

## **Sydney Football Stadium Redevelopment Stage 2**

Construction Environmental Management Plan SFS-JHG-00-PLN-PM060000

SSD-9835



## **TABLE OF CONTENTS**

Ta	able of Contents	2
1	Revisions and distribution	4
	1.1 Revisions	4
	1.1.1 Distribution list	4
2	Compliance matrix	5
3	References, definitions and abbreviations	7
	3.1 Definitions and abbreviations	7
4	Scope of the Environmental Management Plan	8
	4.1 Approach	9
	4.2 Legislative and client requirements	9
	4.3 Needs and expectations of interested parties	9
5	Context of the Project	11
	5.1 Project context	11
	5.2 Project Scope	11
	5.3 The site	13
	5.3.1 Event and standard working hours	13
	5.3.2 Sensitive receivers	15
	5.3.3 Site Contact	15
6	Leadership	16
	6.1 Leadership and commitment	16
	6.2 Environment Policy	16
	6.3 Project roles, responsibilities and authorities	17
7	Planning	19
	7.1 Environmental aspects and impacts	19
	7.2 Environmental objectives	19
	7.3 Compliance obligations	20
8	Support	21
	8.1 Resources	21
	8.2 Competence, awareness and training	21
	8.3 Communication	23
	8.3.1 Internal communication	23
	8.3.2 External communication and complaints	24
	8.4 Documentation	25
9	Operation	26
	9.1 Operational planning and control	26
	9.1.1 Managing SQE risks procedure	26
	9.1.2 Global mandatory requirements	27
	9.1.3 HSE behavioural framework	27
	9.1.4 Fire Precautions during construction	29
R	Revision No: C Document Number: SFS-JHG-00-PLN-PM060000	Page 2 of 54



9.1.5	Working near Ausgrid cables	29	
9.1.6	Construction lighting	30	
9.1.7	Outsourced processes	30	
9.1.8	Other operational controls	30	
9.2 Eme	rgency preparedness and response	31	
10 Performa	ance evaluation	32	
10.1 Mon	itoring, measurement, analysis, evaluation and reporting	32	
10.2 Inter	nal audit	33	
10.2.1	General	33	
10.3 Man	agement review	34	
11 Improver	ment	36	
11.1 Incid	lents, non-conformity and corrective action	36	
11.2 Acco	ountable Culture Tool	36	
11.3 Cont	tinual improvement	37	
Appendix 1	- Not Used	38	
Appendix 2:	: Aspects, impacts, mitigation and legislation	39	
Appendix 3:	Integrated Management System Procedures	40	
Appendix 4:	Environmental Control Plans	43	
Appendix 5:	: John Holland Environmental Policy	44	
Appendix 6: Unexpected finds protocol			
Appendix 7: Arborist Team a			
Appendix 8: Ausgrid safe work practiCes			



## 1 REVISIONS AND DISTRIBUTION

#### 1.1 Revisions

Draft issues of this document are identified as Revision 1, 2, 3, etc. Upon initial issue (generally Contract Award), this will be changed to an alphabetical revision. Revisions will continue at Revision A, B, C etc.

Rev	Date	Prepared By	Reviewed By	Approved By	Remarks
1	28/10/2019	M. Stephenson	D. Carroll	M. Bourne	Final for tender
2	08/01/2020	M. Stephenson	M. Males		For Review
3	29/01/2020	M. Stephenson	S. Maclaren		Issued for INSW Review
А	3/5/2020	C. Newling	S. Maclaren		Issued for Construction (Old Doc No.: SFS-JHG-PLN-CEMP-001)
В	13/01/2020	S. Maclaren	M. Chapple	S. Maclaren	Incorporate Stadium Fitness Facilities (SSD 9835 Modification No.2). Update all GMR references
С	1/11/2021	H. Hofland			Incorporate Roosters Centre of Excellence (SSD Modification 6)

#### 1.1.1 Distribution list

Client's 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
Public	Available online INSW / DPIE website.
Project Personnel	Available on Request
Client's 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
Public	Available online INSW / DPIE website.
Project Personnel	Available on Request

The controlled master copy of this document is maintained on Aconex and available for distribution as required. All hard copies of this document are deemed to be uncontrolled.



## **2 COMPLIANCE MATRIX**

The following compliance matrix demonstrates the alignment of this John Holland Construction Environment Management Plan (CEMP) with conditions B22 (table1) of the SSD 9835, approved on 6 December 2019.

Table 1: Condition B22

Cons	truction Environmental Management Plan requirements	Reference
	recommendations and management measures in the Construction Management Plan prepared by Lendlease dated 31/05/2019 and any supplementary information and/ or updated versions with additional measures submitted to the Planning Secretary;	Throughout this CEMP and Sub-Plans
(b)	relevant mitigation measures listed in Appendix 3;	
(c)	Details of:	
(i)	hours of work, including details regarding 'event mode' when events are taking place at the SCG;	See section 5.3.1
(ii)	24-hour contact details for the site manager;	See section 5.3.3
(iii)	procedures for encountering groundwater during construction works and measures to prevent groundwater contamination (particularly relating to the existing underground storage tanks);	See Appendix 4: CSWMP Groundwater is unlikely to be encountered due to low excavation depths. No significant excavation works will occur around the tank
(iv)	construction material storage;	See Appendix 4 - CSWMP, CWMP & CAQMP
(v)	external construction lighting in compliance with AS 4282-1997 Control of the obtrusive effects of outdoor lighting;	See Section 9.1.6
(vi)	community consultation and complaints handling;	See section 8.3.2
(vii	the Project Arborist appointed for the construction phase of the development with appropriate qualifications;	See Appendix 7 and CBDMP
(vii	i) an updated <i>Methodology Statement- Working Near Busby's Bore</i> prepared by Infrastructure NSW dated September 2018, specifically including the details of the proposed works in this development consent;	See Appendix 4- HMP
(ix)	details of fire precaution measures in accordance with Clause E1.9 - Fire precautions during construction, of the National Construction Code 2019, Volume One, Building Code of Australia (NCC);	See section 9.1.4
(x)	details of location of the Booster Facilities for the fire hydrants (temporary or otherwise) adjacent to the vehicle entry to the construction site at Paddington Lane (unless otherwise agreed by Fire and Rescue NSW);	See section 9.1.4 figure 6
(xi)	details of management of construction works on the site to minimise or eliminate any adverse impacts on the operation of the public events within Moore Park precinct;	See section 5.3.1 -
(xii	details of management of construction works on the site during events at SCG; and	See section 5.3.1
(xii	i) details of standard measures for undertaking works near Ausgrid cables on Driver Avenue and any notification requirements.	See Appendix 8
(d)	Construction Waste Management Sub-Plan (see condition B24);	See Appendix 4 - CWMP
(e)	Construction Soil and Water Management Sub-Plan (see condition B25);	See Appendix 4 - CSWMP



