



# Shoalhaven District Memorial Hospital

## Health Infrastructure

### Construction Waste Management Plan

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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 35999468 Compliance Table**

Consent Condition Requirements		Reference
B20	The Construction Waste Management Sub-Plan (CWMSP) must address, but not be limited to, the following:	This Plan
a)	The recording of quantities, classification (for materials to be removed) and validation (for materials to remain) of each type of waste generated during construction and proposed use for materials to remain;	Section 7 & 8
b)	Information regarding the recycling and disposal locations; and	Section 11
c)	Confirmation of the contamination status of the development areas of the site based on the validation results.	Section 6
C30	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
C31	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
C32	The Applicant must ensure that concrete waste and rinse water is prevented from entering any natural or artificial watercourse.	Section 6
C33	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
C34	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

SDMH – Shoalhaven District Memorial Hospital

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 SDMH site is located along the banks of the Shoalhaven River in Nowra. The project site comprises a total of 29,600m<sup>2</sup>. The Project will have an indicative building footprint of approximately 8,860m<sup>2</sup>, whilst the remaining 20,920m<sup>2</sup> will comprise of ground plane access, public domain, and landscaping works. The project includes.

- A new emergency department (ED) and emergency short-stay unit to improve patient flow and reduce wait times
- New state-of-the-art intensive care unit (ICU)
- Theatres and endoscopy procedure rooms, doubling capacity
- A dedicated cardiology inpatient unit (IPU), coronary care unit and catheterisation lab
- A new vascular surgery service and expanded orthopaedic, general surgery and urology services
- Overnight surgical IPUs and a dedicated day surgery unit
- New medical IPUs for specialties including gastroenterology, respiratory, oncology, endocrinology, and general medicine
- A new acute mental health IPU
- A psychiatric emergency care centre for emergency and crisis response adjacent to the ED
- An expanded acute stroke unit collocated with a dedicated rehabilitation service to ensure early access to rehabilitation and minimise functional loss
- A new nuclear medicine department to support expanded clinical services including cancer, cardiology, and respiratory care
- A new MRI service to provide improved diagnostic capacity
- Expanded medical imaging including CT, X-ray, ultrasound, and mammography to support clinical services
- Significant increase in aged care capacity in a dedicated ward
- A sub-acute geriatric evaluation and management service
- A dedicated palliative care facility
- A new paediatric assessment unit which will provide additional capacity for day presentations and short-stay admissions
- A specialist rehabilitation unit for a range of conditions including stroke, orthopaedics, brain, and spine injuries
- Expanded outpatient departments for follow up and management of admitted and non-admitted services
- Helipad on top of the new building with direct access to ICU and ED
- Link bridge to the existing Shoalhaven Memorial Hospital

Table 2 SDMH Staging:

Stage No.	Proposed works	Duration	Forecast Start Date	Forecast Finish Date
Stage 1	Demolition / Tree Clearing / Civil Works New Roadway BOC Delivery Area	4 months	May 2023	Aug 2023
Stage 2	Bulk Excavation, Piling	3 months	Aug 2023	Oct 2023
Stage 3	Footings, Inground Services & level 00	4 months	Oct 2023	Dec 2023
Stage 4	Superstructure (level L1-L4) incl. services rough in	6 months	Dec 2023	June 2024
Stage 5	Superstructure (level L5-L7) incl. services rough in	5 months	April 2024	March 2025
Stage 6	Façade and Fitout	11 months	Mar 2024	December 2025
Stage 7	Landscaping and External Works	8 months	Feb 2025	December 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 Shoalhaven District Memorial Hospital (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 SDMH project (John Holland and subcontractors).

### 3.1 Project Location

The site is located at 39 Shoalhaven Street Nowra, 160km South of Sydney. Within Nowra, the hospital is located north-west of the main business district and sits in an elevated position adjacent to and overlooking the Shoalhaven River. The precinct is bounded by Shoalhaven Street to the east, north street to the south and scenic drive to the west and is located within the Shoalhaven City Council area.

