



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

Health Infrastructure

Construction Waste Management Plan

Document Reference JHG-SCH-PM-PL-99-XX013

Revision: 01

Date: 06/09/2022

Rev	Date	Prepared By [Name & Signature]	Reviewed By [Name & Signature]	Approved By	Remarks
A	22/06/2022	H. Hofland	M.Wylie	L. Cox	Initial Draft
00	18/07/2022	H. Hofland	M.Wylie	L. Cox	For Construction
01	06/09/2022	H. Hofland	M. Wylie	L. Cox	Response to comments
02					

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# 1 Revisions and Distribution

## 1.1 Revisions

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

## 1.2 Distribution List

Principal's Representative	Via Aconex
Project Manager	Via Aconex
Project Site Manager	Via Aconex
HSEQ Manager	Via Aconex
Project Environment Representative	Via Aconex

The controlled master version of this document is available for distribution as appropriate and maintained on the document management system being used on the project. All circulated hard copies of this document are deemed to be uncontrolled.

## 1.3 Development Consent Conditions

**Table 1 SSD 10831778 Compliance Table**

Consent Condition Requirements		Reference
B19	The Construction Waste Management Sub-Plan (CWMSPP) must address, but not be limited to, the following:	This Plan
a	Detail the quantities of each waste type generated during demolition and the proposed reuse, recycling, and disposal locations;	Section 10 and 11
b	removal of hazardous materials, particularly the method of containment and control of emission of fibres to the air, and disposal at an approved waste disposal facility in accordance with the requirements of the relevant legislation, codes, standards, and guidelines, prior to the commencement of construction.	Section 6
C27	All waste generated during construction must be secured and maintained within designated waste storage areas at all times and must not leave the site onto neighbouring public or private properties	Section 6
C28	All waste generated during construction must be assess, classified and managed in accordance with the Waste Classification guidelines Part 1: Classifying waste (EPA,2014)	Section 6
C29	The Applicant must ensure that concrete waste and rinse water are not disposed of on the site and are prevented from entering any natural or artificial watercourse	Section 6
C30	The Applicant must record the quantities of each waste type generated during construction and the proposed reuse, recycling and disposal locations for the duration of construction	Section 8
C31	The Applicant must ensure that the removal of hazardous materials, particularly the method of containment and control of emission of fibres to the air, and disposal at an approved waste disposal facility is in accordance with the requirements of the relevant legislation, codes, standards and guidelines	Section 6

## 2 Definitions

AMS – Activity Method Statement

SCH1/MCCCC – Sydney Children's Hospital Randwick Stage 1 / Minderoo Children's Comprehensive Cancer Centre

Principal – Health Infrastructure

DPIE – Department of Planning, Industry and Environment

CEMP – Construction Environmental Management Plan

ENM – Excavated Natural Material

EPA – Environmental Protection Authority

Fm – Foreman / Supervisor

OEH – Office of Environment and Heritage

PER – Project Environmental Representative

PM – Project Manager

RAP – Remediation Action Plan

SEP – Site Environmental Plan

SM – Site Manager / Superintendent

TRA – Task Risk Assessment

VENM – Virgin Excavated Natural Material

WRA – Workplace Risk Assessment

### 3 Scope of the Waste Management Plan

**EMS reference**

Environment Management Manual JH-MAN-ENV-001

The SCH1/ MCCC site is located immediately south of the Randwick Town Centre, approximately 150m from the UNSW High Street light rail stop and 25m from Randwick light rail stop.

The project site comprises a total of 9,870m<sup>2</sup>. The Project will have an indicative building footprint of approximately 5,828m<sup>2</sup>, whilst the remaining 4,042m<sup>2</sup> will comprise of ground plane access, public domain, and landscaping works. The project includes;