Con	Construction Environmental Management Plan requirements Reference				
(f)	Construction Air Quality Sub-Plan (see condition B26);	See Appendix 4 – CAQMP			
(g)	Construction Biodiversity Management Sub-Plan (see condition B27);	See Appendix 4 - CBDMP			
(h)	a detailed unexpected finds protocol for contamination and associated communications procedure being consistent with the <i>Unexpected Contamination Finds Protocol_V2.1</i> prepared by Lendlease dated June 2019 and including a chain of responsibilities for undertaking the unexpected finds protocol;	See Appendix 6			
(i)	a procedure for unexpected finds for asbestos containing material; and	See Appendix 6			
(j)	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.	See Appendix 4 – CWMP CSWMP Remediation Action Plan			



## 3 REFERENCES, DEFINITIONS AND ABBREVIATIONS

#### 3.1 Definitions and abbreviations

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

Table 2: Definitions and abbreviations

Term/abbreviation	Definition	
Client	Infrastructure NSW	
Client's Representative	The person appointed by the client to perform the duties of the 'Superintendent' as defined in the contract	
CoA	Conditions of Approval	
CoE	Roosters Centre of Excellence	
Compliance Matrix	The requirements for this Environmental Management Plan laid out in the General Conditions of Contract for the Sydney Football Stadium Redevelopment Stage 2	
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	
MP1	Sydney Football Stadium carpark facility to be reinstated upon completion of construction	
EMS	John Holland's Environmental Management System	
OEM	Operations Environment Manager	
WH&S	Workplace Health and Safety	
SCSGT	Sydney Cricket and Sports Ground Trust	
SFSR	Sydney Football Stadium Redevelopment Stage 2	
SFF	Stadium Fitness Facility	
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 Football Stadium Redevelopment Stage 2	
CTMP	Construction Traffic 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.	



## 4 SCOPE OF THE ENVIRONMENTAL MANAGEMENT PLAN

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.

Revision No: C

The CEMP provides a 'roadmap' that links the relevant legislative and client 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. Level 2 documents 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.

Document Number: SFS-JHG-00-PLN-PM060000 Page 8 of 54



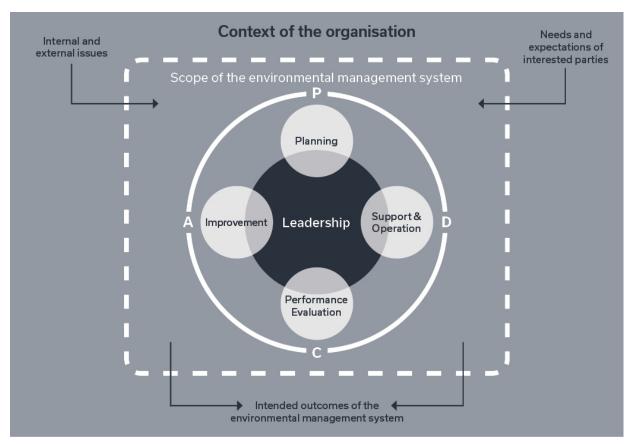


Figure 1: Overview of the Project specific interested parties, needs and expectations and compliance obligations

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

## 4.1 Approach

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

John Holland will prepare a compliance monitoring and reporting program to satisfy CoA A52 to A54.

## 4.2 Legislative and client requirements

The Sydney Football Stadium Redevelopment project operates under the SSD 9835 Development Consent Conditions approved by the Minister for Planning and Public Spaces on 6 December 2019.

## 4.3 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 3 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
Client INSW Contracts, agreements		Yes – Contractual
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
Environmental Management Plan; in particular the Interested Parties Table above	Project Environment Representative	Project Pack Web- Document Management System <u>or</u> Aconex
Obligations Register	Project Environment Representative	Project Pack Web- Document Management System <u>or</u> Aconex



#### 5 CONTEXT OF THE PROJECT

## 5.1 Project context

The Project have determined external and internal issues that are relevant to the project purpose and that affect its ability to achieve the intended outcomes of the EMS. An overview of the Project specific external and internal issues that are relevant is provided below;

- 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

## 5.2 Project Scope

The Sydney Football Stadium Redevelopment Stage 2 and the Stadium Fitness Facility (SFF) projects (in this document both are jointly referred to as the Project) are an Infrastructure NSW initiative to build a new rectangular stadium. The Project is part of the SCSGT Precinct, adjacent to the SCSGT and part of the wider Moore Park sports and entertainment precinct,

The Sydney Football Stadium Redevelopment Stage 2 works include Detailed design, construction and operation of a new stadium comprising

- · construction of the stadium, including:
  - 45,000 seats (additional 10,000 person capacity in the playing field in concert mode) in four tiers including general admission areas, members seating and corporate *I* premium seating;
  - roof cover over all permanent seats and a rectangular playing pitch;
  - a mezzanine level with staff and operational areas;
  - internal pedestrian circulation zones, media facilities and other administration areas on the seating levels:
  - a basement level (at the level of the playing pitch) accommodating pedestrian and vehicular circulation zones, 50 car parking spaces, facilities for teams and officials, media and broadcasting areas, storage and internal loading areas;
  - · food and drink kiosks, corporate and media facilities; and
  - four signage zones.
- construction and establishment of the public domain within the site, including:
  - hard and soft landscaping works;
  - publicly accessible event and operational areas;
  - public art; and
  - provision of pedestrian and cycling facilities.
- wayfinding signage and lighting design within the site;
  - reinstatement of the existing Moore Park Carpark 1 (MP1) upon completion of construction works with 540 at-grade car parking spaces and vehicular connection to the new stadium basement level;
  - operation and use of the new stadium and the public domain areas within the site for a range of sporting and entertainment events; and
  - extension and augmentation of utilities and infrastructure.

To date, SSD 9835 has been modified on six previous occasions as summarised in Table 1.

