HANSENYUNCKEN

# Construction Environmental Management Plan (CEMP)

## Project: Jindabyne Education Campus

**Job No: SN105 Jindabyne**

**Rev: 1.1 | November 2022**

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## EMP Preparation Checklist – Condition B15 – CEMP

| Requirement | Plan Reference | Yes/No/Not Applicable |
|---|---|---|
| ***Document preparation and endorsement*** | | |
| Has the EMP been prepared in consultation with all relevant stakeholders as per the requirements of the conditions of consent? | A.5 (CTPMSP), A.6 (CNVMSP), A.7 (CSWMSP), A.8 (CWMSP), A.9 (ACHMSP) & A.10 (BMSP) | Yes |
| Have the views of the relevant stakeholders been taken into consideration? Have appropriate amendments been made to the EMP and does the EMP clearly identify the location of any changes? | Section 5 mitigation strategies reflect sub-plans | Yes |
| Has the EMP been internally approved by an authorised representative of the proponent or contractor? | CEMP to be approved under Section 1.1 | Yes |
| ***Version and content*** | | |
| Does the EMP describe the proponent's Environmental Management System (EMS) (if any), and identify how the EMP relates to other documents required by the conditions of consent? | Section 4.3<br>Appendix A.2 | Yes |
| Does the EMP include the required general content and version control information? | Section 1.2<br>A.5 (CTPMSP), A.6 (CNVMSP), A.7 (CSWMSP), A.8 (CWMSP), A.9 (ACHMSP) & A.10 (BMSP) – Document Control sections in sub-plans | Yes |
| Does the EMP have an introduction that describes the project, scope of works, site location and any staging or timing considerations? | Sections 4.1, 4.2 & 4.2.1 | Yes |
| Does the EMP reference the project description? | Sections 4.2 & 5.4<br>A.3 & A.14 | Yes |
| Does the EMP reference a Community and Stakeholder Engagement Plan (or similar) or include community and stakeholder engagement actions (if required)? | Section 5.18 | Yes |
| Have all other relevant approvals been identified? Has appropriate information been provided regarding how each approval is relevant? | Section 1.1<br>A.5 (CTPMSP) & A.7 (CSWMSP) | Yes |
| Has the environmental management structure and responsibilities been included? | Sections 4.8 & 5.3 | Yes |
| Does the EMP include processes for training of project personnel and identify how training and awareness needs will be identified? | Sections 4.4 & 5.1 | Yes |

| Requirement | Plan Reference | Yes/No/Not Applicable |
|---|---|---|
| Does the EMP clearly identify the relevant legal and compliance requirements that relate to the EMP? | Section 4.7.3<br>A.5 (CTPMSP), A.6 (CNVMSP), A.7 (CSWMSP), A.8 (CWMSP), A.9 (ACHMSP) & A.10 (BMSP) – Relevant compliance, legislative requirements, criterion, etc. identified in sub-plans | Yes |
| Does the EMP include all the conditions of consent to be addressed by the EMP and identify where in the EMP each requirement has been addressed? | Section 3 | Yes |
| Have all relevant guidelines, policies and standards been identified, including details of how they are relevant? | Section 4.7.3<br>A.5 (CTPMSP), A.6 (CNVMSP), A.7 (CSWMSP), A.8 (CWMSP), A.9 (ACHMSP) & A.10 (BMSP) – Relevant guidelines, policies and standards identified in sub-plans | Yes |
| Is the process that will be adopted to identify and analyse the environmental risks included? | Sections 5.3 & 6 | Yes |
| Have all the environmental management measures in the EIA been directly reproduced into the EMP? | Section 5<br>A.5 (CTPMSP), A.6 (CNVMSP), A.7 (CSWMSP), A.8 (CWMSP), A.9 (ACHMSP) & A.10 (BMSP) – Management/ mitigation measures outlined in sub-plans | Yes |
| Have any additional environmental management measures been included in the EMP? | Section 6 | Yes |
| Have environmental management measures been written in committed language? | Section 5 | Yes |
| Have project environmental management measures, including hold points, been identified and included? | Section 4.9 | Yes |
| Are relevant details of environmental monitoring that will be carried out included? | Section 5.5.2 & 5.12.5 | Yes |
| Have the components of any environmental monitoring programs been incorporated? | A.5 (CTPMSP), A.6 (CNVMSP), A.7 (CSWMSP), A.8 (CWMSP), A.9 (ACHMSP) & A.10 (BMSP) – Monitoring, recording and reporting requirements outlined in sub-plans | Yes |

| Requirement | Plan Reference | Yes/No/Not Applicable |
|---|---|---|
| Are environmental inspections included? | Section 6.2 | Yes |
| Does the EMP document all relevant compliance monitoring and reporting requirements for the project? | Section 6.2.2 | Yes |
| Does the EMP describe the types of plans or maps (such as environmental control maps) that will be used to assist with the management of environmental matters on site? | A.5 (CTPMSP), A.6 (CNVMSP), A.7 (CSWMSP), A.8 (CWMSP), A.9 (ACHMSP) & A.10 (BMSP) – Environmental control plans provided in sub-plans | Yes |
| Does the EMP list environmental management documents? | A.2, A.4, A.5 (CTPMSP), A.6 (CNVMSP), A.7 (CSWMSP), A.8 (CWMSP), A.9 (ACHMSP), A.10 (BMSP) & A.13 | |
| Is an auditing program referenced? | Section 6.2 | Yes |
| Does the EMP include the incident notification and reporting protocols that comply with the relevant conditions of consent? | Section 6 | Yes |
| Does the EMP identify the project role/position that is responsible for deciding whether an occurrence is an incident? | Sections 4.8 & 6 | Yes |
| Does the EMP describe a corrective and preventative action process that addresses the requirements? | Sections 6.2.1 & 6.2.2 | Yes |
| Does the EMP include details of a review and revision process that complies with the requirements? | Sections 1 & 4.4 | Yes |

# Contents

# 1 Document Information

## 1.1 Review & Approval

| Review | | | |
|---|---|---|---|
| **Position** | **Name** | **Sign** | **Date** |
| Contracts Authorised Person | Matt O'Grady | | |
| Project Manager | Daniel Spirit Jones | | |
| Services Manager | Andrew Lesh | | |
| Contracts Administrator | Patrick Fishburn | | |
| Contracts Administrator | Ben Marshall | | |
| Site Manager | Chris Histon | | |
| Foreman | John McBeath | | |
| Site Safety Officer | Mark Masek | | |
| Site Engineer | Josh Hersant | | |
| Cadet | TBC | | |
| Construction Manager | Mick Parker | | |
| | | | |
| **Approval** | | | |
| Project Manager | Daniel Spirit Jones | | |

## 1.2 Change Information

| Change Information | | | |
|---|---|---|---|
| **Revision** | **Description** | **Issued by** | **Issue date** |
| 0 | Draft | MB | 12 Oct 2022 |
| 1 | Preliminary | MB | 28 Oct 2022 |
| 1.1 | For Issue to DPE | MB | 10 Nov 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. |
| CEMP | Construction 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 |
| JEC | Jindabyne Education Campus |
| NC | Non-Conformance |
| NGER | National Greenhouse and Energy Reporting |
| 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 |
| SM | Site Manager |
| SSC | Site Safety Coordinator |
| SSA | Site Safety Advisor |
| SWMS | Safe Work Method Statement |
| CTPMSP | Construction Traffic and Pedestrian Management Sub Plan |
| CNVMSP | Construction Noise & Vibration Management Sub Plan |
| CWMSP | Construction Waste Management Sub Plan |
| CSWMSP | Construction Soil & Water Management Sub Plan |
| ACHMSP | Aboriginal Cultural Heritage Management Sub Plan |
| BMSP | Biodiversity Management Sub Plan |

# 3 Compliance with SSD-15788005 Conditions

| Condition ID | Requirement | Reference |
|---|---|---|
| **B15** | Prior to commencement of construction and demolition of internal roadways, the Applicant must submit a Construction Environmental Management Plan (CEMP) to the Certifier and provide a copy to the Planning Secretary for information. The CEMP must include, but not be limited to, the following: | |
| B15(a) | (a) Details of: | |
| B15(a)(i) | (i) hours of work | 4.2.1 |
| B15 (a)(ii) | (ii) 24-hour contact details of site manager | 4.2.2 |
| B15 (a)(iii) | (iii) management of dust and odour to protect the amenity of the neighbourhood | 5.7 |
| B15 (a)(iv) | (iv) external lighting in compliance with AS 4282-2019 Control of the obtrusive effects of outdoor lighting | 5.17 & A.13 |
| B15 (a)(vi) | (v) community consultation and complaints handling as set out in the Community Communication Strategy required by condition B9 | 5.18 |
| B15 (b) | (b) An unexpected finds protocol for contamination and associated communications procedure to ensure that potentially contaminated material is appropriately managed | 5.11.8 |
| B15 (c) | (c) An unexpected finds protocol for Aboriginal and non-Aboriginal heritage and associated communications procedure | 5.11.8 |
| B15 (d)(i) | (i) Construction Traffic and Pedestrian Management Sub-Plan (see condition B16 and B22) | A.5 |
| B15 (d)(ii) | (ii) Construction Noise and Vibration Management Sub-Plan (see condition B17) | A.6 |
| B15 (d)(iii) | (iii) Construction Waste Management Sub-Plan (see condition B18) | A.8 |
| B15 (d)(iv) | (iv) Construction Soil and Water Management Sub-Plan (see condition B19) | A.7 |
| B15 (d)(v) | (v) Aboriginal Cultural Heritage Management Sub-Plan (see condition B20) | A.9 |
| B15 (d)(vi) | (vi) Biodiversity Management Sub-Plan (see condition B21) | A.10 |

For all SSD-15788005 Consent Conditions, refer to Appendix A.10

# 4 Commitment & Policy

## 4.1 Scope & Application

The Construction Environmental Management Plan (CEMP) has been developed to demonstrate that the proposed Works will be executed in accordance with legislated safety and environmental requirements with minimal inconvenience to stakeholders including neighbours and the general public.

Hansen Yuncken, appointed as Principal Contractor in accordance with NSW WHS legislation, complies with the requirements detailed in this Construction Environmental Management Plan, as well as the requirements of any other legislation or statutory bodies.

The proposed development includes the design and construction of a Core 21 Primary School inclusive of; learning spaces, ancillary & sport spaces, hall, library, administration facilities, canteen, special programs space and unique areas. It also includes the design and construction of a Stream 2 High School inclusive of; general and specialist learning spaces, ancillary & sport spaces, library, administration facilities, canteen, indoor multi-purpose court and outdoor landscaped areas.

A combination of offsite and onsite construction techniques will be used to deliver a high quality, future focused innovative, state of the art school. Meeting the current and future school and community needs whilst complying with the requirements as detailed in the Educational Facilities Standards and Guidelines (EFSG) and providing a high level of end user satisfaction.

This CEMP 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 System Guidelines – 3rd 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.

## 4.2 Project Description

The project will deliver a new primary and high school at 207 Barry Way, Jindabyne NSW 2627 to cater for up to 515 students from Kindergarten to Year 6 and 410 students from Year 7 to Year 12. 925 total students with the capacity for expansion in the future.

The new Primary School will be located primarily in the northern portion of the site whilst the new High School will be to the south. While the schools are inherently separate entities, with separate student entries, opportunities for integration are provided in a central shared plaza with co-located school administration facilities. The outdoor learning space is activated by the school canteen (shared) and separate core facilities including the primary school hall and library, and the high school gym and library, and provides opportunities for shared community use.

The new Primary School will provide for a Core 21 school. This will comprise of 20 home base units and 2 support learning unites, administration and staff facilities, covered outdoor learning area (COLA), hall, staff and student amenities, out of school care facilities, library and special programs. Landscaped areas include active and passive open space play areas, a sports field and a games court.

The new High School will provide for a Stream 2 high school. This is to comprise of 20 general/specialised learning spaces and support learning units, administration and staff facilities, covered outdoor learning areas (COLA), hall, staff and student amenities, library an agricultural learning unit. Landscaped areas include active and passive open space play areas, a sports field and multipurpose games courts.

A new access driveway is proposed off Barry Way along the Western Boundary of the site and includes car parking, bus and private vehicle drop-off zones and delivery zones.

### 4.2.1 Hours of Work

The proposed hours of work for the project are as follows:

- Between 7am and 6pm, Mondays to Fridays inclusive; and
- Between 8am and 1pm, Saturdays.
- No work may be carried out on Sundays or public holidays.

*The proposed hours align to Condition C4 of SSD-15788005.*

The proposed restricted hours of work for the project, provided that noise levels do not exceed the existing background noise level plus 5dB, which aligns with Condition C5 of SSD-15788005, are as follows:

- Between 6pm and 7pm, Mondays to Fridays inclusive; and
- Between 1pm and 4pm, Saturdays.

The proposed hours of work for the project for specific construction activities such as rock breaking, rock hammering, sheet piling, pile driving and similar activities, which align to Condition C8 of SSD-15788005, are as follows:

- Between 8am to 12pm and 1pm to 5pm, Monday to Friday; and
- Between 9am to 12pm, Saturday

As per Condition C6 of SSD-15788005, Construction activities may be undertaken outside of the hours outlined in Conditions C4 and C5 if required:

- By the Police or a public authority for the delivery of vehicles, plant or materials; or
- In an emergency to avoid the loss of life, damage to property or to prevent environmental harm; or
- Where the works are inaudible at the nearest sensitive receivers; or

- For the delivery, set-up and removal of construction cranes, where notice of the crane-related works is provided to the Planning Secretary and affected residents at least seven days prior to the works; or
- Where a variation is approved in advance in writing by the Planning Secretary or her nominee if appropriate justification is provided for the works.