- Construction and operation of a new 9 story hospital, including 2 levels of basement building, plus upper plant room to provide
  - A new children’s emergency department and emergency short-stay unit, accessible from Botany Street
  - Street with direct links to new and existing services
  - A new children’s intensive care unit
  - New inpatient units for medical and surgical specialties
  - A new medical short-stay unit
  - A new pharmacy and pathology collection
  - Australia’s first Children’s Comprehensive Cancer Centre including:
    - State-of-the-art technologically advanced wet and dry laboratory spaces
    - Education, training, and research spaces
    - New oncology inpatient unit, and patient and family focused retreat areas
    - A new day oncology unit
  - New front of house and retail facilities; and
  - Building identification signage zones
- New High Street visitor drop off;
- Integration via pedestrian sky bridges with the Integrated Acute Services Building (approved under SSD 10339 and 9113), currently under construction and within the proposed Health Translation Hub (HTH, SSD 10822510)
- Short-stay patient parking connected to existing Botany Street intersection;
- Basement Ambulance access, loading dock, back of house and logistics services via Hospital Road;
- Public domain and associated landscaping, including tree removal; and
- Associated site preparation, civil works, and utilities services

Table 2 SCH1/MCCCC Staging

CC No.	Proposed Works	Duration	Start Date	Finish Date
Stage 1	Piling	7 months	Aug 2022	Dec 2022
Stage 2	Bulk Excavation	7 months	Nov 2022	Apr 2023
Stage 3	Structure – B2 to Roof	12 months	Dec 2022	Dec 2023
Stage 4	Façade & Services Rough In	10 months	June 2023	March 2024
Stage 5	Fit-Out, finishes, landscaping & Public Domain	20 months	June 2023	Feb 2025

This Construction Environmental Management Sub-Plan specifies the requirements of the John Holland Environmental Management System (EMS) (which is certified to ISO AS/NZS14001) that the Sydney Children's Hospital Randwick Stage 1/ Minderoo Children's Comprehensive Cancer Centre (the Project) will use to enhance its environmental performance. Consistent with John Holland Environment Policy, the intended outcomes of this CWMP include:

- enhancement of environmental performance on the Project;
- fulfilment of the Project's compliance obligations; and
- achievement of the Project's environmental objectives.

This Sub Plan (Construction Waste Management Plan) enables the management of environmental responsibilities in a systematic manner and contribute to the environmental pillar of sustainability. This Construction Waste Management Plan 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 life cycle perspective.

This Construction Waste Management Plan is applicable to all construction phase works associated with the SCH1/MCCCC project (John Holland and subcontractors).

### **3.1 Project Location**

The SCH1/ MCCCC project site is located in the Randwick Local Government Area (LGA), approximately 6 kilometres (km) from the Sydney Central Business District (CBD) and 4km from Sydney Airport. The site is located approximately 400m from Randwick Town Centre, 1km from Royal Randwick Racecourse and 2km from Coogee Beach.

The CBD South East Light Rail (CSELR) L2 Randwick Line runs in both directions along the High Street frontage of the site. The Randwick stop is located 250m to the east of the site and the UNSW High Street stop is located 150m to the west of the site.

The site is located in the Randwick Campus Redevelopment (RCR) site which bridges the gap between the two components of the Randwick Health and Innovation Precinct (RHIP) – Randwick Hospitals' Campus (RHC) and UNSW Kensington Campus.

The RHC includes the existing Sydney Children's Hospital (SCH), Randwick, Prince of Wales Hospital (POWH), Royal Hospital for Women (RHW), and the Prince of Wales Private Hospital (POWPH) and is located to the east of the RCR. The UNSW Kensington Campus adjoins the RCR to the west.

The SCH1/ MCCCC SSD relates to the land in the north-eastern corner of the RCR site, bound by High Street to the north and Hospital Road to the east. The site boundary extends along the southern boundary of the proposed HTH site (SSD 10822510) to Botany Street on the western side of the RCR site. The site boundary reflects the scope of works to be delivered as part of this SSD on the ground plane and basement levels which includes the access ramp for the SCH1/MCCCC ED drop-off on Level B1 and access to parking on Level B2, both accessed via Botany Street. Landscaping will be provided around the access ramp on Level B1.



**Figure 1 SSD10831778 Site Boundary**

Future logistics entry to the proposed HTH will be from the access ramp at Level B1, subject to separate approval under the HTH SSD application, currently not within the scope of works covered by this management plan. Above the ground plane, a small portion of the southern end of the proposed HTH building will overlap with the boundary shown in blue in **Figure 1** below.

The site has a legal description of Lot 100 in DP1249692; Lots 1 – 4 in DP13995; Lots A – D in DP304806; Lots A and B in DP102029; Lots A and B in DP167106; Lots 6 and 7 in DP13997; Lots A and B in DP441943; and Lots 12 – 14 in DP12909.



