic is not predicted to have an impact on local traffic flow and only a minor inconvenience to local road users is expected. Whilst construction works may cause some inconvenience to local residents, any impacts would be minor, localised and short-term.

Construction vehicle routes have been developed with the aim to provide the shortest distances to/ from the Regional and State Road network, whilst minimising the impact of construction traffic on the local streets in the immediate vicinity. Alternative routes would not be used without specific prior approval from the relevant authorities. No trucks will be permitted to layover on approach to the construction sites without formal prior approval. Access to this site is anticipated to be primarily via Phil Hawthorne Drive and Stadium Drive.

There is the potential that construction traffic travelling on the access road within the subject site could result in degradation of the road condition. Due to the minor nature of the works the additional traffic load is unlikely to impose any significant additional load upon the existing road network within the site. There are no significant construction-related issues or impacts that would not be mitigated by an appropriate Traffic Management Plan.

4.6.2 Mitigation Strategies

- Prepare a Traffic Management Plan (TMP) based on the detailed construction methodology and use of specific heavy vehicles and construction plant. The Traffic Management Plan is to include measures to minimise traffic impacts ensure public safety and is to be prepared in accordance with:
  - Traffic Control at Work Sites Manual (RTA, 2010)
  - Australian Standard 1742.3 - 2002 Traffic Control Devices for Works on Roads.
- The TMP will be developed in consultation with NSW Roads & Maritime Services (RMS) and the Coffs Harbour City Council
- The TMP will detail hours of operation, heavy vehicle volumes (numbers) and routes, construction staff parking, loading / unloading areas and site access arrangements, all temporary warning, guidance and information signage, and appropriate traffic control devices
- Notify surrounding landowners at least one week in advance of the works
- All vehicles accessing the sites will use the designated access roads
- All roads will be kept clean and free of dust and mud. Where material is tracked onto sealed road, it will be removed so that road pavements are kept safe and trafficable

- All vehicles transporting spoil onsite will be covered and filled to maximum capacity to minimise vehicle movements as required
- All roads, kerbs, gutters and footpaths damaged as a result of construction are to be restored to their pre-construction condition. A dilapidation report will be carried prior to construction
- A dedicated vehicle wash-down area will be established on site
- All traffic shall comply with all applicable traffic laws and regulations including speed limits. All construction vehicles shall comply with the speed limits set for the roads accessing the site

4.7 Air Quality & Dust Control

4.7.1 Likely Impacts

The main impact to air quality during construction is expected to arise from the generation of airborne localised dust associated with demolition. Given the nature of the project airborne dust is unlikely to affect the surrounding buildings although there is the potential impact to areas within the existing building.

4.7.2 Mitigation Strategies

Include a list of mitigation strategies, amend list below as relevant

- Construction vehicles and equipment to be suitably serviced prior to commencement of construction activities and all necessary maintenance to be undertaken during the construction period to meet EPA air quality requirements.
- Excessive use of vehicles and powered construction equipment will be minimised where possible
- All construction machinery will be turned off when not in use to minimise emissions where possible.
- Construction contractors to monitor dust generation progressively.
- The burning of waste materials will not be permitted on site

4.8 Soil, Erosion & Water Quality

4.8.1 Likely Impacts

Earthworks and general ground disturbances associated with the site works may result in minimal sediment and other materials leaving the site via wind or water movement. This may have the potential to result in the water pollution such as turbidity and nutrient inputs, should sediment wash into stormwater or natural drainage lines.

4.9 Monitoring & Reporting

4.9.1 Program & Monitoring/Reporting Activities

Environmental risks as identified in this management plan are monitored and reported on monthly via BIM360 checklists and PM meetings.

5 General construction waste entering drainage lines

5.1.1 Mitigation Strategies

- Construction is to be undertaken in accordance with the Erosion and Sediment Control Plan.
- All erosion and sediment control devices shall be properly maintained for the duration of the work. All structures are to be inspected after rain events and sediment to be removed
- Any temporary stockpiles should be stabilised using sediment fencing or similar.
- All fuels and other hazardous liquids shall be stored at designated construction compounds
- All chemicals used for construction shall be stored and used in accordance with the relevant Safety Data Sheets.
- An emergency spill kit shall be kept at the construction compound.
- Workers are to be made aware of the provisions of Section 120 of the POEO Act with regards to water pollution
- Notification to the EPA in accordance with Part 5.7 of the POEO Act is to be undertaken where a pollution incident occurs
- All construction vehicles and equipment are to be maintained in designated areas away from watercourses
- Construction vehicles shall be appropriately cleaned of any soil or mud prior to leaving each works site at dedicated wash down bays
- “Clean” stormwater shall be diverted around the site where possible
- All existing stormwater pits and drains subject to HY construction works will be silt protected with geo-fabric and/or granular socks. Drains will be monitored and maintained by HY
- Stockpiles to be established at HY approved locations
- Sediment fences shall be installed at required locations at the perimeter of the site
- Stormwater shall be diverted to retention basins
- The location and details of permanent controls shall be included on the Site Layout Plan
- Erosion and sediment controls shall be inspected as part of the Site HSE Inspection

5.2 Terrestrial Flora and Fauna

5.2.1 Likely Impacts

As a refurbishment the majority of the redevelopment is to be completed within the existing footprint of the project. No trees will be removed as a part of the construction works.

5.2.2 Mitigation Strategies

Include a list of mitigation strategies, amend list below as relevant

- No vegetation removal or modification is to occur beyond the proposed works areas shown on the plans.
- Carry out landscaping in accordance with the landscape design
- Any areas of significant flora and fauna value which have been identified on the construction site will remain bunted/ flagged during construction.

5.3 Archaeology & Cultural Heritage

5.3.1 Likely Impacts

The refurbishment of the project is located within an existing building. It is unlikely that the proposed works would disturb any undisturbed Aboriginal objects or sites of historical relics as defined under the Heritage Act 1977

5.3.2 Mitigation Strategies

Include a list of mitigation strategies, amend list below as relevant

- All workers (including contractors) should be made aware that it is illegal to harm an Aboriginal object or historic relics, and if a potential Aboriginal object or historic relic is encountered during activities, then all work at the site will cease and the OEH will be contacted to advise on the appropriate course of action to allow the Gumbaynggirr People of the Gumbaynggirr Nation to record and collect the identified item(s).
- All workers (including contractors) should be inducted concerning Aboriginal cultural heritage values
- In the event that known or suspected Aboriginal skeletal remains are encountered during the activity, the following procedure will be followed:
  a. All work in the immediate vicinity will cease;
  b. The find will be immediately reported to the work supervisor who will immediately advise the environment manager or other nominated senior staff member;
  c. The environment manager or other nominated senior staff member will promptly notify the police and the state coroner (as required for all human remains discoveries);
  d. The environment manager or other nominated senior staff member will contact the OEH for advice on identification of the skeletal material as aboriginal and management of the material; and
  e. If the skeletal material is of aboriginal ancestral remains, the local aboriginal land council will be contacted and consultative arrangements will be made to discuss ongoing care of the remains.
  f. The project team will take all necessary measures to protect the artefacts from being damaged or destroyed.
  g. Works will not re-commence in the area until a written instruction from the superintendent is received.

