The Sydney Children's Hospital Stage 1 and Minderoo Children's Comprehensive Cancer Centre (SCH1/MCCCC)

Health Infrastructure

Construction Environmental Management Plan

Document Reference JHG-SCH-PM-PL-99-XX011

Revision: 05

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Rev	Date	Prepared By [Name & Signature]	Reviewed By [Name & Signature]	Approved By	Remarks
A	04/05/22	T. Williams	M. Wylie	L. Cox	Draft for review
00	18/07/22	H. Hofland	M. Wylie	L. Cox	For Construction
01	22/07/22	H. Hofland	M. Wylie	L. Cox	To address comments
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05	27/10/22	H. Hofland	M. Wylie	L. Cox	To address DPIE comments

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Glossary of terms

Definitions and abbreviations to be applied to this Environmental Management Plan are listed in the following table.

Term/ abbreviation	Definition
Principal	Health Infrastructure
Principal's Representative	PwC
CoA	Conditions of Approval
SCH1/MCCCC	Sydney Children's Hospital Stage 1 and Minderoo Children's Comprehensive Cancer Centre
DPIE	Department of Planning and Environment
ECP	Environmental Control Plan – defines management measures for a specific environmental aspect
CEMP	Construction Environmental Management Plan – this document
EMS	John Holland's Environmental Management System
OEM	Operations Environment Manager
WH&S	Workplace Health and Safety
SQE	Safety, Quality and Environment
Subcontractor	Any company, body or person who is contracted to John Holland for the purpose of supplying plant and/or services
System Element	The administrative activities that need to be implemented and controlled to ensure that the product or service meets environmental requirements
The Project	Sydney Children's Hospital Stage 1 and Minderoo Children's Comprehensive Cancer Centre
CTPMP	Construction Traffic Pedestrian Management Plan
TRA	Task Risk Assessment – Specific risk assessment based on day-to-day tasks, facilitated by supervision and involving consultation with workforce before task is undertaken. Signed off by all people undertaking the task.
WRA	Workplace Risk Assessment – High-level strategic risk assessment conducted on workplace and broken down into work components for the purpose of identifying system, training and legislative requirements, and identifying the need for further detailed planning and risk assessment activities. The WRA also fulfils the function of an aspects and impacts register.

1 Revisions and distribution

1.1 Revisions

Draft issues of this document shall be identified as Revision A, B, C, etc. Upon initial issue (Contract Award) this shall be changed to a sequential number commencing at Revision 0. Subsequent revision numbers shall be Rev. 1, 2, etc.

1.1.1 Distribution list

Representative	Electronic copy via Aconex
Project Director	Access to electronic copy in Aconex
Project Manager/s	Access to electronic copy in Aconex
HSEQ Manager	Access to electronic copy in Aconex
Project Environment Representative	Access to electronic copy in Aconex
Environmental/Sustainability Manager	Access to electronic copy in Aconex
Project Personnel	Available on Request
Principal's Representative	Electronic copy via Aconex
Public	Available online DPIE website.

2 Introduction

2.1 CEMP Purpose

Sydney Children's Hospital Stage 1 and Minderoo Comprehensive Cancer Care Centre (SCH1/MCCCC) Redevelopment (SSD 10831778) was approved by the Minister for Planning and Public Spaces on 17 December 2021. In accordance with condition B15 of the consent, a Construction Environmental Management Plan (CEMP) must be prepared and submitted to the Independent Certifier and the Planning Secretary.

The purpose of this document is to provide an overview of the Project Specific external and internal issues as relevant, that affect its ability to achieve the intended outcomes of the Environmental Management System. This includes but is not limited to:

- Environmental conditions related to climate, air quality, water quality, land use, existing contamination, natural resource availability and biodiversity
- External cultural, social, political, legal, regulatory, financial, technological, economic, natural and competitive circumstances
- Any JH Corporate requirements.

2.2 CEMP Scope

This Construction Environmental Management Plan (CEMP) specifies the requirements of the John Holland Environmental Management System (EMS) (which is certified to ISO AS/NZS14001) that the Project will use to enhance its environmental performance. Consistent with John Holland's Environment Policy, the intended outcomes of this CEMP include:

- Enhancement of environmental performance on the Project.
- Fulfilment of the Project's compliance obligations.
- Achievement of the Project's environmental objectives.

This CEMP enables the Project to manage its environmental responsibilities in a systematic manner and contribute to the environmental pillar of sustainability. This CEMP is applicable to the Project and applies to the environmental aspects of the Project's activities, products and services that the Project determines it can either control or influence considering a lifecycle perspective.

The scope of the EMS on the Project includes all activities, products and services that John Holland have authority and ability to exercise control over, as defined in the Infrastructure NSW head contract and project brief.

This CEMP explains how the existing EMS will be applied on this Project. The basis for the John Holland EMS (and also this CEMP) is the concept of Plan-Do-Check-Act (PDCA). The PDCA model provides an iterative process to achieve continual improvement. It can be briefly described as follows:

- **Plan**: Establish environmental objectives and processes necessary to deliver results in accordance with the John Holland Environment Policy.
- **Do**: Implement the processes as planned.
- **Check**: Monitor and measure processes against the Environment Policy, including its commitments, environmental objectives and operating criteria, and report the results.
- **Act**: Take actions to continually improve.

The CEMP provides a 'roadmap' that links the relevant legislative and Principal requirements to the projects EMS and describes the document structure that is used to manage and address environmental requirements on the project.

The CEMP will be stored in Aconex, ensuring document control and access to documents for all Project personnel.

Figure 1 shows how the framework introduced in ISO AS/NZS 14001 is integrated into a PDCA model within the John Holland EMS and this CEMP.

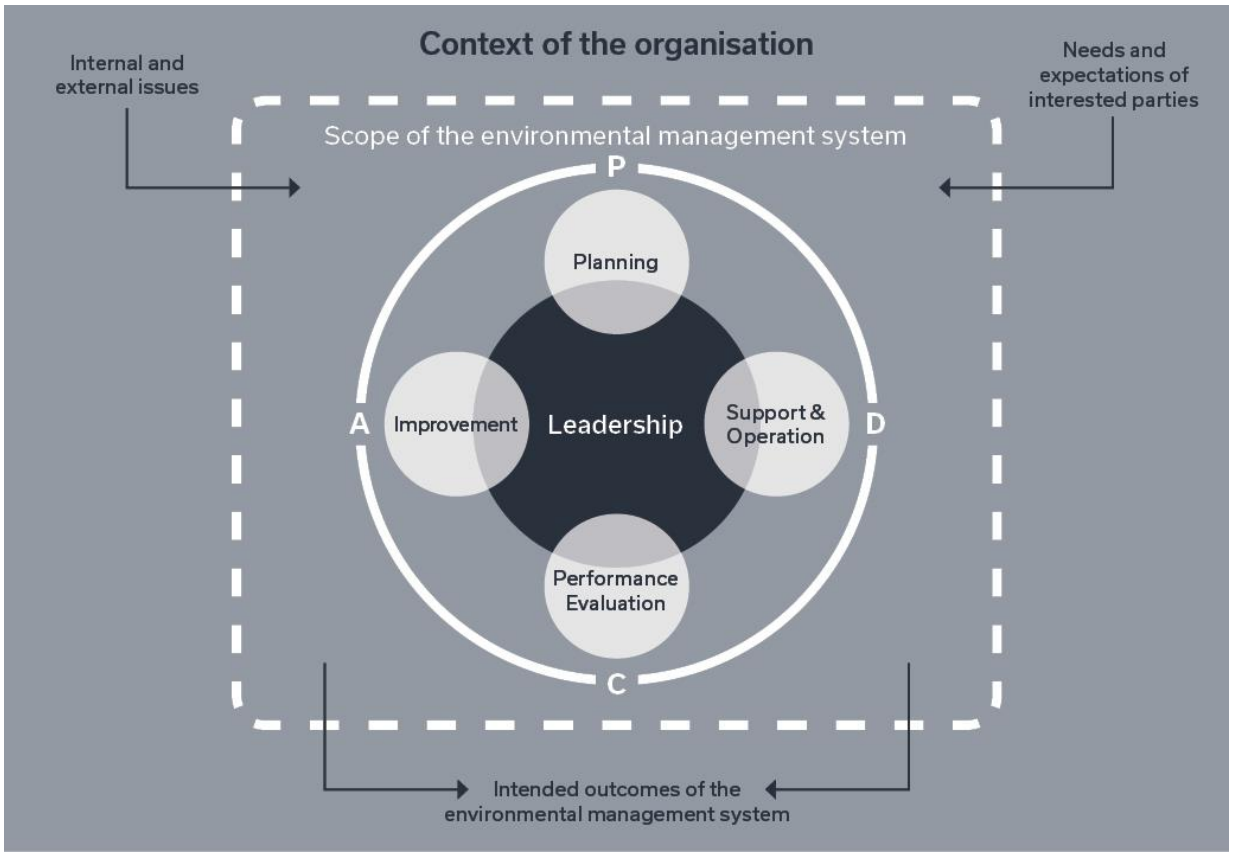


Figure 1: Overview of the Project specific interested parties, needs and expectations and compliance obligations

Required Project documentation	Responsibility	John Holland tools to be used by Project to manage documentation
Construction Environmental Management Plan	Environment Manager	Sharepoint or Aconex
Signed contract, clearly defining the agreed Scope of Works	Project Director	Sharepoint or Aconex

2.3 CEMP Objectives

2.3.1 Approach

John Holland is keenly aware of the significant and sensitive nature of the Project and the needs of relevant interested parties and surrounding stakeholders.

John Holland will prepare a compliance monitoring and reporting program to satisfy Conditions of Approval A31 to A34.

The following compliance matrix demonstrates the alignment of this John Holland Construction Environment Management Plan (CEMP) with SSD 10831778 issued on 17th December 2021.

Table 1: Condition B15

Construction Environmental Management Plan requirements	Reference
Details of:	
hours of work,	See section 2.4.1
24-hour contact details for the site manager;	See section 3.5.1

management of dust and odour to protect the amenity of the neighbourhood	See Section 4.5.3
stormwater control and discharge	See Section 4.5.2 See Appendix 4: CSWMP
measures to ensure that sediment and other materials are not tracked onto the roadway by vehicles leaving site	See Section 4.5.2 See Appendix 4 CSWMP
groundwater management plan including measures to prevent groundwater contamination	See Section 4.5.2 See Appendix 4 FERP, CSWMP
external construction lighting in compliance with AS 4282-1997 Control of the obtrusive effects of outdoor lighting; and	See Section 4.5.5
community consultation and complaints handling;	See section 4.6
an unexpected finds protocol for contamination, asbestos or other unexpected finds and associated communications procedure;	See Appendix 4 - CWMP
an unexpected funds protocol for Aboriginal and non-aboriginal heritage and associated communications procedure	See Appendix 4 – CAHMP See Appendix 5
waste classification (for materials to be removed) and validation (for materials to remain) to be undertaken to confirm the contamination status in these areas of the site	See Appendix 4 - CWMP
Construction Traffic and Pedestrian Management Plan (refer condition B17)	See Appendix 4 - CTPMP
Construction Noise and Vibration Management Plan (refer condition B18)	See Appendix 4 - CNVMP
Construction Waste Management Plan (refer condition (B19)	See Appendix 4 - CWMP
Construction Soil and Water Management Plan (CSWMP) (refer condition B20);	See Appendix 4 - CSWMP
Prepare a Flood Emergency Response Plan (FERP) (refer condition B22)	See Appendix 4 - FERP

This CEMP has also been prepared in accordance with the *Environmental Management Plan Guide: Guideline for Infrastructure Projects* (DPIE 2020), as per Condition B14, refer to compliance table in Appendix 6.

The CEMP has been prepared in accordance with the Assessment of Review of Environmental Factors, prepared by Urbis Pty Ltd, dated 16 March 2021

REF Mitigation measures	Reference
GENERAL MEASURES	
Development is Accordance with Plans and Documentation	Independent audits conducted as per the Independent Audit Schedule
Crown Certificate – A certificate under Section 6.28 (s190R) of the Environmental Planning and Assessment Act 1979 is to be obtained prior to any work commencing	The Crown Certificate process
Building Code of Australia	Industrial Relations Management Requirements
Approvals. The applicant is to obtain all other necessary approvals	Section 3

Long Service levy	Industrial Relations Management Requirements
Tree Management and Landscape	Refer to Landscape plan
PRIOR TO COMMENCEMENT OF WORKS	
Prior to commencement of work, the proponent must notify in writing Council and the occupier of any land within 40 meters of the boundary of the site works. The Notification should outline the project, the expected timing for commencement and completion of construction works	To be addressed by HI Community and Stakeholder Management Plan
Where practicable, work programs for noisy works should be coordinated with the hospital, at least two (2) weeks prior to commencement to minimise impacts on their operations	See Appendix 4 - CNVMP
Complaints received prior to and during the undertaking or works shall be recorded and attended promptly. On receiving a complaint, works shall be reviewed to determine whether issues relating to the complaint can be avoided or minimised. Feedback shall be provided to the complainant explaining what remedial actions were taken	Refer to HI Community and Stakeholder Management Plan See section 4.5.2
The proponent shall develop a complaints management system and record details of all complaints received and the means of resolution of those complaints. The complaints register shall be made available on request	Refer to HI Community and Stakeholder Management Plan See section 4.6
A site notice board must be located at the entrance or other appropriate location on the site in a prominent position and must include the following: - 24-hour contact person for the site - Telephone, facsimile numbers and email addresses; - Site activities and time frames	Noted. See site plans.
The site notice must be erected no less than 2 days prior to the commencement of works	Noted.
Hazardous Materials	
An unexpected finds procedure is to be included in an overarching Construction management Plan for the work, I the event that other contamination is encountered which have not been identified during this assessment	See Appendix 4 – CSWMP
Waste must be transported by an appropriately licensed transporter, and disposed to a facility that is licenced to receive that class of waste. It is recommended that this report is sent to the proposed facility to confirm their acceptance of the material prior to off-site disposal. If the description of the soil differ from that described within, then further assessment for waste classification purposes may be required prior to off-site disposal.	See Appendix 4 – CSWMP
SafeWork NSW is to be notified in accordance with the relevant policy, during the demolition. A qualified environmental hygienist shall be onsite to supervise the work to ensure they safety of workers and the public are not compromised in any way. Daily monitoring and results will be undertaken	See Section 4.4.4
Air monitoring devices shall be put in place, around the site, during the demolition. A qualified environmental hygienist shall be on site to supervise the work to ensure the safety of workers and the public are not compromised in anyway. Daily monitoring and results will be taken and analysed to ensure safe air quality levels ensue.	See Section 4.4.4 Remediation Action Plan

	Asbestos Management Plan
Dilapidation Report	
Prior to construction, a dilapidation report is to be prepared for hospital, Council, or other assets within the zone of influence of the work.	This has been undertaken.
Construction Management	
A detailed Construction Management Plan is to be prepared prior to the commencement of works and implemented during the undertaking of works. The Construction Management Plan is to include, but not be limited to: a) How compliance with the environmental controls and mitigation measures detailed in this REF is to be achieved. b) Construction noise management measures. c) Vibration management measures. d) Sediment and erosion control measures. e) Construction site management measures. f) Construction traffic management measures. g) Air quality and dust management measures. h) Stormwater management measures which ensure water quality for any water discharged in the drainage system (e.g., construction water discharged from an excavation). The Stormwater Management Plan must be submitted to Randwick City Council, for information, prior to works commencing. i) Restrictions on hours during construction. j) Unexpected finds protocols k) Training of responsibilities under *National Parks and Wildlife Act 1975*, *Heritage Act 1977* and any other relevant legislation.	See Appendix 4 and this Table
Demolition/Construction Waste Management Plan	
A Demolition/Construction Waste Management Plan shall be prepared by an appropriately qualified contractor prior to the commencement of works. The Waste Management Plan should be prepared in accordance with DECCW's "Waste Classification Guidelines (2008)" and the *Protection of the Environment Operations Act 1997.*	See Appendix 4 – CWMP
The Demolition/Construction Waste Management Plan is to include the following requirements and details: a) The type and volume of all waste materials (e.g. excavation material, green waste, bricks, concrete, timbers, plasterboard and metals) is to be estimated prior to the commencement of works, with the destination for each waste identified. Waste should be re-used or recycled as much as practicable. Where not practicable, the location of a suitable waste disposal facility is to be identified. b) Cleaning out of batched concrete mixing plant is not permitted within any construction compound. c) Non-recyclable waste and containers are to be regularly collected and disposed of at a licensed disposal site. Frequency of collection should be identified. d) No burning or burying of waste is permitted on the site. e) Any bulk garbage bins delivered by authorised waste contractors are to be placed and kept within the property boundary.	See Appendix 4 – CWMP
The following mitigation measures will be implemented in order to prevent adverse impacts in relation to waste generated by the proposed works: a) No materials will be used in a manner that will pose a risk to public safety and waste generated from the proposed works will be recycled where possible. b) Unnecessary resource consumption will be avoided. c) Non-recyclable wastes will be collected and disposed of or recycled in accordance with Office of Environment and Heritage (OEH) guidelines.	See Appendix 4 – CWMP and CSWMP