### 4.2.2 24 Hour Contact Details

The 24-hour contact details for the project is as follows:

Daniel Spirit Jones (Project Manager)

M: 0402 893 643

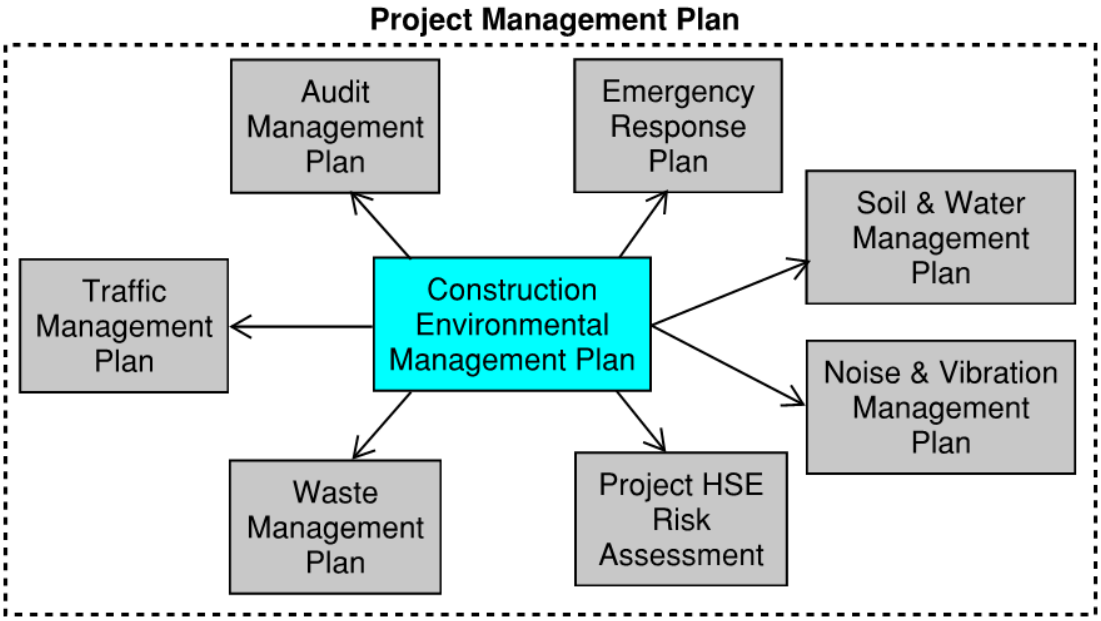
DSpiritJones@hansenyuncken.com.au

## 4.3 CEMP Interrelationship with PMP

This CEMP forms part of Hansen Yuncken's Environmental Management and interfaces with the company's Quality & WHS Management Systems (refer Appendix A.2). Furthermore, this CEMP is an integral part of Jindabyne Education Campus PMP. The following plans referenced within this CEMP 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 Construction 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 of 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 & Pedestrian 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.




## 4.4 Policy & Objectives

The HY Environmental Policy Statement provides the framework for the development of this CEMP (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 Construction 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 and as detailed in the Jindabyne Education Campus Environmental impact assessment document (Environmental Impact Statement SSD-15788005 by Mecone)
- 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.

## 4.5 Targets

### 4.5.1 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

### 4.5.2 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

### 4.5.3 Objective: Conduct environmental site inspections to validate environmental conformance

**KPI:** Schedule and undertake regular site inspections

**Target:** > 90% of scheduled HSE inspections

**Responsibility:** HY

### 4.5.4 Objective: Minimise and manage environmental complaints

**KPI:** Consult with impacted neighbours and promptly address all complaints

**Target:** ≤ 1 complaint per significant construction milestone

**Responsibility:** Colliers

## 4.6 ESD Vision & Principles

HY's Environmentally Sustainable Design (ESD) vision and principles 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.

HY's ESD vision and Principles align with the ESD objectives of the project which is targeting a certified 4 Star Green star rating through the consideration of key ESD strategies in design (as per the ESD Detailed Design Report prepared by Steensen Varming). As such, this project provides an opportunity for HY to expand its practical and theoretical knowledge of ESD to a level that is considered 'best practice' status.

## 4.7 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 and observes the requirement, as set out in ISO 14001:2015.

### 4.7.1 Environmental Aspects & Impact

All activities related to the Jindabyne Education Campus, which are enacted by or on behalf of Hansen Yuncken, are identified in the "Project HSE Risk Assessment" (refer Appendix A.4). 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 Jindabyne Education Campus are summarised in the "Environmental Risk Register" contained within this CEMP (Section 5.3).

### 4.7.2 Work Method Statements

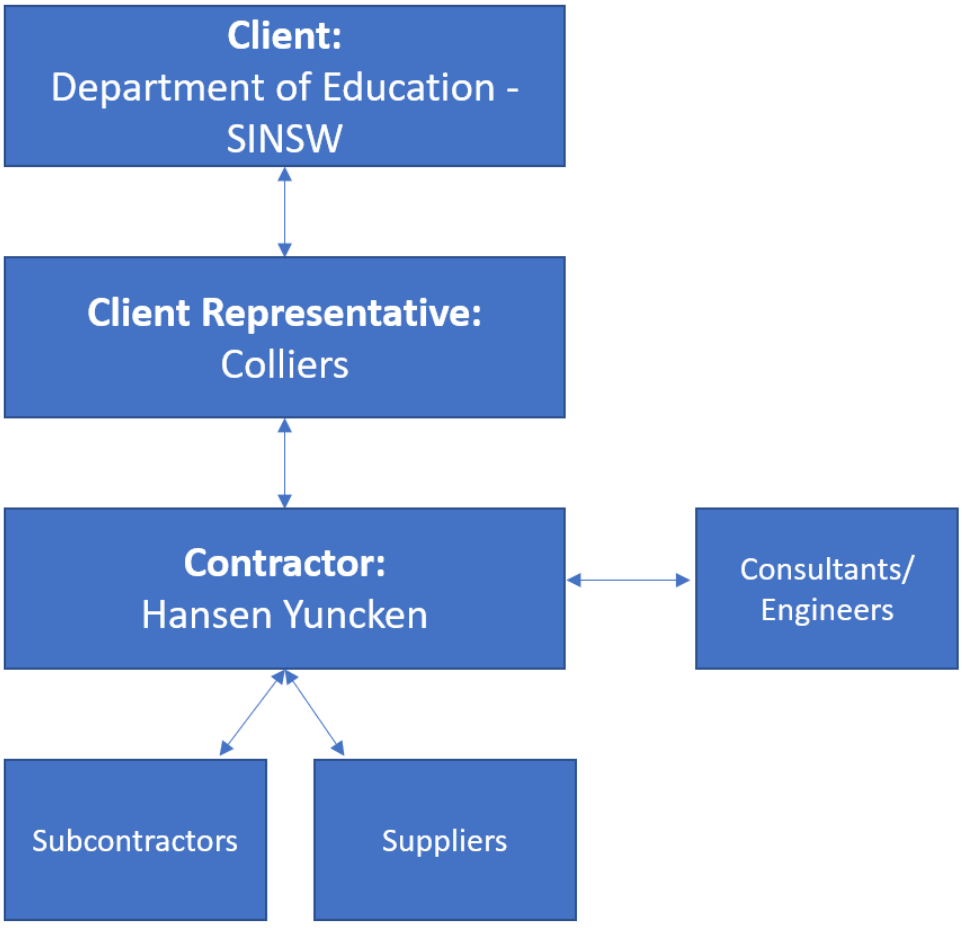
For each activity rated as a significant risk (i.e., Risk class >M/Medium) to the environment, a further Risk assessment is undertaken with the additional controls identified and contained within a Work Method Statement. This document details the; steps involved, hazards, control measures and persons responsible associated with the higher risk activity. A Toolbox talk is then completed with the relevant workers that will be completing the task to ensure that they comply with the Work Method Statement.

### 4.7.3 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 Jindabyne Education Campus 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.

## 4.8 Roles and Responsibilities

The below flow chart summarises the organisation structure for communication and reporting between Hansen Yuncken, it's suppliers/subcontractors and the principal.




Hansen Yuncken will collaborate with the project team to provide the following in ensuring we are achieving sustainable environmental management for the duration of the project:

- Engagement with project stakeholders including consultants and contractors
- Notifications and communications with adjacent property occupants and owners advising of the Works;

- Formal notices of road closures and related matters;
- Conveying enquiries and complaints regarding the works (including but not limited to traffic, dust and noise) to the client;
- Liaising with key stakeholders and local authorities regarding the works; and
- Environmental issues related to the works.

A summary of the roles and responsibility of each stakeholder with regards to environmental management for the project is summarised below:

- Client Representative – provides a medium of communication between the client and the contractor and is responsible for all community consultation and communication
- Contractor – responsible for delivering the project in accordance with the relevant legislation, including the enforcement of the CEMP for its subcontractors and suppliers.
- Consultants/Engineers – provide expert knowledge into the generation of aspects of the CEMP in line with industry standards and the relevant legislations.
- Subcontractor/Suppliers – responsible for abiding by the requirements of the CEMP when carrying out their contract works.

## 4.9 Environmental Hold Points

The below hold points relate to the environmental management of the Jindabyne Education Campus project site as per SSD-15788005:

- C19(a): Street trees must not be trimmed or removed unless it forms a part of this development consent or prior written approval from Council is obtained or is required in an emergency to avoid the loss of life or damage to property.
- C29: (Unexpected Finds Protocol – Aboriginal Heritage) In the event that surface disturbance identifies a new Aboriginal object, works must halt in the immediate area and shall only recommence with the written approval of the Planning Secretary.
- C30: (Unexpected Finds Protocol – Historic Heritage) If any unexpected archaeological relics are uncovered during the work, then works must cease immediately in that area and may only recommence with the written approval of the Planning Secretary.

# 5 Implementation

## 5.1 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.

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.

## 5.2 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. The general structure of the environmental management of the following risks is contained within this section of the report under the following structure:

- Likely Impacts – outlines the impacts of the environmental issues that have been assessed in the environmental risk register
- Mitigation Strategies – outline the procedures/actions that will be taken to minimise the possibility of the impacts outlined above from occurring.

## 5.3 Environmental Risk Register

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

| Environmental Risk Register Summary & Responsibilities | | |
|---|---|---|
| **Air Quality**<br>During the earthworks stage of the project, there is a risk of poor air quality generated by the construction works. | Low | SM |
| **Soils, Erosion, & Water Quality**<br>There is a risk of soil leaving the site and potentially contaminating the stormwater system in the short-term during the earthworks stage of the project. | Low | SM |
| **Terrestrial Flora & Fauna**<br>The removal of trees during construction works poses minimal risk to landscaped species throughout the area. | Low | PM / SM |
| **Cultural Heritage**<br>It is unlikely that construction works will impact any undisturbed aboriginal artefacts given that an Aboriginal Cultural Heritage Assessment prepared by Eco Logical Australia concludes that no Aboriginal heritage sites will be harmed by the proposed development and that there are no archaeological mitigation measures required. | Low | PM / SM |

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

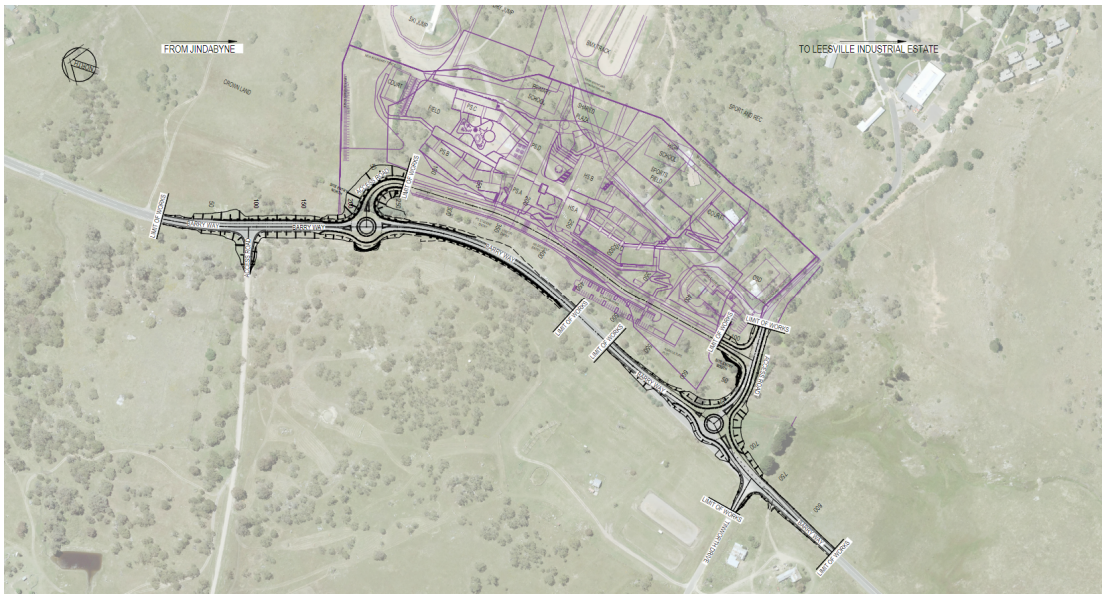
## 5.4 Location and Land Use

### 5.4.1 Site Location

The site is located at 207 Barry Way, Jindabyne, in the local government area of Snowy Monaro Regional Council. The site is formally described as Lot 101 DP1019527. The site is irregular in shape and has an area of approximately 90,000m².

Immediately surrounding the development includes the Jindabyne Sport and Recreation Centre to the east, an Industrial Estate to the south-west, the Jindabyne Aero Club to the West across Barry Way, and rural land to the north and south. There is also a TAFE NSW construction development to the south of the site.

The site contains various flora and fauna, including a Biodiversity area to the north of the site. There are 3 dwellings on the site which are nominated to be demolished. The site is otherwise cleared and vacant as per the image below.




The site is situated approximately 2km southwest of the Jindabyne Town Centre (JTC), 62km southwest of Cooma and 174km south of Canberra Central Business District (CBD) (refer to Appendix A.3 for further information regarding site location).

### 5.4.2 Likely Impacts

The construction works would be short term in nature and construction activities would be carried out with due diligence, duty of care and best management practices. Given the location of residential and other properties in vicinity of the works area, some impacts associated with construction traffic, noise/vibration and dust are likely to affect adjacent residents. These likely impacts will be addressed below.