## 4 Performance

### 4.1 Objectives

The Objectives of the waste management plan are to:

- Prevent environmental impacts from waste generated during all phases of the project
- Correctly manage and dispose of waste through identification of waste types and ensuring appropriate segregation, storage and disposal.
- Create better waste outcomes through minimising waste and maximising re-use and recycling opportunities
- Ensure a clean and tidy workplace that minimised environmental, quality and safety risks
- No environmental incidents resulting from waste management.
- Recycling and re-use of waste wherever practicable.
- Segregation of waste streams for recycling (either on site or off site)
- Quantity of waste delivered to landfill minimised wherever practicable.
- Hazardous and non-hazardous chemicals and substances used during all phases of the Project will be selected and managed to minimise the potential adverse environmental impacts associated with their disposal.
- Waste generation is minimised through reduce, reuse and recycle initiatives
- No litter to be observed across work sites.
- Waste transport vehicles use only the approved waste transport route.
- All waste generated on site is appropriately stored prior to disposal.
- No waste disposed at unapproved/non-licensed facilities.

### 4.2 Targets

- Construction waste diverted from landfill and either reused or recycled: 90%
- Number of waste related incidents: Nil

## 5 Legislation and Guidance Documentation

### 5.1 Federal Legislation

- Environmental Protection and Biodiversity Conservation Act 1999

### 5.2 State legislation

- Protection of the Environment Operations Act 1997 (NSW)
- Protection of the Environment Operations (Waste) Regulation 2014 (NSW)
- Waste Avoidance and Resource Recovery Act, 2001 (NSW)
- Environmentally Hazardous Chemicals Act 1985 (NSW)

### 5.3 Standards / Codes

- Australian Dangerous Goods Code,

- Waste Classification Guidelines: Part 1 Classifying Waste (DECCW 2009).
- Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes (DEC 2004).
- Guidelines on Resource Recovery Exemptions (Land Application of Waste Materials as Fill) (DECCW, 2011).

## 5.4 Supporting Documentation

- Construction Environmental Management Plan (CEMP)
- Site Environmental plan (SEP)
- Construction Soil and Water Management Plan (CSWMP)
- John Holland Hazardous Chemical Management Procedure
- John Holland Resource Use Reporting Procedure (JH-MPR-ENV-002)
- John Holland Incident and Event Management Procedure (JH-MPR-SQE-010)
- Unexpected Finds protocol for contamination (Appendix 6 of the CEMP)
- John Holland Global Mandatory Requirements #9 –Environmental Management (GMR#9)
- State Significant Development approval SSD-10831778
- Storing and Handling Liquids: Environmental Protection – Participants Manual (NSW Department of Environment and Climate Change (DECC) 2007).
- State Significant Development Consent SSD-10831778
- Douglas Partners Contamination Status Report (72505.23-001) – (Oct 21)
- Douglas Partners Remediation Action Plan (72505.23-002) – (Nov 2021)
- Douglas Partners Detailed Site Investigation for Contamination (72505.22-002) – (Feb 21)
- Douglas Partners Remediation Action Plan (72505.23-002) – (Jan 22)

## 6 Waste Management Action Planning

Inductions, Training and Awareness	Staff Responsible	When
<p>Site inductions will include the following specific components for waste management:</p> <ul style="list-style-type: none"> <li>▪ Identification of waste types, including non-hazardous waste, hazardous waste and Listed/Controlled/Regulated wastes.</li> <li>▪ Key requirements for handling, transportation and storage, including segregation of wastes.</li> <li>▪ Waste storage facilities on the Site.</li> </ul>	PER, Safety Advisor/Manager	Project delivery
<p>Personnel who routinely handle hazardous chemicals or hazardous or Listed/Controlled/Regulated waste (e.g. refuelling personnel, pump operators, mechanics and stores personnel) will receive training in handling, transporting and storing hazardous chemicals or hazardous Listed/Controlled/Regulated wastes; in reporting and documentation requirements; and in spill clean-up techniques and practice.</p>	PER, Project Safety Advisor/Manager, First Aiders	Project delivery
<p>Communicate best waste minimisation practices with site personnel to ensure employees are aware of project waste procedures, the need to maintain a clean worksite and reduce risk of environmental harm resulting from inappropriate waste handling practices.</p>	PER, Safety Advisor/Manager	At induction, prestart/toolboxes when appropriate