Noise Management Measures	
During preparation of the construction program, consult with the hospital to determine what areas (if any) of the hospital is particularly noise sensitive, and at what time (ward rooms, operating theatres, etc.).	See Appendix 4 - CNVMP
Identify feasible acoustic controls or management techniques (use of screens, scheduling of noisy works, notification of adjoining land users, respite periods) when excessive levels may occur.	See Appendix 4 – CNVMP
For activities where acoustic controls and management techniques still cannot guarantee compliant noise levels, implement a notification process whereby nearby development is made aware of the time and duration of noise intensive construction processes.	See Appendix 4 – CNVMP
All recommendations of the Acoustic Re view – Hospital Road Randwick Services Diversions prepared by Pulse Acoustic Consultancy dated 19 February 2021 including the relevant respite periods are to be implemented.	See Appendix 4 - CNVMP
Erosion and Sediment Control	
Erosion and sediment controls will be implemented in accordance with the Landcom/ Department of Housing Managing Urban Stormwater, Soils and Construction Guidelines (the Blue Book) and ensure any water diversion or control outlets associated with the works do not result in scouring.	See Appendix 4 - CSWMP
Works will only commence once all erosion and sediment controls have been established. The controls will be maintained in place until the works are complete and all exposed erodible materials are stable.	See Appendix 4 – CSWMP. ESCP to be implemented onsite prior to construction commencement
Erosion and sedimentation controls will be checked and maintained (including clearing of sediment from behind barriers) on a regular basis (including after any precipitation events) and records kept and provided on request	See Appendix 4 – CSWMP
Services and Utilities	
Prior to the commencement of works, any services and utilities that may be impacted by the works are to be appropriately relocated	Refer to Project Management Plan
Construction Traffic Management	
A Construction Traffic Management shall be prepared in consultation with Council prior to commencement of works.	See Appendix 4 – CTPMP
DURING CONSTRUCTION/UNDERTAKING OF WORK	
Construction Site Management	
Construction site fencing is to be installed around the construction site. Vehicle and workforce access points and roads to the construction compounds are to be clearly designated and controlled for authorised access only. Vegetation clearance is to be minimised	Refer to Project Management Plan
The worksite should be left tidy and rubbish free each day prior to leaving the site and at the completion of works.	Refer to Project Management Plan See Appendix 4 CWMP

The use and storage of hazardous materials and dangerous goods, including petroleum, distillate and other chemicals, shall be in accordance with the relevant legislation including, but not limited to: - Protection of the Environment Operations Act 1997 - Work Health and Safety Regulation 2017 - AS 1940 The storage and handling of flammable and combustible liquids - Safe Work NSW Code of Practice – Managing Risks of Hazardous Chemicals in the Workplace.	Section 4.4.6
All materials on-site or being delivered to the site must be wholly contained within the site. The requirements of the *Protection of the Environment Operations Act 1997* are to be complied with when placing/stockpiling loose material or when disposing of waste products or during any other activities likely to pollute drains or watercourses	See Appendix 4 – CSWMP See Appendix - 4 CTPMP
The public way must not be obstructed by any materials, vehicles, refuse, skips or the like, under any circumstances	Refer to Project Management Plan See Appendix 4 - CTPMP
All equipment and machinery should be secured against vandalism outside of working hours.	Refer to Project Management Plan
No batching plant is permitted on the site.	Batching will not occur onsite.
A copy of the approved and certified plans, specifications and documentation shall be kept on site at all times and shall be available for perusal by any officer of Council.	Noted.
Any contractor(s) must meet all workplace safety legislation and requirements.	See Section 4.4.4
No vehicle maintenance is permitted in the demolition and construction areas except in emergencies	See Appendix 4 – CSWMP, Site Environmental Plan
Any loose material stockpiles are to be stored within the temporary construction compound(s) and are to be protected from possible erosion.	See Appendix 4 - CSWMP
Erosion and Sediment Control	
Disturbance of sediment during the construction phase of the development and the design management and implementation of pollution controls must be consistent with "Managing Urban Stormwater: Soils and Construction" (NSW Landcom, 2004), (Blue Book), and "approved Methods for the Modelling and Assessment of air pollutants in NSW (EPA)".to ensure containment of sediment to the immediate work site.	See Appendix 4 - CSWMP
All sediment control measures must be regularly inspected and cleaned out and/or repaired as necessary, and all collected silt disposed of appropriately. Stockpiles should also have adequate sediment control measures in place.	See Appendix 4 - CSWMP
Erosion and control measures are not to be removed until disturbed areas have stabilised.	See Appendix 4 - CSWMP
Air Quality and Dust Management	
Spraying of paint and other materials with the potential to become air borne particulates is only to be undertaken on days with still or light wind conditions.	Section 4.5.3
No burning of materials is permitted	Section 4.5.3

	See Appendix 4 – CWMP
Dust generated during construction activities is to be controlled to avoid impact on surrounding properties	Section 4.5
All necessary maintenance for construction vehicles and equipment is to be undertaken during the construction period.	Section 4.5
Excessive use of vehicles and powered construction equipment is to be avoided.	Section 4.5
Exposed areas are to be progressively revegetated as soon as practical.	Section 4.5 See Appendix 4 – CSWMP
Vehicle wash down areas are to be established to ensure all mud and soil from construction vehicles is not carried onto public roads.	See Appendix 4 – CSWMP
All vehicles involved in any excavation and/or demolition and departing the site with demolition materials, spoil or loose matter must have their loads fully covered before entering the public roadway	See Appendix 4 – CTPMP and CSWMP
Vehicles, machinery and equipment will be maintained in accordance with manufacturer's specifications in order to meet the requirements of the Protection of the Environment Operations Act 1997 and associated regulations.	Section 4.5
Construction	
No blasting shall be permitted during construction.	There will be no blasting conducted onsite
The use of any rock excavation machinery or any mechanical pile drivers or the like is restricted by Acoustic Review – Hospital Road Randwick Services Diversions prepared by Pulse Acoustic Consultancy dated 19 February 2021 including identified respite periods	See Appendix 4 - CNVMP
Services	
All services and utilities in the area of construction must be appropriately disconnected and reconnected as required. The contractor is required (if necessary) to consult with the various service authorities regarding their requirements for the disconnection of services	Refer to Project Management Plan
Where services are found not to be adequate to support the development they shall be appropriately augmented.	Refer to Project Management Plan
Traffic Management	
Existing traffic access and arrangements should be maintained during construction as much as practicable	See Appendix 4 – CTPMP
Establish a pre-defined route to and from the work site, with consideration given to the construction and operation plans of the CSELR to avoid traffic congestion.	See Appendix 4 - CTPMP
Contamination	
Remediation is to be undertaken of contaminated land in accordance with the approved Remediation Action Plan (RAP) (Name Hospital Road REF, date February 2021, prepared by Douglas Partners). Amendments to the approved RAP required as a result of further investigations must be prepared by a suitably qualified and experienced expert and approved by the relevant authority. A copy	Refer to RAP See Appendix 4 – CSWMP See Appendix 4 - CWMP

of the RAP must be submitted to Randwick City Council, for information, prior to works commencing.	
All required regulatory notifications and permits are to be obtained including Notification of Category 2 remediation Works to Council for the remedial work.	See Appendix 4 – CWMP
Prepare a Validation Assessment (VA) report in accordance with the requirements of the RAP, (Name Hospital Road REF, date February 2021, prepared by Douglas Partners).	To be completed at the completion of construction
Construction works should not result in the contamination of the site	See Appendix 4 – CWMP
Any materials imported on site by the Contractor to re-establish ground levels or to be applied as a capping layer must be validated, environmentally suitable material	See Appendix 4 – CWMP
In a storm or an extended rainfall event, the structures located on site for sediment control shall be monitored and replaced or altered if necessary by the Contractor. Collected material shall be managed in accordance with remediation works by the Contractor.	See Appendix 4 - CSWMP
Noise and Vibration Management	
All works will be in accordance with AS2436-1981: Guide to Noise Control on Construction, Maintenance and Demolition Sites.	See Appendix 4 – CNVMP
Building contractors are to implement the requirements of the Office of Environment "Interim Construction Noise Guideline (July 2009)" as far as practicable.	See Appendix 4 – CNVMP
Construction is to be carried out in accordance with the Building Code of Australia deemed-to satisfy provisions with respect to noise transmission.	See Appendix 4 – CNVMP
All reasonable, practicable steps are to be undertaken to reduce noise and vibration from the site.	See Appendix 4 – CNVMP
Plant and equipment is to be maintained, checked and calibrated in accordance with the appropriate design requirements and to ensure that maximum sound power levels are not exceeded.	See Appendix 4 – CNVMP
Plant and equipment (where possible) is to be strategically positioned on site to reduce the emission of noise from the site to the surrounding area, users of the site and on-site personnel.	See Appendix 4 – CNVMP
Unnecessary noise is to be avoided when carrying out manual operations and operating plant.	See Appendix 4 – CNVMP
Any equipment not used for extended periods is to be switched off.	See Appendix 4 – CNVMP
All personnel working on site will receive training in their responsibilities under the *Heritage Act 1977*.	See Appendix 4 – AHMP. Requirements to be included in site specific induction
If any item of European heritage is discovered during works, work shall cease immediately and the project heritage consultant, the relevant Council and/or Office of Environment and Heritage notified.	See Appendix 5 – Unexpected Finds Protocol
Work shall not recommence until the significance of the find is established.	See Appendix 5 – Unexpected Finds Protocol

Aboriginal Heritage	
If suspected Aboriginal material has been uncovered as a result of development activities within the Project Area: - work in the surrounding area is to stop immediately - a temporary fence is to be erected around the site, with a buffer zone of at least 10 metres - around the known edge of the site - an appropriately qualified archaeological consultant is to be engaged to identify the - material, and - if the material is found to be of Aboriginal origin, the Aboriginal community is to be - consulted in a manner as outlined in the OEH guidelines: Aboriginal Cultural Heritage Consultation Requirements for Proponents (2010).	See Appendix 4 – CAHMP
Should Human Remains will be located at any stage during earthworks within the Project Area, all works must halt in the immediate area to prevent any further impacts to the remains. The Site should be cordoned off and the remains themselves should be left untouched. The nearest police station, the relevant Local Aboriginal Land Council and the OEH Regional Office are all to be notified as soon as possible.	See Appendix 4 CAHMP See Appendix 5 – Unexpected finds protocol
If Aboriginal cultural materials are uncovered as a result of development activities within the Project Area, they are to be registered as Sites in the Aboriginal Heritage InformationManagement System (AHIMS) managed by the OEH. Any management outcomes for the site will be included in the information provided to the AHIMS.	See Appendix 4 – CAHMP
All effort must be taken to avoid any impacts on Aboriginal Cultural Heritage values at all stages during the development works. If impacts are unavoidable, mitigation measures should be negotiated between the Proponent, OEH and the Aboriginal community.	See Appendix 4 – CAHMP
Restriction on Hours during Construction	
The undertaking of any construction activity on the subject site is to be limited to the following hours: - Monday to Friday inclusive: 7.00am to 6.00pm - Saturdays: 8.00am to 5.00pm - Sundays and Public Holidays: No work permitted.	See section 2.4.1
Entry and departure of vehicles from the site will be restricted to the imposed work hours.	See Appendix 4 – CTPMP
Activities may be undertaken outside of hours in condition 26.1 and 26.2 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.	See Appendix 4 – CNVMP
Consideration will be given to extending these hours to allow for specific work tasks on a case by case basis, subject to approval from Health Infrastructure being sought prior to this occurring and the assessment of any impact of this extension.	See Appendix 4 – CNVMP
Access and pedestrian movements	
Safe pedestrian access and movement to the hospital and surrounding buildings shall remain unimpeded at all times.	See Appendix 4 – CTPMP

Appropriate signage and directional information shall be provided.	See Appendix 4 - CTPMP

2.3.2 Environmental objectives

EMS reference
Environmental Management Manual JH-MAN-ENV-001
Environmental Planning JH-MPR-ENV-001

The Project has established environmental objectives considering the Project's significant environmental aspects and associated compliance obligations and considering its risks and opportunities. The Project's objectives are detailed in the following table.

Table 2: Overview of project objectives

Objectives	
Number of Class 1 & 2 Incidents	0
Environmental Incident Frequency Rate* (EIFR)	0.27
All Environmental Incident Frequency Rate* (AEIFR)	<6.07
Waste – Diversion from Landfill**	80%
Project specific targets arising from the contract	60 points against the HI ESD Evaluation Tool

*normalised against man hours worked, calculated on a rolling 12-month basis

**Excludes soil that cannot be reused or recycled

Required Project documentation	Responsibility	John Holland tools to be used by Project to manage documentation
This Environmental Management Plan, in particular the Objectives Table above	Environment manager	SharePoint or Aconex

2.4 Project Description

The SCH1/ MCCCC site is located in the RHIP immediately south of the Randwick Town Centre, approximately 150m from the UNSW High Streel light rail stop and 250m from Randwick light rail stop.