### 5.4.3 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
- The consent approval stipulates working times to minimise the impact on the community being generally Monday to Friday 7am-6pm, Saturday 8am-1pm, no work on Sundays or public holidays.

## 5.5 Noise and Vibration

### 5.5.1 Likely Impacts

Construction of the proposed development will result in short term noise impacts during the construction period. The predicted noise levels during the construction phase have been identified in the project Construction Noise & Vibration Management Plan along with associated mitigation strategies provided to minimise these impacts (refer Appendix A.6 for the Construction Noise & Vibration Management Plan), in accordance with condition B15(d) and B17 of SSD-15788005.

### 5.5.2 Mitigation Strategies

Construction noise and vibration will generally be managed in line with the Construction Noise and Vibration Management Sub-Plan (CNVMP). Noise and vibration mitigation measures include:

- Implement best-practice general mitigation measures onsite, aimed at reducing the effects of construction noise and vibration, such as,
  - regular toolbox talks to reinforce the need to minimise noise and vibration,
  - regular identification of noisy activities and adoption of improvement techniques.
  - Restricting construction activities to the hours specified under conditions C4, C5 and C8 of SSD-15788005.
  - Taking reasonable and feasible measures to minimise noise and vibration effects from plant and equipment where possible.
- Noise monitoring at the commencement of excavation and structural works to confirm measured levels are consistent with the predictions in the acoustic assessment, and to verify that the mitigation procedures are appropriate.
- Issue project updates to stakeholders on current and upcoming works, including advance warning of potential disruptions and noise intensive activities.
- Develop procedures for receiving and addressing complaints from affected stakeholders. Complaints to be investigated as soon as practicable and feasible measures to minimise noise will be implemented if required, in accordance with condition B17(f) of SSD-15788005.

## 5.6 Traffic & Access

### 5.6.1 Likely Impacts

Construction of the new site facilities shall see some increase in traffic in the local area. 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. Construction vehicle routes have been developed with the intention of minimising the impact of construction traffic on the local streets in the immediate vicinity. Access to site will primarily be via Barry Way. In accordance with Condition B15(d) and B16(a)-(c) of the SSD-15788005, the management of construction traffic developed as a result of these works is outlined in the Construction Traffic and Pedestrian Management Plan (refer Appendix A.5).

### 5.6.2 Mitigation Strategies

The Construction Traffic and Pedestrian Management Plan (CTPMP) details the measures and strategies to be undertaken during construction works to minimise the effects on the surrounding road network, and to ensure the safety and efficiency of the community, workers, and road users, including:

- Construction activities and deliveries shall be restricted to the hours dictated in the consent SSD-15788005.
- All vehicle drivers will need to comply with the Driver Code of Conduct (in accordance with Condition B22 of SSD-15788005 and detailed within the CTPMSP).
- Access to site will primarily be via Barry Way.
- Wire mesh temporary fencing will be erected around the perimeter of the site and maintained for the duration of the project to keep out unauthorised persons, with access gates closed outside of construction hours.
- Traffic management shall be undertaken in accordance with the methodology outlined within the Traffic Guidance Scheme (Section 4 of the CTPMSP).

- Traffic and non-vehicle related road users will be directed around the worksite in order to physically separate the road user from any hazards within the worksite.
- Deliveries will be scheduled to prevent queuing by ensuring adequate timeframes between trucks arriving and leave site.
- All vehicles transporting loose materials will have their loads covered or secured to prevent large items, excess dust or dirt particles depositing onto the road during travel to and from site. HY will monitor roads leading to and from the site and take necessary steps to rectify any road deposits caused by site vehicles.
- Public roads and access points will not be obstructed by any materials, vehicles, refuse skips or the like.
- Traffic Controllers will be used to supervise vehicle movements and for pedestrian and cyclist management when necessary during construction activities.
- HY will induct all subcontractors to ensure that procedures are met for vehicles entering and exiting the construction site.

A risk assessment has also been conducted as part of the CTPMP identifying the hazards and risks associated with the works and to determine the controls required for the protection of road workers and road users.

## 5.7 Air Quality & Dust Control

In accordance with condition B15a (iii) of SSD-15788005, repeated in part as follows; the Construction Environmental Management Plan (CEMP) must include, but is not limited to; (iii) management of dust and odour to protect the amenity of the neighbourhood. This section of the CEMP addresses this condition, outlining the likely impacts of air quality and dust control for the various aspects of the construction works, along with the mitigation strategies that will be implemented to minimise these impacts on the neighbourhood.

### 5.7.1 Likely Impacts

The main impact of air quality during construction is expected to arise from the generation of airborne localised dust associated with earthworks. Given the proximity to neighbouring properties and existing buildings, there is the potential for impact by dust, particularly during windy conditions.

### 5.7.2 Mitigation Strategies

- 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.
- Dust suppression methods will be adopted where required (i.e., on windy days when earthworks and vehicle movements are generating dust). Examples of dust suppression methods include:

  - water carts,
  - localised use of water to supress excavation activities as they are occurring to suppress dust, and
  - covering stockpiles.
- Any stockpiled spoil/fill will be protected to minimise dust generation to avoid sediment moving offsite.
- Vehicles transporting spoil from the site to be covered where required.
- The burning of waste materials will not be permitted on site.

## 5.8 Soil, Erosion & Water Quality

In accordance with condition B19 of SSD-15788005, this section of the CEMP addresses the likely impacts associated with stormwater runoff and the mitigation strategies that will be implemented to ensure that these impacts are minimised. Furthermore, in accordance with condition B15(d), refer to Appendix A.8 for the Construction Soil and Water Management Sub-Plan.

### 5.8.1 Likely Impacts

Earthworks and general ground disturbances associated with the site works may result in 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.

Aspects of the site identified as potentially impacting on water quality includes:

- Excavation for foundations and site levelling;
- Stockpiling and transportation of excess spoil; and
- General construction waste entering drainage lines.

### 5.8.2 Mitigation Strategies

Construction is to be undertaken in accordance with the Construction Soil and Water Management Sub-Plan, as per condition B19 of SSD-15788005. Prior to earthworks commencing, erosion and sediment control measures will be implemented generally in accordance with the Construction Certificate drawings and the 'Blue Book'. Control measures, as per the Construction Soil and Water Management Sub-Plan, include:

- Temporary site security/safety fence to be constructed around the site, the site office area and the proposed sediment basin.
- Sediment fencing to be provided downstream of disturbed areas, including any topsoil stockpiles.
- Dust control measures including covering stockpiles, installing fence hessian and watering exposed areas,
- The construction of a temporary sediment basin designed to cater for a storm event up to and including the 1 per cent AEP storm event.
- Stabilised site access at the construction vehicle entry/exits.
- Stockpiled material to be located as far away as possible from any associated natural watercourses or temporary overland flow paths, with sediment fences installed to the downstream side of stockpiles and any embankment function.

- Erosion and sediment control devices shall be properly maintained for the duration of the work. Maintenance includes ensuring adequate settlement times or flocculation and pumping of clean water.
- Wet weather management - In the event of heavy rain, site inspections will be undertaken prior to work commencing, with inspections to focus on:
  - The suitability of pedestrian access to the amenities and into the construction work areas.
  - The suitability of access for plant and equipment.
  - The suitability of ground conditions for plant and equipment to operate.
  - Identifying the construction zones suitable for work to commence
  - Actions to remediate those areas not suitable for work to commence (e.g., de-watering, preparing ground conditions and access ways, etc.)

## 5.9 Terrestrial Flora and Fauna

### 5.9.1 Likely Impacts

As per the Environmental Impact Statement, the site contains 210 trees which have either High, Medium or Low Retention criteria. This is supported by an Arboricultural Impact Assessment (AIA) carried out on the site. The results of which are as follows:

- A total of 46 high retention value trees will be subject to high impact. These trees are considered important and should be prioritised for retention and protection
- A total of 52 medium retention value trees will be subject to high impact. These trees are moderately important for retention.
- A total of 36 low retention value trees will be subject to high impact. These trees are not considered important for retention, nor require special works or design modification to be implemented for their retention.

A total of 72 trees are proposed to be retained. Of these, eight trees will be subject to low impact. A total of 64 trees will be subject to no impact from the proposed development. These trees can be retained as there is no foreseeable encroachment within the trees' TPZs. Due to their proximity to the site and the tree protection zones extending into the development site, mitigation measures are required to prevent impacting these trees.

### 5.9.2 Mitigation Strategies

- Erect Tree Protection Zone fencing with signage prior to commencing demolition or earthworks, which is to remain in place during construction.
- Prohibit parking of vehicles or plant, and storage of materials within the Tree Protection Zones of the two trees.
- No trenching or excavation works to occur within the Tree Protection Zone without prior consultation with a Level 5 Arboricultural consultant to evaluate the impact on the trees.
- 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

## 5.10 Archaeology & Cultural Heritage

### 5.10.1 Likely Impacts

An Aboriginal Cultural Heritage Assessment (ACHA) of the development site was completed by NGH in May 2022. The impact to the scientific, aesthetic, social or cultural and historic values of the artefacts were to be impacted by the current proposal is considered low As such, the development site is determined to have nil to low archaeological significance and can proceed with caution. Notwithstanding, the following recommended mitigation strategies will be implemented in the event of an unexpected find onsite. This should be read in conjunction with the 'unexpected finds protocol' outlined in Section 5.11.8.

### 5.10.2 Mitigation Strategies

- If suspected Aboriginal objects are located during works, works will cease in the affected area and an archaeologist will be called in to assess the finds. If the finds are found to be Aboriginal objects, the NSW Department of Planning, Industry and Environment (DPIE) and Heritage NSW will be notified.
- In the extremely unlikely event that human remains are found, works will immediately cease, and the NSW Police will be contacted. If the remains are suspected to be Aboriginal, the DPIE and Heritage NSW will also be contacted to assist in determining appropriate management.
- Should either of the events above occur, the project team will take all necessary measures to protect the artefacts from being damaged or destroyed. Work will not re-commence in the area until a written instruction from the superintendent is received.

## 5.11 Site Contamination

### 5.11.1 Contaminated Soil Risk Assessment

A preliminary contamination investigation has been conducted by Coffey as part of the Environmental Impact Statement (EIS) process to assess whether contamination has the potential to exist on the site and to determine whether further investigation is needed. The subsequent report concluded that the site is considered suitable for the proposed use, with the following mitigation measures recommended:

- Development of a Construction Environmental Management plan, including an unexpected finds protocol (refer Section 5.11.8).
- Should suspected asbestos containing materials be encountered on site, the affected area is to be fenced off and assessed by a licenced asbestos assessor.
- The fill material encountered beneath the site would be suitable for on-site reuse.
- Should any fill or stockpiled material be required to be disposed off-site, they must first be assessed in accordance with NSW EPA Waste Classification Guidelines Part 1 Classifying Waste (2014) and assigned a waste classification prior to off-site disposal.

The recommended measures will be implemented on the project where required. The Executive Summary from the Preliminary Site Investigation (Contamination) Report is provided at Appendix A.11 for reference.

### 5.11.2 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 as per the Unexpected Finds Protocol 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.

### 5.11.3 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.

### 5.11.4 Groundwater Management

A report on Geotechnical Investigation by Douglas Partners has been prepared as part of the EIS process, which considers groundwater conditions across the site. The report notes that perched water was observed at 2.2m depth within a pit. No free groundwater was observed during investigations. The report concluded that although excavations may encounter groundwater through seepages from silty/sandy soil layers and fractures in bedrock following rain, the development is not expected to have any adverse impacts on groundwater or involve activities that would result in contamination.

Based on the findings of the report, groundwater is not considered a risk to the site. Notwithstanding, the measures outlined in Section 5.11.5 will be adopted to mitigate the potential contamination of groundwater. Furthermore, the unexpected finds protocols outlined in Section 5.11.8 will be adopted if groundwater is encountered on site.

### 5.11.5 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 on 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.

### 5.11.6 Heavy Metal Contamination

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

### 5.11.7 Mitigation Strategies

If 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.

### 5.11.8 Unexpected Finds

In accordance with Conditions B15(b) and (c) of SSD-15788005, unexpected finds protocols must be included within the CEMP to outline the process and associated communications procedure to be followed if unexpected contamination and/or Aboriginal heritage is found through the duration of the project. Unexpected Finds shall be addressed in compliance with the Hansen Yuncken's Unexpected Finds protocol listed below:

**Unexpected Finds Protocols – Aboriginal and non-Aboriginal heritage items**

In accordance with Condition C29 of SSD-15788005, if a suspected Aboriginal heritage item is discovered:

1. Immediately cease work in the immediate area to prevent any further impacts to the object(s) and contact the Site Manager.
2. Site Manager to construct temporary barricading to prevent worker access to the unexpected find.
3. Site team to contact Client and arrange inspection by the Aboriginal Cultural Heritage consultant or suitably qualified person to determine the significance of the object(s).
4. Aboriginal Cultural Heritage consultant to undertake detailed inspection, sampling and analysis.
5. If the findings assessed are presenting to be of Aboriginal Cultural Heritage significance, the following steps should be in accordance with the Aboriginal Cultural Heritage consultants' direction. The DPIE and Heritage NSW will also be contacted in accordance with Section 5.10.2, EIS and ACHA requirements.
6. Works in that area will only recommence with the written approval of the Client/Planning Secretary and following confirmation that the findings assessed are not presenting to be of Aboriginal Cultural Heritage significance.

In accordance with Condition C30 of SSD-15788005, if relics of historic heritage are discovered:

1. All works will cease immediately in the area where the object(s) are found.
2. The Client will be contacted, and notice given to Heritage NSW and the Planning Secretary.
3. Depending on the possible significance of the relics, an archaeological assessment and management strategy may be required before further works can continue in that area as determined in consultation with Heritage NSW.
4. Works will only recommence in that area with the written approval of the Client/Planning Secretary.

### Unexpected Finds Protocol – Asbestos and contamination

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 using 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 offsite, 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. SafeWork NSW 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.