Waste Avoidance and Reduction	Staff Responsible	When
A plan, describing methods to minimise waste and maximise efficient use of resources must be implemented and monitored.	PER, Engineers	Workplace Planning
All workplaces must recycle construction and demolition waste, paper, cardboard, electronics, printer cartridges, fluorescent lights, glass, plastics and batteries, where recycling services are available.	All personnel	Project delivery
Waste minimisation measures will be included in tendering, subcontracting and procurement processes wherever practicable.	PER, Engineers, Supervisors	Workplace Planning
All waste, wherever practicable will be either segregated on-site or comingled and separated off-site. Waste will then be reused, recycled or disposed of in an appropriate manner at licensed facilities. Waste segregation measures will consider separate bins for each waste stream.	All personnel	Project delivery
<ul style="list-style-type: none"> <li>▪ General waste (construction and other)</li> <li>▪ Concrete/masonry waste</li> <li>▪ Metals</li> </ul>	<ul style="list-style-type: none"> <li>▪ Paper, cardboard etc.</li> <li>▪ Plastics</li> <li>▪ Glass</li> <li>▪ Hazardous wastes</li> <li>▪ Special waste (asbestos)</li> </ul>	
Recycling bins will be provided in office and crib rooms. (where practicable)	PER, Engineers	Project Delivery
For building materials imported to site that have excessive packaging, efforts must be undertaken to negotiate alternative packaging arrangements with the supplier.	PER, Contracts	Workplace planning, project delivery
Recycling skips (co-mingled or otherwise) will be provided within the vicinity of on-site works.	PER, Engineers, Supervisors	Project delivery

General Waste Handling, Housekeeping and Storage	Staff Responsible	When
Details of the proposed waste haulage truck routes are documented within the CTPMP and are to be followed by trucks transporting construction waste material from the site. The CTPMP has been developed in consultation with the Sydney Coordination Office and Transport Management Centre prior to the commencement of the removal of any waste material from the site.	PER, Safety Advisor/Manager, Project Manager	Prior to project commencement
All trucks transporting construction waste material from the Project site must follow the approved routes documented within the CTPMP throughout Project Delivery.	PER, Safety Advisor/Manager, Project Manager	Project delivery
All waste trucks leaving the site are to have their loads secured and covered where applicable. This includes all skip and hook bins (or other waste receptacles).	All personnel	Project delivery
Waste must be secured and maintained within designated waste storage areas within the site at all times until picked up by a waste disposal contractor. These areas must be clearly defined and well signed.	All personnel	Project delivery
Splatter, dust and other material likely to fall from or be cast off the wheels, underside or body of any vehicle, trailer or motorised plant leaving the site must be removed before leaving the premises.	All personnel	Project delivery

Concrete waste and rinse water are not to be disposed of on the site and will be prevented from entering any natural or artificial watercourse or waterbody.	All personnel	Project delivery
The waste materials stockpiled for disposal, re-use or recycling must be appropriately classified and managed to ensure waste streams reach their intended final destinations, being premises legally able to accept those wastes and materials for re-use or recycling.	All personnel	Project delivery
Ensure provision of correctly signed bins or skips for collection and storage of all wastes. Locations and bin type shall be determined by the following: <ul style="list-style-type: none"> <li>▪ Type of waste;</li> <li>▪ Proximity to watercourses and drainage lines;</li> <li>▪ Proximity to sensitive or protected flora and fauna;</li> <li>▪ Accessibility for removal;</li> <li>▪ Protection from weather;</li> <li>▪ Proximity to work areas; and</li> <li>▪ Available space.</li> </ul> Locations will be marked on the Site Environmental Plan (SEP)	PER, Supervisors, Safety Advisor/Manager	Project delivery
If Spoil is to be reused off-site, the following must be provided prior to transporting the material: <ul style="list-style-type: none"> <li>▪ Name of waste subcontractor</li> <li>▪ Address of source destination</li> <li>▪ Material to be supplied (e.g. VENM/ENM)</li> <li>▪ Evidence that facility is legally able to accept the waste (such as DA, exemption or EPL). The consent must be viewed and confirmed as covering all intended material.</li> </ul> Signed Section 143 Notice under the POEO Act 1997. A spoil permit must be completed prior to the removal of the spoil. All exported material must be assessed in accordance with the NSW Environmental Protection Authority (EPA) <i>Waste Classification Guidelines</i> All truck movements will be recorded on tracking sheets.	PER, Safety Advisor/Manager, Supervisors Environmental Consultant	Project delivery
Waste bins and skips will be provided for all office and crib facilities. Wastes will be separated into recyclable waste, non-recyclable waste and Listed/Controlled/Regulated waste.	All personnel	Project delivery
Waste skips/bins will meet the following provisions: <ul style="list-style-type: none"> <li>▪ Adequate number for waste segregation (recycling, re-use and disposal) and sufficient volume;</li> <li>▪ Labelled to clearly identify the contents;</li> <li>▪ Appropriate for the waste being contained – be compatible, leak-proof and fit for purpose;</li> <li>▪ Be accessible and appropriately located;</li> <li>▪ Be covered (where necessary) to prevent ingress of rain and prevent animals from entering.</li> </ul>	PER, Safety Advisor/Manager, Engineers, Supervisors	Project delivery
Sanitary waste facilities will be provided for all female ablutions.	All personnel	Project delivery