The project site comprises a total of 9870m^2. The Project will have an indicative building footprint of approximately 5,828m², whilst the remaining 4,042m² will comprise of ground plane access, public domain, and landscaping works. The project includes;

- Construction and operation of a new 9 story hospital, including 2 levels of basement building, plus upper plant room to provide
    - A new children's emergency department and emergency short-stay unit, accessible from Botany Street
    - Street with direct links to new and existing services
    - A new children's intensive care unit
    - New inpatient units for medical and surgical specialties
    - A new medical short stay unit
    - A new pharmacy and pathology collection
    - Australia's first Children's Comprehensive Cancer Centre including:
        - State of the art technology with advanced wet and dry laboratory spaces
        - Education, training and research spaces
        - New oncology inpatient units, and patient and family focused retreat areas
        - A new day oncology unit
    - New front of house and retail facilities; and
    - Building identification signage zones
- New High Street visitor drop off;
- Integration via pedestrian skybridges with the Acute Services Building (approved under SSD 10339 and 9113), currently under construction and with the proposed Health Translation Hub (HTH, SSD10822510)
- Short-stay patient parking connected to existing Botany Street intersection
- Basement Ambulance access, loading dock, back of house and logistics services via Hospital Road
- Public domain and associated landscaping, including tree removal; and
- Associated site preparation, civil works, and utilities services

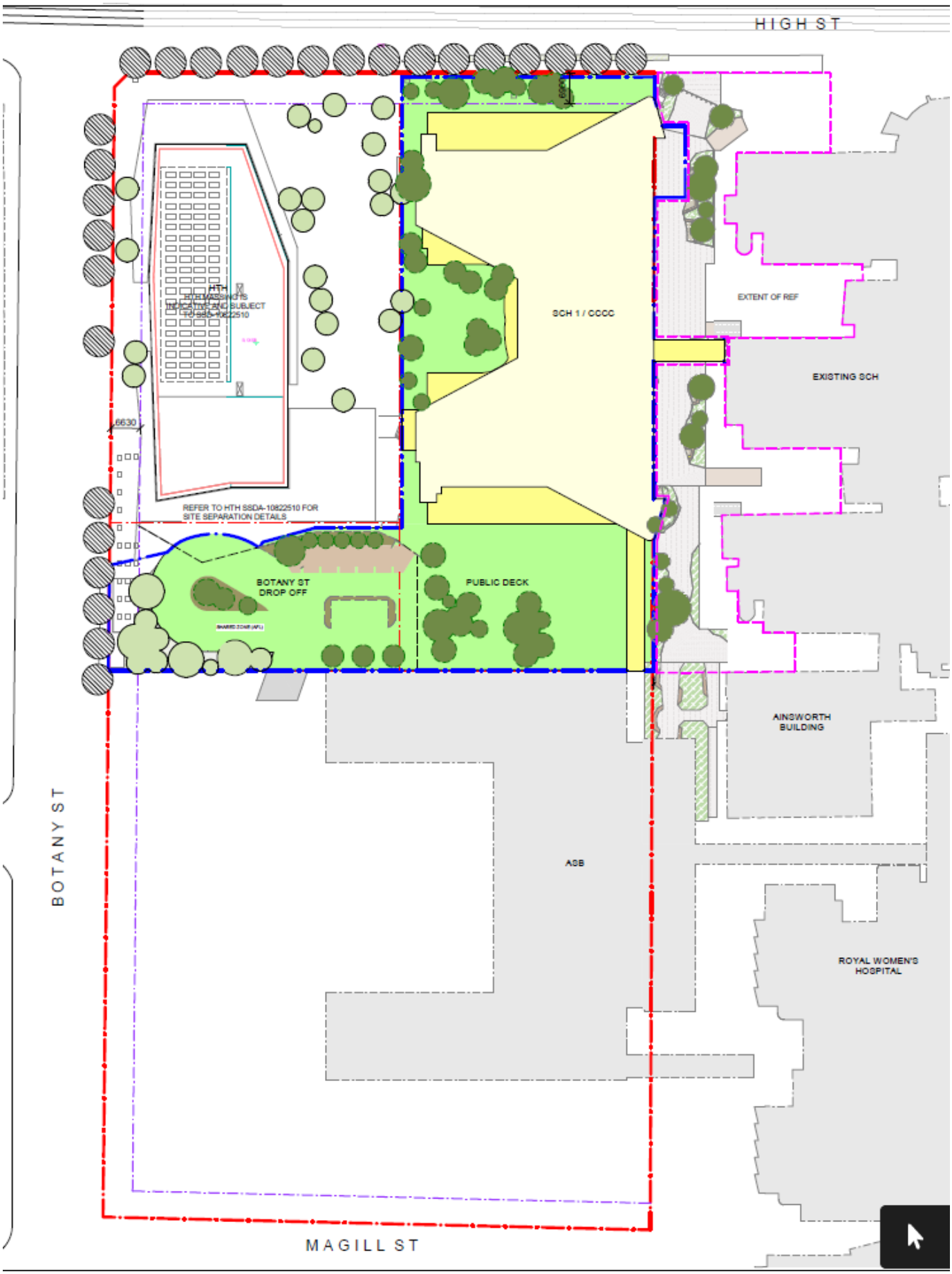


Figure 2. SSDA Site Boundary in Blue

2.4.1 Construction/ Operation Activities

SSDA approved working hours are shown below, however, the project will prioritise a 5-day working week. Specific activities may require work outside standard hours, including on Saturdays and evenings which will be in accordance with SSDA conditions and Health Infrastructure out of hours work protocol.

Time Period	Approved working hours
Monday – Friday	7:00am to 6:00pm
Saturday	8:00am to 5:00pm
Sunday	No work

It is proposed that the Project be constructed in stages as per the approved SCH1-MCCCC Staging Report [C] 22.07.2022, shown below.

Table 3 Project Delivery Stages

CC No.	Proposed Works	Duration	Start Date	Finish Date
Stage 1	Piling	7 months	August 2022	December 2022
Stage 2	Retention system & Bulk Excavation	7 months	November 2022	April 2023
Stage 3	Structure – B2 to Roof	12 months	December 2022	December 2023
Stage 4	Façade & Services Rough In	10 months	June 2023	March 2024
Stage 5	Fit Out, Finishes, Landscaping & Public Domain	20 Months	June 2023	February 2025

2.5 Environmental Policy

EMS reference
Environment Policy JHG-POL-GEN-002

John Holland senior management have endorsed an appropriate John Holland Environment Policy. The Project will operate in accordance to this Environment Policy, which provides a framework for setting objectives and includes a commitment to the protection of the environment. This includes prevention of pollution and other specific commitments relevant to the context of John Holland. The Environment Policy is maintained as documented information, communicated within the Project, and is available to all interested parties. A copy of the Environment Policy is always available on the internal John Holland IMS, external John Holland website, and in hard copy at the main Project office.

See Appendix 1 for the John Holland Environment policy.

Required Project documentation	Responsibility	John Holland tools to be used by Group to manage documentation
Environment Policy	Chief Executive Officer	Integrated Management System (IMS)

3 Environmental Management

3.1 Environmental Management Structure and Responsibility

EMS reference
Strategic & Business Planning JH-MPR-BUA-020

John Holland has an ongoing commitment to ensuring positive environmental outcomes by providing clear and strong leadership on environmental issues relevant to the project.

John Holland Project management demonstrate leadership and commitment with respect to the EMS by:

- Taking accountability for the effectiveness of the EMS on the Project
- Ensuring that the Environment Policy and environmental objectives are established and are compatible with the strategic direction and the context of the Project
- Ensuring the integration of EMS requirements into the Project's business processes
- Ensuring that the resources needed for the EMS are available on the Project
- Communicating the importance of effective environmental management and of conforming to the EMS requirements
- Ensuring that the EMS achieves its intended outcomes on the Project
- Directing and supporting Project personnel to contribute to the effectiveness of the EMS
- Promoting continual improvement
- Supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility.

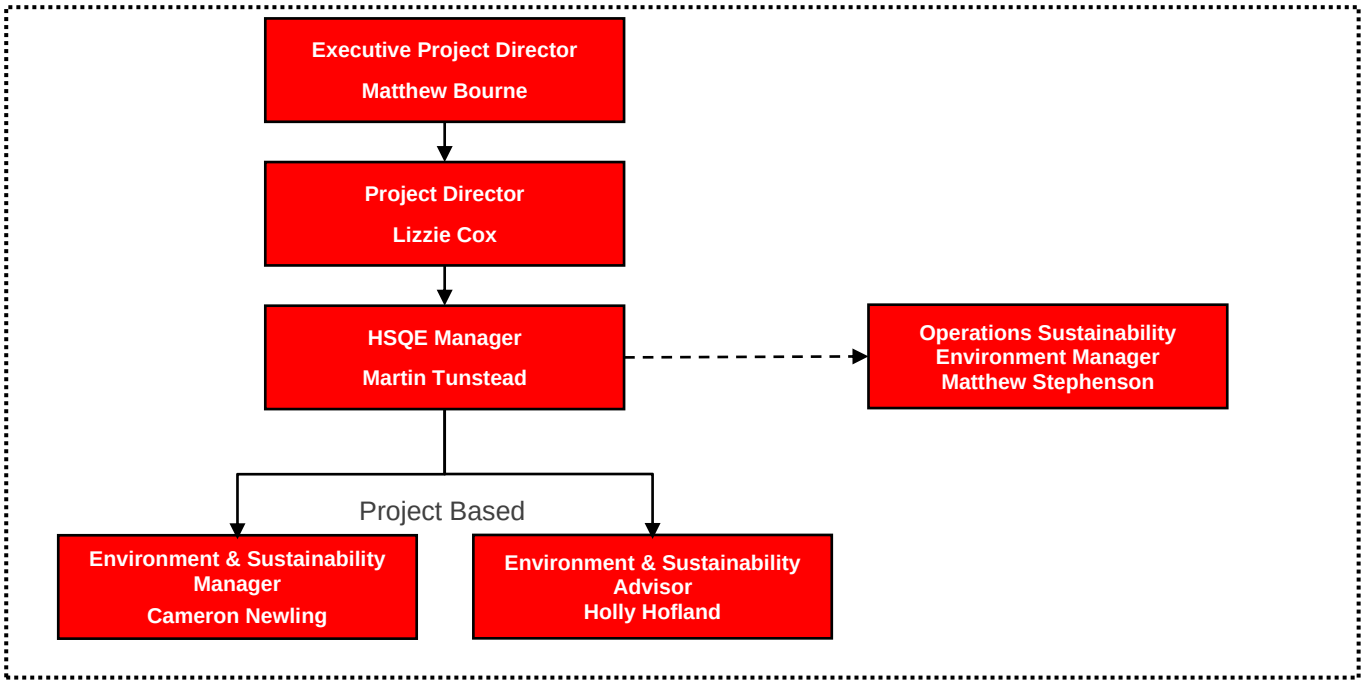


Figure 3: John Holland's Project environmental roles and responsibilities

John Holland is committed to ensuring that critical information is not lost between the development, design and subsequent delivery of environmental planning. Wherever possible John Holland staff responsible for developing this Plan will remain with the Project management team through to delivery.

The Project management team ensure that the responsibilities and authorities for relevant roles are assigned and communicated within the Project. On the Project the following roles are critical to the effective implementation of the EMS.

EMS reference
Resource Planning JH-MPR-PPL-003
Project Launch JH-MPR-PMA-001
Planning and Programming JH-MPR-PMA-002

Table 4 Overview of critical roles

Role	Responsibilities and authorities
Executive Project Director	Overall responsibility and authority for ensuring that the EMS (as applied on the Project) conforms to the requirements of the John Holland EMS and ISO14001 Overall responsibility and authority for reporting on the performance of the EMS (as applied on the Project) to top management
Project Director	Overseeing the Project Overarching operational responsibility for environmental impacts on site
HSEQ Manager	Responsible for overseeing HSEQ management and performance on site
Environment/Sustainability Manager / Project Environment Representative	Day to day responsibility and authority for ensuring that the EMS (as applied on the Project) conforms to the requirements of the John Holland EMS and ISO14001 Day to day responsibility and authority for reporting on the performance of the EMS (as applied on the Project) to top management Ensure correct and ongoing implementation of CEMP Liaise with project staff for ongoing monitoring and maintenance of environmental controls Determine and ensure reporting of incidents and practices that are non-conforming Conduct and report regular inspections, monitoring and reporting Ensure actions relating to environmental non-conformances, incidents and/or inspections are actioned and closed out in a timely manner Actively participate in and facilitate SQE Risk Management workshops Assist with updating of CEMP as required Prepare Project monthly environmental reports Liaise with Principal environmental representative Manage and track compliance with all environmental approvals, licences, and permits relating to the project Liaise with ESD consultants and collate information as directed Undertake necessary ESD audits, inspections as directed.
Environment/Sustainability Coordinator	To support Environment/Sustainability Manager on all the above activities
Operations Sustainability and Environment Manager	Audit and assessment of project environment & sustainability performance against John Holland EMS and LEED v4 assessment.

Required Project documentation	Responsibility	John Holland tools to be used by Project to manage documentation
Organisation Chart(s)	HR Representative	Project Pack – Document Management System or Aconex
Position Descriptions	HR Representative	Performance Management and Development System

3.2 Approval and Licencing Requirements

EMS reference
Environment Management Manual JH-MAN-ENV-001
Environmental Planning JH-MPR-ENV-001
Managing SQE Risks JH-MPR-SQE-006

The Project team has considered the environmental aspects of its activities, products, and services that it can control and those that it can influence, and their associated environmental impacts, considering a life cycle perspective.

The Project team have determined those aspects that have or can have a significant environmental impact i.e. significant environmental aspects, by using established criteria. An overview of the Project's specific aspects is provided in Appendix 2. Comprehensive information on aspects and impacts is provided in the Workplace Risk Assessment.

Required Project documentation	Responsibility	JH tools to be used by Project to manage documentation
This Construction Environmental Management Plan; in particular, the Environmental Aspects Appendix 2	Project Environment Representative	Sharepoint or Aconex
Workplace Risk Assessment	Project Manager	Sharepoint or Project Pack Web

3.2.1 Legislative and Principal requirements

The Sydney Children's Hospital Stage 1 & Minderoo Comprehensive Cancer Care Centre project operates under the SSD 10831778 Development Consent Conditions approved by the Minister for Planning on 17th December 2021

3.2.2 Needs and expectations of interested parties

The Project has determined the interested parties that are relevant to the EMS, the relevant needs and expectations of these interested parties, and which of these needs and expectations become its compliance obligations. An overview is provided in the table below. Key compliance obligations are recorded in the Project's Obligation Register.

Table 5 Overview of the Project specific interested parties, needs and expectations and compliance obligations

Interested Parties	Needs and Expectations	Compliance Obligation
Governments/Regulators	Laws, regulations, authorisations, etc.	Yes- Regulatory
Principal Health Infrastructure	Contracts, agreements	Yes – Contractual
TfNSW	Laws, regulations, authorisations, etc.	Yes- Regulatory
John Holland	Policy, GMRs & System requirements	Yes – Internal standards
Value Chain	Contracts, agreements	Variable, often voluntarily
Industry Groups	Standards, principles, codes of practice, etc.	Variable, often voluntarily
Community	Agreements, commitments	Variable, often voluntarily
Employees	Contracts, agreements, commitments	Variable, often voluntarily

Required Project documentation	Responsibility	JH tools to be used by Project to manage documentation
Construction Environmental Management Plan; in particular the Interested Parties Table above	Project Environment Representative	SharePoint or Aconex
Obligations Register	Project Environment Representative	Soteria– Document Management System or Aconex

3.3 Compliance obligations

EMS reference
Environment and Heritage Policy JHG-POL-GEN-002
Global Mandatory Requirements 9 (JH-STD-WHS-009)
Environment Management Manual JH-MAN-ENV-001
Environmental Planning JH-MPR-ENV-001
SSD 10831778 Conditions of Approval
HINSW head contract

The Project have determined the compliance obligations related to its environmental aspects, determined how these obligations apply, and taken these compliance obligations into account when establishing the EMS.

Required Project documentation	Responsibility	John Holland tools to be used by Project to manage documentation
Environmental Control Plans: Noise and Vibration Air Quality Waste Soil and Water / Erosion Heritage Unexpected Finds	Project Environment Representative	SharePoint or Aconex
Site Environment Plan (SEP)	Project Environment Representative	SharePoint or Aconex
Sustainability Management Plan	Operational Sustainability & Environment Manager	SharePoint or Aconex
Obligations Register	Project Environment Representative	Soteria
John Holland system requirements	Project Environment Representative	Integrated Management System

3.4 Environmental Training

EMS reference
Crisis Management - JH-MPR-RCC-006
Learning and Development JH-MPR-HRT-020
Employee Records JH-MPR-HRT-021
Verification of Competency JH-MPR-PAE-005
Counselling and Disciplinary JH-MPR-HRT-012
Internal Design Management JH-MPR-DES-001
Management of Design Consultants JH-MPR-DES-002
Letting of Consultant, Subcontract, Supply Packages JH-MPR-PMA-005
Administration of Consultant, Subcontract or Supply Packages JH-MPR-PMA-006
Performance Rating of Subcontractors JH-MPR-QUA-004
Site Induction JH-MPR-SQE-001
Health Safety Management & Consultation Arrangements JH-MPR-WHS-004

To ensure the highest levels of environmental competence, awareness and training the Project will:

- Determine the necessary competence of persons doing work under its control that affects its environmental performance and its ability to fulfil its compliance obligations
- Ensure that these persons are competent on the basis of appropriate education, training or experience
- Determine training needs associated with its environmental aspects and its environmental management system
- Where applicable, take actions to acquire the necessary competence, and evaluate the effectiveness of the actions taken.