#### **Table 4 Modifications to SSD 9835**

Revision No: C

Modification	Approved	Description
Modification 1	3 April 2020	Amend Conditions B14 and B15 to enable the condition to be satisfied in accordance with the

Document Number: SFS-JHG-00-PLN-PM060000 Page 11 of 54



		principles and framework prescribed by the Contaminated Land Management Act 1997.
Modification 2	14 December 2020	Reinstate fitness facilities that were previously available within the former SFS.
Modification 3	7 December 2020	Alter the approved mezzanine slabs at the eastern and western stands and relocate the approved administration facilities. design amendments to the south western glazed façade. inclusion of an additional stadium signage condition.
Modification 4	22 April 2021	Relocate the photovoltaic (PV) cells from the stadium's roof to Level 5 (above the eastern and western plant rooms) and a reduction in the amount of kilowatts peak (kWp) generated.
Modification 5	8 June 2021	Minor modification to correct plan revisions and dates.
Modification 6	29 September 2021	Fit-out, use and operation of the eastern mezzanine of the stadium for the purpose of a dedicated training and administration facility for the Sydney Roosters NRL football club, known as the Sydney Roosters Centre of Excellence.

The Sydney Roosters Centre of Excellence is a modification to the fit-out, use and operation of the eastern mezzanine of the SFS, as such is included in the staging for SFS and does not need to be staged separately. The Sydney Roosters Centre of Excellence will be delivered as part of CC5.

Table 2 SFS Staging

CC No.	Proposed works	Duration	Start Date	Finish Date
CC1	Bulk earthworks, retaining walls, enabling and temporary works (for example shoring) to facilitate future stages.	11 months	March 2020	February 2021
CC2	Stadium sub-structure elements including piles, foundations, footing construction and in-ground services	7 months	April 2020	October 2021
CC3	Structure - basement to concourse level construction.	9 months	July 2020	March 2021
CC4	Above concourse level works (structure – Level 1 to Level 5)	7 months	November 2020	May 2021
CC5	Roof, façade, fit-out and remaining elements.	18 months	February 2021	July 2022

The Stadium Fitness Facility (SFF) scope is as follows:

The Stadium Fitness Facility (SFF) is owned and operated by Venues NSW and provides fitness amenities for members of the Sydney Cricket and Sports Ground.

Stadium Fitness Facilities is integrated into the SFS redevelopment and will reinstate the facilities that operated in conjunction with the former, demolished stadium on the site. The proposed Stadium Fitness Facilities comprise:

A low level pavilion building located behind the southern entry abutment wall and a basement level structure, which is largely integrated into the under-croft space beneath the approved SFS entry stairs to accommodate

1. Gymnasium, training area and three group fitness areas.



- 2. Two squash courts, sauna, spa and steam room as well as wet and dry change rooms.
- 3. Day spa and treatment rooms
- 4. Café with indoor and outdoor seating
- 5. 25 metre (m) and a 50m open-air swimming pool.
- 6. Function spaces on the rooftop, poolside and at the café for members and their guests.
- 7. Basement level plant and equipment, landscaping and associated services.

The Stadium Fitness Facilities will largely occupy the vacant under-croft space below the SFS entry stairs, being largely imperceptible and occupying land that already forms part of the approved SFS redevelopment footprint. A modest pavilion building, swimming pools, and minor outdoor structures will also occupy land that was formerly used for the Indoor Cricket Centre, part of the Sydney Cricket Ground's (SCG) practice area, part of a tennis court, and part of the wall extending from the Moore Park Terraces to the south along Driver Avenue. This small area of additional land is controlled by Venues NSW and has been integrated into the site as part of the Stage 1 SSD DA (9249).

Table 3 SFF Staging

CC No.	Proposed Works	Duration	Start Date	Finish Date
CC1	Demolitions works, piling, civils including retaining walls	5 months	February 2021	July 2021
CC2	In-ground services, substructure, structure to L0 including pools	7 months	April 2021	November 2021
CC3	Remaining structure, façade, services	10 months	May 2021	March 2022
CC4	Interiors	12 months	July 2021	July 2022

#### 5.3 The site

The site is located at 40-44 Driver Avenue, Moore Park within the Sydney Cricket Sports Ground Trust (SCSGT) Precinct bounded by Moore Park Road to the north, Paddington Lane to the east, the existing SCSGT stadium to the south, Driver Avenue to the west, and is located within the City of Sydney local government area.

The site is legally described as Part Lots 1528 and 1530 in Deposited Plan 752011 and Lot 1 in Deposited Plan 205794 and is Crown Land, with the SCSGT designated as the sole trustee under the Sydney Cricket and Sports Ground Act 1978.

The site is largely surrounded by Centennial and Moore Parks, the Fox Studios and Entertainment Quarter precincts and the residential suburb of Paddington.

The site is approximately 3km from the Sydney CBD and approximately 2km from Central Station, is connected to Sydney's transport network through existing bus routes and will benefit from a dedicated stop on the Sydney CBD and South East Light Rail.

#### 5.3.1 Event and standard working hours

As per approved conditions the site will operate all works between:

7am and 6pm Monday to Friday; and

8am to 1pm Saturday.

As per approved conditions where events take place within our working hours, the project will cease all construction works and heavy vehicular movements no later than 2 hours prior to event start time, throughout



the event and no sooner than 2 hours after the event finish time. Further consultation and coordination may be required with the SCSGT on event day shutdowns including confirmation of any works that the SCGST is permitting, the limitations on this work and the agreed management measures to mitigate any impacts.

The above-mentioned hours have been accounted for within the construction program and are to be communicated through induction and stipulated within contracts where applicable.



#### 5.3.2 Sensitive receivers

Busby's Bore is an archaeologically significant former water management facility owned by Sydney Water that runs beneath the northern portion of the site along Moore Park Road, and also branches beneath the MP1 car park. This is a State Heritage Item listed on Sydney Water's Section 170 Heritage and Conservation Register, and significant for being Sydney's sole fresh water source in the early 1800's.

Kippax Lake is situated within the site-adjacent Moore Park. The lake is a habitat for aquatic birds and has been fitted with a nesting pontoon for Black swans. Additionally, overland flow typically drains into Kippax Lake during flooding events.

The locational and boundaries of the site as shown prior to demolition works are shown below in Figure 2.

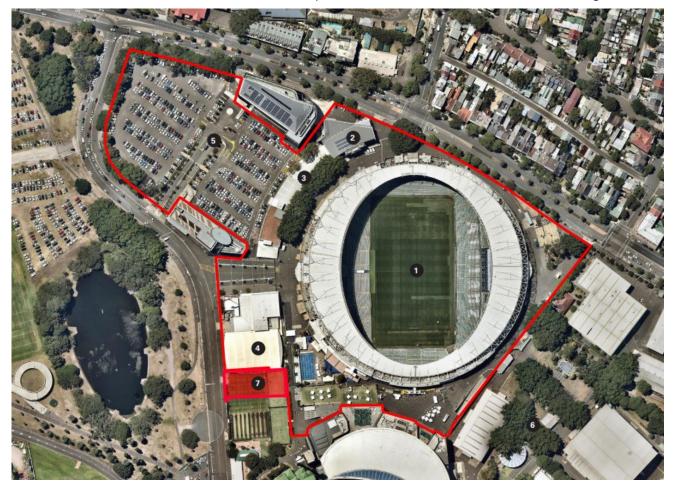


Figure 2: Site boundaries and structures: 1. Allianz stadium 2. Sheridan Centre 3. Sydney Roosters 4. Cricket NSW 5. MP1 Carpark 5. Fox Studios 7. Extension of boundary for the Stadium Fitness Facility

#### 5.3.3 Site Contact

The site contact number is 1800 414 020. Due to 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 immediately referred to the site manager on duty, or other relevant project personnel.