5.4 Site Contamination

5.4.1 Contaminated Soil Risk Assessment

A risk assessment of contaminated soil shall be conducted at the start of the project in accordance with the following procedure for Contaminated Soil Assessment.

As soon as possible after possession of the site by HY, an assessment of actual or potential soil contamination and its impacts shall be undertaken using the Soil Contamination Assessment on BIM 360 Field.

5.4.2 Identification of Contaminated Soil

During construction, it shall be necessary to monitor soil contamination levels (if any), dust levels and water runoff quality, to ensure that health and environmental standards are not compromised. This is especially important as contaminated soil may be excavated and transported around the site.

Upon discovery of contaminated soil, the HY Site Manager shall arrange for works to be ceased immediately in the area and contact the Superintendent for further directions.

Contaminated waste shall be collected, contained, stored, handled and disposed of in accordance with relevant legislation and codes of practice.

5.4.3 Risk of Exposure

It is important to minimise the risk of exposure of construction personnel to soil contaminants by adopting appropriate site controls and industrial hygiene practices. Site controls may include:

- Defining certain areas as contaminated and restricting access to them;
- Appropriate signage;
- Training construction employees in industrial hygiene procedures;
- Keeping non-essential motor vehicles such as personal cars out of contaminated areas;
- Regular medical checks of construction personnel who are exposed to contaminated soils;
- Keeping stockpiles of contaminated material watered down to minimise dust generation in accordance with any water restriction requirements and ensure that runoff is not generated from excessive watering;
- Covering truck loads with tarpaulins and watering material when loading and unloading;
- Wheel washes for trucks and vehicle leaving the contaminated areas;
- Regular road sweeping and cleaning;
- Dust monitoring and adjustment of construction programs to accommodate high risk periods when conditions are windy or very dry; and
- Monitoring of concentrations of volatiles.

Industrial hygiene practices may include:

- Wearing long sleeved shirts and trousers or overalls to minimise dermal exposure;
- Wearing gloves when handling soils;
- Washing hands and faces before eating, drinking or smoking;

- Leaving overalls at site for laundering;
- Showering and washing facilities; and
- Wearing respiratory equipment during times of high dust or volatile emissions.

5.4.4 Release of Contaminants to Soil and Groundwater

Water spraying of stockpiles and of soils being loaded and unloaded from trucks, covering of truck loads with tarpaulins and other measures described in the previous section would minimise the potential for dust to be generated.

If heavily contaminated soil is placed in contact with clean soils, contaminants could be mobilized by rainwater or chemical / physical reactions and affect the clean soils to a limited extent.

Similarly, there is a risk that contaminated soil is not clearly differentiated from clean soil and that mistakes could occur which cause the materials to be mixed or wrongly handled or disposed of.

This shall be overcome by implementing a material tracking system for all contaminated soils and ensuring that construction staff are trained how to use the system.

This shall involve documenting areas containing contaminated soil and putting signage near stockpiles that indicated the type of material present and its contamination status.

It shall also require supervision and documentation of all movements of contaminated materials around the site.

Avoiding contact between stormwater and contaminated soils is difficult to achieve if larger areas of a site are being exposed within a short period, because it does not allow for minimizing the amount of soil that is uncovered or placed in temporary stockpiles.

Therefore, it is necessary to manage stormwater in such a way that it does not mobilize contaminants and transfer them to clean areas.

This may be achieved by:

- Covering stockpiles of contaminated soil;
- Placing stockpiles of contaminated soil on bitumen or other sealed areas;
- Installation of adequate bunding or other approved method to contain runoff;
- Collecting stormwater run-off from stockpile areas; and
- Analytical testing of collected stormwater prior to its release.

Erosion and sediment control procedures in accordance with the relevant Code of Practice may also be applied, but with the additional objective of keeping water that is exposed to contaminated soils separate from water that has only come into contact with clean soils.

Groundwater could potentially be impacted by contaminants mobilized from stockpiled contaminated soil or by buried material.

Minimising runoff from stockpiles, as outlined above would reduce the risk to groundwater.

Land filling of contaminated material which is below the relevant criteria for soil contamination above the water table and capping the landfill area with low permeability material would minimise the risk of groundwater contamination from infiltration of stormwater into buried soils.

5.4.5 Heavy Metal Contamination

Any suspicious industrial wastes encountered will be immediately isolated to enable these assumptions to be confirmed by analytical testing.

5.4.6 Mitigation Strategies

Include a list of mitigation strategies, amend list below as relevant

- In the event that unexpected conditions are encountered during development work or between sampling locations which may pose a contamination risk, all works should stop and an environmental consultant shall be engaged to inspect the site and address the issue.
- A Salinity Management Plan is to be prepared for the project as per REF requirements.

5.4.7 Unexpected Finds

Unexpected Find shall be addressed in compliance with the Hansen Yuncken's Unexpected Finds protocol listed below:

Unexpected Finds Protocols - General

1. Immediately cease work and contact site foreman
2. Site Foreman to construct temporary barricading to prevent worker access to the unexpected substance(s) and install appropriate stormwater/sediment controls
3. Site foreman to contact Client and arrange inspection by environmental consultant
4. Environmental consultant to undertake detailed inspection and sampling & analysis as per the documented sampling procedures outlined in the RAP analytical results against documented site assessment criteria in the RAP
5. If substance assessed as presenting an unacceptable risk to human health
6. If substance assessed as not presenting an unacceptable risk to human health Site foreman to remove safety barricades and environmental controls and continue work
7. Environmental consultant to supervise remediation and undertake validation/clearance as per the remediation/validation/clearance plan
8. Site Foreman to remove barricades and environmental controls and continue work.
9. Environmental consultant to submit assessment/validation/clearance to site foreman for distribution to Client and appropriate regulatory authorities.

Unexpected Finds Protocol - Asbestos

If asbestos is detected in unexpected areas prior to, or during, site development works the following 'Unexpected Finds Protocol' will apply:

a. Upon discovery of suspected asbestos containing material, the site manager is to be notified and the affected area closed off by the use of barrier tape and warning signs. Warning signs shall be specific to Asbestos Hazards and shall comply with the AS1319-1994 – Safety Signs for the Occupational Environment.

b. An Occupational Hygienist is to be notified to inspect the area and confirm the presence of asbestos and to determine the extent of remediation works to be undertaken. A report detailing this information would be compiled by the Occupational Hygienist and provided to the Principal (or their representative) and the site manager.

c. The location of the identified asbestos material would be surveyed using sub-meter Differential Global Positioning System (DGPS).

d. If the impacted soil is to be disposed off site, it should be classified in accordance with the DECCW's Waste Classification Guidelines (2008) and disposed of, as a minimum, as asbestos contaminated waste to a suitably licensed landfill. In dry and windy conditions the stockpile would be lightly wetted and covered with plastic sheet whilst awaiting disposal.

e. All work associated with asbestos in soil would be undertaken by a contractor holding a class ASA Licence. WorkCover must be notified 7 days in advance of any asbestos works.

f. Monitoring for airborne asbestos fibres is to be carried out during the soil excavation in asbestos contaminated materials.

g. Documentary evidence (weighbridge dockets) of correct disposal is to be provided to the Principal (or their representative).

h. At the completion of the excavation, a clearance inspection is to be carried out and written certification is to be provided by an Occupational Hygienist that the area is safe to be accessed and worked. If required, the filling material remaining in the inspected area can be covered/sealed by an appropriate physical barrier layer of non-asbestos containing material prior to sign–off.