The Project will ensure that persons doing work under the Project's control are aware of:

- The Environment Policy
- The environmental requirements described in Global Mandatory Requirements 9
- The significant environmental aspects and related actual or potential environmental impacts associated with their work
- Their contribution to the effectiveness of the environmental management system, including the benefits of enhanced environmental performance
- The implications of not conforming with the environmental management system requirements, including not fulfilling the organisation's compliance obligations.

Required Project documentation	Responsibility	John Holland tools to be used by Project to manage documentation
Training needs analysis	L&D Representative	Chris 21 – for JH personnel SharePoint – for external personnel
Education, training, experience, verification of competency records - for individuals	HR Representative	Chris 21 – for JH personnel SharePoint – for external personnel
Internal Training programmes	L&D Representative	SharePoint - L&D Course Catalogue e-learning Centre
Subconsultant/subcontractor/supplier experience, certifications and ratings – for organisations (including for subcontractors)	Commercial Representative	SharePoint – Subcontract Management Pack
Subcontractor HSEQ Deliverables	Commercial Representative	SharePoint – Subcontract Management Pack
Project Online Induction	L&D Representative	e-learning Centre
Induction attendance records	HR Representative	Chris 21 – for JH personnel SharePoint – for external personnel
Project Orientation	Project Environment Representative	SharePoint or Aconex
Site Orientation attendance records	HR Representative	Chris 21 – for JH personnel SharePoint – for external personnel
Pre-start Meetings and attendance records	Supervisor(s)	Eify or SharePoint
Toolbox Meetings and attendance records	Supervisor(s)	Eify or Sharepoint
HSEQ Alert briefing records	HSEQ Representative	Sharepoint

3.5 Emergency Contacts and Response

EMS reference
Emergency Evacuation and Response JH-MPR-PMA-008

The Project has established processes needed to prepare for and respond to potential emergency situations.

The Project will:

- Prepare to respond by planning actions to prevent or mitigate adverse environmental impacts from emergency situations.
- Respond to actual emergency situations.
- Take action to prevent or mitigate the consequences of emergency situations, appropriate to the magnitude of the emergency and the potential environmental impact.
- Periodically test the planned response actions, where practicable.
- Periodically review and revise the process and planned response actions, in particular after the Occurrence of emergency situations or tests.
- Provide relevant information and training related to emergency preparedness and response, as Appropriate, to relevant interested parties, including persons working under its control.
- The Project will maintain documented information to the extent necessary to have confidence that the process is carried out as planned.

Required Project documentation	Responsibility	John Holland tools to be used by Project to manage documentation
Emergency Response Plan	Project Manager	SharePoint or Aconex
Emergency Response Exercise Checklist/Records	HSEQ Representative	SharePoint or Aconex

3.5.1 Site Contact

The site contact number is 1800 571 866. Due to the project size, multiple site managers are required. The 1800 number is directed to the community enquiry line which has a dedicated handset and 24-hour service. The call will be answered and referred to the site manager on duty, or other relevant project personnel, in accordance with the approved response times.

4 Implementation

4.1 Support

4.1.1 Resources

EMS reference
Resource Planning JH-MPR-PPL-003
Project Launch JH-MPR-PMA-001
Planning and Programming JH-MPR-PMA-002

The Project has determined and made provision for the resources needed for the establishment, implementation, maintenance and continual improvement of the EMS on the Project.

Required Project documentation	Responsibility	John Holland tools to be used by Project to manage documentation
Work Breakdown Structure	Commercial Representative	Project Pack Web
Schedule	Planning Representative	Produced using P6 Primavera, recorded in SharePoint or Aconex
Budget	Commercial Representative	Project Cost Reporting
Organisation Chart	HR Representative	Sharepoint or Aconex
Position Descriptions	HR Representative	Performance Management and Development System
Sub consultant agreements	Commercial Representative	SharePoint
Subcontractor agreements	Commercial Representative	SharePoint – Subcontract Management Pack
Supplier agreements	Commercial Representative	SharePoint – Subcontract Management Pack

4.2 Documentation

EMS reference
Project Documentation Control Procedure JH-MPR-QUA-005

The John Holland EMS includes:

- Documented information required by the Standard;
- Documented information determined by John Holland as being necessary for the effectiveness of the EMS

When creating and updating documented information, the Project shall ensure appropriate:

a) identification and description (e.g. a title, date, author, or reference number);

b) format (e.g. language, software version, graphics) and media (e.g. paper, electronic);

c) review and approval for suitability and adequacy

This CEMP is a 'live' and 'working' document. The Project Environment Representative/HSEQ Manager will conduct regular reviews of the CEMP at intervals of not less than six months and ensure that the CEMP is formally reviewed and updated at least annually, or earlier as change requirements dictate.

Documented information required by the EMS and by the Standard shall be controlled to ensure:

a) it is available and suitable for use, where and when it is needed;
b) it is adequately protected (e.g. from loss of confidentiality, improper use, or loss of integrity)

For the control of documented information, the Project shall address the following activities as applicable:

- distribution, access, retrieval and use;
- storage and preservation, including preservation of legibility;
- control of changes (e.g. version control);
- retention and disposition

Documented information of external origin determined by the Project to be necessary for the planning and operation of the EMS shall be identified, as appropriate, and controlled.

Required Project documentation	Responsibility	JH tools to be used by Project to manage documentation
Policy, Standards, Manuals, Procedures, Workflows	Various Owners (see documentation for details)	Integrated Management System
All other documentation referred to in this CEMP	Project Manager	See relevant sections of this plan

4.3 Hold Point

Hold points related to the project are identified through the Workplace Risk Assessment process. Hold points relevant to the overall environmental management of the project are included below. Task specific hold points are identified in the respective Environmental Management Plans (refer to appendix 4)

Hold Point	Responsible person	Source
Prior to the commencement of construction, the Applicant must submit a Construction Environmental Management Plan (CEMP) to the Certifier and provide a copy to the Planning Secretary. The CEMP must include, but not be limited to, the following: (a) Details of: (i) hours of work; (ii) 24-hour contact details of site manager; (iii) management of dust and odour to protect the amenity of the neighbourhood; (iv) stormwater control and discharge; (v) measures to ensure that sediment and other materials are not tracked onto the roadway by vehicles leaving the site; (vi) groundwater management plan including measures to prevent groundwater contamination; (vii) external lighting in compliance with AS 4282-2019 Control of the obtrusive effects of outdoor lighting; and (viii) community consultation and complaints handling; (b) an unexpected finds protocol for contamination, asbestos or other unexpected finds and associated communications procedure; (c) an unexpected finds protocol for Aboriginal and non-Aboriginal heritage and associated communications procedure; and	Project Environmental Representative	SSDA 10831778 CoC B15

(d) waste classification (for materials to be removed) and validation (for materials to remain) be undertaken to confirm the contamination status in these areas of the site.		
The Applicant must not commence construction of the development until the CEMP is approved by the Certifier and a copy submitted to the Planning Secretary.	Project Environmental Representative	SSDA 10831778 CoCvB16
Prior to the commencement of construction, the Applicant must install erosion and sediment controls on the site to manage wet weather events.	Project Environmental Representative	SSDA 10831778 CoC B24
Prior to the commencement of construction, erosion and sediment controls must be installed and maintained, as a minimum, in accordance with the publication Managing Urban Stormwater: Soils & Construction (4th edition, Landcom 2004) commonly referred to as the 'Blue Book'.	Project Environmental Representative	SSDA 10831778 CoC B25

4.4 Risk Assessment

4.4.1 Managing Safety Quality Environmental risks procedure

EMS reference
Managing SQE Risks Procedure JH-MPR-SQE-006

This procedure involves preparing a series of progressively more in-depth risk assessments and method statements. Further information on key documents required by the procedure is provided below:

- Workplace Risk Assessment (WRA): a strategic risk assessment conducted on workplace and broken down into work components for the purpose of identifying system, training, legislative, and the identification of further detailed planning and risk assessment activities
    - Also referred to as Construction Risk Analysis Workshop (CRAW), Risk Registers, and Principal Hazards Management Plan (PHMP)
    - Must be informed by pre-tender and contract award SQE reviews
    - Must engage relevant subject matter experts
- Activity Method Statement (AMS): operational planning risk assessments which aim to address the detailed hazard/risk control reduction strategies for workplace activities
    - AMS includes the methodology for the conducting activities, resources, plant, equipment and materials necessary to do the work safely.
    - Requirements for an AMS will be identified in the WRA
- Task Risk Assessment (TRA): team-based planning risk assessments which aim to address hazard/risk control reduction at the task level
    - Facilitated by the Supervisor, Leading Hand and/or Engineer and are primarily identified in the AMS
    - Must be completed prior to work commencing.

The WRA, AMSs and TRAs are pivotal to the management of all activities during delivery: they allow operational controls to be developed and implemented on a case by case basis for all the different workplaces, activities and tasks that are encountered in the contracting industry.

The WRAs, AMSs and TRAs are owned by Project Management, Project Engineers, Supervisory Staff and Workforce. Subject matter experts act as advisors during the preparation of these documents ensuring that information from the legislation, project brief, conditions of approval, head contract and internal procedures and policy is suitably incorporated and acted upon. Implementation of the Managing SQE Risk Procedure by the Project will allow the actions identified in relation to risks and opportunities and the achievement of environmental objectives to be incorporated and used to establish operating criteria and controls.

Required Project documentation	Responsibility	John Holland tools to be used by Project to manage documentation
Workplace Risk Assessment	Project Manager	Project Pack Web/EiFy
Activity Method Statements	Project Engineer(s)	Project Pack Web/EiFy
Task Risk Assessments	Supervisor(s)	Project Pack Web/EiFy

4.4.2 Global mandatory requirements

EMS reference
Global Mandatory Requirement 9 - Environment Management JHG-STD-WHS-009

When developing the operational controls to be included in the WRA, AMSs and TRAs the Global Mandatory Requirements (GMRs) must be incorporated as applicable on every project. The GMRs outline mandatory operational controls that must be deployed for managing key risks. The environmental GMR is outlined below:

GMR 9: ENVIRONMENT MANAGEMENT - I will protect the environment, prevent pollution, and minimise waste and resource use

4.4.3 Health Safety Environment behavioural framework

EMS reference
Managing Safety for Senior Leaders JH-MPR-WHS-020
Our HSE Behaviours Handout
JH HSE Behaviours Implementation Plan

John Holland's HSE Behaviours describe a set of everyday behaviours that are expected of all people working on behalf of The Project. The HSE Behavioural Framework encourages a culture that serves as an operational control.

The Project HSE behaviours will be implemented accordingly. The HSE Behaviours are outlined in a framework below (excerpt from the 'Our HSE Behaviours Handout').

Figure 4: Overview of HSE Behavioural Framework

This framework describes the behaviours that are expected of 'everyone', 'supervisors' and 'managers'. Four themes that are critical to any strong HSE culture are also displayed: 'standards', 'communication', 'risk management' and 'involvement'. These are key elements of the strong safety culture which supports our vision.

There are 12 sets of behaviours across each of these three employee groups and four themes, all of which are interdependent. Each of the twelve sets of behaviours is supported by a set of positive and negative statements that provide practical guidance on what is expected.

The HSE Behaviours that will be implemented are based on the risk profile of the project, size and scope, and in accordance with the Projects HSE Behaviours Implementation Plan.

The following figure is an example of the guidance that sits behind one of the behaviours.

Everyone's HSE Behaviours
(including Supervisors & Managers) To improve our HSE performance

	I will...		I will not...	
Follow rules	EP1.1	Learn the standards, rules and procedures that apply to me in my job	EN1.4	Ignore the rules and procedures
	EP1.2	Follow the rules and use the right procedures for the job	EN1.5	Disregard the consequences of not following a rule or procedure
	EP1.3	Identify impractical rules and procedures, and suggest improvements promptly	EN1.6	Rush or take short cuts to get the job done
			EN1.7	Fail to seek approval or advice if the plan changes or deviates

Figure 5: Example of specific HSE Behaviours

Required Project documentation	Responsibility	John Holland tools to be used by Project to manage documentation
Personal Action Plans	Senior Manager(s)	SharePoint
Induction Records	Project Management Team	EiFY
Toolbox Records	Supervisors	EiFY

4.4.4 Operational planning and control

Operational planning and controls processes are implemented by the Project in order to incorporate the actions identified in relation to risks and opportunities, and the achievement of environmental objectives, by establishing operating criteria and controls.

EMS reference
Managing SQE Risks JH-MPR-SQE-006
Global Mandatory Requirement 9 - Environment Management JHG-STD-WHS-009
HSE Behavioural Framework
Internal Design Management JH-MPR-DES-001
Management of Design Consultants JH-MPR-DES-002
Letting of Consultant, Subcontract, Supply Packages JH-MPR-PMA-005
Administration of Consultant, Subcontract or Supply Packages JH-MPR-PMA-006
Inspection of Subcontracted Works JH-MPR-QUA-003
Hazardous Chemicals Management JH-MPR-SQE-011
Asbestos Procedure JH-MPR-WHS-024
Plant and Equipment JH-MPR-PAE-001

4.4.5 Outsourced processes

EMS reference
Management of Design Consultants JH-MPR-DES-002
Purchasing JH-MPR-PMA-004
Inspection of Subcontracted Works JH-MPR-QUA-003
Letting of Consultant, Subcontract, Supply Packages JH-MPR-PMA-005
Administration of Consultant, Subcontract or Supply Packages JH-MPR-PMA-006

The Project ensure that outsourced processes are controlled or influenced. Consistent with a life cycle perspective, the Project have:

- Established controls, as appropriate, to ensure that its environmental requirement(s) is (are) addressed in the design and development process for the product or service, considering each life cycle stage.
- Determined its environmental requirement(s) for the procurement of products and services, as appropriate.
- Communicated its relevant environmental requirement(s) to external providers, including contractors.

- Considered the need to provide information about potential significant environmental impacts associated with the transportation or delivery, use, end-of-life treatment and final disposal of its products and services.

Required Project documentation	Responsibility	JH tools to be used by Project to manage documentation
Sub consultant, sub-contractor, supplier qualification records	Design/Commercial Representative	SharePoint or Aconex
Sub consultant, sub-contractor, supplier agreements	Design/Commercial Representative	SharePoint or Aconex
Sub consultant, sub-contractor, supplier HSEQ deliverables	Design/Commercial Representative	SharePoint or Aconex

4.4.6 Other operational controls

Required Project documentation	Responsibility	John Holland tools to be used by Project to manage documentation
Chemical Risk Assessment	Supervisor(s)	Chemwatch and/or Project Pack Web
Safety Data Sheets	HSEQ Representative	Chemwatch and/or Project Pack Web
Chemical Register	HSEQ Representative	Chemwatch and/or Project Pack Web
Unexpected finds protocol	Environment Manager	SharePoint or Aconex
Archaeology unexpected finds protocol		
Plant and Equipment Register	Project Engineer	Project Pack Web or Eify

4.5 Environmental Management Activities and Controls

4.5.1 Sensitive receivers

The SCH1/MCCCC redevelopment is located in the north-east corner of the new Randwick Hospital Campus precinct. A Review of Environmental Factors has been conducted on the project, identifying the following sensitive receivers. There were no habitats or waterways identified within the REF. The future building is surrounded by the following:

- Along the northern façade boundary of the proposed building is High Street. High Street was recently redeveloped as part of the Stage 2 CBD Southeast Light Rail Project. Works associated with this project converted High Street from a typical roadway to a roadway which accommodates both light rail vehicles and passenger vehicles. Located on the opposite side of High Street are existing multi-storey (2-3 levels) residential buildings. These receivers are the nearest receivers to the future building.
- Situated along the eastern boundary of site is Hospital Road which is to be remediated and modified as part of the approval.
- To the south of the proposed building is the Price of Wales (POW) that will house Acute Services Building (ASB), which is currently under construction. The ASB is a 13-storey building housing a range of critical services for the POW Hospital. Further south of the ASB is Magill Street with more residential receivers.
- Lastly, along the future western boundary of the site is the proposed UNSW HTH building. The proposed 15-storey HTH will accommodate new health related education, research and administrative facilities. It will allow health educators to work alongside clinic with a link bridge connection between the two proposed buildings. Further west of the proposed HTH is Botany Street. The main vehicle access to the proposed SCH1/MCCCC building will be via a new signalised intersection along Botany Street which serves the

precinct. Located on the opposite side of Botany Street is the existing UNSW Kensington Campus. The nearest sensitive receivers to the site are identified below:

Receiver 1: Single and multi-storey residential buildings/dwellings located to the north of the site across High Street. Receivers which are multi storey are typically four storeys in height. Receivers are located along the southern side of Blenheim Street (No. 2-34) and eastern side of Botany Street on the same block (no. 43- 47). Receiver one will be known as Blenheim Street Receivers in this report.