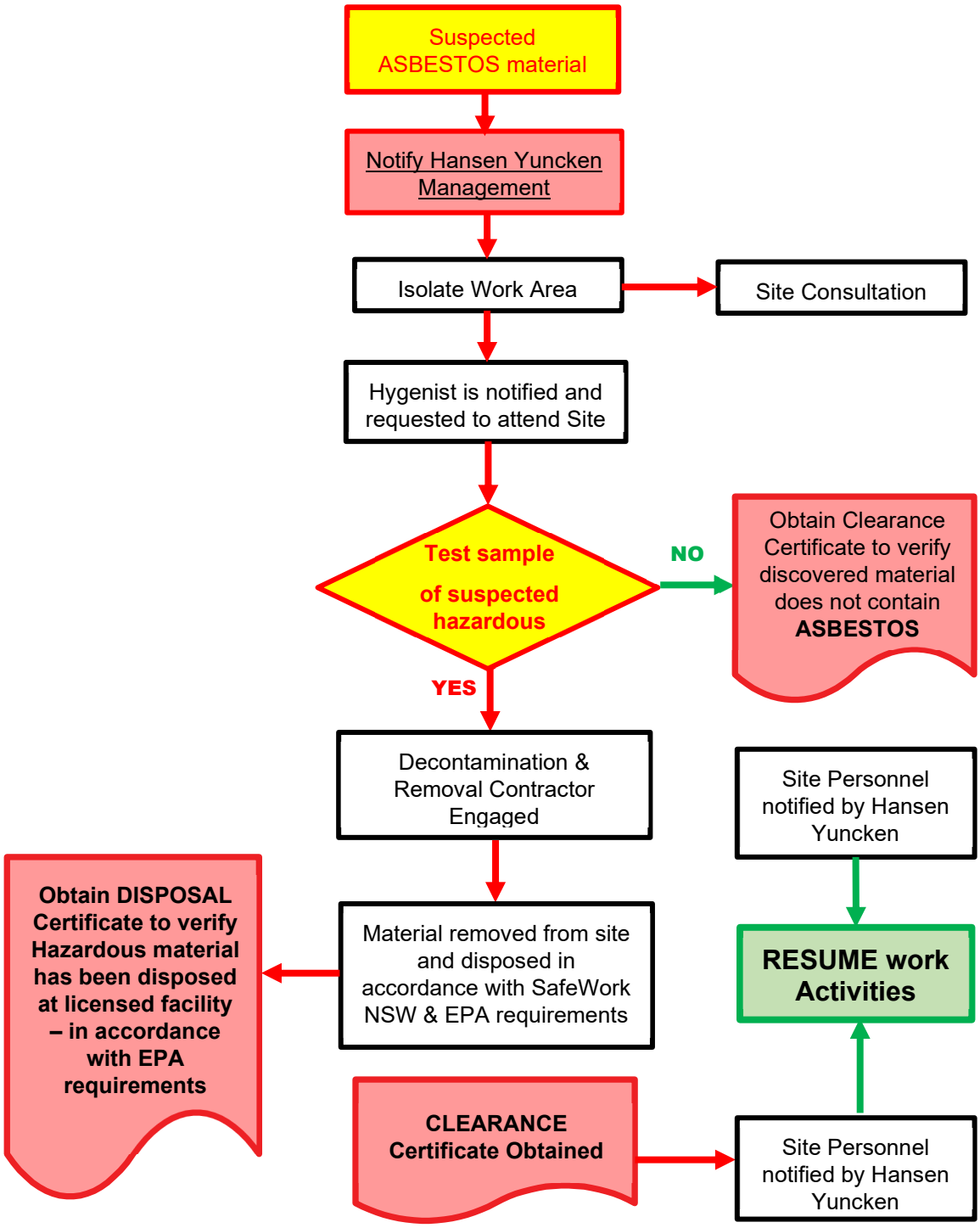
i. Validation samples would be collected from the remedial excavation to confirm the complete removal of the asbestos containing materials. If the asbestos pipes/conduits are uncovered, then sampling density would typically comprise one sample per 10-20 linear meter (depending on the length of the pipe).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

c. Remove and dispose of the structure and associated pipework 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 4.12 of this plan on Waste Management 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.

## 5.12 Waste Management

In accordance with Condition B15(d) of SSD-15788005, the Construction Waste Management Plan (CWMP) has been completed for the project and is contained within (Appendix A.7). The CWMP contains detailed information regarding the types, estimated quantities and proposed treatment methods of different waste types throughout the project. Waste management requirements to be adhered to on the project include:

- Maintaining obstruction free access routes between work site and waste storage area, and for waste collection vehicles.
- All waste not being reused on site will be removed during, or at the completion of the construction stage.
- Waste to be collected during hours of approved construction work.
- All vehicles entering or leaving site will be required to have their loads covered.
- The site will be left clear of waste and debris at completion of works.

In accordance with Condition B18(a), the waste classification for the project is contained within Appendix A.9. Detailed information regarding the treatment and allocation of waste for the duration of the project is contained within the CWMSP.

### 5.12.1 Waste Reduction

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 minimise the amount of materials transferred to landfill from this project.

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.

### 5.12.2 Waste Generation – Fill Material

Excavated Natural Material (ENM) generated during earthworks will be retained and reused on site where possible. In accordance with the Construction Waste Management Sub-Plan (Appendix A.8) and the Douglas Partners Report on Preliminary Site Investigation (Contamination) (Appendix A.9), fill material required to be disposed off-site will first be assessed and assigned a waste classification prior to off-site disposal.

### 5.12.3 Non-Recyclable Waste

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

### 5.12.4 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.

Waste collection and disposal is in accordance with Condition B18(b) of SSD-15788005

### 5.12.5 Waste Reporting

Waste generation is monitored by HY on a 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.

### 5.12.6 Concrete Waste & Washout

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.

### 5.12.7 Mitigation Strategies

- 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 is 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 be undertaken by an appropriately licenced contractor as per SafeWork 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).

## 5.13 Visual

The project has minimal visual impact to neighbouring properties. The visual impact has been assessed through the SSDA within the Environmental Impact Statement (EIS).

## 5.14 Environmental Complaints

Complaints received regarding HY's Environmental Impacts or performance shall be recorded as a complaint in accordance with Hansen Yuncken's. Actions are then to be taken to address the complaint.

## 5.15 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.

## 5.16 Hazardous Materials

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

## 5.17 External Lighting

In accordance with condition B11 & B15a (iv) of SSD-15788005, the external lighting to the proposed Jindabyne Education Campus complies with AS1158.3.1:2005 – Lighting for Roads and Public Spaces

and AS4282-2019 – Control of the Obstructive Effects of Outdoor Lighting. A copy of this certificate verifying the compliance with these Australian Standards is provided at Appendix A.13.

## 5.18 Community Consultation and Complaints Handling

In accordance with condition B15(a) (vi) of SSD-15788005, community consultation and complaints handling is primarily the responsibility of the Client. Hansen Yuncken will provide assistance where possible to ensure that the client is complying with the requirements of the Community Communication Strategy developed for the Jindabyne Education Campus in accordance with condition B9 of SSD-15788005.

### 5.18.1 Community Consultation

Community consultation is primarily the responsibility of the client. Hansen Yuncken will ensure that the relevant strategies/outcomes are incorporated within the relevant management plans and construction process where possible. The client will use a number tools and techniques to keep stakeholders and the local community involved, including:

- 1300 community information line
- Call centre scripts
- Community contact cards
- CRM database
- Display boards
- Door knocks
- Face-to-face or virtual meetings/briefings
- FAQs
- Information booths
- Information sessions (drop in)
- Information pack
- Media releases/events
- Notifications and updates
- Photography, time-lapse photography and videography
- Presentations
- Priority correspondence
- Project Reference Group
- Project signage
- Site visits
- School Infrastructure NSW email address
- School Infrastructure NSW website
- Welcome pack/thank you pack

### 5.18.2 Complaints Handling

Hansen Yuncken will provide assistance through the complaints handling process. During the project delivery phase, a complaint is defined as in regard to construction impacts – *such as* – safety, dust, noise, traffic, congestion, loss of parking, contamination, loss of amenity, hours of work, property damage, property access, service disruption, conduct or behaviour of construction workers or other environmental impacts. If a complaint is made directly to Hansen Yuncken, it will be redirected to the following SINSW communication channels:

- Phone: 1300 482 651
- Email: schoolinfrastructure@det.nsw.edu.au
- Website: schoolinfrastructure.nsw.gov.au

Upon receipt of the complaint, Hansen Yuncken will endeavour to close out the complaint in a timely manner. The complaint will be logged to ensure that the impact of future construction works that may impact the community in a similar manner are minimised.

# 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 Hansen Yuncken's 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 Hansen Yuncken's project Emergency Response Plan (ERP). The environmental impacts controlled in the ERP are;

**Asbestos Exposure**

If 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.

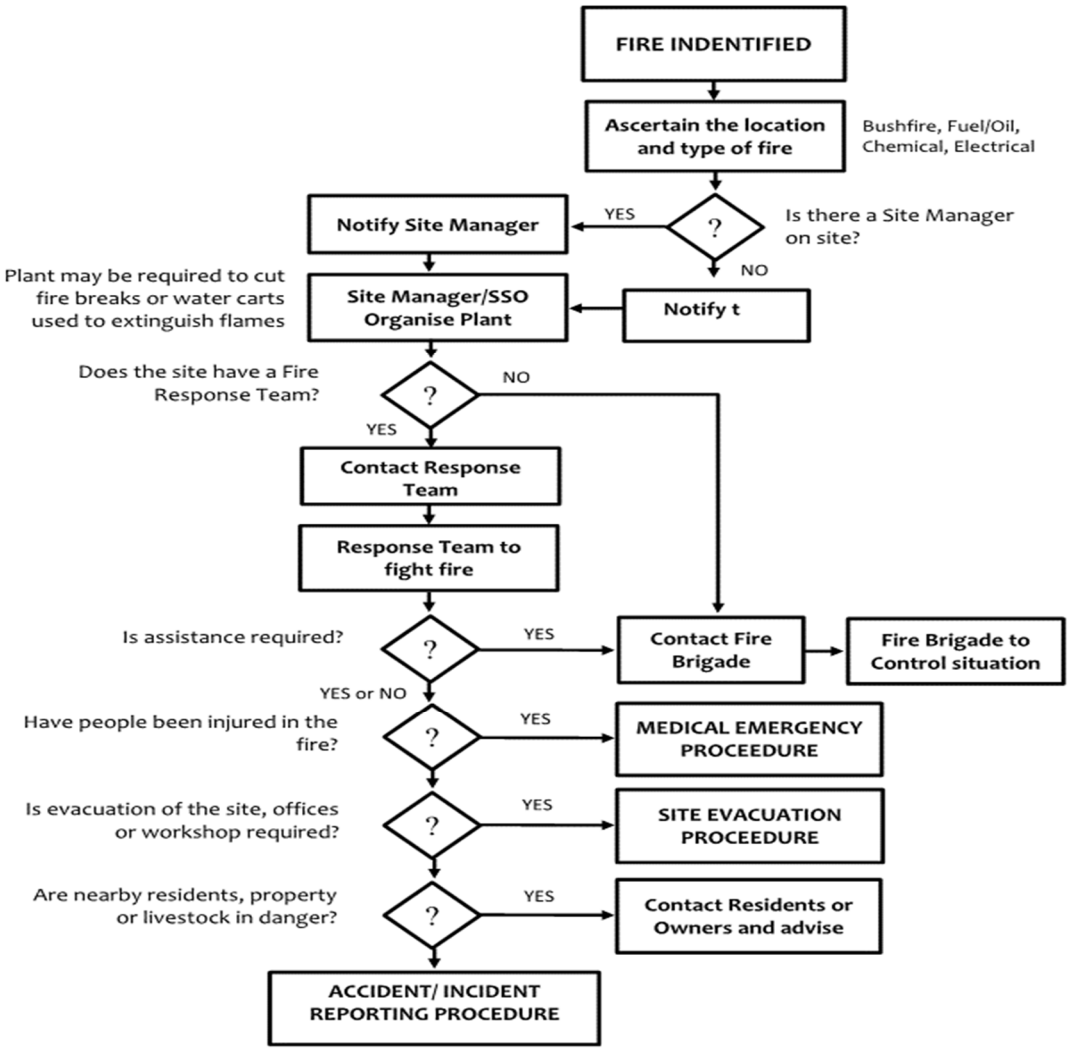
Firstly, call 000 if the incident presents an immediate threat to human health or property. Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service are the first responders, as they are responsible for controlling and containing incidents.