<p>Waste will be removed by an appropriately licensed waste subcontractor and taken to an appropriately licensed recovery, recycling or disposal facility. The subcontractor is to provide monthly reports detailing:</p> <ul style="list-style-type: none"> <li>▪ Date(s) of waste collection</li> <li>▪ Description of waste</li> <li>▪ Cross reference to relevant waste transport documentation</li> <li>▪ Quantity of waste collected</li> <li>▪ Origin of waste</li> <li>▪ Destination of waste (for listed/controlled/regulated wastes)</li> <li>▪ Intended fate of waste, e.g. re-use, recycling or disposal.</li> </ul> <p>Refer: JH-MPR-ENV-002 Resource Use Reporting</p>	<p>PER, Safety Advisor/Manager</p>	<p>Project delivery</p>
<p>The following licence records are to be obtained from any licensed waste subcontractor engaged, prior to transporting any waste from site:</p> <ul style="list-style-type: none"> <li>▪ Name of waste subcontractor</li> <li>▪ Address</li> <li>▪ Waste streams to be handled, transported, stored and/or disposed of by the waste subcontractor</li> <li>▪ EPL number (EPL must cover all intended waste streams each contractor intends to transport)</li> <li>▪ Landfill(s) used by waste subcontractor</li> <li>▪ Landfill(s) EPL number</li> </ul>	<p>PER / waste subcontractor(s)</p>	<p>Prior to commencement of works, project delivery</p>
<p>No waste is to be burned or buried on Site.</p>	<p>All personnel</p>	<p>Project delivery</p>
<p>Upon Project completion all temporary materials and wastes will be removed from site unless otherwise instructed.</p>	<p>Safety Manager / Project Manager</p>	<p>Project completion</p>
<p>Spoil import permits will be completed to ensure only VENM, ENM or other material approved in writing by the EPA are imported to site. Imported VENM will be required to be compared against the RAC as listed in section 8.1 of the RAP. Sampling requirements for imported materials are outlined in section 13.7 of the RAP.</p> <p>The Environmental Consultant is to review all information available for compliance with importation criteria.</p> <p>Material brought to site must be verified prior to acceptance with dockets supplied during material movement. All truck movements will be recorded on tracking sheets.</p>	<p>PER Site Auditor Site Manager Environmental Consultant</p>	<p>Project delivery</p>