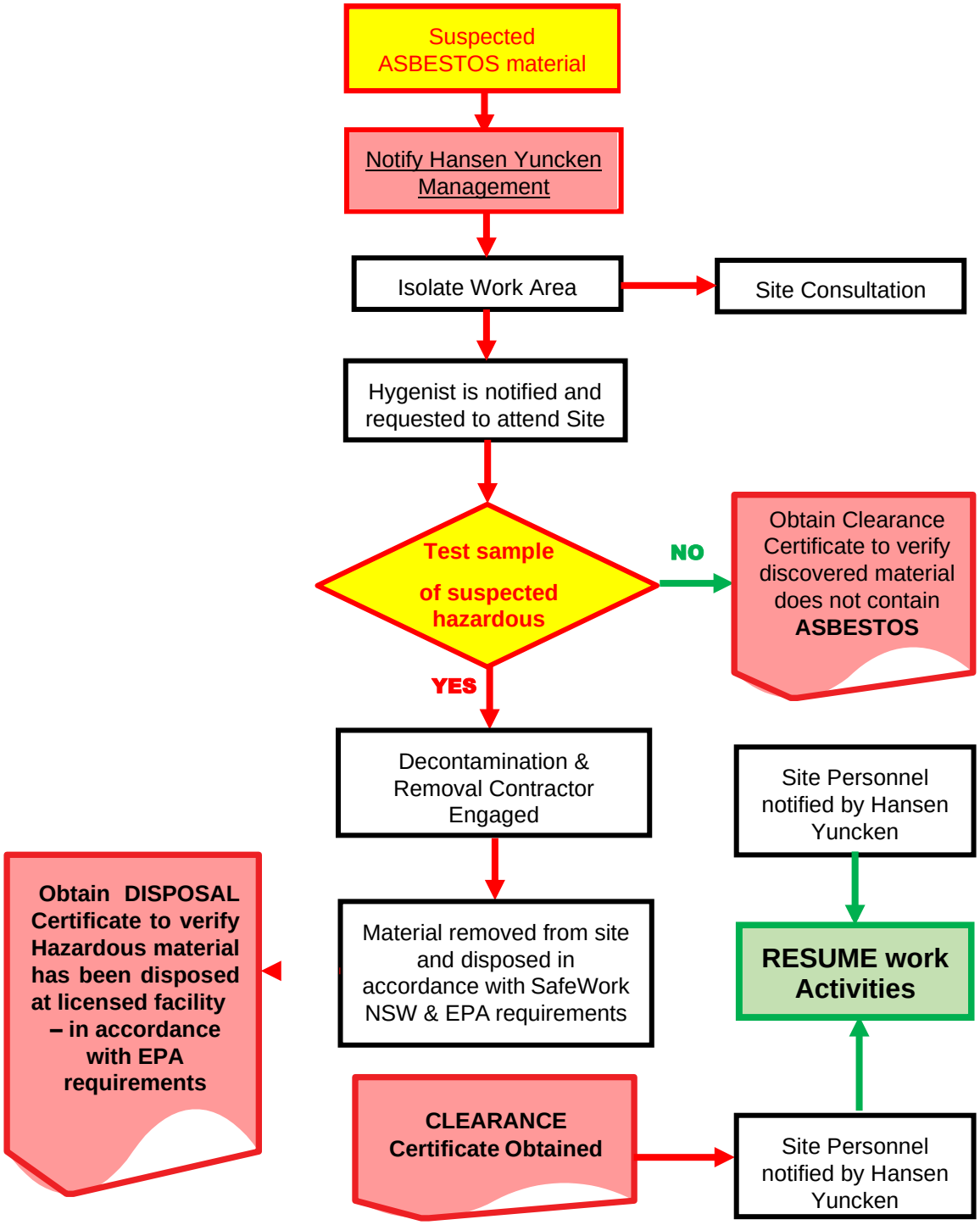
i. Validation samples would be collected from the remedial excavation to confirm the complete removal of the asbestos containing materials. If the asbestos pipes/conduits are uncovered, then sampling density would typically comprise one sample per 10-20 linear meter (depending on the length of the pipe). If asbestos debris are found, then the sampling density would typically comprise 1 sample per 5 metre x 5 metre grid.

j. The sampling locations should be surveyed using a sub-meter DGPS.

k. Details are to be recorded in the site record system.

l. Following clearance by an Occupational Hygienist, the area may be reopened for further excavation or construction work.

Unexpected Finds Protocol - ASBESTOS



Unexpected Finds Protocol - Buried Structures

In the unlikely event that buried structures such as Underground Storage Tanks (USTs) are encountered during site works, the structure(s) and any associated pipe-work should be managed /removed as follows:

a. Upon discovery of structure, the site foreman is to be notified and the area barricaded;

b. Visual identification of the tank and associated pipe-work;

c. Remove and dispose of the structure and associated pipe-work by a qualified contractor. In the case of an UST, the tank must be removed in accordance with Australian Institute of Petroleum (AIP) Code of Practice and Australian standards;

d. Excavate and stockpile impacted materials (based on field observations) for classification;

e. Validation of the remedial pit by a qualified environmental consultant for the contaminants of concern at the following sampling density:

   i) Base of tank pit excavation - 1 sample per 25 m^2 (i.e. 5m x 5 m grid);

   ii) Side of tank pit excavation - 1 sample per 10 linear metre (minimum of 1 sample per side) and 1 sample per 2m – 3m depth interval;

   iii) Fuel feed lines/pipe-work - 1 sample per 10 linear metre and 2 - 3 depth interval; and

f. If required, “chase out’ all of materials in the remediation pit identified to be impacted by petroleum/hydrocarbons and further validation sampling and analysis as required to assess appropriate removal of impacted materials;

g. Waste classification and off-site disposal of impacted materials in accordance with Section 12 of the project Environmental Management Plan; and

h. Inclusion of validation, waste classification and disposal documents (including landfill dockets and, in the case of USTs, tank and pipe work destruction certificates) in the validation report.

Unexpected Finds Protocol - Volatile Contaminants

Based on the findings of the previous assessments, and noting the nature of the filling and soil encountered at the site the potential for the site being impacted by volatile contaminants would be extremely low.