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:

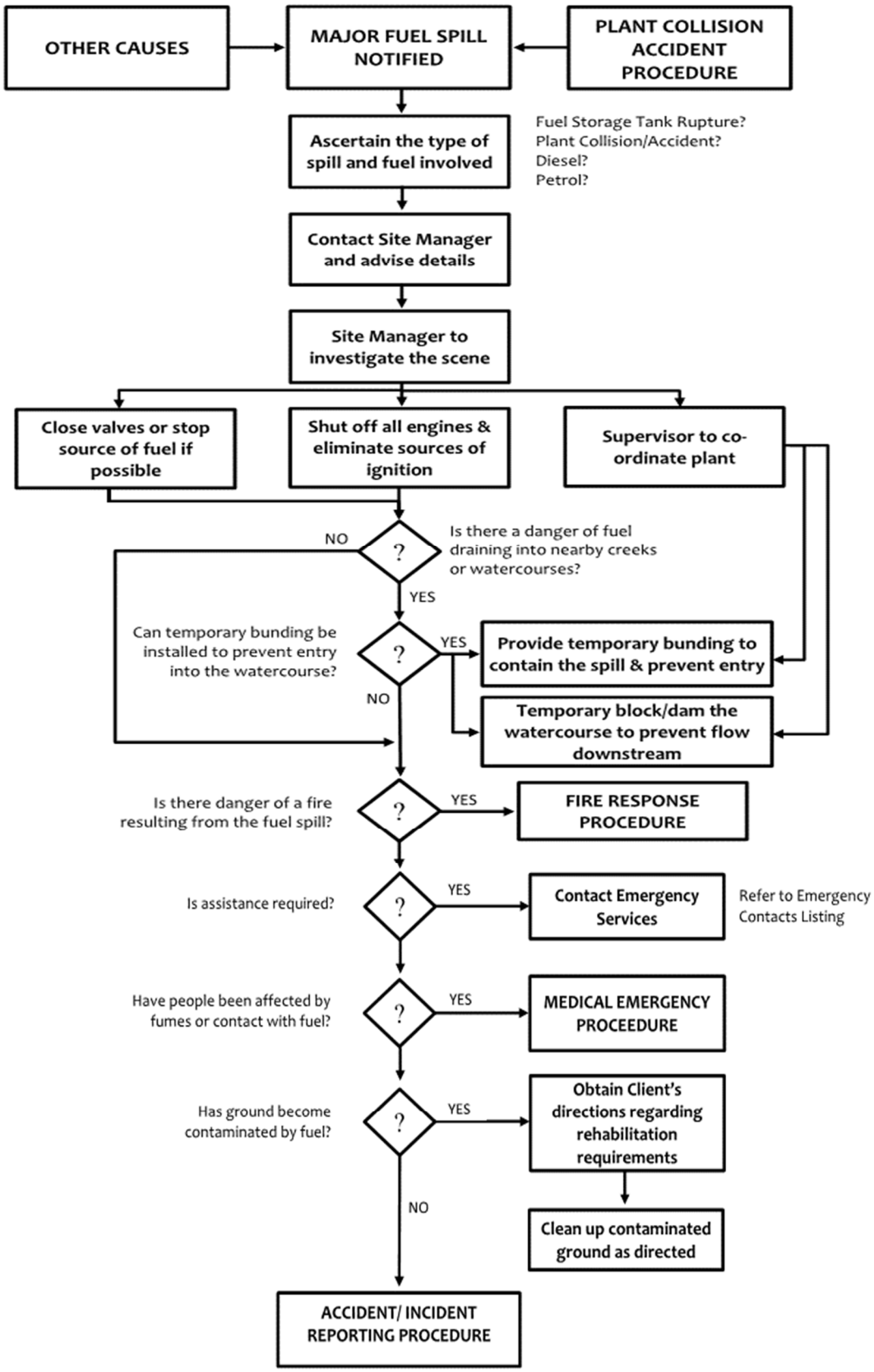
**EPA Environment Line on 131 555**

**SafeWork NSW Authority – phone 13 10 50 (Where appropriate)**

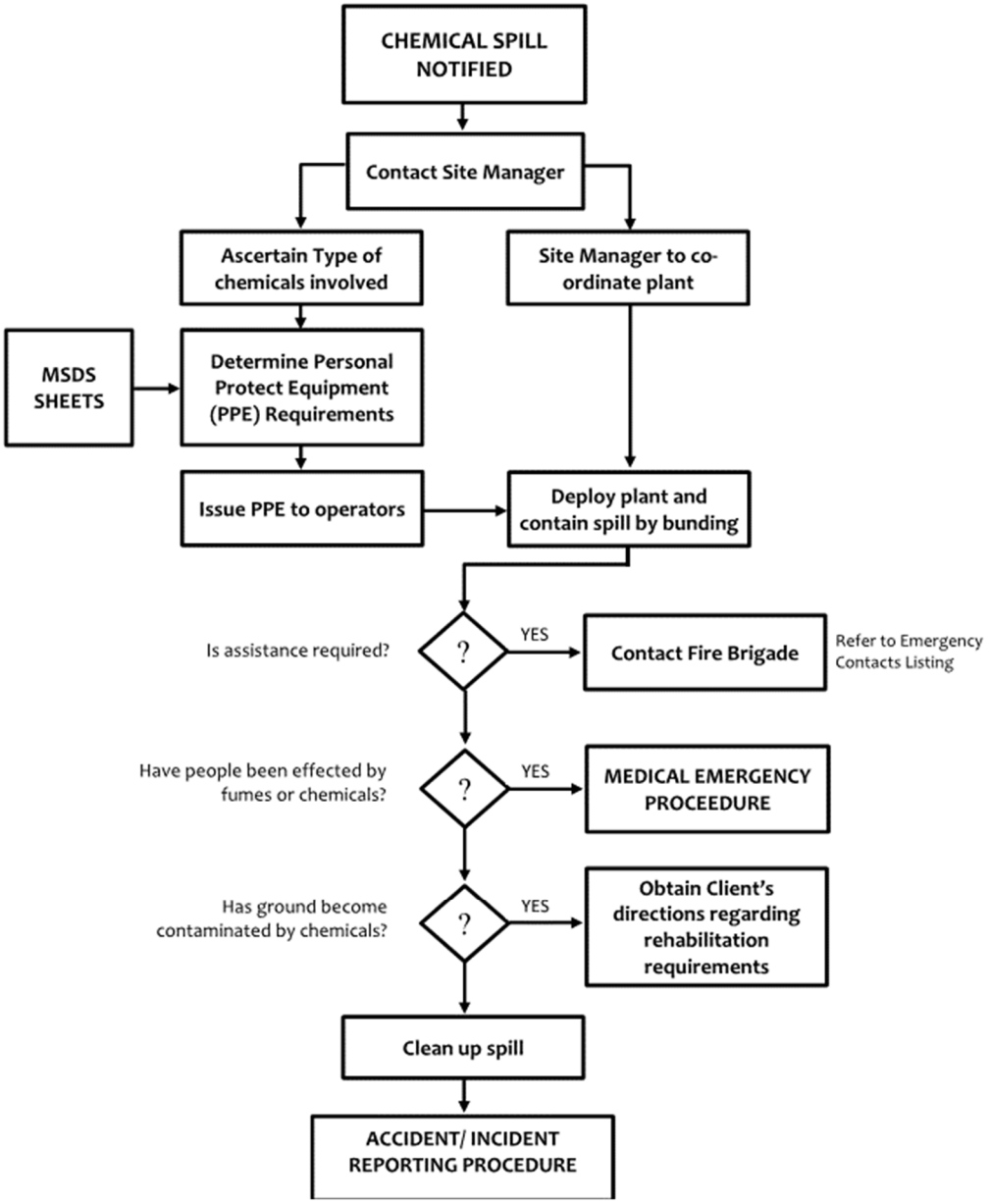
**Fire**


FIRE INDENTIFIED
Ascertain the location and type of fire
Bushfire, Fuel/Oil, Chemical, Electrical
Notify Site Manager
YES
?
Is there a Site Manager on site?
NO
Plant may be required to cut fire breaks or water carts used to extinguish flames
Site Manager/SSO Organise Plant
Notify t
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, and
- External audits in line with the contract requirements and as required under Condition A26 of SSD-15788005.

### 6.2.1 Non-Conformances

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.

HY shall ensure that product/ works which does not conform to specified requirements are identified and controlled to prevent its unintended use or delivery. A nonconformance shall be raised when:

- Works/products not meeting specified requirements are identified; and/or
- Works have not been inspected or tested in accordance with specified requirements (frequency, method, authority); and/or
- A systematic and/or repeated omission/error that may result in a time or cost implication to the project.

If the Non-Conformance (NC) is determined to be a Non-Compliance (in accordance with the definition outlined in SSD-15788005) then conditions A29-A33 shall be followed.

### 6.2.2 Reporting & Corrective Actions

All nonconformities will result in corrective action being undertaken. The significance of nonconformities shall be evaluated in terms of their impact on:

- operating costs,
- cost of nonconformity and its correction,
- product performance,
- regulatory requirements,
- client satisfaction, and
- any other risks

HY project management shall undertake the following actions to investigate the causes of nonconformities specific to the project in order to prevent recurrence.

- identify nonconformities that relate to products, QMS processes, resources, subcontractors and outsourced work, and client complaints;
- review and determine the causes of nonconformities using problem solving tools such as the root cause analysis process - Process Workflow flowchart - to determine the underlying root cause(s) of the nonconformity;
- evaluate the need for corrective action to minimise the occurrence of identified nonconformities;
- determine and implement the corrective action needed; and
- monitor the corrective actions taken and record the results to determine if further improvement is necessary to get it right.
- Notification procedures in accordance with Condition A30 and Appendix 2 of SSD-15788005.

Actions taken to eliminate the cause of nonconformity must flow from the root cause analysis and may involve changes to product, process, resources, methods, equipment, etc. or any combination of these. Records of the actions taken and follow-up activities shall be monitored and maintained by the project to ensure timely completion of any open corrective action. Corrective action records shall be monitored on an ongoing basis for any recurrence of the nonconformity where corrective action was taken.

Communication and reporting channels will generally be in accordance with section 4.8. Notwithstanding, HY will provide appropriate notification to Colliers and SINSW as described below:

- Site conditions –
  - If the Contractor becomes aware of Adverse Site Conditions, the Contractor will notify the Principal in writing as soon as possible and in any event within 7 days after becoming aware of the Adverse Site Conditions. Where practicable, the notification should be given before the Adverse Site Conditions are disturbed. The notification must include details of:
    1. the Site Conditions the Contractor claims are Adverse Site Conditions,
    2. the reasons why the Contractor claims that the Site Conditions are Adverse Site Conditions, including any information supporting the contention,
    3. the effect on the works,
    4. the effect on achieving completion,
    5. the additional work and resources involved and the Contractor's estimate of its entitlement to any adjustment to the contract price, and
    6. any other matters the contractor considers relevant.
- Notify the Principal immediately upon discovering any damaged services or services that obstruct the works and are not shown in the Principal's documents.
- WHS –
  - The Contractor is to notify the Principal and Project Manager of an incident that has occurred onsite by submitting a high-level written correspondence within the same day of occurrence and follow up with a detailed final report within 48 hours of occurrence of any incident.
  - Notify the Principal of any notifiable incident and any incident requiring medical treatment or involving lost time as soon as reasonably practicable after the incident. Provide a written report to the Principal within 24 hours after the incident, giving details of the incident and evidence that requirements of the WHS Act have been met.
  - Immediately notify the Principal of any Prohibition, Improvement, Non-disturbance or Penalty Notice issued by SafeWork NSW for any work under the contract.
- Hazardous substances discovered unexpectedly on the site –
  - If any nominated hazardous substance is discovered unexpectedly on the site, the Contractor must suspend all work that may result in exposure to the substance and notify the Principal immediately of the type of substance and its location.
  - Not less than 7 days prior to starting any asbestos removal work, notify the local office of SafeWork NSW and the Principal of the intention to carry out that work.
- Environmental Management –
  - Immediately notify the Principal of any pollution incident that may cause material harm to the environment, providing evidence that notification requirements of the POEO Act have been met, where applicable.

The client is responsible for all appropriate notifications to DPIE.

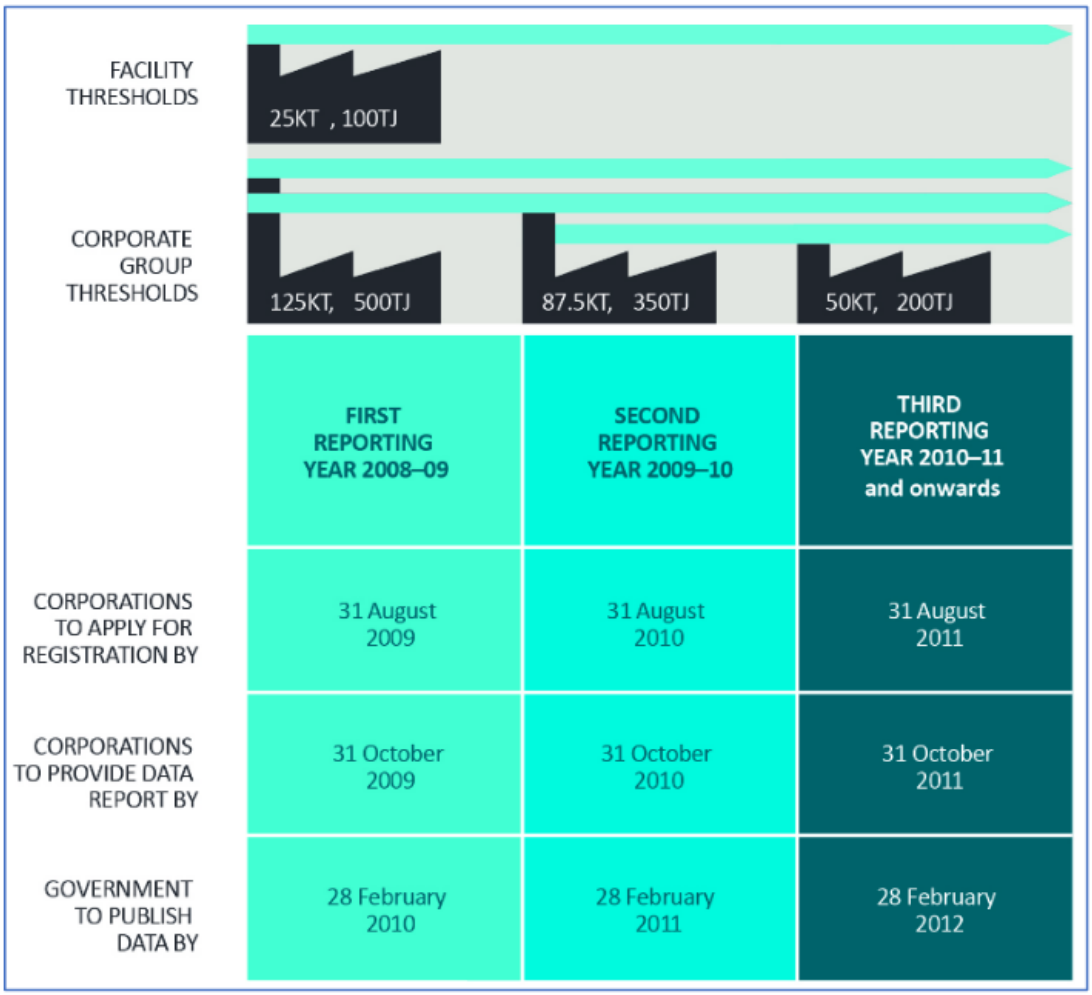
## 6.3 National Greenhouse & Energy Reporting (NGER)