Listed/Controlled/Regulated/Hazardous Waste Management	Staff Responsible	When
<p>Listed/controlled/regulated/hazardous waste which will require segregation typically include, but are not limited to:</p> <ul style="list-style-type: none"> <li>▪ Waste oil</li> <li>▪ Oil filters</li> <li>▪ Grease</li> <li>▪ Coolant</li> <li>▪ Solvents</li> <li>▪ Oily-water mixtures</li> <li>▪ Empty hydrocarbon drums</li> <li>▪ Absorbent materials contaminated with hydrocarbons</li> <li>▪ Contaminated soil</li> <li>▪ Tyres</li> <li>▪ Sanitary and clinical wastes</li> <li>▪ Sewage</li> <li>▪ Special waste (asbestos)</li> </ul>	All personnel	Project delivery
<p>Dedicated waste receptacles suitable for storage and segregation of Listed/controlled/regulated/hazardous wastes will be provided as necessary. Containers and storage areas will comply with storage requirements as per SDS and relevant Australian Standards. Refer Storage and Control of Hazardous Chemicals (refer to Hazardous Chemical Management Procedure) and Hazardous Chemical Disposal Requirements (refer to Hazardous Chemical Management Procedure).</p>	PER, Safety Advisor/Manager	Project delivery
<p>All listed/controlled/regulated/hazardous waste removed from the site, both solid and liquid wastes, must be removed by a licenced waste contractor who holds a current licence to transport such waste under the respective provisions of the POEO Act and Regulations and disposed of at facility licensed to receive that waste.</p> <p>EPL's for both the receiving facility and the transport company must be obtained prior to any hazardous waste being removed from site. These licenses must be held on site.</p> <p>Records for all listed/controlled/regulated/hazardous waste must be maintained by John Holland, the Transporter and Receiver of wastes.</p> <p>Waste transport and disposal documentation to be provided by the licensed waste contractor for each load (within 14 days)</p> <p>If waste transport involves movement across state jurisdiction, consignment authorisation must be obtained from an agency (or designated facility) to move controlled waste into the jurisdiction.</p>	PER, Safety Advisor/Manager	Project delivery
<p>Soil contaminated with hydrocarbons will be managed as Listed/Controlled/Regulated waste. Depending on the size of contamination appropriate protection, storage, testing and remediation are to occur.</p>	PER, Safety Advisor/Manager	Project delivery
<p>All listed/controlled/regulated/hazardous wastes must be stored appropriately such that there is no stormwater runoff does not come into contact with the wastes.</p>	PER, Safety Advisor/Manager	Project delivery
<p>A detailed unexpected finds protocol for contamination (including asbestos containing material) and associated communications procedure must be developed and followed at all times.</p>	PER, Safety Advisor/Manager, Project Manager	Project delivery

Where any hazardous materials are required to be removed from site, suitable measures must be implemented in consultation with the contamination consultant (where required) to contain and control the emission of fibres to the air (if potential exists). This may include wetting down surfaces.	PER, Safety Advisor/Manager	Project delivery
All waste generated during construction must be assessed, classified and managed in accordance with the Waste Classification Guidelines Part 1: Classifying Waste (EPA, 2014).	PER	Project delivery

## 7 Monitoring

Monitoring Required	Staff Responsible	When
Waste management will be monitored daily, with observations entered into daily diaries where necessary.	PER, Safety Advisor/Manager, Engineers, Supervisors	Daily
Waste management will be inspected as part of the Weekly Environmental Inspection Checklist, or HSE site inspection. Results of the weekly inspection will be entered into JHET.	PER, Safety Advisor/Manager, Engineers, Supervisors	Weekly
All waste storages locations must be inspected to ensure that there is no risk of unplanned movement of waste around or off site via wind, water or other means.	PER, Safety Advisor/Manager	Project delivery
All waste vehicles entering and leaving site must have adequate truck GPS monitoring systems. The requirements for these monitoring systems to be installed in any engaged waste contractors' trucks must be included in their contracts and information supplied to John Holland if requested.	Commercial Manager	Prior to commencement of works, project delivery

## 8 Reporting

Reporting Required	Staff Responsible	When
<p>All waste data will be tracked for the duration of the Project. The recorded information will include:</p> <ul style="list-style-type: none"> <li>▪ Waste description and coding (if applicable)</li> <li>▪ Date of pick-up of waste</li> <li>▪ Cross referenced to relevant waste transport and facility receipt documentation</li> <li>▪ Quantity of waste</li> <li>▪ Origin of waste</li> <li>▪ Destination of the waste including relevant EPL details</li> <li>▪ Intended fate of the waste (Type of waste treatment – re-use, recycle or disposal)</li> </ul> <p>This data will be utilised to ensure John Holland recycling/reuse targets are achieved.</p>	PER, contracts administrators	Project delivery
Records of all waste quantities generated (including that reported by subcontractors) and any associated waste transport certificate documentation will be entered into Project Pack Web in accordance with	PER	Project delivery