#### 6 LEADERSHIP

## 6.1 Leadership and commitment

#### **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.

## **6.2 Environment 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 5 for the John Holland Environment policy.

Required Project documentation			nd tools to be nanage docum	
Environment Policy	Chief Executive Officer	Integrated (IMS)	Management	System



## 6.3 Project roles, responsibilities and authorities

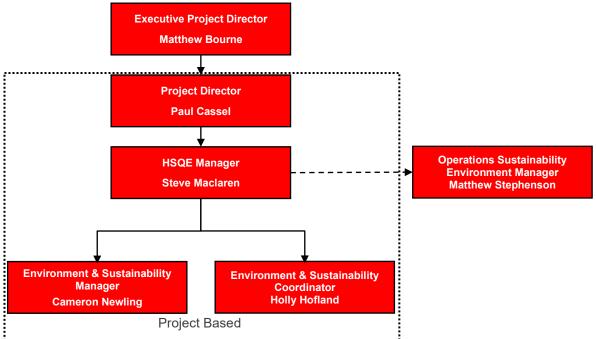


Figure 3: John Holland's Project environmental roles and responsibilities

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 5: Overview of critical roles

Responsibilities and authorities		
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		
Overseeing the Project Overarching operational responsibility for environmental impacts on site		
Responsible for overseeing HSEQ management and performance on site		
<ul> <li>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</li> </ul>		
<ul> <li>Day to day responsibility and authority for reporting on the performance of the EMS (as applied on the Project) to top management</li> <li>Ensure correct and ongoing implementation of CEMP</li> </ul>		



Role	Responsibilities and authorities		
	Liaise with project staff for ongoing monitoring and maintenance of environmental controls		
	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 client 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 of the above activities		
	Audit and assessment of project environment & sustainability performance against John Holland EMS and LEED v4 assessment.		

Required documentation	Project	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



### 7 PLANNING

## 7.1 Environmental aspects and impacts

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 Environmental Management Plan; in particular, the Environmental Aspects Appendix 2	Project Environment Representative	Project Pack – Document Management System <u>or</u> Aconex
Workplace Risk Assessment	Project Manager	Project Pack Web

## 7.2 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 6: 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	LEED v4 – Gold rating

<sup>\*</sup>normalised against man hours worked, calculated on a rolling 12-month basis

<sup>\*\*</sup>Excludes soil that cannot be reused or recycled

Required Project documentation	John Holland tools to be used by Project to manage documentation
This Environmental Management Plan, in particular the Objectives Table above	Project Pack – Document Management System or Aconex

Page 19 of 54



## 7.3 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 9835 Conditions of Approval
INSW 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
Obligations Register	Project Environment Representative	Project Pack Web
Environmental Control Plans: Noise and Vibration Air Quality Waste Soil and Water / Erosion Heritage Unexpected Finds	Project Environment Representative	Project Pack – Document Management System or Aconex
Site Environment Plan (SEP)	Project Environment Representative	Project Pack – Document Management System or Aconex
Sustainability Management Plan	Operational Sustainability & Environment Manager	Project Pack – Document Management System or Aconex
Obligations Register	Project Environment Representative	Project Pack Web
John Holland system requirements	Project Environment Representative	Integrated Management System



## 8 SUPPORT

#### 8.1 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
Schedule	Planning Representative	Produced using P6 Primavera, recorded in Project Pack – Document Management System or Aconex
Budget	Commercial Representative	Project Cost Reporting
Organisation Chart	HR Representative	Project Pack – Document Management System or Aconex
Position Descriptions	HR Representative	Performance Management and Development System
Sub consultant agreements	Commercial Representative	Project Pack – Subcontract Management Pack
Subcontractor agreements	Commercial Representative	Project Pack – Subcontract Management Pack
Supplier agreements	Commercial Representative	Project Pack – Subcontract Management Pack

## 8.2 Competence, awareness and 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 W Drive – for external personnel
Education, training, experience, verification of competency records - for individuals	HR Representative	Chris 21 – for JH personnel W Drive and/or Project Pack – 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	Project Pack – Subcontract Management Pack
Subcontractor HSEQ Deliverables	Commercial Representative	Project Pack – Subcontract Management Pack
Project Online Induction	L&D Representative	e-learning Centre
Induction attendance records	HR Representative	Chris 21 – for JH personnel W Drive and/or Project Pack – for external personnel
Project Orientation	Project Environment Representative	Project Pack – Document Management System or Aconex
Site Orientation attendance records	HR Representative	Chris 21 – for JH personnel W Drive and/or Project Pack – for external personnel
Pre-start Meetings and attendance records	Supervisor(s)	W Drive and/or Project Pack
Toolbox Meetings and attendance records	Supervisor(s)	W Drive and/or Project Pack
HSEQ Alert briefing records	HSEQ Representative	W Drive and/or Project Pack



#### 8.3 Communication

#### **EMS** reference

Stakeholder Management Plan and Community Consultation Strategy (Project Specific)

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:

- Taken into account 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.

John Holland has developed a dedicated project specific Stakeholder Management and Community Engagement plan to ensure stakeholders and the community are consulted and informed.

#### 8.3.1 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, client 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 JHET.

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



Required Project documentation	Responsibility	John Holland tools to be used by Project to manage documentation
Communication records - general	All personnel	Project Pack – Office Correspondence or Aconex
Meeting minutes	All personnel	Project Pack – Office Correspondence or Aconex
Reports	All personnel	Project Pack – Office Correspondence or Aconex
Event Notifications	HSEQ Representatives/Project Manager	John Holland Event Tracker

#### 8.3.2 External communication and complaints

EMS reference
Community Relations JH-MPR-CCM-005
Corporate Communications JH-MPR-CCM-004

The Project will externally communicate information relevant to the EMS, as established by John Holland's communication processes and as required by its compliance obligations.

External notification of events will be via the Project Manager as required.

All enquiries and complaints will be managed in accordance with the Community Consultation Strategy and project specific Stakeholder Management and Community Engagement Plan. Verified complaints will be managed as per an event.