### 6.3.1 National Reporting Guidelines

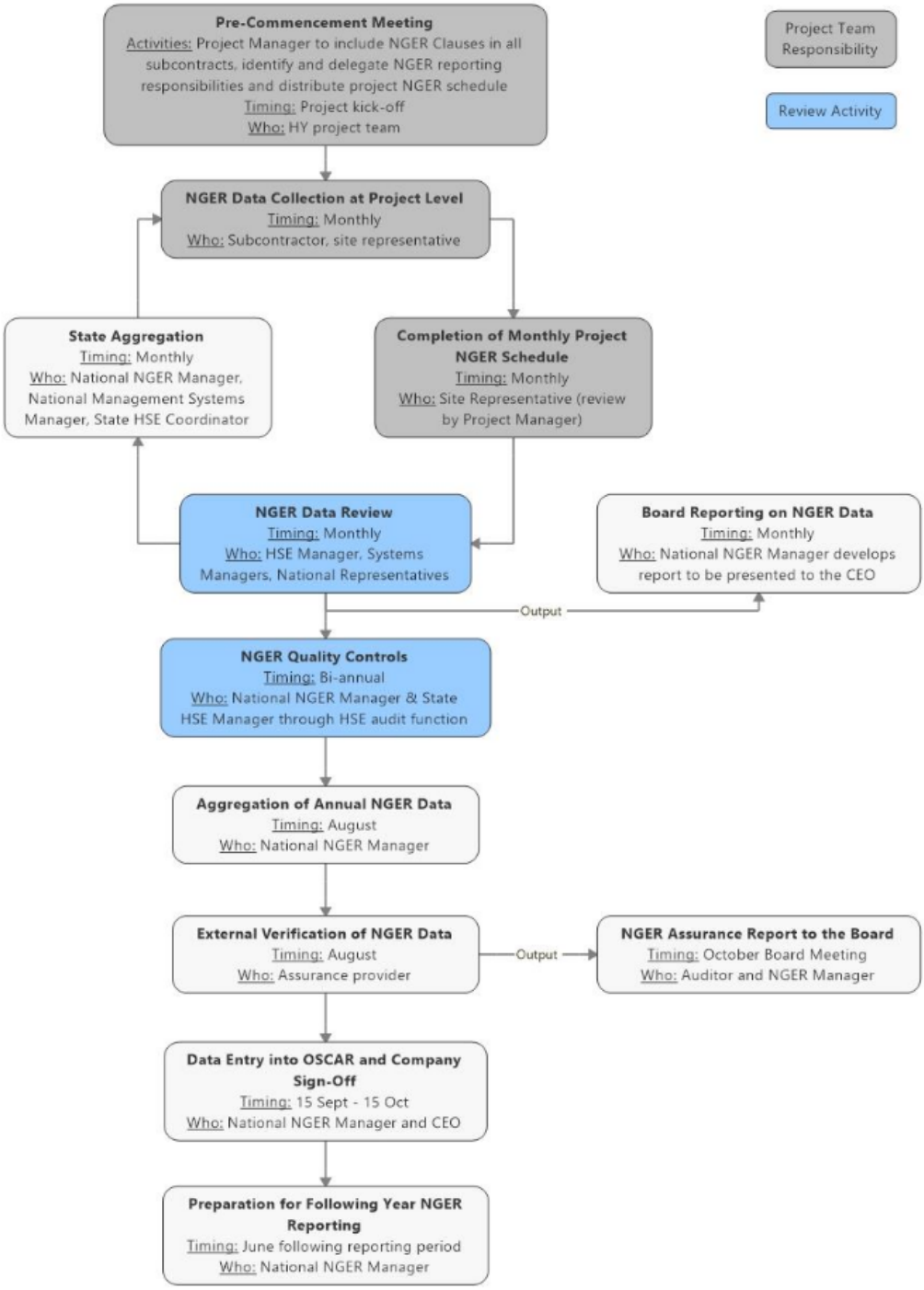
The purpose of the National Greenhouse and Energy Reporting Guidelines is to help corporations understand their obligations under the National Greenhouse and Energy Reporting Act 2007 (the Act).

### 6.3.2 Reporting Thresholds

Hansen Yuncken'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 System Guidelines (edition 3 - August 2013)

NSW Government Environmental Management Plan Guideline (April 2020)

# 8 Appendices

## A.1 Hansen Yuncken Environmental Policy Statement

HANSENYUNCKEN

ENVIRONMENT POLICY

Hansen Yuncken Pty Ltd is committed to providing a high quality environment in the building and construction industry, which meets the requirements and expectations of Clients, Statutory Authorities, Employees 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. Hansen Yuncken affirms its 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.

In achieving this Hansen Yuncken is committed to the implementation, maintenance and improvement of a Management System meeting the requirements of Australian and International Standard AS/NZS ISO 14001.

The National Executive Committee shall review Environmental objectives and set performance targets each year. State Managers, through their line management structure, are accountable for ensuring all employees and subcontractors achieve these objectives and targets.

The Company's Environmental performance shall be monitored against established performance targets and the results reported to the Board of Directors on the regular basis.

Hansen Yuncken affirm that they have a 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 acknowledges that environmental excellence can only be achieved and maintained by a clear unequivocal direction of all levels of management, stimulating a participative atmosphere and sense of pride in our environmental achievements by all employees and trade contractors, and through recognition by concerned groups in obtaining this.

Peter Salveson
Chief Executive Officer
May 2018

Page 1 of 1

## 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

CAStone

Cheryl Stone
Certification Manager

QMS/EMS Certified Company
Licence Number: Q0160

QMS 010

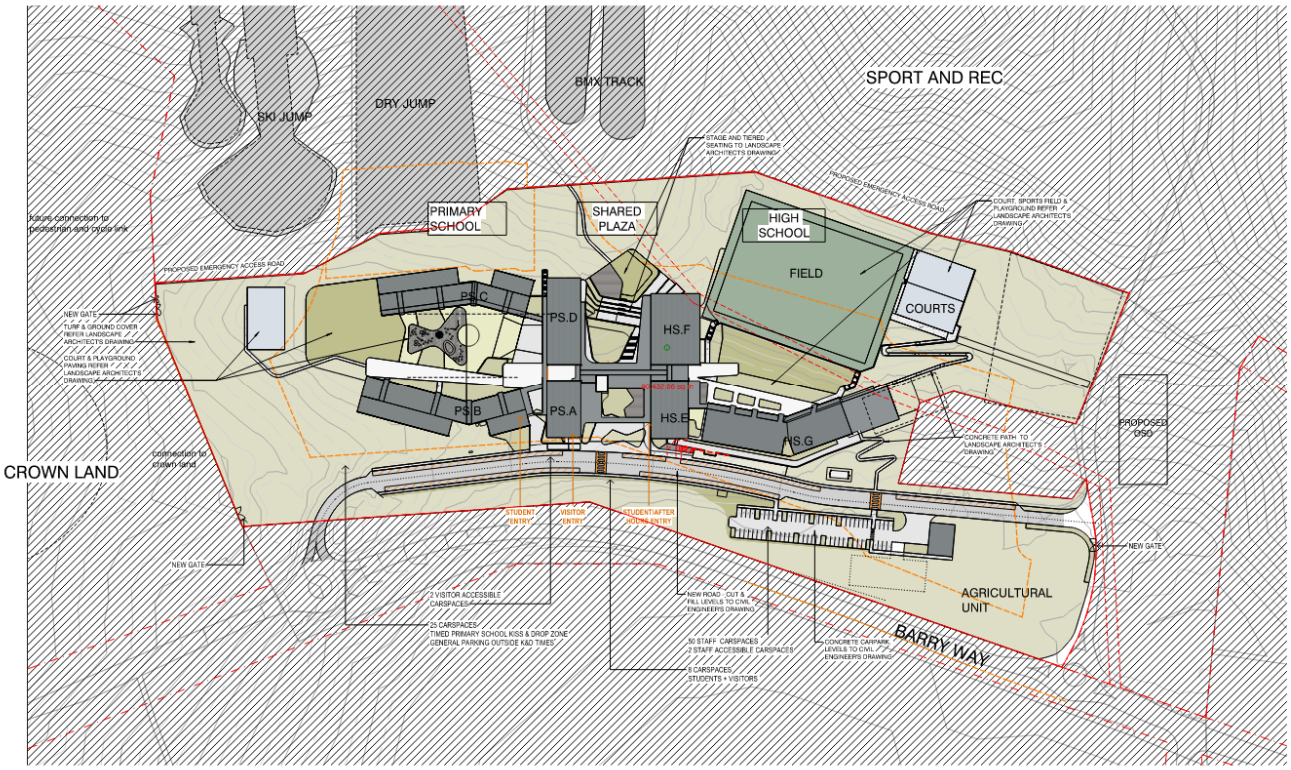
Quality Control Services QCS ENVIRONMENTAL

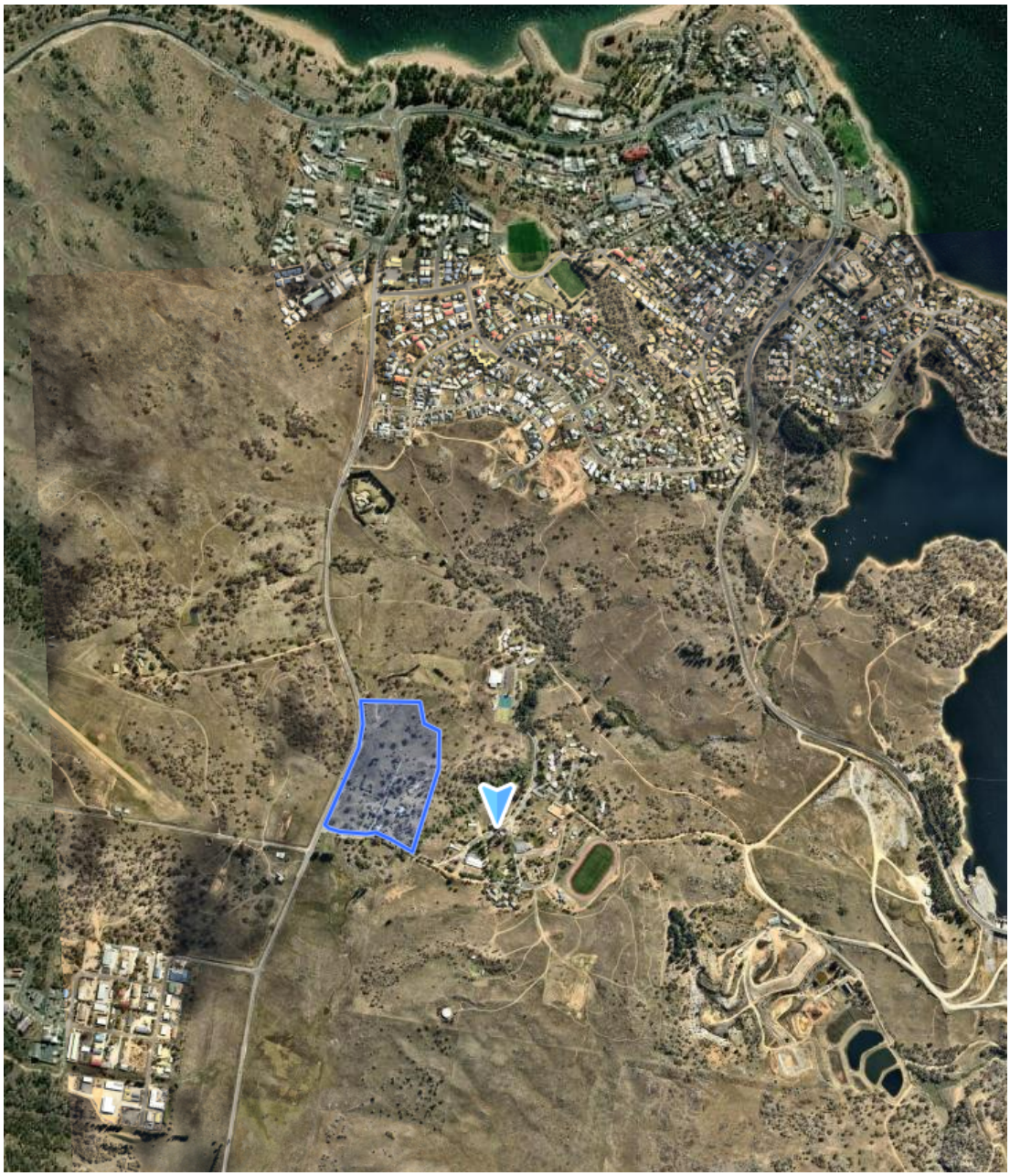
JAS-ANZ

www.jas-anz.org/register

## A.3 Site Location

207 Barry Way, Jindabyne, NSW 2627





## A.4 HSE Project Risk Assessment

HANSENYUNCKEN

# PROJECT HSE RISK ASSESSMENT

This Project HSE Risk Assessment is to beused as aguide when completing the monthly Project High Risk Identification assessment on HYWAY Site Management Dashboard in accordance with the Project HSE Risk Assessment procedure and should be conducted at the time of Construction programme statusing to assess hazards and risks for next month. Hazards with residual risk from the Design WHS Risk Assessment (if applicable) are also to be considered.