JH-MPR-ENV-002 Resource Use Reporting.		
All material/waste tracking will also be required as part of the site audit process for the purposes of determining site suitability. Ensure appropriate tracking of internal fill/soil movements, removal off-site and importation to site is undertaken as required by the Remediation Action Plan for future reporting as part of the site validation	PER Environmental Consultant	Project delivery
All subcontractors will provide an Energy, Water and Waste Report in accordance with JH-MPR-ENV-002 Resource Use Reporting	PER, contracts administrators	Project delivery
Details of field observations will be reported via the Weekly Environmental Inspection Checklist, and communicated to staff during pre-starts, toolbox and team meetings as appropriate.	PER, Safety Advisor/Manager	Project delivery
Complaints / incidents regarding waste will be reported immediately to the PER and/or Safety Advisor/Manager and Project Manager. Reporting shall be as per the HI incident reporting procedure	All personnel	Following incident
The Project Director shall be notified immediately of all incidents and valid complaints. Relevant John Holland procedures for incidents and complaints handling reporting shall be followed	PER, Safety Advisor/Manager, Project Manager	Following incident, project delivery
Incident details will be entered into JHET in accordance with the Incident and Event Management Procedure (JH-MPR-SQE-010)	PER, Safety Advisor/Manager	Following incident
John Holland Operational HSE Team is to be immediately informed of any incident that has caused or is likely to cause material harm to the environment and will advise on the notification of relevant regulators (As required by the Protection of the Environment Operations Act 1997).	PER, Safety Advisor/Manager, Project Manager	Following incident
Any incident requiring regulator notification will be done so in accordance with Appendix 2 of SSD-10831778 and John Holland Incident Notification and Reporting Matrix (refer to Incident Management Procedure).	PER, Safety Advisor/Manager	Following incident
Summary of environmental performance to be provided in the monthly Project Safety/Quality/Environment Report (refer: Performance Statistics – Safety, Quality & Environment JH-MPR-SQE-009)	PER, Safety Advisor/Manager	Monthly



## 9 Corrective Action Plan

Problem	Suggested Corrective Action
Wastes incorrectly separated/segregated	<ul style="list-style-type: none"> <li>▪ Inspect facilities for adequacy</li> <li>▪ Notify and train personnel</li> </ul>
No/inadequate collection	<ul style="list-style-type: none"> <li>▪ Arrange for collection by approved/licensed waste contractor</li> <li>▪ Segregate and reuse or recycle wastes wherever practicable</li> </ul>
Reuse or recycling opportunity not recognised	<ul style="list-style-type: none"> <li>▪ Train/re-train personnel</li> <li>▪ Arrange for recycling collection by approved/licensed waste contractor</li> </ul>
Unlicensed operator	<ul style="list-style-type: none"> <li>▪ Confirm operator license/s are appropriate for the required service.</li> </ul>
Incorrect disposal	<ul style="list-style-type: none"> <li>▪ Confirm suitability of waste removal contractor.</li> <li>▪ Confirm/inspect disposal facilities for suitability.</li> <li>▪ Notify/train personnel.</li> <li>▪ Notify site auditor and DPIE/EPA as applicable</li> </ul>
Contamination of the Site	<ul style="list-style-type: none"> <li>▪ Notify Principal's Representative, assess degree and real extent of contamination. Notify as per the HI Incident reporting procedure</li> <li>▪ Notify site auditor and Environmental Consultant</li> <li>▪ Manage in accordance with the RAP</li> <li>▪ Prevent access to the area.</li> <li>▪ Cover contamination to prevent exposure to rain.</li> <li>▪ Remove contaminated material and remediate in accordance with Regulator/Principal's requirements.</li> </ul>
Inaccurate records management	<ul style="list-style-type: none"> <li>▪ Update records</li> <li>▪ Improve reporting system</li> <li>▪ Train personnel</li> </ul>