In the highly unlikely event that significant quantities of volatile compounds are detected, then appropriate gas mitigation strategies may be required as per ANZECC (1999) Guidelines for the Assessment of On-site Containment of Contaminated Soil.

If impacts due to volatile contaminants are detected in the area to be capped, the nature and extent of the impacts of the volatile contaminants should be established as a first step before an appropriate remedial strategy.

5.5 Waste Management

Refer Waste Management Plan (PMP appendix 19) for further details relating to the management and disposal of waste.

5.5.1 Waste Reduction

The main source of waste associated with the construction works would be demolished material (bricks, concrete, steel etc.) resulting from the demolition and refurbishment of existing buildings. It is likely that some excess building materials will be produced due to the construction work such as miscellaneous waste associated with packaging and transport of plant and equipment and various other manufactured items forming part of the augmentation works. Waste generated as a result of construction will be minimised, recycled, reused or recovered, where practical.

HY has accepted the challenge to reduce waste on construction projects, particularly in materials transferred to landfill.

The strategy for reducing the waste on the project will be made up of three strategies as detailed below in order of priority. The prime objective is to keep the amount of materials transferred to landfill from this project to the minimum possible amount.

1. Reduce the amount of waste material produced on the project by ensuring that only enough materials required to perform the works are ordered.
2. Any excess materials from particular work areas are to be retained and incorporated into other work areas where practical.
3. Encourage “just in time” delivery of construction materials (minimum storage on site) to reduce the potential of loss / waste due to damage prior to usage.

5.5.2 Non-Recyclable Waste

Non-recyclable waste will be disposed of at an EPA approved landfill or transfer station. Provide details

5.5.3 Waste Collection & Disposal

Appropriate waste bins are to be provided by HY and made available to all S/C.

All S/C shall be directed to place waste in the bins provided. This shall be included in the Site Induction.

Waste collection points are nominated on the Site Layout Plan.

5.5.4 Waste Reporting

Waste generation is monitored by HY on monthly basis to ensure that the company’s waste reduction objectives are achieved. Waste disposal quantities are monitored monthly by HY to ensure compliance.

The Project Administrator shall record waste disposal data on BIM360 Field using the waste record checklist.

Waste quantities from the PMR shall be entered into the State HSE Database for analysis and reporting against HY Waste reduction targets.

5.5.5 Concrete Waste & Washout

Include additional project specific details as required

Concrete trucks and pumps shall be washed out at designated locations as shown on the site layout plan. Washout of concrete pumps and AGI’s in other areas will not be permitted.

Washout shall be captured using membranes or other suitable means and allowed to set.

Waste shall be placed in bins for disposal with site waste.

Excess concrete shall be returned to the concrete plant for disposal or re-use.

5.5.6 Mitigation Strategies

Include a list of mitigation strategies, amend list below as relevant

- Accurate written records are to be kept such as:
  - Who transported the waste (company name, ABN, vehicle registration and driver details, date and time of transport, description of waste)
  - Copies of waste dockets/receipts for the waste facility (date and time of delivery, name and address of the facility, it's ABN, contact person).
- The construction contractor to ensure that waste generated by the works is transported to a place that can lawfully accept it as per Section 143 of the *Protection of the Environment Operations Act* 1997.
- The removal of any asbestos containing material if found is only to undertaken by an appropriately licenced contractor as per WorkCover NSW requirements and current guidelines.
- All waste, including excess spoil be recycled where practicable
- Trucks transporting spoil off site to be covered.
- The EPA is to be notified immediately of any pollution incidents or harm to the environment (as defined under Part 5.7 of the POEO Act).

5.6 Visual

5.6.1 Likely Impacts

The project has minimal visual impact to neighbouring properties and is well screened by existing trees and other building structures.

5.6.2 Mitigation Strategies

- Construct landscaping in accordance with the design documentation to reduce visual impacts of the new development.

5.7 Environmental Complaints

Complaints received regarding HY's Environmental Impacts or performance shall be recorded as Complaint in accordance with the HSE Incident Procedure. Actions to be taken to address the complaint.

5.8 Fuel & Chemical Spills

Response to major fuel spills shall be implemented in accordance with the fuel spill procedure in the Emergency Response Plan. The requirements for storage of large fuel and chemical quantities are not expected for this project.

A spill kit shall be located adjacent to fuel and chemical storage and dispensing areas.

5.9 Hazardous Materials

Hazardous materials shall be controlled in accordance with Hazardous Materials procedure.

6 Measurement & Evaluation

6.1 Environmental Incidents & Emergencies

6.1.1 Environmental Incidents

Incidents resulting in potential or actual environmental damage shall be reported and investigated in accordance with the HSE Incident Procedure and recorded on BIM360 using the HSE incident report

6.1.2 Environmental Emergencies

Preparation for and response to the environmental impacts of emergency events shall be conducted in accordance with the project Emergency Response Plan. The environmental impacts controlled in ERP are;

Asbestos Exposure

In the event that during works, personnel become accidentally exposed to asbestos, the following procedures shall be followed:

1. Personnel in the immediate affected area shall cease work and immediately go to the emergency showers on site.
2. All contaminated clothing is to be removed and placed into a thick plastic bag. The plastic bag must then be tightly sealed and labelled as "Asbestos Contaminated Clothing".
3. Personnel are to immediately decontaminate themselves in a shower and a clean set of clothes to be re-issued.
4. Asbestos contaminated clothing is to be industrially cleaned or disposed of appropriately

Water Pollution

An incident involving actual or potential harm to human or environmental health must be reported immediately to the EPA.

Firstly, call 000 if the incident presents an immediate threat to human health or property. Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service are the first responders, as they are responsible for controlling and containing incidents.