| | |
|---|---|
| **RELEVANT PROCEDURE:** | Project HSE Risk Assessment |
| **PROJECT:** | Jindabyne Education Campus |
| **JOB NO:** | SN105 |
| **ASSESSED BY:** | Daniel Spirit Jones, Mick Parker, Matt O'Grady, Tim Redmond, Chris Histon |
| **ASSESSMENT DATE:** | 13 - 10 - 2022 (FOR INFORMATION ONLY) - PLEASE REFER ALSO TO HY RISK IDENTIFIER ON HY-WAY |

| **RISK ASSESSMENT TABLE** | | **Consequence** | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| **Likelihood** | | Significant | Major | Moderate | Minor | Insignificant |
| A | Very Likely | High | High | High | Medium | Medium |
| B | Likely | High | High | Medium | Medium | Medium |
| C | Possible | High | Medium | Medium | Medium | Low |
| D | Remotely Possible | Medium | Medium | Medium | Low | Low |
| E | Very Unlikely | Medium | Medium | Low | Low | Low |
| NA | Not applicable | NA | NA | NA | NA | NA |

| | RISK ASSESSMENT | | | CONTROLS (to be established in the following order of priority 1st=High Level Risks; 2nd = Medium Level Risks; 3rd = Low Level Risks) | |
|---|---|---|---|---|---|
| **HAZARD** (Include additional project specific hazards as required) | **L** | **C** | **Class** | **Legislation, Standards & Codes of Practice** | **Enter Details of Specific Controls Required** |
| **Amenities** | | | | | |
| Access | A | 4 | Medium | NSW Code Of Practice: Managing the work Environment and Facilities | Wide concrete footpaths have been installed for safe access to all amenities in the compound area. The compound area is fenced off to protect workers from moving plant, trucks and vehicles |
| Location and nature of workplace | A | 4 | Medium | NSW Code Of Practice: Managing the work Environment and Facilities | All amenities are set up in a compound area at the main entry to site making it easy for access and egress in emergency situations |
| Housekeeping | A | 4 | Medium | NSW Code Of Practice: Managing the work Environment and Facilities | A cleaner is engaged to manage and maintain all amenities. It will commence as weekly cleans then change to alternate days at peak. |
| Seating | A | 4 | Medium | NSW Code Of Practice: Managing the work Environment and Facilities | Sufficient seating is in place for all workers to rest, take breaks and eat lunch |
| Lighting (Poor) | A | 4 | Medium | NSW Code Of Practice: Managing the work Environment and Facilities | Lighting is setup in all amenities for safe access |
| Air Quality | A | 4 | Medium | NSW Code Of Practice: Managing the work Environment and Facilities | Windows, fans and airconditioning are installed to all site sheds |
| Hot and Cold Environment | A | 4 | Medium | NSW Code Of Practice: Managing the work Environment and Facilities | Air conditioning installed to all lunch sheds |
| Drinking water | A | 4 | Medium | NSW Code Of Practice: Managing the work Environment and Facilities | Bubbler set up at lunch sheds and varoius locations throughout site |
| Dining Facilities | A | 4 | Medium | NSW Code Of Practice: Managing the work Environment and Facilities | Clean and tidy tables are available in all lunch sheds. There is sufficient space for all workers to site down and have lunch |
| Hand washing | A | 4 | Medium | NSW Code Of Practice: Managing the work Environment and Facilities | Warm water, soap and hand dryers are available in the toilets |
| Shower Facilities | A | 4 | Medium | NSW Code Of Practice: Managing the work Environment and Facilities | Hot showers are provided on site |
| Change Room | A | 4 | Medium | NSW Code Of Practice: Managing the work Environment and Facilities | Change rooms with benching and coat hooks are proivded on site for workers to change clothes |
| **Air Quality** | | | | | |
| Dust from plant & truck movements | C | 4 | Medium | Jindabyne Education Campus WHS Plan | Water cart to conduct regular laps of the site spraying water on the ground to keep dust settled particularly where there is high plant and truck movements. Temporary water has been installed at several locations around site. |
| Refuelling of plant and equipment | B | 4 | Medium | AS/NZS 1715 Selection, use and maintenance of respiratory protective devices<br>AS/NZS 1716 Respiratory protection devices | All refuelling is to be conducted in well ventilated areas only. Refuelling to be conducted clear of any hot works on site such as grinding, welding etc |
| Concrete cutting / coring | E | 5 | Low | NSW Cutting & Drilling Concrete & Other Masonry Products 1996 | Water must be used to minimise dust. Demolition saws take preference over dry cutting with a masonry blade on an angle grinder. Rubble to cleaned up immediately. Slurry to be cleaned up immediately |
| **Access/ Egress and movements around site** | | | | | |
| Workers entering site without Hansen Yuncken permission would be unaware of any specific site hazards eg, asbestos, gas lines, high risk construction work etc | A | 2 | High | NSW Code Of Practice: Consultation, coordination and cooperation | All workers must be site inducted by Hansen Yuncken prior to entering site. This is clearly marked on the contact details sign at the main entry to site. Subcontractors must give Hansen Yuncken site staff sufficient notice prior to workers attending site to be site inducted. All workers on site to display a HY Jindabyne Education Campus photo ID at all times and sign into the site attendance register on a Daily Basis after they have been Inducted. |
| Visitors entering site without Hansen Yuncken permission would be unaware of site hazards eg, asbestos, gas lines etc | C | 5 | Low | NSW Code Of Practice: Consultation, coordination and cooperation | All visitors must sign in at the site office prior to entering site. Signs have been erected clearly stating this. Visitors must display a ID card and be escorted by an inducted guide at all times. Visitors entering site must have approval from the Site Manager. |
| Pedestrians/ workers walking around site being struck by vehicles/trucks/ plant moving around site | D | 1 | Medium | NSW Code of Practice: Moving Plant On Construction Sites | Bunted/fenced off pedestrian pathways have been erected on site to keep pedestrians clear of areas where there are high movements of vehicles/ trucks and plant. All subcontractors using moving plant must have a HRCW SWMS which details how to protect other workers in the area from being struck by the plant. All plant must have a flashing light, horn and reversing beeper. Vehicles/ trucks must turn their flashing lights on. There is a 10km/h speed limit on site. All workers have been told at the site induction to be aware of moving plant on site and keep clear whenever possible. Only workers who are involved with the task are to be in the vicinity of the plant. HY have instructed all subcontractors to train their workers through pre-start meetings on how to approach moving plant and equipment. Haul roads for plant and vehicles are to be maintained. Pedestrians are to avoid walking on haul road whenever possible. Plant operators are to keep reversing to a minimum. Pedestrians that need to approach moving plant are to do so from the front of the machine and are to gain the operators attention by waving arms and yelling out to the operator. No person is to approach the machine until the operator has stopped moving the machine and signalled that it is safe to approach. Spotters working with machines must always stand in an area where they are visible to the operator. A site spotter/ delineation plan has been proposed to and approved by the site safety committee. This plan states areas where a spotter is mandatory for all plant and vehicle movements. This plan is posted on the site notice board. |
| Public being struck by trucks entering and exiting site | D | 3 | Medium | NSW Code Of Practice: How to manage work health and safety risks | Traffic control is in place managing vehicle and pedestrian movements at main entry to site |
| Subcontractors bringing vehicles onto site without Hansen Yuncken permission | B | 4 | Medium | Jindabyne Education Campus Traffic Management Plan | All subcontractors must seek approval from the Hansen Yuncken Site Manager prior to bringing vehicles/ trucks onto site. Al deliveries to site require minimum 24 hours notice to Hansen Yuncken. |
| Workers slipping/ tripping over on muddy/ uneven ground | c | 3 | Medium | Jindabyne Education Campus WHS Management Pan | Pedestrian pathways have been constructed to minimise slip and trip hazards. Wheel ruts, eroded ground, muddy haul roads and pathways are to be bladed back to solid ground as required. On rain days the foreman & safety committee (when established) is to walk the site prior to work commencing and determine which areas are safe for work and which areas are no go zones. |
| Vehicles becoming bogged or losing traction whilst entering/ exiting and driving around site | E | 4 | Low | | Vehicles to be driven on solid ground only. No vehicles will be allowed to drive on muddy terrain. |
| Collisions between plant on site | E | 3 | Low | | Sufficient distance to be kept between all plant on site. Flashing light, horn and reversing beeper must be working. Plant and vehicles to stay on haul roads whenever possible. Site speed limit is 10km/h |
| Too many vehicles parked on site creating restricted access around site | NA | 4 | NA | | All Parking onsite. Designated areas to be provided by Hansen Yuncken for Subcontractor or Visitor Parking in accordance with SSD requirements. |

HANSENYUNCKEN

# PROJECT HSE RISK ASSESSMENT

This Project HSE Risk Assessment is to beused as aguide when completing the monthly Project High Risk Identification assessment on HYWAY Site Management Dashboard in accordance with the Project HSE Risk Assessment procedure and should be conducted at the time of Construction programme statusing to assess hazards and risks for next month. Hazards with residual risk from the Design WHS Risk Assessment (if applicable) are also to be considered.

| | |
|---|---|
| **RELEVANT PROCEDURE:** | Project HSE Risk Assessment |
| **PROJECT:** | Jindabyne Education Campus |
| **JOB NO:** | SN105 |
| **ASSESSED BY:** | Daniel Spirit Jones, Mick Parker, Matt O'Grady, Tim Redmond, Chris Histon |
| **ASSESSMENT DATE:** | 13 - 10 - 2022 (FOR INFORMATION ONLY) - PLEASE REFER ALSO TO HY RISK IDENTIFIER ON HY-WAY |

**RISK ASSESSMENT TABLE**

| Likelihood | | Consequence 1 Significant | 2 Major | 3 Moderate | 4 Minor | 5 Insignificant |
|---|---|---|---|---|---|---|
| A | Very Likely | High | High | High | Medium | Medium |
| B | Likely | High | High | Medium | Medium | Medium |
| C | Possible | High | Medium | Medium | Medium | Low |
| D | Remotely Possible | Medium | Medium | Medium | Low | Low |
| E | Very Unlikely | Medium | Medium | Low | Low | Low |
| NA | Not applicable | NA | NA | NA | NA | NA |

| | RISK ASSESSMENT | | | CONTROLS (to be established in the following order of priority 1st=High Level Risks; 2nd = Medium Level Risks; 3rd = Low Level Risks) | |
|---|---|---|---|---|---|
| **HAZARD** (Include additional project specific hazards as required) | **L** | **C** | **Class** | **Legislation, Standards & Codes of Practice** | **Enter Details of Specific Controls Required** |
| **Asbestos** | | | | | |
| Workers being exposed to the asbestos contaminated soil (ACM) at various locations around site | NA | 3 | NA | Working with asbestos guide 2008 | An independent Environmental consultant will be engaged by HY to identify any areas that may potentially be deemed to contain asbestos contaminated soil or material on site. All works to be undertaken in accordance with the RAP. |
| Unidentified finds of asbestos | B | 3 | Medium | Jindabyne Education Campus Asbestos Management Plan | All works to be undertaken in accordance with the RAP. |
| Unidentified finds of asbestos | B | 3 | Medium | Code of Practice: How to manage and control asbestos in the workplace | Warning signage and red/white tape to be used to prevent unauthorised persons entering the area. Air monitors to be installed and all workers in the area must wear appropriate PPE as defined in SWMS. All works to be done in accordance with Section 5.11 and 6.1 of the CEMP. |
| Unidentified finds of asbestos | B | 3 | Medium | Code of Practice: How to safely remove asbestos | Warning signage and red/white tape to be used to prevent unauthorised persons entering the area. Air monitors to be installed and all workers in the area must wear appropriate PPE as defined in SWMS. All works to be done in accordance with Section 5.11 and 6.1 of the CEMP. |
| Unidentified finds of asbestos | B | 3 | Medium | NWHSC 2002 - 2005 Safe Removal of Asbestos | Warning signage and red/white tape to be used to prevent unauthorised persons entering the area. Air monitors to be installed and all workers in the area must wear appropriate PPE as defined in SWMS. All works to be done in accordance with Section 5.11 and 6.1 of the CEMP. |
| Unidentified finds of asbestos | B | 3 | Medium | NWHSC 2018 - 2005 Management & Control of Asbestos | Warning signage and red/white tape to be used to prevent unauthorised persons entering the area. Air monitors to be installed and all workers in the area must wear appropriate PPE as defined in SWMS. All works to be done in accordance with Section 5.11 and 6.1 of the CEMP. |
| **Atmosphere - Contaminated/ Flammable** | | | | | |
| Flammable fumes from fuel containers | A | 4 | Medium | NSW Code of Practice: Storage and Handling of Dangerous Goods | Fuel to be stored in fuel storage areas only. Fuel drums are to be placed back in the fuel storage area after refuelling has been completed. No refuelling near any hot works being undertaken. All subcontractors must have a 'refuelling SWMS' |
| Unsafe storage of fuel | C | 4 | Medium | AS/NZS 2430 Classification of hazardous areas | Fuel must be stored in ventilated cages. No fuel to be stored in shipping containers |
| Fumes from spray selear application | D | 4 | Low | AS1318 Use of colour for the marking of physical hazards and the identification of certain equipment in industry | Applicators must wear mask whilst spray painting. Warning signage to be erected and all other personnel not involved with the task are to be clear of the area |
| **Biological Hazards** | | | | | |
| Disease from unhygienic facilities and amenities | E | 4 | Low | NSW Code Of Practice: HIV and other blood-born pathogens in the workplace<br>Jindabyne Education Campus WHS Management Plan<br>NSW: Code Of Practice: Work Place Amenities | A cleaner has been engaged by Hansen Yuncken to clean amenities on a weekly basis. Amenities to be kept clean and tidy at all times |
| **Bomb Threat** | | | | | |
| Persons unaware of what to do in the event of an emergency | E | 5 | Low | HY Emergency Response Plan<br>AS 2293 Emergency escape lighting and exit signs for buildings<br>AS 3745: 2002 Emergency Control Organisation and Procedures For Buildings, Structures and Workplaces | Emergency response procedure is explained to all workers at the site induction. HY to practice fire drills every 6 months to ensure the system is working. |
| **Changes in design** | | | | | |
| Changes in design could result in new hazards not being identified | D | 4 | Low | Jindabyne Education Campus WHS Management Plan | All design changes must be risk assessed by HY. Subcontractor SWMS will be reviewed by HY as required |
| **Craning & Hoisting Operations** | | | | | |
| Persons/ other trades on site walking into the crane slew area may be struck by crane or load | B | 1 | High | AS 2550: Cranes, hoists & winches - Safe Use<br>Jindabyne Education Campus WHS Plan | The work area around all cranes must be fully barricaded eg bunting and signposted to keep other workers clear. |
| Slings or chains failing resulting in loss of load | A | 1 | High | AS 1418.1: Cranes, hoists and winches – General Requirements<br>AS 4991 Lifting Devices<br>Jindabyne Education Campus WHS Plan | Subcontractors must keep an up-to-date register of all chains and slings. All equipment must be visually checked daily prior to use. |
| Crane out riggers sinking in ground resulting in crane rolling over | A | 1 | High | NWHSC 1010: National Standard for Plant<br>Jindabyne Education Campus WHS Plan | Subcontractor SWMS to detail craning and hoisting operations. Subcontractor to communicate with HY staff and obtain a plant setup permit prior to setting up cranes to ensure outriggers are not set up over underground services or in unstable ground conditions. DCP will be required when operating outside of established Plant setup zones - Initial Geotechnical advice to be received during Cut and fill activities. All works to be in line with HYer standards for Plant setups |
| Crane striking structures whilst slewing | A | 2 | High | AS 1418.10(Int): Cranes, hoists and winches - Elevating work platforms<br>Jindabyne Education Campus WHS Plan | Dogman and crane operator to constantly communicate with each other. Crane operator to take directions from dogman only. |