Required Project documentation	Responsibility	John Holland tools to be used by Project to manage documentation
Communication records – client and regulators	Project & Operations Environment Manager	Project Pack – Office Correspondence or Aconex
Communication records – design consultants	Design Representative	Project Pack – Office Correspondence or Aconex
Communication records – subcontractors and suppliers	Commercial Representative	Project Pack – Office Correspondence or Aconex
Communication records - community	Stakeholder and Community Relations Manager	Project Pack – Office Correspondence or Aconex
Meeting minutes	Project Manager	Project Pack – Office Correspondence or Aconex
Reports	Project Manager	Project Pack – Office Correspondence or Aconex
Media release Community Stakeholder	Project Manager & Communications & Stakeholder and Community Relations Manager	Via John Holland External Affairs only
Community and Stakeholder Engagement Management Plan	Stakeholder and Community Relations Manager	Project Pack – Office Correspondence or Aconex



#### 8.4 Documentation

#### **EMS** reference

Project Documentation Control Procedure JH-MPR-QUA-005

The John Holland EMS includes:

- a) documented information required by the Standard;
- b) 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 EMP is a 'live' and 'working' document. The SFS Project Environment Representative/HSEQ Manager will conduct regular reviews of the EMP at intervals of not less than six months and ensure that the EMP 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		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 EMP	Project Manager	See relevant sections of this plan



#### 9 OPERATION

## 9.1 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 JH-MPR-WHS-024

Plant and Equipment JH-MPR-PAE-001

#### 9.1.1 Managing SQE 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)
  - o 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.
  - o 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
  - o 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

Page 26 of 54



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		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

#### 9.1.2 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 three environmental GMRs are outlined below:

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

#### 9.1.3 HSE behavioural framework

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

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').



Theme	Everyone	Supervisors	Managers
Standards	Follow rules	Ensure compliance	Set high standards
Communication	Speak up	Encourage the team	Communicate openly
Risk Management	Be mindful	Promote risk awareness	Confront risk
Involvement	Get involved	Involve the team	Involve others

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

Figure 5: Example of specific HSE Behaviours

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



#### 9.1.4 Fire Precautions during construction

All fire precaution measures implemented during in 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 vehicle entry to the construction site at Paddington Lane is indicate in the below drawing.

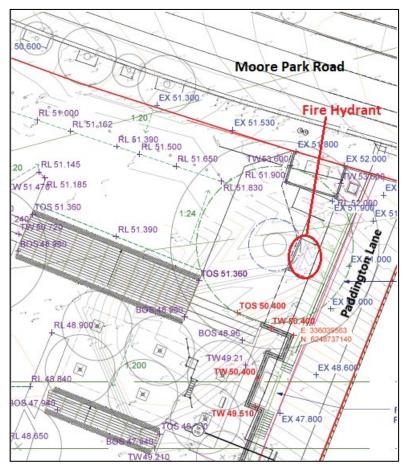


Figure 6

#### 9.1.5 Working near Ausgrid cables

All ground works to be undertaken in accordance with Ausgrid protocols, see Appendix 7 and the Construction Management Plan for further details.



#### 9.1.6 Construction lighting

All external construction lighting will be established and used in compliance with AS 4282-1997 Control of the obtrusive effects of outdoor lighting. Lighting will be installed in coordination with and consideration of neighbouring properties.

#### 9.1.7 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	Project Pack – Subcontract Management Pack <u>or</u> Aconex
Sub consultant, sub-contractor, supplier agreements	Design/Commercial Representative	Project Pack – Subcontract Management Pack <u>or</u> Aconex
Sub consultant, sub-contractor, supplier HSEQ deliverables	Design/Commercial Representative	Project Pack – Subcontract Management Pack <u>or</u> Aconex

### 9.1.8 Other operational controls

EMS reference
Hazardous Chemicals Management JH-MPR-SQE-011
Asbestos Procedure JH-MPR-WHS-024 JH-MPR-WHS-024
Plant and Equipment JH-MPR-PAE-001

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		Project Pack – Document Management System or Aconex
Archaeology unexpected finds protocol	Environment Manager	
Plant and Equipment Register	Project Engineer	Project Pack Web

Page 30 of 54



## 9.2 Emergency preparedness 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		John Holland tools to be used by Project to manage documentation
Emergency Response Plan	Project Manager	Project Pack – Document Management System or Aconex
Emergency Response Exercise Checklist/Records	HSEQ Representative	Project Pack – Office Correspondence or Aconex



#### 10 PERFORMANCE EVALUATION

## 10.1 Monitoring, measurement, analysis, evaluation and reporting

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.

Revision No: B Document Number: SFS-JHG-PLN-CEMP-001 Page 32 of 54



Required Project documentation	Responsibility	John Holland tools to be used by Project to manage documentation
Site Diary (daily)	Supervisor(s)	Project Pack Web
Weekly General Inspections	Workplace Manager	JHET
High Risk Inspections	Workplace Manager	JHET
Subcontractor HSEQ Deliverables (pre-mob and monthly thereafter)	Commercial Representative	Project Pack – Subcontract Management Pack
GMR Self-Assessments (monthly)	Workplace Manager	JHET
Resource usage (energy, water, etc) data (monthly)	Commercial Representative & PER	PCR & Project Pack Web
Concrete and steel consumption data (monthly)	Project Engineer	Aconex
Waste data (monthly)	PER & CA	Project Pack Web
Approvals and Licences Register Status (monthly)	Project Environment Representative	Project Pack Web
Obligations Register Status (monthly)	Project Environment Representative	Project Pack Web
Internal Project Report (Monthly)	Project Manager	Project Pack – Document Management System or Aconex
Client Report (Bi-monthly)	Project Manager	Project Pack – Document Management System or Aconex
HSES Valuation (Monthly)	Project Manager	JHET
Project Self-Assessment (Annual)	Project Environment Representative	JHET
Actions arising	Project Environment Representative	JHET

#### 10.2 Internal audit

#### 10.2.1 General

#### **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 documentation	Project	Responsibility	John Holland tools to be used by Project to manage documentation
Audit Program		Operations Environment Manager	JHET
Audit Reports		Operations Environment Manager	JHET
Actions Arising		Operations Environment Manager	JHET

## 10.3 Management 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:
  - o External and internal issues that are relevant to the environmental management system
  - o 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
  - o Monitoring and measurement results
  - o 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 HSEQ Valuations. The project will retain documented information as evidence of the results of management reviews.