## 10 Suspected Waste Streams

Identified waste streams	Project activities likely to generate waste stream	Subcontractor obligations	Management of Waste Stream	Destination of Waste Streams	Estimated quantities for duration of Project
Concrete	Concrete pours (excess and washout)	Subcontractors to manage concrete waste at specific dedicated project washout area	Dedicated offsite concrete slurry/washout locations at concrete supplier facility/batch plant.	Off-site reuse by concrete supplier or recycling by waste subcontractor: Intended destination to be provided by successful concrete contractor.	1000m3
Asphalt and masonry	Demolition and removal of existing Roadway and footpath areas	Subcontractors required to manage waste on-site using existing bins.	Segregated – dedicated asphalt and masonry bin.	Off-site recycling by waste subcontractor. Licensed Waste Contractor to be determined.	200m3
Wastewater (cutting, paint wash-out)	Painting wash out and brick saw activities	Subcontractors required to manage waste on-site utilising own bins and recycling system.	Segregated – dedicated masonry slurry/washout bin.	N/A – the system utilises a recycling/pumping system which produces no wastewater.	2000L
Metals	Steel fixing, stud wall construction, structural steel erection, roofing, miscellaneous metal works	Subcontractors required to manage waste on-site using existing bins.	Segregated – dedicated metals bin.	Off-site recycling by waste subcontractor. Licensed Waste Contractor to be determined.	500m3
General construction waste	Remaining waste on site.	Subcontractors required to manage waste on-site using existing bins.	Segregated – dedicated general construction waste bin.	Off-site recycling by waste subcontractor. Licensed Waste Contractor to be determined.	100m3
Spoil (contaminated/n on-contaminated)	Excavation of utilities, drainage and bulk earthworks	Civil subcontractor required to stockpile, segregate and manage waste on-site to avoid cross-contamination and/or incorrect disposal.	Segregated	Off-site disposal by civil subcontractor to an appropriately licenced facility legally able to accept the waste or a valid development consent (where material is not contaminated).	60,000m3

		Manage as per requirements in the RAP		Where material is trackable, an EPA licensed transporter to dispose at a landfill licensed to receive it.	
Contaminated / Hazardous Substances Waste (other than soil)	General chemical use including curing and jointing compounds, paint, adhesives and solvents; or waste arising from hydraulic spills/leaks	John Holland and subcontractors required to manage waste on-site using existing bins.	Segregated – dedicated contaminated/hazardous substances waste bin.	Off-site recycling by waste subcontractor. Licensed Waste Contractor to be determined. Waste subcontractor will engage an EPA licensed transporter to dispose at a landfill licensed to receive it.	100L
Effluent	Ablution and toilet facilities	Pump out and disposal at licensed facility	Effluent storage tanks	Pump out and off-site disposal by civil subcontractor. Licensed Waste Contractor to be determined.	100,000L
Timber	Formwork from other temporary supports, pallets from building material deliveries	Subcontractors required to manage waste on-site using existing bins and storage locations	Segregated – dedicated timber bin.	Off-site recycling by waste subcontractor. Licensed Waste Contractor to be determined.	300m3
Paper and cardboard	Office facilities and packaging from deliveries	Subcontractors required to manage waste on-site using existing bins.	Segregated – dedicated paper and cardboard bin.	Off-site recycling by waste subcontractor. Licensed Waste Contractor to be determined.	100m3

## 11 Licenses

Waste Facility(s)	Waste Facility License No.
Environmental Treatment Solutions PTY LTD	13230
Bingo Bins PTY LTD (McPherson Recycling PTY LTD)	12857
OneSteel Recycling PTY LTD	872
SUEZ Recycling & Recovery PTY LTD	4068
Eco Cycle Materials PTY LTD	10699
Synergy Resource Management	20906
Tox Free Australia PTY LTD	20271
Breen Resources PTY LTD	4608
Cleanaway Resources Co PTY LTD	20937
Fairfield Sustainable Resource Co	5713
Boral Recycling PTY LTD, Wetherill Park	11815
Suez Recycling & Recovery PTY LTD	5065
Grima Environmental Services PTY LTD	20647
Visy Paper PTY LTD	4100
Concrete Recyclers (GROUP) PTY LTD	6664
Sell & Parker PTY LTD	11555
Dial-a-Dump PTY LTD	4679
Dial-a-dump PTY LTD Genesis Facility	13426
Veolia Environmental Services PTY LTD	11584
Horsley Park Resource Recovery Facility	20339
Cleanaway Operations PTY LTD	4560
Boral Asphalt	6893
MET Recycling	20948

Waste Contractor	Licence No.
BINGO Recycling	20392
Cleanaway Operations PTY LTD	4560
Environmental Treatment Solutions PTY LTD	13230
MANN Group (operating for Tox Free Australia)	20271
Benedict's Recycling	12794
SITA Australia	12889