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# PROJECT HSE RISK ASSESSMENT

This Project HSE Risk Assessment is to beused as aguide when completing the monthly Project High Risk Identification assessment on HYWAY Site Management Dashboard in accordance with the Project HSE Risk Assessment procedure and should be conducted at the time of Construction programme statusing to assess hazards and risks for next month. Hazards with residual risk from the Design WHS Risk Assessment (if applicable) are also to be considered.

| | |
|---|---|
| **RELEVANT PROCEDURE:** | Project HSE Risk Assessment |
| **PROJECT:** | Jindabyne Education Campus |
| **JOB NO:** | SN105 |
| **ASSESSED BY:** | Daniel Spirit Jones, Mick Parker, Matt O'Grady, Tim Redmond, Chris Histon |
| **ASSESSMENT DATE:** | 13 - 10 - 2022 (FOR INFORMATION ONLY) - PLEASE REFER ALSO TO HY RISK IDENTIFIER ON HY-WAY |

**RISK ASSESSMENT TABLE**

| Likelihood | | Consequence 1 Significant | 2 Major | 3 Moderate | 4 Minor | 5 Insignificant |
|---|---|---|---|---|---|---|
| A | Very Likely | High | High | High | Medium | Medium |
| B | Likely | High | High | Medium | Medium | Medium |
| C | Possible | High | Medium | Medium | Medium | Low |
| D | Remotely Possible | Medium | Medium | Medium | Low | Low |
| E | Very Unlikely | Medium | Medium | Low | Low | Low |
| NA | Not applicable | NA | NA | NA | NA | NA |

| HAZARD (Include additional project specific hazards as required) | RISK ASSESSMENT L | C | Class | CONTROLS (to be established in the following order of priority 1st=High Level Risks; 2nd = Medium Level Risks; 3rd = Low Level Risks) Legislation, Standards & Codes of Practice | Enter Details of Specific Controls Required |
|---|---|---|---|---|---|
| **Concrete** | | | | | |
| Concrete Pumping - overload formwork structure | A | 2 | High | NSW Code Of Practice: Pumping Concrete 1993 | Spotter to be used when positioning boom over formwork |
| Trip hazard after excess concrete has cured | A | 4 | Medium | Environmental Protection Act 1994 | Back to plant policy for large amounts of excess concrete |
| Slip hazard from excess water and slurry on the ground/ concrete washout | A | 4 | Medium | Jindabyne Education Campus WHS Plan | Concrete washout to be set up in area where water will not run over pedestrian pathways. Generally plastic is rolled out on the ground. The hopper is washed out onto the plastic, the concrete cures then is placed in a skip bin the following day |
| Slurry and wet concrete entering stormwater drains | B | 5 | Medium | Jindabyne Education Campus WHS Plan | The concrete washout area will constantly move on site to suit site conditions. The HY site foreman will determine where the wash out area will be on the day of any concrete pours. |
| No designated washout area could result in truck drivers washing out wherever they please leaving the site messy and untidy | D | 4 | Low | Jindabyne Education Campus WHS Plan | Excess concrete from washing out the pump is to be placed onto plastic, allowed to set then placed into the skip bin with a telehandler |
| Concrete cutting / coring - dust | B | 4 | Medium | Jindabyne Education Campus WHS Plan | Water must be used to minimise dust. Demolition saws take preference over dry cutting with a masonry blade on an angle grinder. Rubble to cleaned up immediately. Slurry to be cleaned up immediately |
| Strike PT cables whilst cutting concrete | B | 4 | Medium | Jindabyne Education Campus WHS Plan | Review As Built Drawings, consult Structural Engineer and obtain permission to proceed. Enact Cutting and Coring Permit prior to any works commencing |
| **Confined Space** | | | | | |
| Poor ventilation inside in-ground pits | C | 4 | Medium | NWHSC 1009: Safe Working in a Confined Space<br>AS 2865: Confined Spaces<br>NSW Code of Practice: Confined spaces | No chemicals are to be used inside in-ground pits. Close supervision of all men working inside pits at all times. Lid to be kept open at all times. Sparging up of pits is to be conducted as pit risers are installed to minimise the need to enter the pit afterwards. Where pits are left open, bunting and signage is required to clearly identify open pit. |
| Workers unable to easily enter and exit trenches | D | 3 | Medium | Jindabyne Education Campus WHS Plan | All trenches over 1.5m must be benched at 1:1 at a maximum of 1.5m or battered at 45 degrees. A ramp or steps must be cut into the trench for easy pedestrian access. |
| Workers being overcome by fumes building up in open trenches | D | 3 | Medium | NSW WHS Regulation 2011: Part 4.3 Confined spaces | All open trenching has good ventilation. Refuelling does not occur inside open trenches. Oxy acetylene equipment is kept clear of open trenching. |
| **Contaminated Soil** | | | | | |
| Exposure to contaminated soil which has not been identified | C | 3 | Medium | AS 4482: Guide to the investigation & sampling of sites with potentially contaminated soil<br>NSW Environment Operations Act 1997 | All subcontractors that will excavate onsite to have a SWMS for 'unexpected finds'. All workers have been instructed at the site induction to stop work immediately and notify Hansen Yunken site staff whom will take action to make the area safe. All works to be undertaken in accordance with the RAP. |
| Exposure to contaminated soil which has not been identified | C | 3 | Medium | Jindabyne Education Campus WHS Plan | All works to be undertaken in accordance with the RAP and section 5.11 of the CEMP. |
| **Deliveries To Site** | | | | | |
| Delivery vehicle drivers unaware of site hazards | A | 4 | Medium | NSW Code of Practice: Moving Plant On Construction Sites: 2004 | All delivery drivers must complete a 'delivery driver induction' prior to entering site. A delivery driver induction is an abridged induction similar to a visitors induction. |
| Delivery vehicle unloading in an unsafe area eg. in an area where there is mobile plant or pedestrians frequently moving past | C | 2 | Medium | Jindabyne Education Campus Site WHS Plan | The subcontractor supervisor must have good communication with the delivery driver and escort him to the work area where the delivery is to be unloaded. The s/c supervisor must take charge and assist the driver to unload materials from the truck. |
| Pedestrians/ other workers in the area being struck by materials as they are being unloaded from the truck | A | 4 | Medium | Jindabyne Education Campus Traffic Management Plan | All delivery drivers are told at the 'delivery driver induction' to be aware of any pedestrians/ other workers in the area. Delivery drivers must ensure they have enough space to unload/ load materials from trucks safely. If they have any problems they must notify HY staff immediately whom will assist the driver to undertake their task safely. Subcontractors must manage and supervise their deliveries on site. Subcontractors must spot the driver whilst materials are being unloaded and warn other workers in the area to keep well clear. |
| Untrained delivery drivers using plant to unload goods | E | 3 | Low | Jindabyne Education Campus Site WHS Plan | SWMS must be in place for subcontractors using plant to unload their delivery |
| **Drugs & Alcohol** | | | | | |
| Persons under the influence of drugs or alcohol are at high risk of injuring themselves or others | E | 4 | Low | Alcohol and other drugs in the workplace guide - 2006 | Persons assumed to be under the influence of drugs or alcohol will be stopped from working immediately. Their employer will be notified who will investigate and take appropriate action as per their drug and alcohol policy. |

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| **RELEVANT PROCEDURE:** | Project HSE Risk Assessment |
| **PROJECT:** | Jindabyne Education Campus |
| **JOB NO:** | SN105 |
| **ASSESSED BY:** | Daniel Spirit Jones, Mick Parker, Matt O'Grady, Tim Redmond, Chris Histon |
| **ASSESSMENT DATE:** | 13 - 10 - 2022 (FOR INFORMATION ONLY) - PLEASE REFER ALSO TO HY RISK IDENTIFIER ON HY-WAY |

**RISK ASSESSMENT TABLE**

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| NA | Not applicable | NA | NA | NA | NA | NA |

| | RISK ASSESSMENT | | | CONTROLS (to be established in the following order of priority 1st=High Level Risks; 2nd = Medium Level Risks; 3rd = Low Level Risks) | |
|---|---|---|---|---|---|
| **HAZARD** (Include additional project specific hazards as required) | **L** | **C** | **Class** | **Legislation, Standards & Codes of Practice** | **Enter Details of Specific Controls Required** |
| **Dust** | | | | | |
| Disruption/nuisance to neighbours and client | D | 5 | Low | NSW Code of Practice: Control Of Workplace Hazardous Substances | Shade cloth installation to site perimeter fence to contain all dust within the construction site. |
| Eye injuries and respirable damage to workers | D | 4 | Low | AS/NZS 1336 Recommended practices for occupational eye protection | Water carts and hoses used to keep dust to a minimum. Plant and trucks to move at low speeds to keep dust settled. Eye protection to be worn for any task that creates large amounts of dust |
| Dust from wall chasing | NA | 4 | NA | AS/NZS 1715 Selection, use and maintenance of respiratory protective devices | Dust must be minimised whilst wall chasing by way of vacuum system. Workers must wear dust mask whilst wall chasing. Rooms are to be swept frequently to minimise dust |
| Concrete cutting / coring | E | 4 | Low | AS/NZS 1716 Respiratory protection devices<br>NSW Cutting & Drilling Concrete & Other Masonry Products 1996<br>Jindabyne Education Campus WHS Plan | Water must be used to minimise dust. Demolition saws take preference over dry cutting with a masonry blade on an angle grinder. Rubble to cleaned up immediately. Slurry to be cleaned up immediately. HY Cutting amnd Coring permit in place. |
| **Electricity** | | | | | |
| Electrocution from faulty/ damaged electrical equipment | D | 1 | Medium | AS/NZS 3017: Electrical installations - Testing & inspection guidelines | All power tools/ leads must be visually checked daily and tested and tagged monthly. Damaged leads and power tools are not to be used on site. Leads are to be elevated off the ground to minimise risk of electrical leads being damaged. |
| Electrocution from faulty/ damaged Distribution boards | NA | 1 | NA | Jindabyne Education Campus WHS Plan | HY DB Board checklist to be completed for all DB boards. All temporary distribution boards will be inspected, tested and tagged monthly. All RCD's to be padlocked and only reset by a qualified electrician. |
| Workers tripping on leads | C | 4 | Medium | AS/NZS 3199 Approval & test specification for cord extension sets | All power leads must be elevated off the ground. A maximum of 5m may be on the ground for general movements in the area whilst using the power tool. |
| Electrocution from temporary construction wiring being damaged | B | 1 | High | NSW Low Voltage Electrical Work 2002 | All temporary construction must be labelled with 'yellow temporary construction wiring tape'. All temporary construction wiring will be inspected and recorded on the site HSE inspection report weekly. |
| Working around energised live Substation | B | 2 | High | AS/NZS 3000: Electrical Installations | All subcontractors conducting excavation works must obtain a permit to dig from HY site staff. A plan with existing underground services must be attached to the permit to dig. |
| Workers piggy backing leads | C | 3 | Medium | AS 3012: Electrical Installations - Construction & Demolition Sites | Portable generators must be used if electrical leads cant reach from the DB board to the work area so a power source is close to the work area. |
| | | | | AS 3190: Approval & test specification - Residual current devices | |
| | | | | AS/NZS 3001 Electrical installations - Relocatable premises and their site installations | |
| | | | | NSW: Code Of Practice: Electrical Practices for Construction Work | |
| | | | | AS3760: 2010 In-service safety inspection and testing of electrical equipment | |
| | | | | NSW Code Of Practice: Electrical Practices for Construction Work 2007 | |
| **Emergency Services Unavailability** | | | | | |
| Injured person may not receive first aid treatment in a sufficient amount of time | E | 3 | Low | WHS Act 2011<br>Code of Practice: First Aid<br>HY emergency response plan | Emergency contact details are displayed on the site safety notice board in the lunch shed and in the first aid room. All HY site staff have senior first aid training. THe HSE Officer will have occupational first aid training and is on-site full time and available by mobile phone. There are 2 type A first aid kits in the site office. One is portable and one is fixed to the wall. There is a defibrillator in the first aid room. The first aid facilities have been setup in accordance with Code Of Practice: First Aid taking into account the number of workers on site, response times and types of injuries which may occur on site. |
| Site Emergencies | B | 3 | Medium | WHS Regulation 2011 | HY emergency response plan details actions to be taken for different types of emergencies |
| **Erosion/ Loss of Topsoil** | | | | | |
| Sediment entering stormwater systems | E | 4 | Low | Environmental Protection Act 1994 | All stormwater pits to be covered with sediment control fabric. Sediment barrier to be erected around the low perimeter of site perimeter fencing in accordance with the site sediment control plan. Sediment control to be inspected weekly and recorded on the site HSE inspection report. All de-watering of site must be pumped into damns or tanks. The water must be flocked, tested and approved by HY prior to being pumped into the existing stormwater system. Permit to discharge required to any release into the SW system. |
| Erosion causing perimeter scaffolding to become unstable | NA | 3 | NA | Jindabyne Education Campus Environmental Management Plan | All perimeter scaffolding to be checked following significant rainfall and rectified by scaffolder as required. |