Required Project documentation	Responsibility	John Holland tools to be used by Project to manage documentation
Internal Project Report (Monthly)	Project Manager	Project Pack – Document Management System or Aconex
Project Management Meeting minutes	Project Manager	Project Pack – Document Management System or Aconex
HSEQ Valuation (Monthly)	Project Manager	JHET
Actions Arising	Environment Manager	JHET



#### 11 IMPROVEMENT

## 11.1 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:
  - o Take action to control and correct it
  - o 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:
  - o Reviewing the nonconformity
  - o Determining the causes of the non-conformity
  - o 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 Prodocumentation	ject Responsibility	John Holland tools to be used by Project to manage documentation
Event Records	Project Environment Representative	JHET
Non-Conformance Records	Quality Representative	JHET
Actions Arising	Project Environment Representative	JHET

## 11.2 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.

Revision No: B Document Number: SFS-JHG-PLN-CEMP-001 Page 36 of 54



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	JHET
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

### 11.3 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 documentation	Project	Responsibility	John Holland tools to be used by Project to manage documentation
Actions Arising		Project Environment Representative	JHET
Lessons Learned		Project Environment Representative	Work Centre



### **APPENDIX 1 – NOT USED**



# APPENDIX 2: ASPECTS, IMPACTS, MITIGATION AND LEGISLATION

The following table will be populated upon undertaking the project specific WRA

Aspect	Impact	Mitigation	Legislation and client 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 B25 and Project Brief
Waste Disposal	Pollution entering landfill	Vetting of all waste disposal locations and tracking of loads off sites	POEO Act, CoA B24 and Project Brief, NEPM
		Spoil permit process	
Noise	Noise disturbance to local sensitive receivers	Undertake noise modelling to predict impacts	POEO act, CoA B28 and Project Brief
		Noise monitoring to validate model and effectiveness of mitigation measures	
Use of raw materials and natural resources	Destruction of natural habitat	Procure enviro certified products	None
Energy use	Increase in GHG emissions	Use Bio mix diesel, purchase grid energy from green supplier	None
Vibration	Damage to sensitive receivers	Monitoring and implementation of safe working distances	CoA B28
Contamination	Cross contamination of clean areas	Works to be completed as per RAP and CSWMP	CoA C32 - C34 RAP
			Interim Site Audit Statement
Heritage	Damage to heritage	Monitoring	CoA B39, B41
J	items	Unexpected Finds Protocol	,
Biodiversity	Damage to trees	Tree protection	CoA B7, C23
		Vegetation removal permit	
Dust	Dust impacting	Monitoring	CoA B26
	adjacent sensitive receivers	Dust suppression as per CAQMP	



## APPENDIX 3: INTEGRATED MANAGEMENT SYSTEM PROCEDURES

TRAC.			
IIVIS	proceo	iure rei	erences

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

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

### 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

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

Community Relations JH-MPR-CCM-005

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



### **IMS** procedure references

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

Project Monthly Reporting and Reforecasting and Review JH-MPR-PMA-015

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 Sub- Plan	SFS-JHG-PLN-CEMP-002
Construction Waste Management Sub-Plan	SFS-JHG-PLN-CEMP-003
Construction Soil and Water Management Sub-Plan	SFS-JHG-PLN-CEMP-004
Construction Air Quality Sub-Plan	SFS-JHG-PLN-CEMP-005
Construction Biodiversity Management Sub-Plan	SFS-JHG-PLN-CEMP-006
Aboriginal Cultural Heritage Management Sub-Plan	SFS-JHG-PLN-CEMP-007
Construction Historic Heritage Management Sub-Plan	SFS-JHG-PLN-CEMP-008



## APPENDIX 5: JOHN HOLLAND ENVIRONMENTAL POLICY





### **Environment & Heritage**

#### **Our commitment**

John Holland values the natural environment and cultural heritage, and is committed to minimising adverse impacts and enhancing outcomes.

#### Our approach

John Holland addresses its commitment to environmental sustainability and heritage conservation through the consistent implementation of an effective Environmental Management System.

#### **Environment & Heritage Policy in practice**

- Comply with relevant legal obligations, standards, customer requirements, and any obligations that John Holland has adopted voluntarily
- Integrate environment and heritage considerations into business planning, strategy development and operational delivery
- Continually improve the Environmental Management System to enhance performance.
- Maintain third party certification of the Environmental Management System to ISO 14001 as independent verification of implementation and effectiveness
- Establish environment and heritage objectives and targets, and communicate performance regularly to engage our employees and other stakeholders
- Continually improve operational resource use efficiency and take all reasonable and practicable steps to prevent adverse environmental impacts, including pollution
- Promote a culture of shared responsibility for environment and heritage outcomes.
- Enhance the awareness, knowledge and skills of employees, contractors and suppliers in relation to environment and heritage requirements and practices
- Drive organisational learning by investigating significant environment and heritage incidents, and communicating action taken or required to prevent recurrence
- Work with business partners, the local community, regulators and other stakeholders to understand their perspective and achieve improved environment and heritage outcomes

Joe Barr

Chief Executive Officer John Holland Group Pty Ltd

May 2018

Caring
Empowering
Imaginative
Future-focused



### **APPENDIX 6: UNEXPECTED FINDS PROTOCOL**

This Unexpected Contamination Finds Protocol (the Protocol) outlines the work requirements in the event of unexpected finds occurring during construction at the Sydney Football Stadium.

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 B22(h) in the Sydney Football Stadium Stage 2 development consent (SSD 9835), which requires that:

A detailed unexpected finds protocol for contamination and associated communications procedure being consistent with the Unexpected Contamination Finds Protocol-V2.1 prepared by Lendlease dated June 2019 and including a chain of responsibilities for undertaking the unexpected finds protocol.

### **Potential Unexpected Finds**

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.		
Structures or conduits containing deleterious materials	<ul> <li>A buried tank or former process pipelines;</li> <li>Deeper sand fill sometimes with visual/olfactory indications of contamination</li> <li>Presence of small concrete footings surrounding by odorous of visually impacted soils and/or groundwater.</li> </ul>		
Ash or slag deposits	Ash materials typically light weight, black, grey and/or white and generally gravel sized (1mm to 10mm) particles. Slag materials can be varied in consistency and colour and may comprise pale grey to blue/green/grey/black and be loose or cemented. Slag gravels can be very angular and appear to		
	have a 'honeycomb' texture.		
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	<ul><li>Solvent/acetone odour</li><li>Alcohol odour</li><li>Caustic odour</li></ul>		



Potential Unexpected Find	Observed Characteristic
	Acidic (Acetic/Formic/Citric) odour
	Ammonia odour
	Sulphur (rotten egg) odour