Receiver 2: Single and multi-storey residential buildings/dwellings located to the northwest of the site across High Street/Botany Street. Receivers which are multi storey are typically four storeys in height. Receivers are located along the northern side of High Street (No. 30-44) and western side of Botany Street on the same block (no. 26-38). Receiver two will be known as Botany Street Receivers in this report.

Receiver 3: Single and multi-storey residential dwellings located to the south of the new precinct (beyond the ASB) across Magill Street. Receivers which are multi storey are typically two storeys in height. Receivers are located along the southern side of Magill Street (No. 1-15), northern side of Hay Street within the same block (no. 2-16) and eastern side of Botany Street (no. 103-111A). Receiver three will be known as Magill Street Receivers in this report.

Receiver 4: Single and multi-storey residential dwellings located to the southwest of the new precinct (beyond the ASB) across Botany Street. Receivers which are multi storey are typically two storeys in height. Receivers are located along the northern side of Norton Street (No. 10-34) and western side of Botany Street (no. 40-44). Receiver four will be known as Norton Street Receivers in this report.

Receiver 5: Hospital buildings are located on the eastern side of Hospital Road within the existing RHC. The closest is the existing SCH located on the corner of High Street and Hospital Road.

Receiver 6: Educational buildings located on the western side of Botany Street within the existing UNSW Kensington Campus. The closest of these include the Wallace Wurth (C27) building, Biological Sciences North and South buildings (D26 and E26) and Australian Graduate School of Management (AGSM) building (G27).

Receiver 7: Proposed UNSW HTH building to be constructed within the RHC along the western façade of the project building.

Receiver 8: Future POW/ ASB building currently under construction to the south of the project building. A map showing the site location as well as nearest receivers is provided in Figure 2-1 below. Additionally, shown in Figure 2-2 are the onsite measurements which were conducted as part of this assessment.

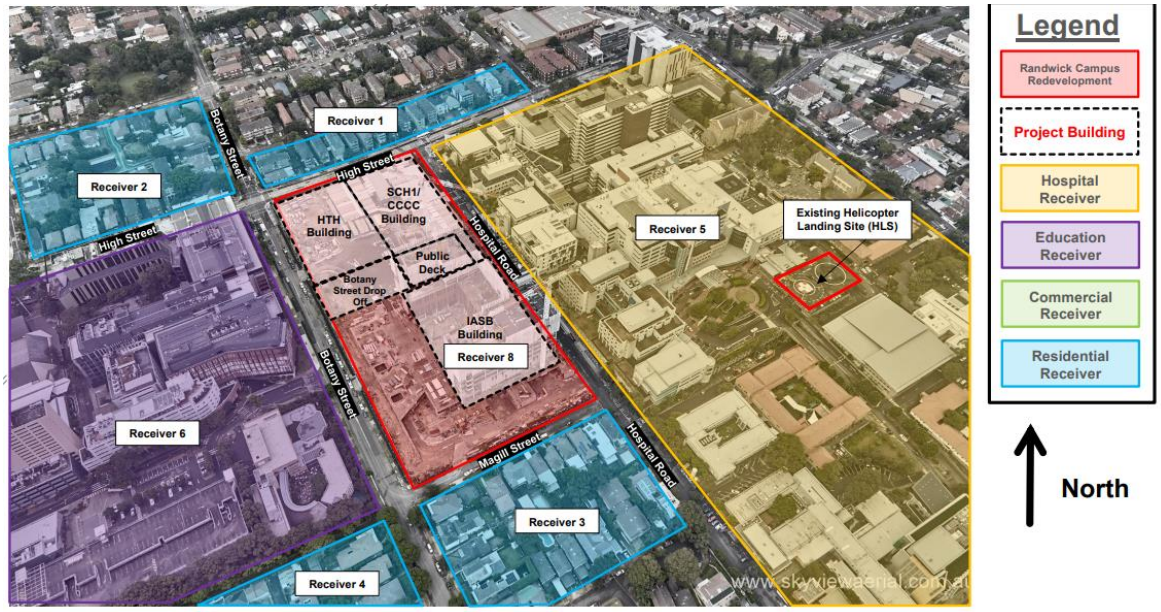


Figure ***6***: Site boundaries and sensitive receivers

4.5.2 Flood Protection Measures and Sediment Controls

As outlined in Bonacci's Construction Staging Flood Options Report, prior to the occupation of the ASB, a temporary stormwater diversion wall will be constructed along the full frontage of High Street to an RL of

56.25. This wall is to be able to withstand the hydrostatic pressures imposed by the flood waters during a Probable Maximum Flood (PMF) event.

Additionally, an existing stormwater trap to the northwest corner of the SCH1/MCCCC site to the temporary wall will aid in the mitigation of any possible flooding events that may occur in the area.

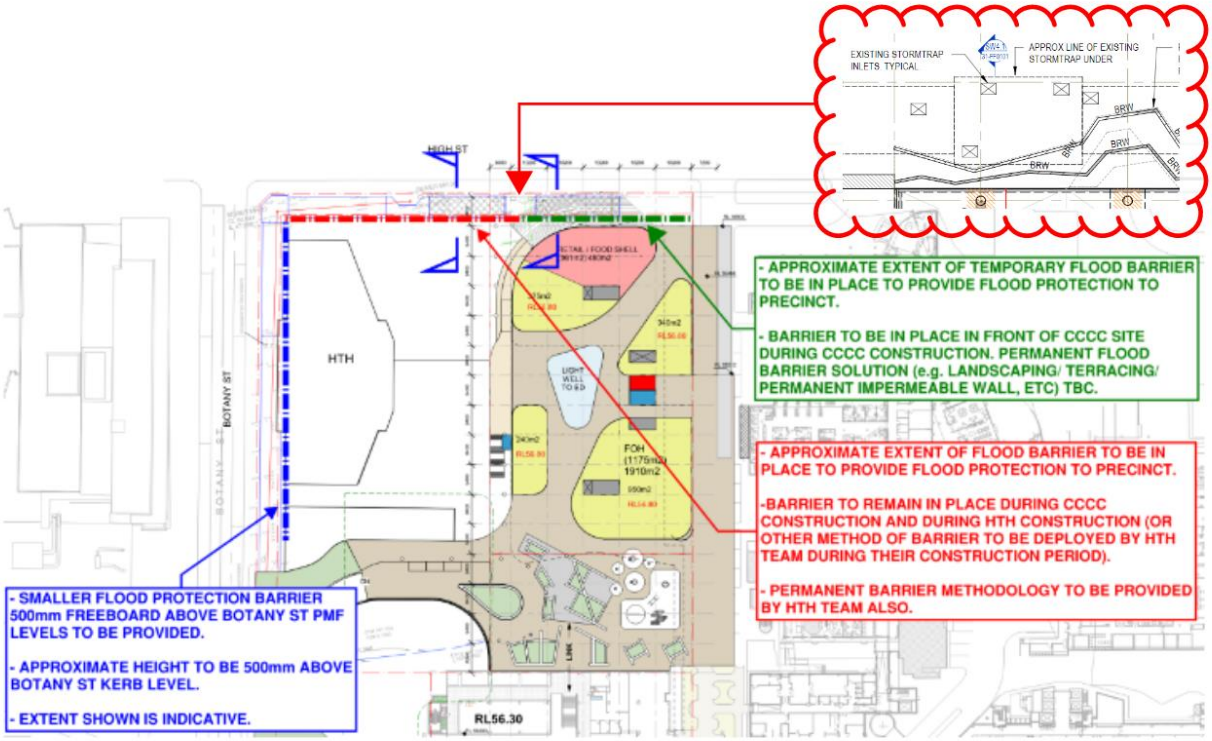


Figure 7 Extent of temporary walls. Refer to the Flood Emergency Response Plan for further detail

This temporary stormwater diversion wall is to be maintained along the High Street frontage on both HTH and SCH1/MCCCC sites during construction.

Our Erosion and Sediment Control Plan will further outline the layout of any planned or implemented controls diagrammatically, in accordance with Managing Urban Stormwater: Soil and Construction (Landcom, 2004) ('Blue Book'). Refer to the Construction Soil and Water Management Plan (SCH-CV-10-XX100 Rev 2)

Controls will include but not be limited to:

- Existing services and controls are to be maintained
- The existing stormwater pits on High Street frontage will remain, with the grates to be wrapped with geotextile fabric
- Additional temporary stormwater protections are required to be completed during the initial site establishment stages
- Temporary swales will be created to divert the stormwater to the southwest side of the site, away from the northern side of the ASB building
- Installed stormwater pits in the southwest area of the SCH1/MCCCC site will need to be wrapped in geofabric
- The temporary flood wall on the north-west side of HTH will also be built as part of the flood protection
- No discharge of water outside of Water Quality Objectives is to occur. Any water that does not comply will be treated and retested, or disposed of at a licenced facility.
- De-watering shall not take place unless a dewatering permit has been obtained and completed to the satisfaction of the Project Environmental Representative (PER)
- Rumble grid to be installed at egress location to prevent tracking onto roads.
- Street sweeper is to be in operation during spoil load out activities and available on-call.

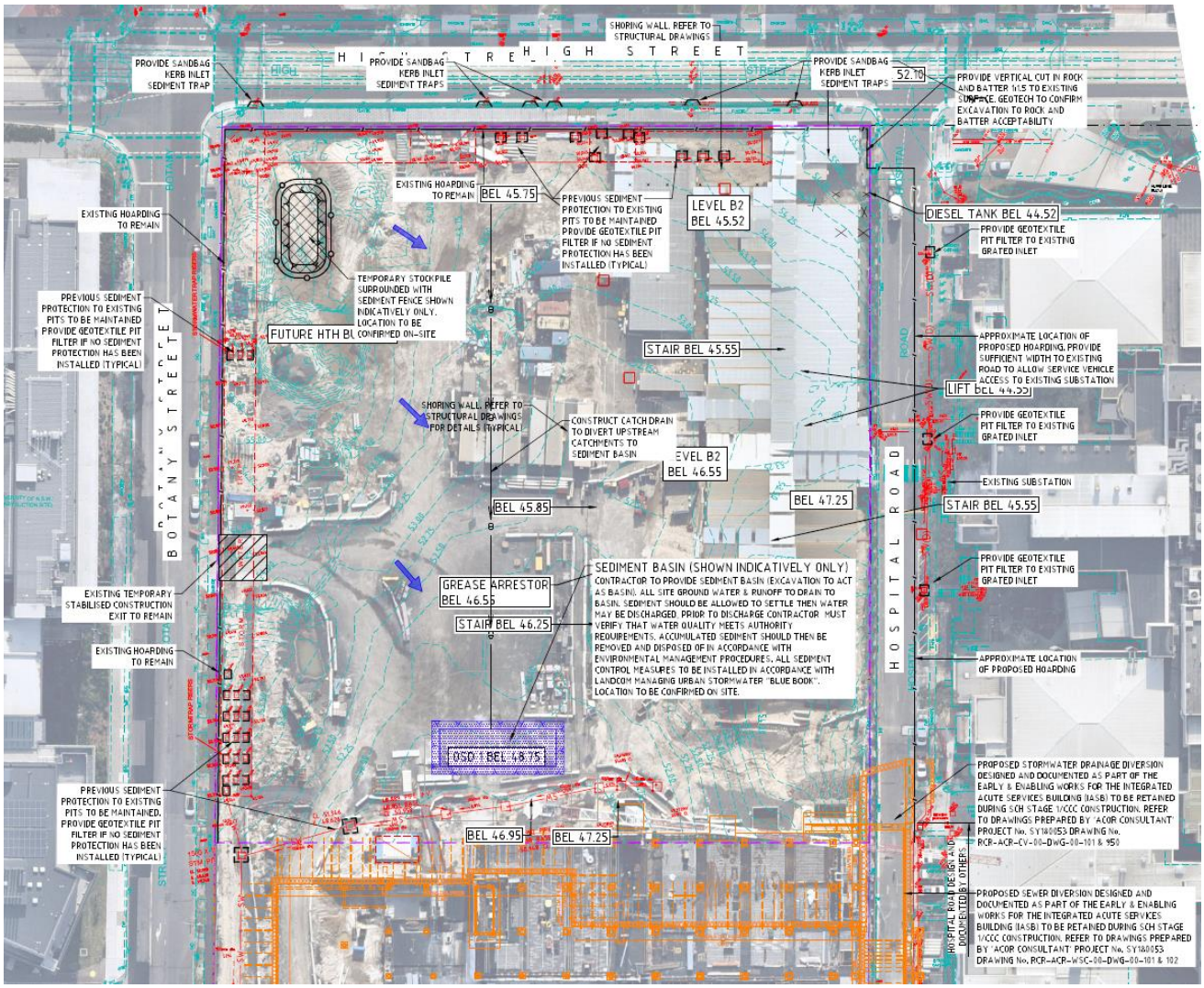


Figure 8 Extract from progressive ESCP refer to CSWMP for full plan, and Appendix 7

On completion of the SCH1/MCCCC the landscape retaining walls will form the flood protection for the eastern portion of High Street frontage.

4.5.3 Groundwater Management

A Groundwater Management Plan is being prepared by the contamination consultant based on previous geotechnical and contamination reports undertaken by Douglas Partners for the subject site and the adjacent ASB site.

Douglas Partners completed a Detailed Site Investigation (DSI) for contamination to assess the soil and groundwater contamination at the RCR site, and subsequently prepared the Remediation Action Plan (RAP). The RAP indicated that based on the results reported in the DSI, it is considered that further investigation and/ or remediation of groundwater is not required.

All activities impacting groundwater will be conducted in accordance with the Groundwater Management Plan, all monitoring and reporting will be conducted in accordance with the GMP, and in accordance with the Aquifer Interference Policy. All activities are to be conducted in accordance with the Construction Soil and Water Management Plan to prevent contamination to groundwater from mismanagement of chemicals or inappropriate spill response.

Encountered groundwater will be retained on site for mandatory testing. Monitoring and associated reporting is mandatory during water management and dewatering, and will be undertaken during excavation and construction works on-site. Monitoring will be carried out using existing groundwater monitoring wells. If any contaminants are identified in the well above what has been established through background investigations,

the dewatering strategy will be revised in consultation with the environmental consultant. Written approval will be obtained from the relevant authority prior to any discharge of water.

Additionally, a dewatering permit will be obtained by the dewatering contractor from JHG prior to any discharge event and will include details of the test results in accordance with the discharge criteria. This permit must be submitted and signed prior as detailed in the CSWMP. If water does not meet the proposed acceptance criteria, the water will be treated or disposed of to a licenced facility.

4.5.4 Air Quality and Dust Management

Works will be conducted so as to minimise dust generation and any other potential air quality impacts as a result of construction activities. The following controls will be implemented and monitored:

- Spraying of paint and other materials is only to be undertaken on days with still or light wind conditions
- No burning of materials is permitted
- Dust generated during construction activities is to be controlled to minimise impact of construction on surrounding properties through use of water suppression
- Exposed areas are to be progressively revegetated or covered as soon as practical to reduce risk of dust
- Implement proactive measures to mitigate impacts at the source, path and receiver to minimise complaints and potential impacts to sensitive receivers
- All necessary maintenance for construction vehicles and equipment is to be undertaken during the construction period.
- Excessive use of vehicles and powered construction equipment is to be avoided.
- Vehicles, machinery, and equipment will be maintained in accordance with manufacturer's specifications in order to meet the requirements of the Protection of the Environment Operations Act 1997 and associated regulations.