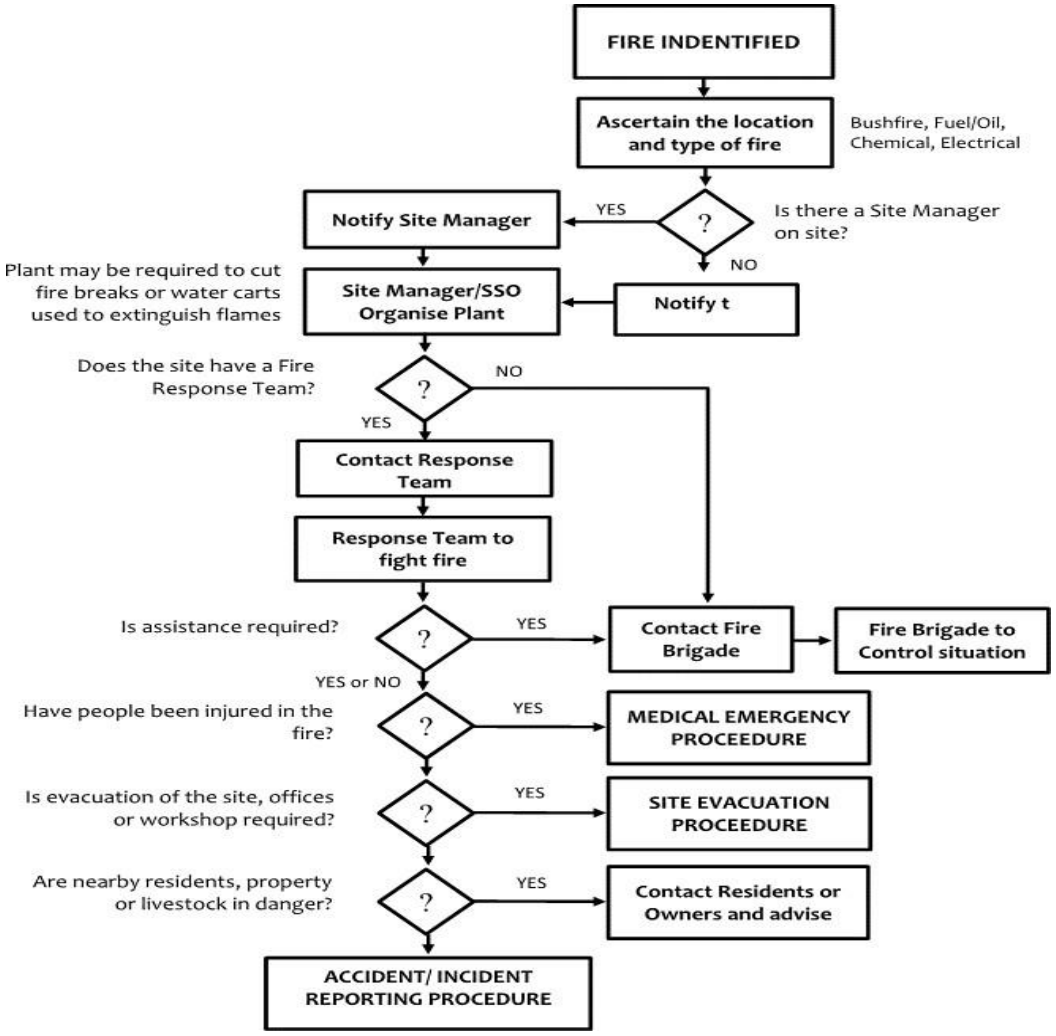
If the incident does not require an initial combat agency, or once the 000 call has been made, notify the HY Site Manager who will notify the relevant authorities in the following order. The 24-hour hotline for each authority is given when available:

EPA Environment Line on 131 555

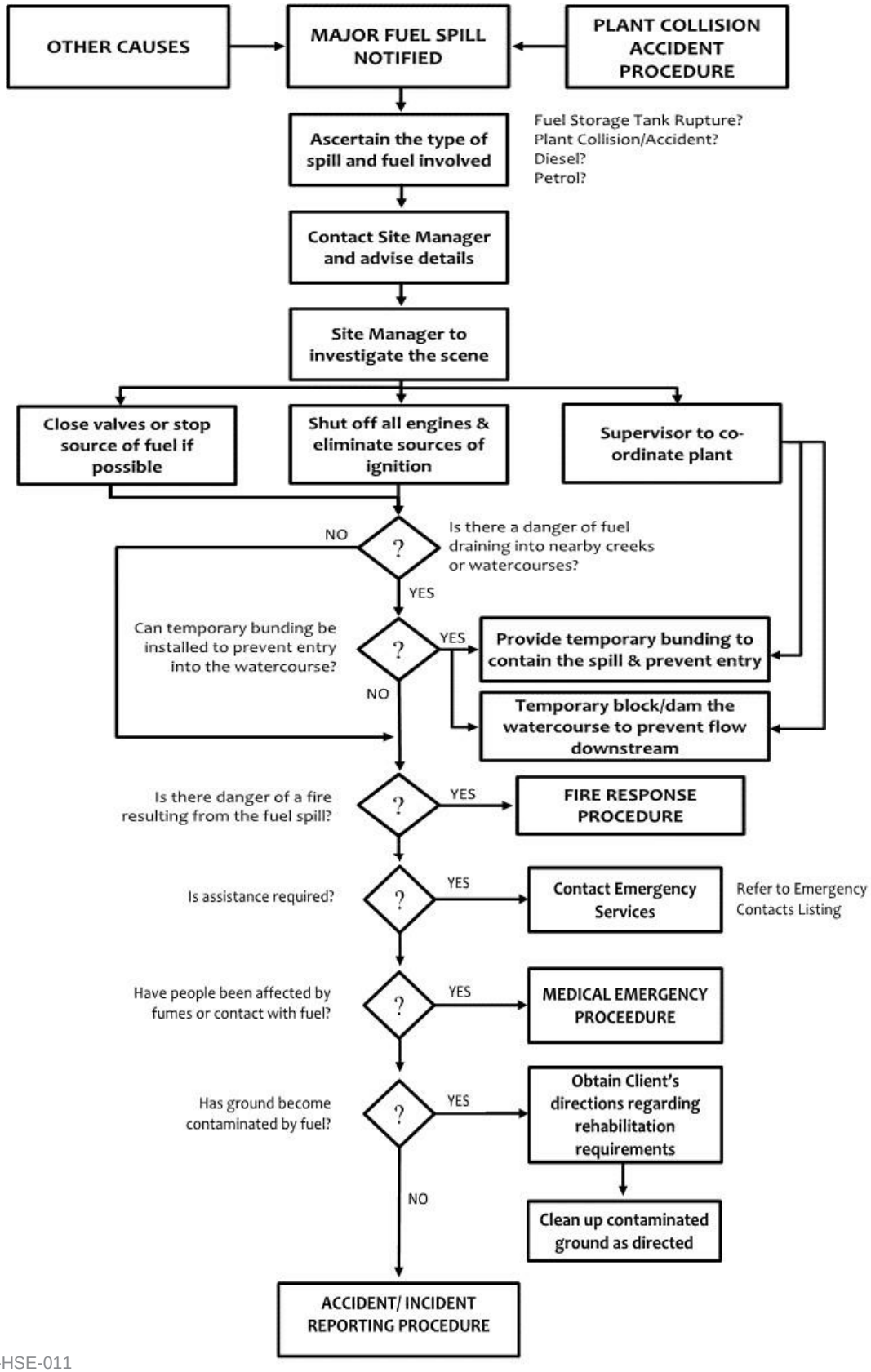
Safework NSW Authority – phone 13 10 50 (Where appropriate)