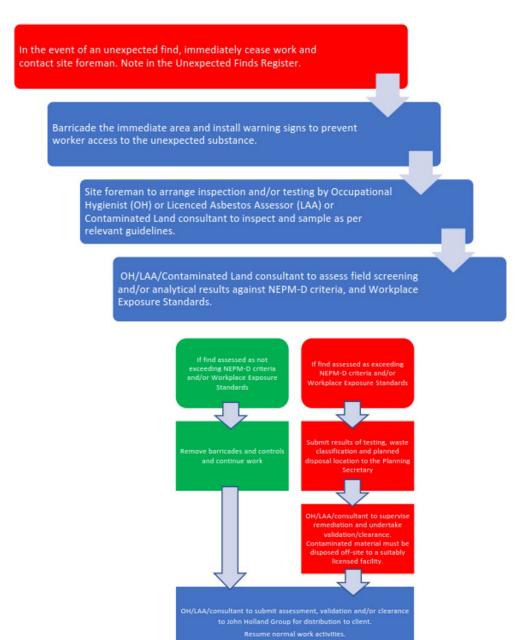
Douglas Partners undertook a Detailed Site Investigation (DSI) in 2019 (Ref. 86529.00.R.006B) to further assess the contamination characteristics of the soils and groundwater in accessible areas of the Stadium site. Douglas Partners also undertook an Asbestos Assessment in 2020 to assess the contamination characteristics of the soils in relation to asbestos on the Stadium site (Ref. 99553.00.R.004).

A Remediation Action Plan was prepared by Douglas Partners (99553.00.R.005). 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.

#### **Unexpected Finds Process**

The following process outlines the requirements in the event of unexpected finds occurring on 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.





The Site Auditor would be notified in the event that any unexpected finds do not meet the site criteria once the assessment has been completed.



### **APPENDIX 7: ARBORIST TEAM A**

Consultant	Position & Qualifications	Experience
Anna Hopwood	Director  Grad Cert. (Arboriculture) Dip. Hort (Arboriculture) Dip. Hort (Landscape Design) ISA TRAQ	ANNA HOPWOOD is the Director of TreeiQ and oversees all projects. She has extensive experience undertaking arboriculture and landscape assessments and has been a key member of several policy and planning working groups. Anna is also the principal author of a number environmental policy documents.  In 2006 Anna received the NSW State Medal (Arboriculture) and the Local Government Tree Resources Association Award. In 2015 Anna received the University of Melbourne Scott Sharpe Award.  Prior to establishing TreeiQ in 2006, Anna was employed as a Design Manager for a Sydney-based landscape architecture firm.  Anna was the Vice President of Institute of Australian Consulting Arboriculturists (IACA) 2016-2019.
Martin Peacock	Senior Arboricultural Consultant  BSc (hons.) Arboriculture HN Dip. Arboriculture N Dip. Horticulture Dip. Hort (Landscape Design)	MARTIN PEACOCK has been involved in the arboricultural industry for 26 years and has worked with TreeiQ since 2006. Prior to moving to Australia in 2003, Martin operated a successful arboricultural company and held a teaching position at Houghall College of Agriculture and Horticulture in the UK.  In addition to his work as an Arboricultural Consultant, Martin is currently working on a research trial investigating the use of bio-fungicides in the treatment of tree wounds in conjunction with the Royal Botanic Gardens, Sydney.
Nicole O'Connell	Landscape Heritage Consultant  Grad. Cert (Heritage Cons) Dip. Hort (Landscape Design)	NICOLE O'CONNELL is a Landscape Heritage Consultant with specialist skills and experience in landscape assessment, landscape heritage conservation and impact assessment. She has an extensive knowledge of the principles and processes of the Burra Charter and heritage legislation, and their application in landscape heritage management.  Nicole has worked with TreeiQ since 2007 and has had a key role in the development of a number of environmental policy documents. Nicole provides invaluable advice on the identification, recording, assessment and management of significant trees.



### **APPENDIX 8: AUSGRID SAFE WORK PRACTICES**

### Working near Ausgrid cables

Finding out what's below the surface can save your life.
Call Dial Before You Dig on **1100** or visit **1100.com.au** 







### Changes in the Law.

NSW legislation now requires people who are planning to do excavation work to obtain copies of underground electricity cable plans through Dial Before you Dig (Phone 1100) and to make sure that the plans are no more than 30 days old when excavation commences.

The aim of the legislation is to ensure that when workers dig near electricity cables, they will establish the exact location of the cables and thus avoid coming into contact with them or damaging them. This will ensure worker safety and also prevent disruption to Ausgrid's electricity network.

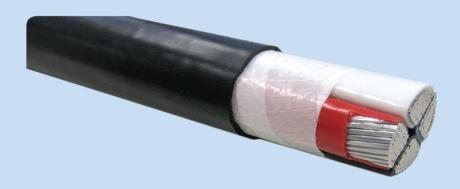
This brochure gives you a brief overview of how to prepare for excavation works near or around electricity cables. It is important that you also consult our guide How to Read Ausgrid Plans and make sure that workers engaged in excavation works fully understand how to read the plan. If the people actually doing the digging can't read the plans, it is essential that the work is directed by a person who has been trained to read Ausgrid's plans.

You must also consult Ausgrid's Network Standard NS156, which contains comprehensive information concerning all the issues that arise when excavating near underground cables (such as safety hazards from asbestos conduits and organochlorine pesticides).

### Excavating near transmission cables.

If any cable plan you receive says "You are working near transmission cables" it is compulsory to notify Ausgrid two weeks before work is scheduled to begin. Ausgrid will then arrange for an Ausgrid representative to attend the site during excavation work.

Phone the Ausgrid Transmission enquiries line on (02) 4951 9200 to arrange for an Ausgrid representative in your region.



page 1



### Be prepared. Wise words for safety at work.

Here are some simple precautions you and your workers need to follow in order to be as safe as possible.

- Make sure that your Dial Before You Dig (DBYD) plan is less than 30 days old
- Keep a copy of the cable plan on site at all times
- Make sure the excavation work is conducted or directed by staff who are trained to read the plan
- Hand dig until the exact location of the cable has been established
- Have on site at all times a first aid kit and a person trained in resuscitation
- Wear protective clothing, including safety footwear and safety helmet
- · Have emergency contact numbers on site
- Set up safety barriers, witches hats and warning lights to reduce the risk of injury to the general public
- Comply with all WorkCover requirements and codes.

#### See also:

- WorkCover Guidelines: Work Near Underground Assets
- WorkCover Code of Practice: Excavation Work
- WorkCover Code of Practice: Work Near Overhead Powerlines (if applicable).