4.5.5 Contamination

To determine soil conditions, Douglas Partners recently undertook a Detailed Site Investigation (DSI) on the site to assess the contamination characteristics of the soil and groundwater (Ref. 725059.19.R.002 April 2021). The DSI indicated that there is a low to medium risk of contamination at the site, primarily in the existing fill.

Subsequently, a RAP was prepared by Douglas Partners (72505.19.R.002 Rev3 January2022). The RAP concludes that subject to proper implementation of the remediation procedures, unexpected finds protocol and completion of the validation assessment, the site can be made suitable for the proposed development.

The short-term exposure during remediation and construction works should not pose an unacceptable risk to workers provided adequate controls are in place.

The following recommendations were made:

- Prior to excavation or after removal of sealed surface a qualified occupational hygienist will inspect for potential bonded ACM and issue a clearance once clear of visible ACM.
- Sydney Children's Hospital Stage 1 and Minderoo Children's Comprehensive Cancer Centre
- Where bonded ACM is observed, a licenced asbestos assessor will remove and double bag the bonded ACM and a clearance report will be issued. In areas of bulk excavation
- Excavate and dispose existing fill from areas under a formal waste classification. Fill across the site has a preliminary waste classification of General Solid Waste – Special Waste (Asbestos) unless further testing shows otherwise.
- Asphalt and road base in Eurimbla Avenue and Hospital Road to be stripped and assessed for land application either on-site or off-site in accordance with RRO 2014.
- Validate the natural soils/ Bedrock post removal of fill, confirm VENM classification. In areas outside of bulk excavation
- Fill in the vicinity of identified contamination is to be delineated, excavated and assessed for offsite disposal under formal waste classification
- Areas of higher risk asbestos are to be delineated, excavated and disposed off-site as General Solid Waste – Special Waste (asbestos) In any remaining areas, conduct an assessment in accordance with WA DOH (2009) for asbestos concentration
- If concentrations meet RAC, soils will be found to be suitable to be retained within the site

- If concentrations exceed the RAC, but no friable (AF/FA) the process of 'emu picking' may be undertaken, then re-assessed in accordance with WA DOH (2009); and
- If significant asbestos is found the impacted soils will be removed to landfill under a waste classification

The remediation goal is to remove and / or mitigate associated risks of potential environmental and human health impacts posed by identified contamination and contamination uncovered during earthworks (as unexpected finds) such that the site can be rendered suitable for the proposed development.

Any material to be removed from site is to be managed in accordance with the RAP and the CWMP. All waste will be assessed in accordance with the POEO Act (1977). For disposal to landfill, this will comprise assessment in accordance with the NSW EPA Waste Classification Guidelines (2014). For re-use off-site soil will be assessed in accordance with other EPA guidelance or licences under the POEO Act and may include;

- Resource recovery orders issued by EPA under the Protection of the Environment Operations (Waste) Regulation 2014; and Guidance on assessment of VENM

It is also noted that recycling facilities with an appropriate Environmental Protection Licence (EPL) may accept some of the soils that comply with their EPL conditions.

All spoil removed from site will be subject to the JH permitting process. To obtain a permit the following information will be provided to the PER by the transporting/ civil works contractor

- Destination facility name
- Destination facility EPL
- Transport contractor licencing
- Classification for material to be disposed of
- Any other licencing/ permit required for material (e.g. SafeWork notification, wastelocate)

The civil and construction works will likely result in the disturbance and relocation of soils within the site. Validation of the suitability of remaining fill on site will be carried out by a licenced contamination consultant and provided to the Site Auditor for their review and approval. At the completion of works a Validation Assessment report will be prepared for the site by the environmental consultant in accordance with NSW EPA Consultants reporting on contaminated Land: Contaminated Land Guidelines (NSW EPA, 2020) and other appropriate guidance documentation. The validation report shall detail the methodology, results and conclusion of the assessment and make a clear statement regarding the suitability of the site for the proposed land use.

4.5.6 Fire Precautions during construction

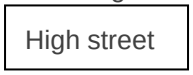
All fire precaution measures implemented during construction to be in accordance with Clause E1.9 - Fire precautions during construction, of the National Construction Code 2019; (Excerpt below)

E1.9 Fire precautions during construction

In a building under construction:

a) not less than one fire extinguisher to suit Class A, B and C fires and electrical fires must be provided at all times on each storey adjacent to each required exit or temporary stairway or exit: and
b) After the building has reached an effective height of 12 m—
  i) the required fire hydrants and fire hose reels must be operational in at least every storey that is covered by the roof or the floor structure above, except the 2 uppermost storeys: and
  ii) any required booster connections must be installed.

The location of the Booster Facilities for the fire hydrants adjacent to the construction site at Hospital Rd is indicate in the below drawing.



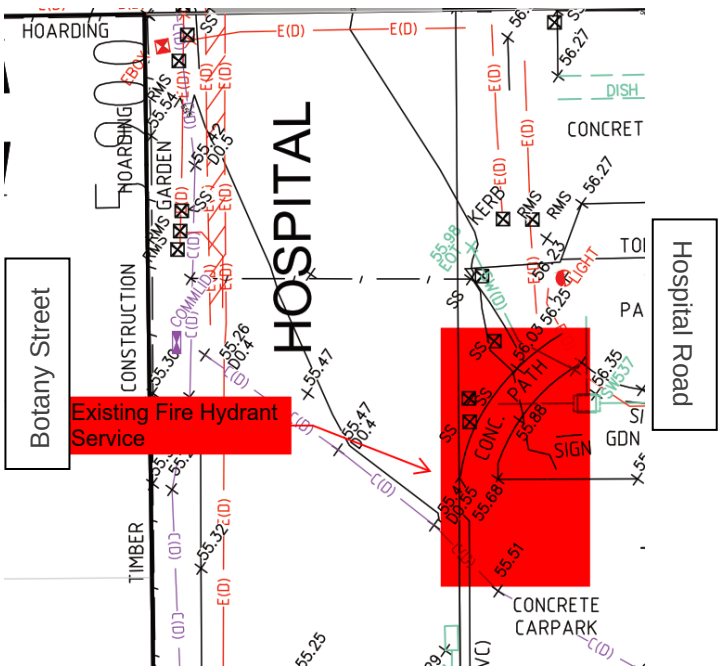


Figure 9 Existing Fire Hydrant Service

4.5.7 Construction lighting

All external construction lighting will be established and operated in compliance with AS 4282:2019 Control of the obtrusive effects of outdoor lighting. Lighting will be installed in coordination with the objective of minimising light spill by directing lighting away from residential receivers where possible. In order to ensure lighting does not impact on sensitive receivers, the following will be implemented:

- Lights will be located as far away as possible and directed away from neighbouring properties, with consideration given to current Crime Prevention Through Environmental Design principles. For safety and security purposes during nights and periods of low light temporary lighting will be required for work areas and traffic detours
- Lighting will be directed to illuminate the target areas. Baffles or shield will be utilised where practicable and feasible to reduce potential of light spill.

4.6 Communication

EMS reference
Community Relations JH-MPR-CCM-005
Media Relations JH-MPR-CCM-004

The Project has established the processes needed for internal and external communications relevant to the EMS, including:

- What it will communicate
- When to communicate
- With whom to communicate
- How to communicate.

When establishing its communication processes, the Project has:

- Considered its compliance obligations
- Ensured that environmental information communicated is consistent with information generated within the environmental management system and is reliable.

The Project will respond to relevant communications on its EMS. The Project will retain documented information as evidence of its communications, as appropriate.

4.6.1 Internal communication

EMS reference
Community Relations JH-MPR-CCM-005
Performance Statistics – Safety, Quality & Environment JH-MPR-SQE-009

The Project will:

- Internally communicate information relevant to the EMS among the various levels and functions of the Project and John Holland, including suggested changes to the EMS, as appropriate
- Ensure its communication processes enable persons doing work under the Project's control to contribute to continual improvement.

Internal communication will include meetings which may include pre-start meetings, toolbox talks, project team meetings, HSEQ team meetings, Principal meetings, subcontractor meetings, and HSEQ system review meetings. Meetings will include appropriate environmental information and will be minuted and recorded.

Environmental toolbox talks will be held as and when new activities are undertaken and risks arise, at a minimum of one toolbox talk a month.

Internal communication will also include written instructions which may include drawings, specifications, method statements, risk assessments, contracts and subcontracts.

Internal communication regarding the notification of events and associated SQE actions will be managed using Soteria.

Internal communication of The Project's performance will also be undertaken via monthly environmental reporting using a project pack and Soteria.

Required Project documentation	Responsibility	John Holland tools to be used by Project to manage documentation
Communication records - general	All personnel	SharePoint – Office Correspondence or Aconex
Meeting minutes	All personnel	SharePoint – Office Correspondence or Aconex
Reports	All personnel	SharePoint – Office Correspondence or Aconex

4.6.2 External Communication, Consultation and complaints

The project will be managed in accordance with the Community Stakeholder & Interface Management Plan (CSIMP). All complaint and enquiries will be managed in accordance with this plan. All external communication will be issued through the principal's representative.

Community consultation has been undertaken by Health Infrastructure prior to the commencement of the SCH1/MCCCC works. Prior to any construction activities the following strategies were put into place:

- Community information sessions held
- Formal and informal briefings and feedback sessions held
- Where required, face-to-face engagement with neighbouring residents and businesses
- Distribution of project community information resources
- Established communication channels for feedback including website, project community contact number and project email account.

The following highlights stakeholders and community consultation outcomes for managing high noise generating works:

- Stop works procedures and lines of communication where works may affect sensitive receivers or continuity of Hospital Campus operations
- Programming of works to acknowledge periods of increased sensitivity for receivers i.e. exam periods for UNSW and local schools

- Identification of sensitive receivers within neighbouring buildings to inform mitigation planning i.e. sensitive medical or research equipment
- Consultation with Hospital Campus on appropriate location for noise and vibration monitoring devices
- Complaints management processes for noise and vibration
- Identification of preferred communication channels with key stakeholders and neighbouring residents for works notification

Impacted Stakeholders will be kept informed of the project status and key activities throughout the project duration via:

- Construction briefings – regular briefings and presentations to affected stakeholders to provide advance notice of noise generating works, work hours and construction impacts management strategies
- Construction briefings are utilised to gain feedback and input into construction planning and minimise impacts to stakeholders
- Community notification – notifications circulated via letter box drop, email and project website to communicate upcoming construction activity to the local community and affected stakeholders
- Construction Interface Meetings – regular meetings with key project stakeholders to communicate upcoming works, impacts and mitigate strategies
- Site hoarding or notices on the hoarding will also identify Health Infrastructure and John Holland as the site operators

These channels will be used to inform residents and business owners, describing the construction hours, potential high noise works/hours, the noise management measures being implemented and providing contact details for further information or complaints. The following table details the documentation required, project personnel responsible and methods by which the information will be managed.

Required Project documentation	Responsibility	John Holland tools to be used by Project to manage documentation
Communication records – Principal and regulators	Project Manager	SharePoint – Office Correspondence or Aconex
Communication records – subcontractors and suppliers	Commercial Representative	SharePoint – Office Correspondence or Aconex
Communication records - community	Project Manager	SharePoint – Office Correspondence or Aconex
Meeting minutes	Project Manager	SharePoint – Office Correspondence or Aconex
Reports	Project Manager	SharePoint – Office Correspondence or Aconex

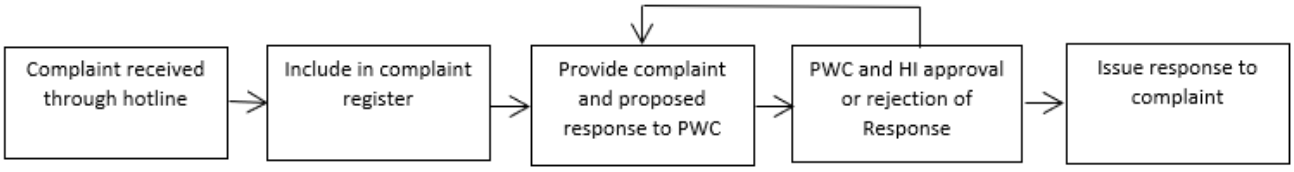
Enquiries and complaints received in person or via the 1800 hotline managed by John Holland will be:

- Responded to within the timeframes outlined below
- Recorded in Stakeholder spreadsheet within 24 hours of receipt
- Reported monthly in the complaints register, with information about any resolution reached and published on the project website in accordance with the SSD 10831778 condition A22

Classification	Description	Action
High Issue cannot be resolved by the project team	- Involves media attention/ coverage - Involved political and/ or government agencies	- Immediate report to the HI Communications Director - No comment to be provided by the Project team

	- Relates to safety or security incident	
Medium Issue cannot be immediately resolved	- Involves an individual or group expressing negative sentiments towards the project with risk of further action - The stakeholder raising the issue is not satisfied with the response provided	- Project Stakeholder manager engages the broader Project team to investigate further, determine a suitable outcome and respond appropriately - Issue is reported on following reporting protocols
Low Issue can be responded to immediately	- Involve an individual or group expressing negative sentiments towards the project - Involves an individual or group expressing concern for project impacts and outcomes - There is no threat of further action	- Project Stakeholder Manager provides the appropriate response and notified the broader project team as required - Records of low-level issues to be tracked and reported as per this plans and conditions of consent

Responses to complaints received will be provided to PWC for review and Health Infrastructure Approval prior to issuing to the community as outlined below:



4.7 Environmental Control Plans or Maps

The primary environmental constraints for the Project are identified in the Construction Environmental Sub Plans and captured progressively using Site Environmental Plans and Erosion and Sediment Control Plans. These plans will contain information regarding, but not limited to:

- Project Boundaries
- Endangered Ecological communities, threatened flora and fauna, significant items
- Sensitive receivers (e.g., Watercourses)
- Noise or light spill sensitive receivers e.g., residential receivers, Places of education etc.
- Location of site offices
- Working hours
- Aboriginal and Non-Aboriginal heritage
- Contamination
- Tree protection measures

5 Monitoring, Reporting and Review

5.1 Monitoring

To ensure excellent environmental outcomes John Holland has robust processes in place to measure and evaluate its environmental performance against criteria set out in the CEMP.

EMS reference
Monitoring and Review JH-MPR-SQE-002
Inspection, Testing and Surveillance JH-MPR-SQE-004

Workplace Hazard Identification and Inspection JH-MPR-WHS-006
Performance Statistics – Safety, Quality and Environment JH-MPR-SQE-009
Inspection of Sub-contracted Works JH-MPR-QUA-003
Administration of Consultant, Subcontract, Supply Packages JH-MPR-PMA-006
Resource Use Reporting JH-MPR-ENV-002
Project Monthly Reporting and Reforecasting and Review JH-MPR-PMA-015
WHSR Planning JH-MPR-WHS-001

The Project will monitor, measure, analyse and evaluate its environmental performance.

The Project will determine:

- What needs to be monitored and measured.
- The methods for monitoring, measurement, analysis, and evaluation, as applicable, to ensure valid results.
- The criteria against which the organisation will evaluate its environmental performance, and appropriate indicators.
- When the monitoring and measuring will be performed.
- When the results from monitoring and measurement will be analysed and evaluated.

Projects will use the Project Monitoring Schedule to plan for monitoring activities in accordance with the risk profile on the project as per Workplace Hazard Identification and Inspection.