Relevant Council Telephone (02) 6648 4000

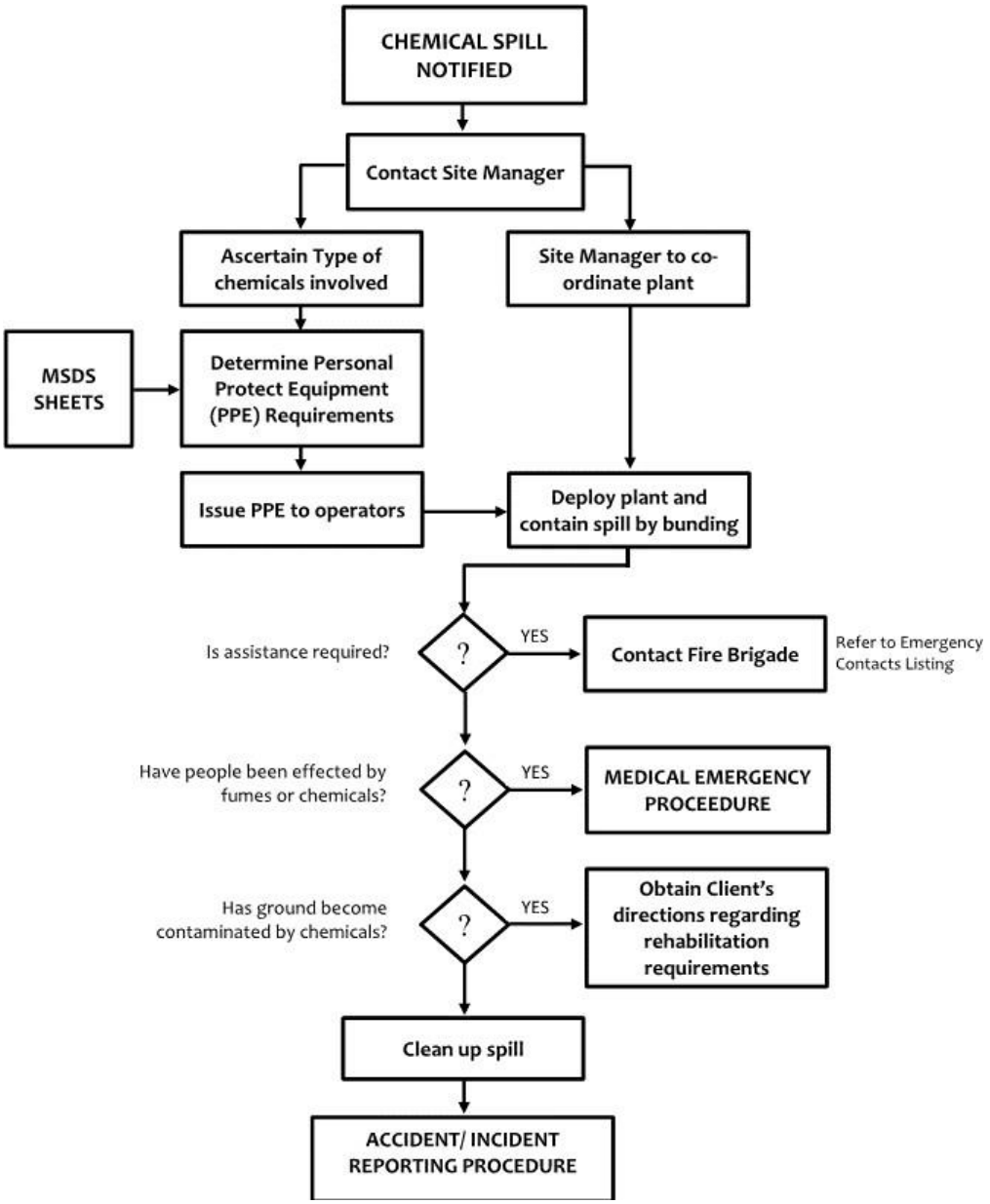
Fire


FIRE INDENTIFIED
Ascertain the location and type of fire
Bushfire, Fuel/Oil, Chemical, Electrical
Is there a Site Manager on site?
YES
NO
Notify Site Manager
Notify t
Site Manager/SSO Organise Plant
Plant may be required to cut fire breaks or water carts used to extinguish flames
Does the site have a Fire Response Team?
NO
YES
Contact Response Team
Response Team to fight fire
Is assistance required?
YES
Contact Fire Brigade
Fire Brigade to Control situation
YES or NO
Have people been injured in the fire?
YES
MEDICAL EMERGENCY PROCEEDURE
Is evacuation of the site, offices or workshop required?
YES
SITE EVACUATION PROCEEDURE
Are nearby residents, property or livestock in danger?
YES
Contact Residents or Owners and advise
ACCIDENT/ INCIDENT REPORTING PROCEDURE

Major Fuel Spill



Chemical Spill



6.2 Environmental Inspections & Audits

Inspections & audits of the site including environmental controls shall be conducted in accordance with the procedure for Site HSE Inspections & the project Audit Management Plan. The following inspections will be conducted onsite throughout the time on the project:

- Fortnightly site inspections,
- Monthly task observations,
- 3 monthly internal audits,
- Monthly external audits in line with the GC21 requirements &,

- Bi-Monthly external audits in line with the GC21 requirements.

Where an item has been assessed as Non-Conformance (NC) during any internal inspection an issue shall be raised in BIM360 Field to bring the activity or process into compliance with requirements. The issue(s) shall be recorded in BIM360 Field and allocated to the relevant contractor/subcontractor.

The independent consultant in writing shall raise all items assessed as non-conformance during external audits and HY will address all issues and close out within the time frame advised.