#### Before you start. Complete the checklist. Stop and look around.

Before you start excavating, consult the flow chart and fill in the checklist at the end of this brochure.

Then, be sure to look for clues where cables might be located on the site: for example pits, distribution pillars (green and other colours), cables attached to the side of poles, street lights without overhead wires.







page 2



### Do all power cables look the same?

No. Power cables come in different sizes, colours and coverings. They may be covered in black plastic sheath, steel wires in a sticky bitument like material, or even a simple lead or steel wire/tape sheath.

### What else should I look for below ground level?

Cables may also be buried in orange PVC or PE conduits or even in earthenware or steel pipes. A bank of cables may be covered with electrical bricks, plastic warning markers or protective covers, or they may not be covered at all. If they have been buried close to the surface, they may be covered by concrete slabs or steel plates.

### When in doubt, ask Ausgrid.

If you have any questions about excavating near Ausgrid cables, read **NS156** (available at <u>ausgrid.com.au</u>). For further information call 13 13 65.

### You've taken every precaution but accidents still happen. What now?

If you damage an electricity cable, it is compulsory to notify Ausgrid on 13 13 88.

Striking power cables can cause serious damage to the cables and endanger the lives of anyone who comes in contact with them. Machinery and hand operated plant such as jack hammers can become alive if it is in contact with electrical cables or equipment. Keep people well away from machinery and the work site if contact is made with a cable.

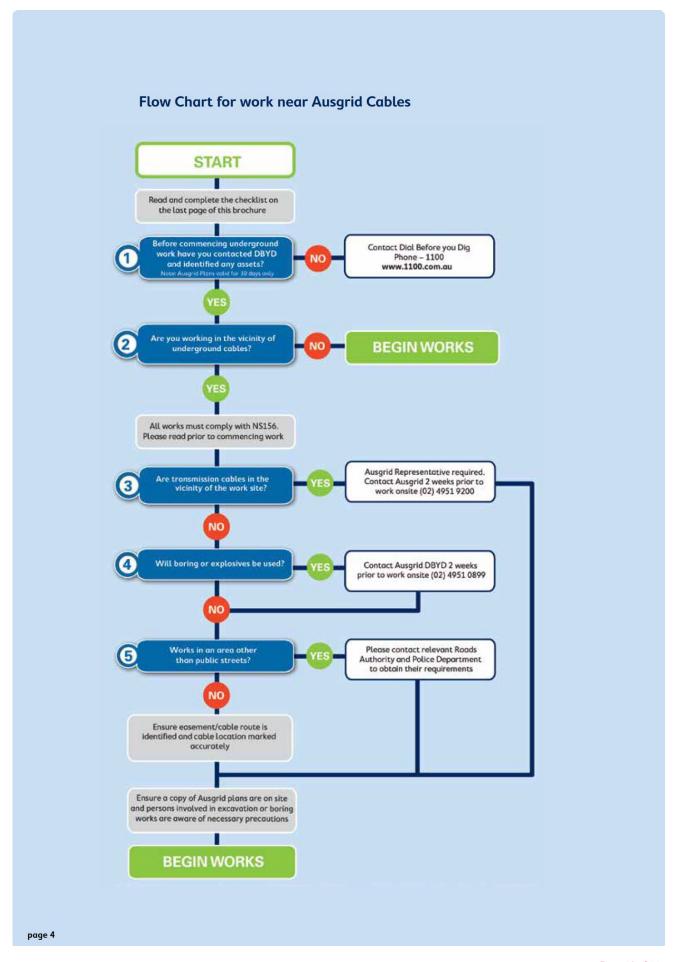






page 3







### Ausgrid Checklist for work near or around underground cables

It is the responsibility of the Constructor to ensure that underground pits, ducts and cables are not damaged as a result of construction work. It is also your duty to protect your workers from harm or injury. This Checklist is intended to be used as a guide to what Constructors should do to make sure they have satisfied the minimum requirements to minimise damage to underground networks.

PLANS, LOCATION and NOTIFICATIONS	Completed
All relevant utilities plans obtained from Dial Before You Dig? (call 1100 – allow at least 5 working days for plans).	
Checked issue date on all the above plans to ensure issue was within the last 30 days?	
Examined plans and assessed all possible impacts on Ausgrid's network?	
Do you have both Underground Distribution and Transmission Plans (if applicable), on site at all times?	
All cables and conduits shown on the Ausgrid plans been located and marked on the ground?	
If you are planning to use a bore, have you ensured that the equipment is calibrated?	
Have you read and understood the requirements of NS 156? (for copies of NS 156 visit Ausgrid's Website or phone Ausgrid DBYD Office (02) 4951 0899)  www.ausgrid.com.au	
Have you notified Ausgrid as specified by NS 0156 and complied with requirements?	
Where an Ausgrid representative is required, two weeks notice is required before work commencing on site.  Contact phone number for Transmission cable enquiries is (02) 4951 9200. For all other cases contact Ausgrid  DBYD Office: (02) 4951 0899.	
INSPECTION OF WORK BY Ausgrid's REPRESENTATIVE	
Is the Ausgrid representative on site for any work near or around* any transmission cable before you start?  (*Refer to NS 156.)	
For proposed work near or around cables other than transmission and/or conduits, are any requirements specified by Ausgrid's representative clearly understood and ready to be applied before you start the work? (*Refer to NS 156.)	
PROTECTION	
Check that all people on-site have been made aware of the presence and location of ALL Ausgrid underground cables and/or conduits; especially boring, drilling and trenching machine operators?	
Is there any asbestos or asbestos containing material in Ausgrid's underground network assets?	
Have you checked for the presence of any Organo-Chloride Pesticides (OCP) in transmission trenches?	
Is the site supervisor monitoring all machine operators working near or around Ausgrid's underground cables and/or conduits?	
Are the requirements specified by Ausgrid's representative being followed?	
Are Ausgrid's requirements in place for any exposed cables and/or conduits to be supported and protected?	
Have you marked all exposed underground cables and/or conduits with flags that are clearly visible from within all machinery used on-site?	
Have safety barriers, fencing or para-webbing been erected to protect staff and the public as well underground cables and/or conduits in areas that are at risk?	
Have safety barriers, fencing or para-webbing been erected to protect staff and the public as well underground cables and/conduits in areas that are at risk?	

## In the event of DAMAGE to Ausgrid's cable or conduits, call 13 13 88 immediately. PROCEED with CAUTION

It is your responsibility to protect Ausgrid's cables and conduits from damage of from harm or injury.	and your Duty of Care to protect your workers
Signed:	Date: / /
For more information call 13 13 65 or visit <u>www.ausgrid.com.au</u>	Ausgrid

page 5