The Project will:

- Ensure that calibrated or verified monitoring and measurement equipment is used and maintained, as appropriate. The Project will evaluate its environmental performance and the effectiveness of the EMS.
- Communicate relevant environmental performance information both internally and externally, as identified in its communication processes and as required by its compliance obligations.
- The Project will retain appropriate documented information as evidence of the monitoring, measurement, analysis, and evaluation results.
- The Project will establish, implement, and maintain the processes needed to evaluate fulfilment of its compliance obligations.

The Project will:

- Determine the frequency that compliance will be evaluated.
- Evaluate compliance and take action if needed.
- Maintain knowledge and understanding of its compliance status.
- Retain documented information as evidence of the compliance evaluation results.

Required Project documentation	Responsibility	John Holland tools to be used by Project to manage documentation
Subcontractor HSEQ Deliverables (pre-mob and monthly thereafter)	Commercial Representative	SharePoint – Subcontract Management Pack
Resource usage (energy, water, etc) data (monthly)	Commercial Representative & PER	PCR & Project Pack Web
Concrete and steel consumption data (monthly)	Project Engineer	Aconex & Project Pack Web

Waste data (monthly)	PER & CA	Project Pack Web
Approvals and Licences Register Status (monthly)	Project Environment Representative	Soteria
Obligations Register Status (monthly)	Project Environment Representative	Soteria
Internal Project Report (Monthly)	Project Manager	Mars and SharePoint
Principal Report (Monthly)	Project Manager	SharePoint or Aconex
HSES Valuation (Monthly)	Project Manager	Soteria
Project Self-Assessment (Annual)	Project Environment Representative	Soteria
Actions arising	Project Environment Representative	Soteria

Required Project documentation	What to be inspected	Responsibility	John Holland tools to be used by Project to manage documentation
Site Diary (daily)	All required construction areas	Supervisor(s)	Project Pack Web
Weekly General Inspections	Site area	Workplace Manager	Soteria
High Risk Inspections	Areas of high risk works to be determined through risk assessments	Workplace Manager	Soteria
GMR Self-Assessments (monthly)	Areas of work applicable to GMRs	Workplace Manager	Soteria

5.2 Reporting

Reporting requirements for the project include:

- Incident reports
- Monthly monitoring reports
- Noncompliance reports
- Compliance reporting
- Inspection reports
- Internal and external audit reports
- Independent audit report responses

5.3 Environmental Auditing

5.3.1 Internal audit

EMS reference
Monitoring and Review JH-MPR-SQE-002

John Holland will conduct internal HSE audits of the Project at planned intervals to provide information on whether the EMS conforms to:

- The organisation's own requirements for its EMS
- The requirements of the International Standard
- Is effectively implemented and maintained.

John Holland will establish, implement and maintain (an) internal audit programme(s) for the Project, including the frequency, methods, responsibilities, planning requirements and reporting of its internal audits upon contract award.

John Holland will:

- Define the audit criteria and scope for each audit;
- Select auditors and conduct audits to ensure objectivity and the impartiality of the audit process;
- Ensure that the results of the audits are reported to relevant management

John Holland will retain documented information as evidence of the implementation of the audit program and the audit results.

Required Project documentation	Responsibility	John Holland tools to be used by Project to manage documentation
Audit Program	Operations Environment Manager	Soteria
Audit Reports	Operations Environment Manager	Soteria
Actions Arising	Operations Environment Manager	Soteria

5.4 Corrective Action

5.4.1 Incidents, non-conformity and corrective action

EMS reference
Non-conformance and Corrective Action JH-MPR- SQE-007
Incident Management JH-MPR-SQE-010

When a nonconformity (including an incident, or a verified complaint) occurs, the Project will:

- React to the nonconformity and, as applicable:
  - Take action to control and correct it
  - Deal with the consequences, including mitigating adverse environmental impacts
- Evaluate the need for action to eliminate the causes of the nonconformity, in order that it does not recur or occur elsewhere, by:
  - Reviewing the nonconformity
  - Determining the causes of the non-conformity
  - Determining if similar nonconformities exist, or could potentially occur
- Implement any action needed
- Review the effectiveness of any corrective action taken
- Make changes to the environmental management system, if necessary.

Corrective actions will be appropriate to the significance of the effects of the nonconformities encountered, including the environmental impact(s).

The Project will retain documented information as evidence of:

- The nature of the nonconformities and any subsequent actions taken
- The results of any corrective action.

Required Project documentation	Responsibility	John Holland tools to be used by Project to manage documentation
Event Records	Project Environment Representative	Soteria
Non-Conformance Records	Quality Representative	Soteria
Actions Arising	Project Environment Representative	Soteria

5.4.2 Accountable Culture Tool

EMS reference
Incident and Event Management JH-MPR-SQE-010
Counselling and Disciplinary Procedure JH-MPR-PPL-012

The Accountable Culture Tool (ACT) is designed for line managers to help them to understand, categorise and address appropriate actions of their staff, work force and subcontractors w in a fair and just way.

The ACT is a step-by step decision making tool that provides managers with a structured process to address an event and the people involved in a constructive way and not simply react on the outcome. It also encourages the recognition of positive performance.

Required Project documentation	Responsibility	John Holland tools to be used by Project to manage documentation

Event Records	Project Environment Representative	Soteria
Reward and recognition records	HR Representative	Chris 21 – for John Holland personnel W Drive – for external personnel
Counselling and disciplinary records	HR Representative	Chris 21 – for John Holland personnel W Drive – for external personnel

5.5 CEMP Review

EMS reference
Monitoring and Review JH-MPR-SQE-002
Independent Project Reviews JH-MPR-PMA-018
Project Monthly Reporting and Reforecasting and Review JH-MPR-PMA-015
WHSR Planning JH-MPR-WHS-001

John Holland management conduct yearly reviews of the John Holland EMS, to ensure its continuing suitability, adequacy and effectiveness. When the EMS review is complete an update of system improvements is communicated via the IMS to all employees.

The management review will include consideration of:

- The status of actions from previous management reviews
- Changes in:
    - External and internal issues that are relevant to the environmental management system
    - The needs and expectations of interested parties, including compliance obligations
    - Its significant environmental aspects
    - Risks and opportunities
- The extent to which environmental objectives have been achieved
- Information on the organisation's environmental performance, including trends in:
    - Non-conformities and corrective actions
    - Monitoring and measurement results
    - Fulfilment of its compliance obligations
    - Audit results
- Adequacy of resources
- Relevant communication(s) from interested parties, including complaints
- Opportunities for continual improvement.

The outputs of the management review will include:

- Conclusions on the continuing suitability, adequacy and effectiveness of the EMS
- Decisions related to continual improvement opportunities
- Decisions related to any need for changes to the environmental management system, including resources
- Actions, if needed, when environmental objectives have not been achieved
- Opportunities to improve integration of the EMS with other business processes, if needed
- Any implications for the strategic direction of the organisation.

Management reviews are conducted at project level through the internal project reports and/or Health Safety Environment Quality Valuations. The project will retain documented information as evidence of the results of management reviews.

The review of the CEMP will be in accordance with the conditions of consentA29 and A30. The CEMP will be reviewed and revised following:

- An incident (as defined in the conditions of Consent)
- Any non-compliance with the conditions of consent or other legal requirement
- Any non-conformance with any other environmental requirements
- Audit findings (internal, external and/ or independent)
- Project modifications approved by the consent or approval authority
- Changes to legislative requirements

Upon revision the CEMP will be resubmitted to the Department and any other party as required by the conditions of consent.

Required Project documentation	Responsibility	John Holland tools to be used by Project to manage documentation
Internal Project Report (Monthly)	Project Manager	SharePoint or MarS
Project Management Meeting minutes	Project Manager	SharePoint or Aconex
HSEQ Valuation (Monthly)	Project Manager	Soteria
Actions Arising	Environment Manager	Soteria

5.6 Continual improvement

EMS reference
Monitoring and Review JH-MPR-SQE-002
Project Completion Procedure JH-MPR-PMA-016

The Project will continually improve the suitability, adequacy and effectiveness of the John Holland EMS to enhance environmental performance.

Required Project documentation	Responsibility	John Holland tools to be used by Project to manage documentation
Actions Arising	Project Environment Representative	Soteria
Lessons Learned	Project Environment Representative	Work Centre

Appendix 1 – John Holland Environmental Policy

JOHN HOLLAND

ENVIRONMENT POLICY

UP FOR THE CHALLENGE OF IMPROVING LIVES

OUR COMMITMENT

To value the natural environment and communities in which we work.

Our goal across all business activities is to use resources efficiently, respond to climate change, prevent pollution, enhance and protect the environment and our heritage.

OUR APPROACH

John Holland's four values of caring, empowering, imaginative and future-focused are the platform for our everyday interactions. We use these values to guide our approach to the environment.

Caring

We care deeply about what we do and how it affects the environment now and for the future by:

- Driving a strong culture to respect the environment across the business in our offices, on our projects and with our joint venture partners.
- Prioritising the environment, the community, sustainable products and resource efficiency in our decision making.
- Providing best practice training and education to our people to build awareness and capability to protect the environment and respect the communities in which we work and live.

Empowering

We gain trust through action by:

- Empowering our people, partners and subcontractors to speak up about how we can better protect and enhance the environment.
- Encouraging participation and collaboration to achieve sound environmental performance and outcomes.
- Driving accountability by ensuring everyone is responsible for valuing and protecting the environment.

Imaginative

We push the boundaries by:

- Focusing on continual learning and improvement by reviewing performance, capturing and sharing lessons learnt and celebrating successes.
- Exploring and introducing new technologies and approaches that minimise impacts on the environment and provide cost effective solutions that are resource efficient.
- Having a transparent critical risk management process that helps us to continuously identify opportunities and improvements to our systems and processes.

Future-focused

We're in it for the long, long term by:

- Exceeding our legislative, customer and other mandatory requirements.
- Establishing and maintaining an effective management system.
- Ensuring our work leaves a positive legacy for the communities we serve and the environments we operate in.

Joe Barr
Chief Executive Officer
January 2020

Appendix 2: Aspects, impacts, mitigation and legislation

The following table will be populated upon undertaking the project specific Workplace Risk Assessment

Aspect	Impact	Mitigation	Legislation and Principal requirements
Discharging water from site	Pollution entering waterway or ground	Appropriate erosion and sediment controls in place and regular site inspections by CPESC	POEO Act, CoA B20, B24, B25 and Project Brief
Waste Disposal	Pollution entering landfill	Vetting of all waste disposal locations and tracking of loads off sites Spoil permit process	POEO Act, CoA B19 and Project Brief, NEPM
Noise	Noise disturbance to local sensitive receivers	Undertake noise modelling to predict impacts Noise monitoring to validate model and effectiveness of mitigation measures	POEO act, CoA B18 and Project Brief
Use of raw materials and natural resources	Destruction of natural habitat	Procure enviro certified products Comply with ESD measures	Contract requirement
Energy use	Increase in GHG emissions	Use Bio mix diesel, purchase grid energy from green supplier	Contract requirement
Vibration	Damage to sensitive receivers	Monitoring and implementation of safe working distances	CoA B18
Contamination	Cross contamination of clean areas	Works to be completed as per RAP and CSWMP	CoA C33 - C35 RAP

			Interim Site Audit Statement
Contamination	Contamination of clean areas through spills etc	Works to be completed as per management plans Monitoring and implementing containment practices	POEO act
Heritage	Damage to heritage items	Monitoring Unexpected Finds Protocol	CoA B21, C25, C26
Biodiversity	Damage to trees	Tree protection Vegetation removal permit	CoA C17
Dust	Dust impacting adjacent sensitive receivers	Monitoring Dust suppression as per CSWMP	CoA B18, C18, C19

Appendix 3: Integrated Management System Procedures

IMS procedure references
Environment Management Manual JH-MAN-ENV-001
Strategic and Business Planning JH-MPR-BUA-020
Environment and Heritage Policy JHG-POL-GEN-002
Resource Planning JH-MPR-PPL-003
Project Launch JH-MPR-PMA-001
Planning and Programming JH-MPR-PMA-002
Environmental Planning JH-MPR-ENV-001
Managing SQE Risks JH-MPR-SQE-006
Global Mandatory Requirements 9 (JHG-STD-WHS-009,)
Learning and Development JH-MPR-PPL-020
Employee Records JH-MPR-PPL-021
Verification of Competency JH-MPR-PAE-005
Counselling and Disciplinary JH-MPR-PPL-012
Internal Design Management JH-MPR-DES-001
Management of Design Consultants JH-MPR-DES-002
Letting of Consultant, Subcontract, Supply Packages JH-MPR-PMA-005
Administration of Consultant, Subcontract or Supply Packages JH-MPR-PMA-006
Performance Rating of Subcontractors JH-MPR-QUA-004
Site Induction JH-MPR-SQE-001
Health Safety Management & Consultation Arrangements JH-MPR-WHS-004
Community Relations JH-MPR-CCM-005
Corporate Communications JH-MPR-CCM-004
Performance Statistics – Safety, Quality & Environment JH-MPR-SQE-009
Project Documentation Control Procedure JH-MPR-QUA-005
Inspection of Subcontracted Works JH-MPR-QUA-003
Hazardous Chemicals Management JH-MPR-SQE-011
Asbestos Procedure JH-MPR-WHS-024
Plant and Equipment JH-MPR-PAE-001
Managing Safety for Senior Leaders JH-MPR-WHS-020
Purchasing JH-MPR-PMA-004
Emergency Evacuation and Response JH-MPR-PMA-008
Monitoring and Review JH-MPR-SQE-002
Inspection, Testing and Surveillance JH-MPR-SQE-004
Workplace Hazard Identification and Inspection JH-MPR-WHS-006
Resource Use Reporting JH-MPR-ENV-002

IMS procedure references
Project Monthly Reporting and Reforecasting and Review JH-MPR-PMA-015
WHSR Planning JH-MPR-WHS-001
Independent Project Reviews JH-MPR-PMA-018
Non-conformance and Corrective Action JH-MPR-SQE-007
Incident and Event Management JH-MPR-SQE-010
Project Completion Procedure JH-MPR-PMA-016

Appendix 4: Environmental Control Plans

Environmental Control Plans	John Holland Ref
Construction Noise and Vibration Management Plan (CNVMP)	JHG-SCH-PM-PL-99-XX012
Construction Waste Management Sub-Plan (CWMP)	JHG-SCH-PM-PL-99-XX013
Construction Soil and Water Management Plan (CSWMP)	JHG-SCH-PM-PL-99-XX014
Aboriginal Cultural Heritage Management Sub-Plan	JHG-SCH-PM-PL-00-XX017
Construction Traffic and Pedestrian Management Plan (CTPMP)	JHG-SCH-PM-PL-99-XX021
Flood Emergency Response Plan (FERP)	JHG-SCH-ARP-TT-PL-94-XX01

Appendix 5: Unexpected finds protocol- Contamination

This Unexpected Contamination Finds Protocol (the Protocol) outlines the work requirements in the event of unexpected finds occurring during construction at the SCH1/MCCCC Project.

The aim of this Protocol is to manage the risk of potential exposure to asbestos/hazardous materials and limit disturbance from unexpected finds. All subcontractors are to adopt this protocol into their own site-specific SWMS based on individual tasks and associated risks where needed.

This Protocol has been prepared to satisfy Condition B15(b) in the SCH1/MCCCC development consent 10831778.