6.3 National Greenhouse & Energy Reporting (NGER)

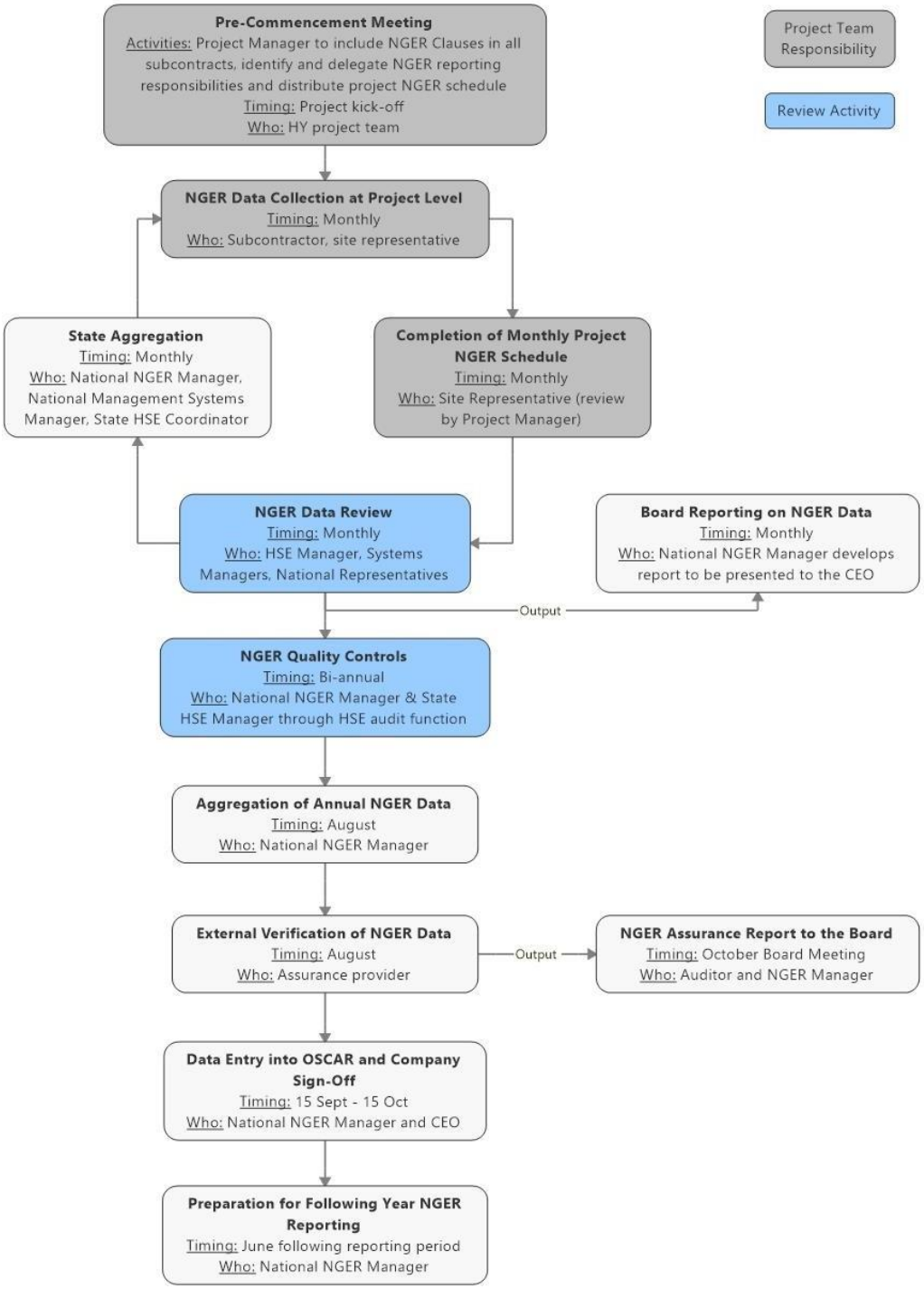
6.3.1 National Reporting Guidelines

The purpose of the National Greenhouse and Energy Reporting Guidelines is to help corporations understand their obligations under the National Greenhouse and Energy Reporting Act 2007 (the Act).

6.3.2 Reporting Thresholds

HY's has been assessed and determined to be below the corporate group reporting thresholds – detailed in the below table. Notwithstanding this, all natural gas and electricity consumption is recorded monthly on BIM360 Field and collated for national reporting. Furthermore, all site mobile plant and equipment fuel consumption is registered on BIM360 Field and incorporated in the HY greenhouse gases (CO2-e) annual report (NGER).

6.3.3 NGER Reporting process



6.3.4 NGER Data Collection

NGER data shall be collected and recorded on BIM360 Field using the Site Electricity and Natural Gas Usage Checklist

7 References

Environmental Planning and Assessment Act 1979 No 203

Environmental Planning and Assessment Regulation 2000

Protection of the Environment Operations Act 1997 (NSW)

Protection of the Environment Operations (General) Regulation 2009

ISO 14001; 2015 Environmental management systems - Requirements with guidance for use

AS/NZS ISO 31000:2009 Risk management – Principles and guidelines

HB158:2010 Delivering assurance based on ISO 31000:2009 – Risk management – Principles and guidelines

NSW Government Environmental management guidelines – Construction procurement (edition 4-December 2019)

8 Appendices

A.1 Hansen Yuncken Environmental Policy Statement

HANSENYUNCKEN

ENVIRONMENT POLICY

At Hansen Yuncken we mitigate our impact as much as reasonably practical to protect the environment during our operation in the building and construction industry, which meets the requirements and expectations of Clients, Statutory Authorities, Employees and Community Groups.

We affirm our legal obligation to comply with relevant environmental legislation, standards and codes of practice as the minimum level of performance and a professional obligation to acknowledge the views of Environmental and Community Groups.

Hansen Yuncken recognises that impacts on the environment in the building and construction industry relate not only to the process of construction but also to the design and subsequent use of the buildings constructed. We affirm our commitment to applying sustainable development principles to all facets of the building and construction process and to continually improve our performance in minimising the impact on, and pollution of, the environment during the construction process.

The Business Performance Committee shall review environmental objectives and set performance targets each year to ensure continual improvement through our 2020/23 Health Safety Environment & Quality (HSEQ) Strategic Plan. State Managers, through their line management structure, are accountable for ensuring all workers achieve these objectives and targets.

The Environment Business Function Workgroup shall monitor compliance with this policy and performance against our objectives and targets and this shall be reported to the CEO and Board of Directors on a regular basis.

In achieving this Hansen Yuncken is committed to the implementation, maintenance and improvement of a Management System complying with:

- ISO 14001:2005 Environment Management Systems

Hansen Yuncken acknowledge that environmental excellence can only be achieved and maintained through clear direction by all levels of management and commitment to continual improvement.

Training, education and awareness are critical to Hansen Yuncken's success in environmental management. Communicating and fostering a collaborative relationship with our workers results in advancement and further pride in our environmental achievements by all workers and stakeholders

Peter Salveson
Chief Executive Officer
October 2020

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A.2 Environmental Management Accreditation - ISO14001

CERTIFICATE OF REGISTRATION

Hansen Yuncken Pty Ltd

SCP, Building 1, Level 3, 75-85 O'Riordan Street, Alexandria NSW 2015 Australia
Suite 12, 125 Bull Street, Newcastle West NSW 2302 Australia
and transient sites
ABN 38 063 384 056

complies with the requirements of

ISO 9001:2015
Quality Management Systems – Requirements
and
ISO 14001:2015
Environmental Management Systems – Requirements with guidance for use

for the following capability:

This registration covers the Quality and Environmental Management Systems for the provision of project management and the design and construction of commercial, industrial and institutional buildings and civil engineering works.

Registered by:
Quality Control Services (Environmental) Pty Ltd
ABN 85 102 935 195
10 Rosina Street Woodcroft South Australia 5162 Australia

This certificate is subject to the Terms and Conditions for Certification, and relevant program rules. Currency of certification can be validated at www.qcse.com.au/certified-register, and www.jas-anz.org/our-directory/certified-organisations; it remains the property of QCSE Pty Ltd and must be returned upon request.