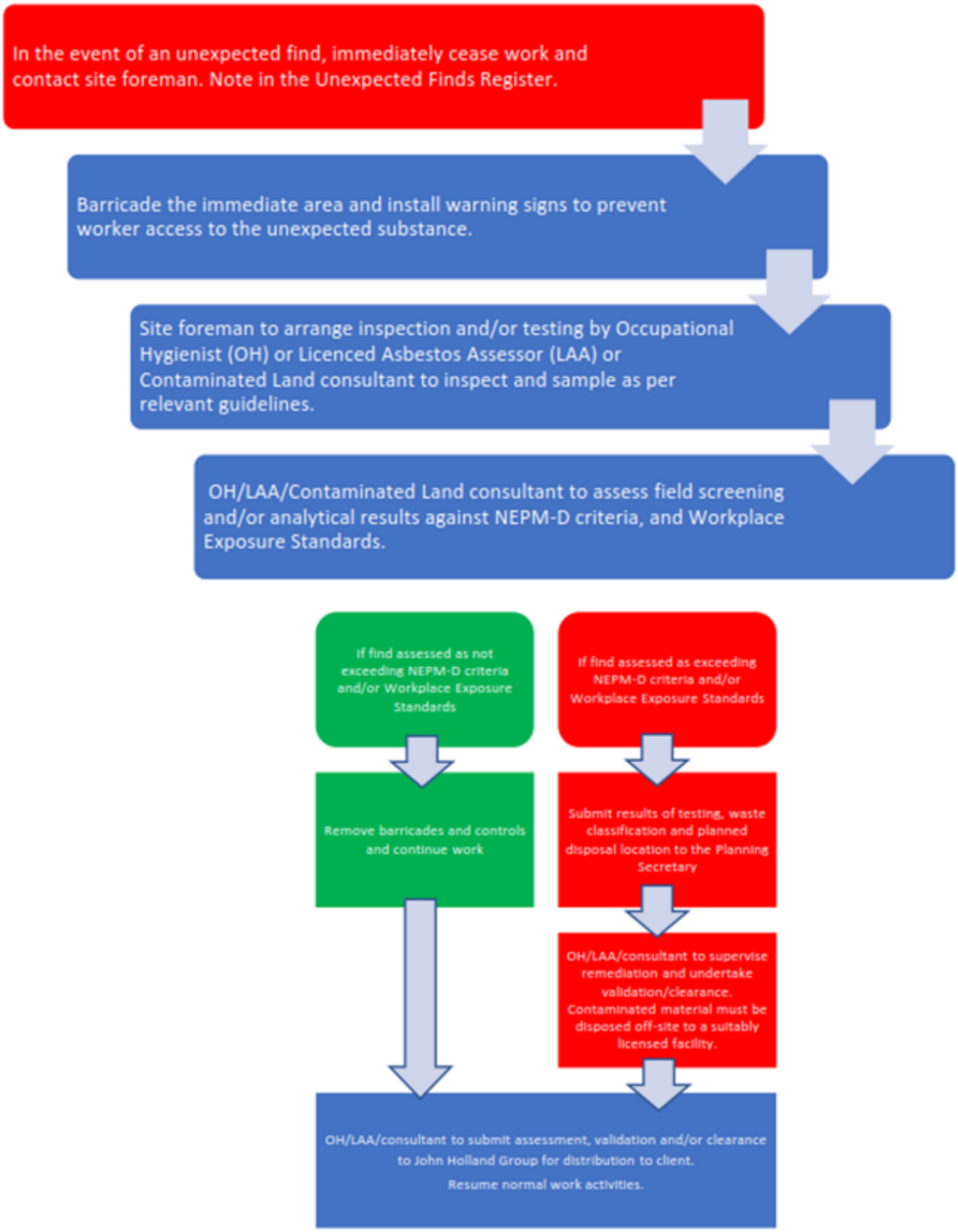
This unexpected finds protocol is also applicable to findings of potential heritage items. Based on findings of site history and site contamination investigation works undertaken at the site, unexpected finds which could reasonably occur within the site are summarised below.

Potential Unexpected Find	Observed Characteristic
Buried dry waste materials including asbestos	May include a variety of waste materials including wood, plastic, metal fragments, building rubble (e.g. concrete, brick, asphalt, forms of asbestos etc.).
Buried putrescible wastes	Putrescible waste materials typically comprise decomposed organic waste materials intermixed within the fill materials on site, with an associated characteristic rotten egg type odour. Such materials should not be confused with decomposed plant matter and/or marine sediments found within the natural sandy soils.
Previous site structures	- A buried tank or former process pipelines; - Deeper sand fill sometimes with visual/ olfactory indications of contamination - Presence of small concrete footings surrounded by odorous or visually impacted soils and/ or groundwater
Hydrocarbon Compounds	May be identified by a hydrocarbon odour which may vary in strength from weak (just detectable) to very strong (easily detectable at a distance from the source). The odour may or may not be accompanied by specific areas of dark staining (black-grey) or larger scale discolouration of strata from a previously identified 'natural colour' e.g. staining of orange and brown clay to dark grey and green. May also be visible as a distinct coloured sheen on water within an excavation.
Other unusual odours	Solvent/acetone odour Alcohol odour Caustic odour Acidic (Acetic/Formic/Citric) odour Ammonia odour Sulphur (rotten egg) odour

Douglas Partners undertook a Contamination Status Report (72505.23. R.001.Rev0) to further assess the contamination characteristics of the soils and groundwater in accessible areas of the site.

The RAP concluded that Subject to proper implementation of the RAP and validation reporting, DP considers that the site can be made suitable for the proposed redevelopment. The short-term exposure during remediation and construction works should not pose an unacceptable risk to workers provided adequate controls are in place. A long-term EMP will be required to manage the risks associated with the ACM-impacted soils that will be encapsulated on the site.

The aim of the procedure is to minimise the risk of potential exposure to hazardous substances and limit the disturbance of such substances. Workers should be inducted into the unexpected finds procedure and encouraged to notify the John Holland Group project manager or site foreman in the event that unexpected finds are encountered.


In the event of an unexpected find, immediately cease work and contact site foreman. Note in the Unexpected Finds Register.
Barricade the immediate area and install warning signs to prevent worker access to the unexpected substance.
Site foreman to arrange inspection and/or testing by Occupational Hygienist (OH) or Licenced Asbestos Assessor (LAA) or Contaminated Land consultant to inspect and sample as per relevant guidelines.
OH/LAA/Contaminated Land consultant to assess field screening and/or analytical results against NEPM-D criteria, and Workplace Exposure Standards.
If find assessed as not exceeding NEPM-D criteria and/or Workplace Exposure Standards
If find assessed as exceeding NEPM-D criteria and/or Workplace Exposure Standards
Remove barricades and controls and continue work
Submit results of testing, waste classification and planned disposal location to the Planning Secretary
OH/LAA/consultant to supervise remediation and undertake validation/clearance. Contaminated material must be disposed off-site to a suitably licensed facility.
OH/LAA/consultant to submit assessment, validation and/or clearance to John Holland Group for distribution to client.
Resume normal work activities.

Appendix 6: Unexpected finds protocol – Heritage

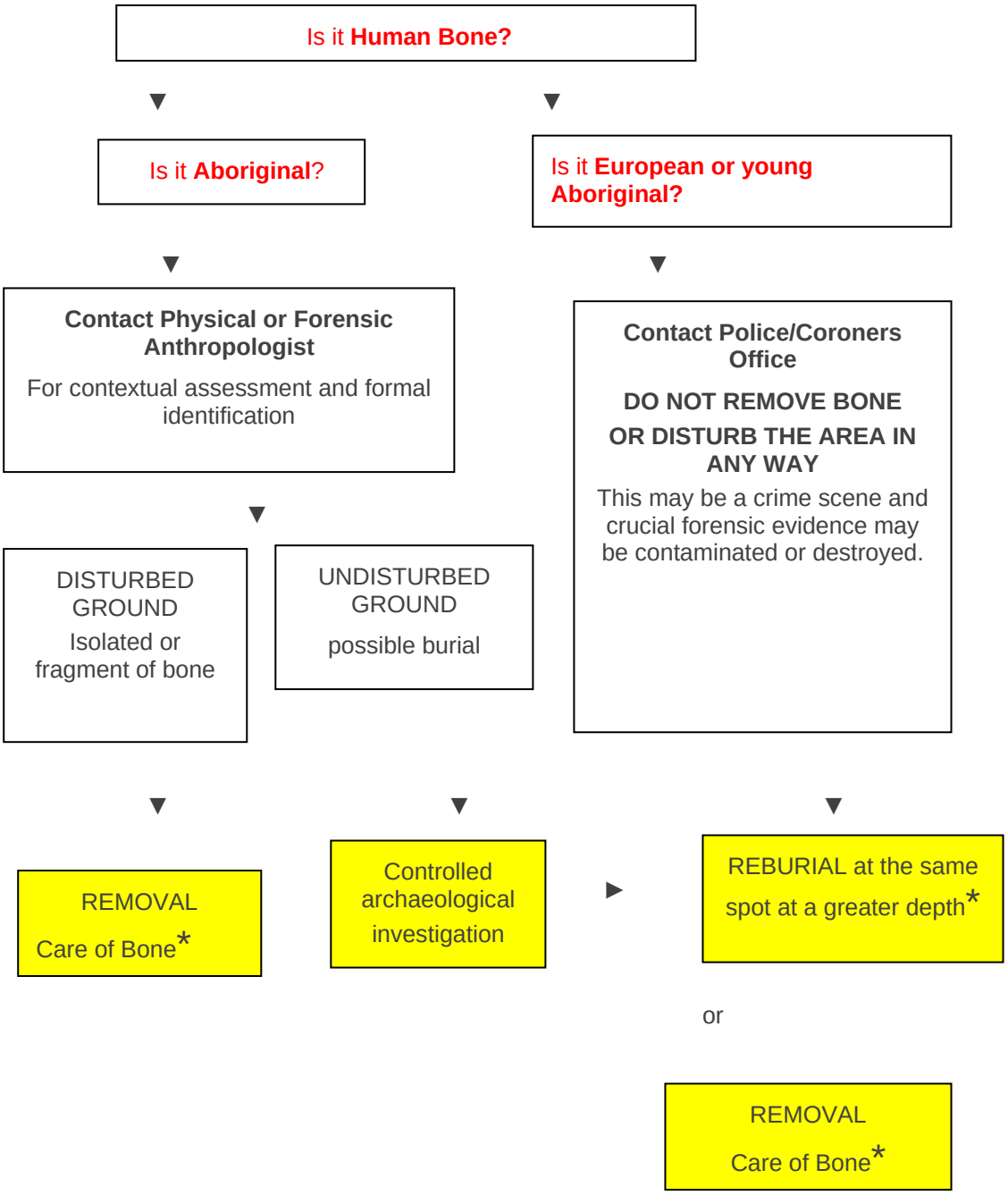
The following Unexpected finds protocol has been prepared by Mary Dallas Consulting Archaeologists to comply with the requirements of the SSDA 10831778 Conditions C25 and C26.

UNEXPECTED FINDS PROTOCOL

Unexpected Find items can include a potential Aboriginal burial site [Grave Cut, isolated bone or accompanying burial paraphernalia] or item of heritage or archaeological significance including unidentified bone fragments, non-local or brought in stone material, stone artefacts or, geomorphological anomalies [not expected at this site]. Unexpected finds items can also include archaeological relics including pottery, fragments of structures, bottles etc.

1. Cease work in the area immediately if a potential item has been discovered.
2. Contact the Site Manager, Construction Manager or PER Immediately. PWC and HI to be notified by JHG team.
3. Erect barricades to isolate the immediate area and prevent entry. Establish a buffer of 10m between the item and the barrier (as a minimum where possible)
4. The appropriate regulatory authorities/specialist will be notified as soon as possible. A suitably qualified archaeologist and the registered Aboriginal representative must be contacted to determine significance of the objects. If suspected historic heritage an archaeological assessment and management strategy may be required before further works can continue as determined in consultation with Heritage NSW
5. No person is to enter the barricaded area unless expressly permitted by the specialist Heritage Advisor/NSW Heritage/ Archaeologist. A clearance certificate or approval should be given in writing prior to entry. Sampling / inspection of the find is to be carried out by the specialist/authority as advised by the John Holland Group Construction Manager.
6. The nominated specialist Heritage Advisor/NSW Heritage/ Archaeologist in liaison with John Holland Group Construction Manager and senior site personnel and/or relevant authorities will determine if further management actions are necessary based on an available information.
7. If determined to be of significance or identified as a New aboriginal Object the site is to be registered in the Aboriginal heritage Information Management System, including management outcomes.
8. Consultation must be carried out with the Aboriginal community representatives, the archaeologists, and Heritage NSW as relevant to develop and implement management strategies. All permits to carry out additional actions are to be obtained prior to the commencement of any new works and the nominated specialist/authority must provide written clearance approval. It should be noted such approval may require an Aboriginal Heritage Impact Permit [NSW Heritage AHIP]. Works may only recommence with the written approval of the Planning Secretary
9. The barricade may then be removed, and work activities may resume under the direction of the John Holland Construction Manager and the Specialist Heritage advisor and NSW Heritage.
10. Construction works may then re-commence.

Chart showing steps to follow when bone is uncovered.



* **These procedures to be determined by LaPerouse LALC**

Appendix 7: EMP Preparation Checklist B14.

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? (Section 4.1)		N/A
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 4.1)		N/A
Has the EMP been internally approved by an authorised representative of the proponent or contractor? (Section 4.2)	Cover page	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 3.5.1)	Appendix 3 Section 4.4	Yes
Does the EMP include the required general content and version control information? (Section 3.1)	Section 1 Cover page	Yes
Does the EMP have an introduction that describes the project, scope of works, site location and any staging or timing considerations? (Section 3.2)	Section 2.1 Section 2.4	Yes
Does the EMP reference the project description? (Section 3.3)	Section 2.4	Yes
Does the EMP reference a Community and Stakeholder Engagement Plan (or similar) or include community and stakeholder engagement actions (if required)? (Section 3.4)	Section 4.6	Yes
Have all other relevant approvals been identified? Has appropriate information been provided regarding how each approval is relevant? (Section 4)	Section 3.2	Yes
Has the environmental management structure and responsibilities been included? (Section 3.5.2)	Section 3.1	Yes
Does the EMP include processes for training of project personnel and identify how training and awareness needs will be identified? (Section 3.5.3)	Section 3.4	Yes
Does the EMP clearly identify the relevant legal and compliance requirements that relate to the EMP? (Section 3.5.3)	Section 3.2	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 3.5.13)	Table 1 Section 2.3	Yes
Have all relevant guidelines, policies and standards been identified, including details of how they are relevant? (Section 3.5)	Section 3.2	Yes
Is the process that will be adopted to identify and analyse the environmental risks included? (Section 3.5.5)	Section 4.4 and 5.6	Yes
Have all the environmental management measures in the EIA been directly reproduced into the EMP? (Section 3.5.7)	Table 3 Section 2.3.1	Yes
Have any additional environmental management measures been included in the EMP? (Section 3.5.7)	Appendix 3 and 4	Yes

Requirement	Plan reference	Yes/No/Not applicable
Have environmental management measures been written in committed language? (Section 3.5.7)	Section 4.5	Yes
Have project environmental management measures, including hold points, been identified and included? (Section 3.5.6)	Section 4.5 Appendix 4	Yes
Are relevant details of environmental monitoring that will be carried out included? (Section 3.5.8)	Section 5.5 Appendix 4	Yes
Have the components of any environmental monitoring programs been incorporated? (Section 3.5.8)	Section 5.1 Appendix 4	Yes
Are environmental inspections included? (Section 3.5.9)	Section 5.1	Yes
Does the EMP document all relevant compliance monitoring and reporting requirements for the project? (Section 3.5.12 and 3.5.13)	Section 5.1 and 5.2	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? (Section 3.5.10)	Section 4.7 Appendix 4	Yes
Does the EMP list environmental management documents? (Section 3.5.11)	Appendix 3 Appendix 4	Yes
Is an auditing program referenced? (Section 3.5.13)	Section 5.3	Yes
Does the EMP include the incident notification and reporting protocols that comply with the relevant conditions of consent? (Section 3.5.15)	Section 5.4	Yes
Does the EMP identify the project role/position that is responsible for deciding whether an occurrence is an incident? (Section 3.5.15)	Section 5.4.1	Yes
Does the EMP describe a corrective and preventative action process that addresses the requirements? (Section 3.5.16)	Section 5.4	Yes
Does the EMP include details of a review and revision process that complies with the requirements? (Section 3.6)	Section 5.5 and 5.6	Yes

Appendix 8 Erosion Sediment Control Plan