Certificate Number: 160052022
Issue Date: 26 February 2019

Original Certification: 23 February 2010
Expiry Date: 22 February 2022

cA Stone

Cheryl Stone
Certification Manager

QMS/EMS Certified Company
Licence Number: Q0160

IAF QMS 010

Quality Control Services QCS ENVIRONMENTAL

JAS-ANZ

www.jas-anz.org/register

A.3 EIS Mitigation Measures

Table 9-1 Mitigation Measures and Safeguards

Issue	*Action/ Measure*
Biodiversity	▪ Vegetation clearing would be limited to the amount required to undertake the works. ▪ Disturbances beyond the limit of works would be avoided. ▪ If non-mobile fauna or habitat features are identified (e.g. birds nest) before or during construction, a suitably licensed and experienced ecologist is to be contacted immediately and appropriate measures would be discussed and implemented prior to commencement/ re-commencement of works. If an animal is injured during construction WIRES is to be contacted to arrange for capture/ removal of the animal from the works area.
Environmental and Visual Amenity	▪ Materials, finishes, screening and landscaping will be implemented generally in accordance with the Architectural and Landscape Plans prepared by MSJ Architects.
Traffic, Access and Parking	▪ The recommendations of the transport and accessibility assessment prepared by SECA Solution in relation to parking and traffic/ transport management are to be implemented. ▪ A comprehensive Construction Traffic Management Plan will be developed following the engagement of project contractor(s).
Ecologically Sustainable Development	▪ The detailed design and construction of the development will incorporate ESD principles, including: – Occupant comfort – Energy and water reduction – Material selection – Emissions reduction – Waste reduction. ▪ The recommendations of the Integrated Water Management Plan (IWMP) prepared by Donnelley Simpson Cleary Consulting Engineers (as relevant to water efficiency) would be incorporated.
Aboriginal Heritage	The recommendations of the Aboriginal heritage (due diligence) assessment prepared by Everick Heritage Consultants would be adopted: ▪ A cultural heritage induction is provided to all contractors who are engaged as site supervisors or act in senior operational roles. It is recommended that the cultural heritage induction is provided by a suitably experienced member of the Aboriginal community or a qualified archaeologist. The purpose of the cultural heritage induction is to: – Make staff aware of the survey effort to date and potential for the project area to contain Aboriginal sites; – Provide sufficient training for staff to identify Aboriginal objects should they be impacted during construction works; and – Ensure that staff are aware of response procedures in the event of any harm to Aboriginal sites during construction works. ▪ It is recommended that if suspected Aboriginal material has been uncovered as a result of development activities within the Project Area: – Work in the surrounding area is to stop immediately; – A temporary fence is to be erected around the site, with a buffer zone of at least 10 m around the known edge of the site; – An appropriately qualified archaeological consultant is to be engaged to identify the material; – If the material is found to be of Aboriginal origin, the Aboriginal community is to be consulted in a manner as outlined in the OEH

Issue	Action/ Measure
	guidelines: *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (2010). ▪ Although it is unlikely that Human Remains will be located at any stage during earthworks within the project area, should this event arise it is recommended that all works must halt in the immediate area to prevent any further impacts to the remains. The site should be cordoned off and the remains themselves should be left untouched. The nearest police station (Coffs Harbour), the Coffs Harbour and District LALC and the OEH Regional Office (Coffs Harbour) are all to be notified as soon as possible. If the remains are found to be of Aboriginal origin and the police do not wish to investigate the site for criminal activities, the Aboriginal community and the OEH should be consulted as to how the remains should be dealt with. Work may only resume after agreement is reached between all notified parties, provided it is in accordance with all parties' statutory obligations. ▪ It is also recommended that in all dealings with Aboriginal human remains, the Proponent should use respectful language, bearing in mind that they are the remains of Aboriginal people rather than scientific specimens. ▪ It is recommended that if Aboriginal cultural materials are uncovered as a result of development activities within the Project Area, they are to be registered as Sites on the AHIMS, managed by the OEH. Any management outcomes for the site will be included in the information provided to the AHIMS. ▪ All effort must be taken to avoid any impacts on Aboriginal Cultural Heritage values at all stages during the development works. If impacts are unavoidable, mitigation measures should be negotiated between the Proponent, OEH and the Aboriginal community.
Non-Aboriginal Heritage	▪ All construction personnel working on-site will receive training in their responsibilities under the *Heritage Act 1977*. ▪ Should non-Aboriginal heritage items be uncovered during works, all works in the vicinity of the find will cease and the State Heritage Office and Coffs Harbour City Council will be contacted.
Noise and Vibration	▪ The recommendations of the Noise and Vibration Impact Assessment prepared by ARUP are to be implemented to ensure construction and operational noise and vibration impacts are adequately managed and mitigated.
Soils	Geotechnical Conditions: ▪ The recommendations of the Coffey Geotechnics investigation and assessment be implemented prior to, and during construction. Acid Sulfate Soils: ▪ Acid Sulfate Soils (ASS) or Potential Acid Sulfate Soils (PASS) will be managed in accordance with the Acid Sulfate Soil Management Plan prepared by Coffey Geotechnics. Contamination: ▪ Coffey Geotechnics recommends that a Construction Environmental Management Plan (CEMP) be prepared, including an Unexpected Finds Procedure (UFP), for use by the earthworks contractor during construction of the site. ▪ Should hardstand surfaces in the near vicinity of the emergency shower be disturbed as part of any future redevelopment works, Coffey

Issue	Action/ Measure
	Geotechnics recommend that observation of the underlying soil material and holding tank be carried out. Erosion and Sedimentation Control: ▪ A Soil and Water Management Plan (prepared by Bonacci at **Appendix Q**) will be implemented in accordance with *The Blue Book* prior to and during construction. ▪ Works will only commence once all erosion and sediment controls have been established. The controls will be maintained in place until the works are complete and all exposed erodible materials are stable. ▪ Erosion and sedimentation controls will be checked and maintained (including clearing of sediment from behind barriers) on a regular basis (including after any precipitation events) and records kept and provided on request. ▪ All sediment control measures will be checked and repaired or re-installed (if required) if heavy rainfall was forecast.
Utilities	▪ The development will comply with the requirements of the relevant public authorities in regard to the connection to, relocation and/or adjustment of services affected by the construction of the proposed development and as outlined within the Utilities Report prepared by ARUP.
Bush fire	▪ Recommendations of the bush fire assessment prepared by GeoLINK would be implemented, including: – Asset protection zones; – Construction standards; – Internal access; – Services; – Bush fire emergency and evacuation planning.
Flooding	▪ The building will be designed and constructed to ensure appropriate flood protection as per the flood assessment by Bonacci.
Drainage and Stormwater	▪ The Proposal will be in accordance with the Civil Design report and associated stormwater and drainage assessments prepared by Bonacci.
Waste	▪ A detailed Construction Waste Management Plan will be prepared by an appropriately qualified person prior to the commencement of works. The Waste Management Plan will be prepared in accordance with the EPA's "Waste Classification Guidelines (2008)" and the *Protection of the Environment Operations Act 1997*. ▪ Clean sediment spoils would be reused on-site where required and appropriate. ▪ The following resource management hierarchy principles would be followed: – Avoid unnecessary resource consumption as a priority. – Avoidance is followed by resource recovery (including reuse of materials, reprocessing, recycling and energy recovery). – Disposal is undertaken as a last resort (in accordance with the *Waste Avoidance & Resource Recovery Act 2001*).
Construction Impacts	▪ A Construction Environmental Management Plan (CEMP) will be prepared by the appointed contractor prior to the commencement of works. The CEMP will establish site management principles generally in accordance with the Outline (preliminary) Construction Management Plan prepared by Price Waterhouse Coopers.