The site comprises is legally described as Lot 104 in Deposited Plan 1165533, Lot 7034 in Deposited Plan 1031852 and Lot 373 in Deposited Plan 755952.

The site is approximately 400m from the Shoalhaven Town Centre, 16km from Shoalhaven Heads and 12km to Nowra airport. The site is connected to Shoalhaven's public transport via an existing bus route which stops outside the existing hospital on both Shoalhaven Street and Scenic Drive.



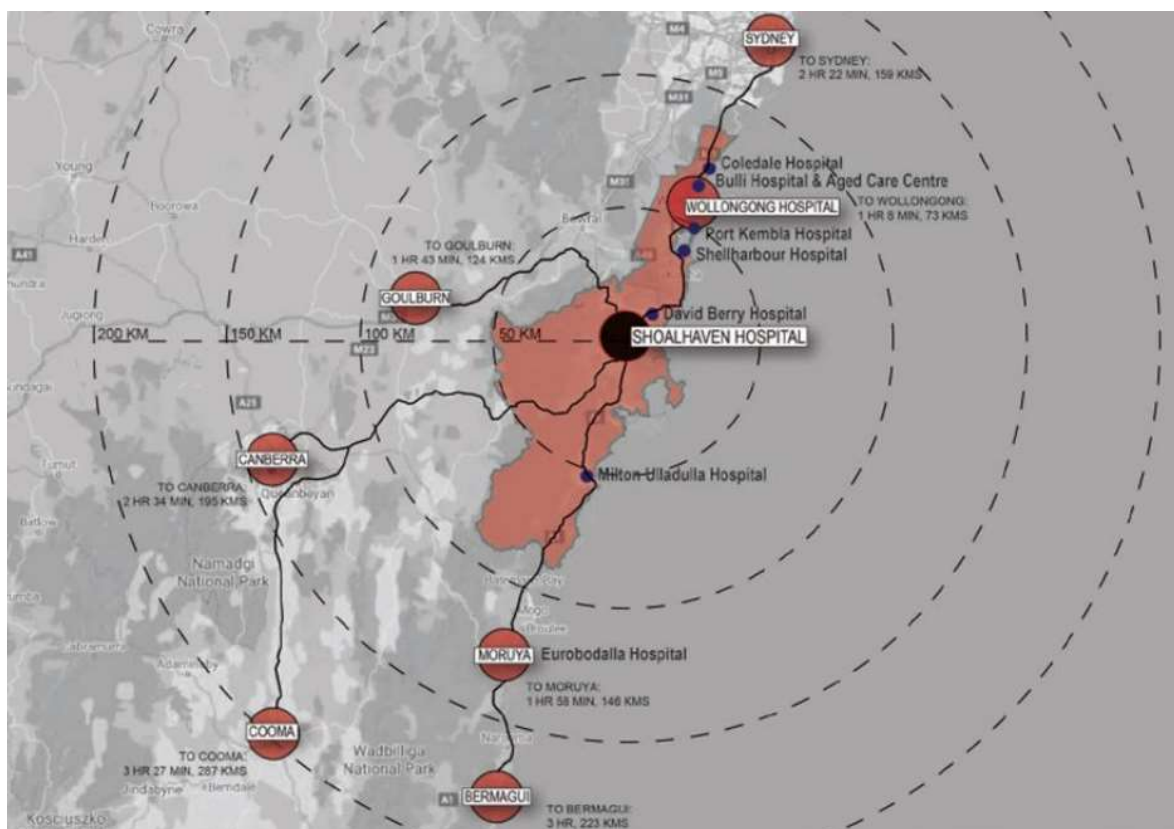


Figure 1 Regional Locality Plan

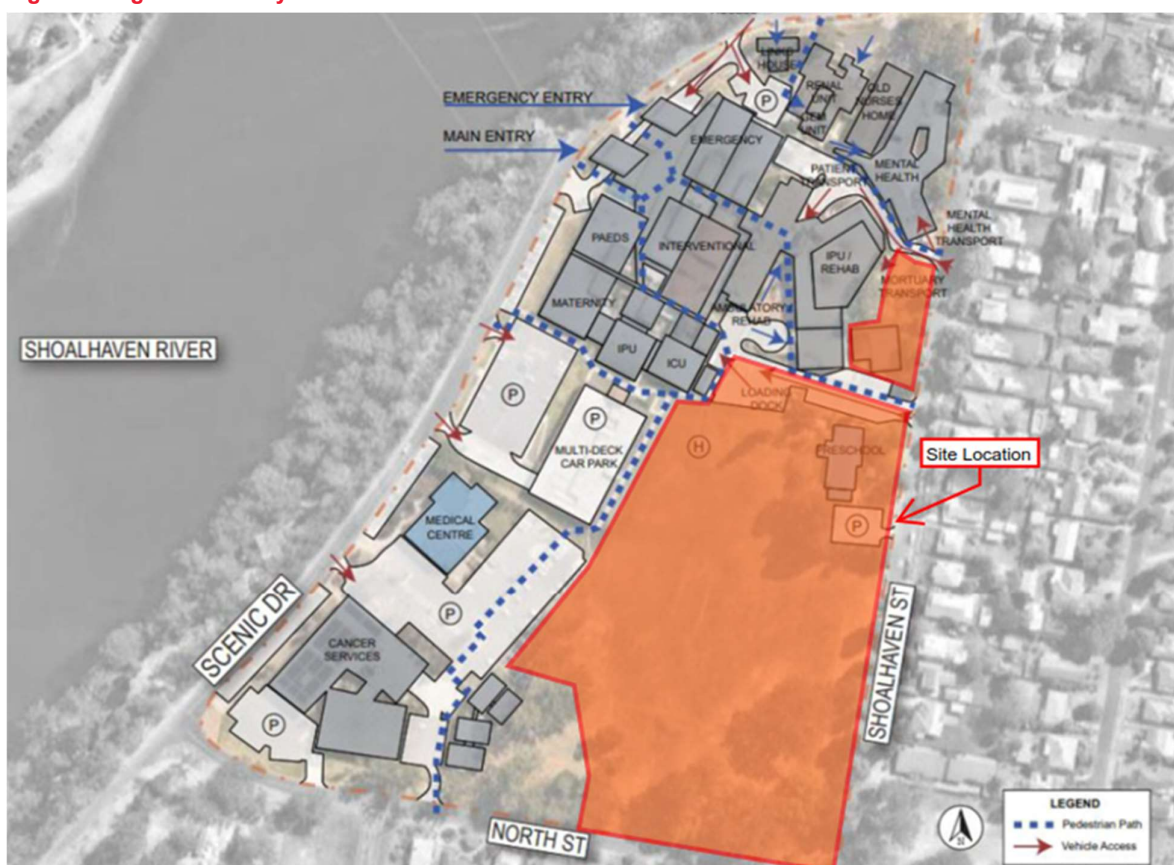


Figure 2 Locality Plan



## 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
- Cardno Geotechnical Interpretive Report (SHR-STC-STW-REP-GEO-91X001) – 29.06.22
- Cardno Technical Memorandum – Footing Assessment (SHR-STC-STW-REP-GEO-91X002) – 28.03.22
- Stantec Geotechnical Investigation Report (SHR-STC-STW-REP-GEO-91X003) – 02.05.2023

## 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 (sorting facility). 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. (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 transport NSW and Shoalhaven city council 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 always secured and maintained within designated waste storage areas within the site 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
<p>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:</p> <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> <li>▪ Information on bin type and locations is managed by yard operators who control emptying of bins</li> </ul>	PER, Supervisors, Safety Advisor/Manager	Project delivery
<p>If Spoil is to be reused off-site, the following must be provided prior to transporting the material:</p> <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> <p>Signed Section 143 Notice under the POEO Act 1997.</p> <p>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></p> <p>All truck movements will be recorded on tracking sheets.</p>	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
<p>Waste skips/bins will meet the following provisions:</p> <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> <li>▪ Waste may also be taken to a sorting facility then diverted to the correct disposal facility</li> </ul>	<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> <li>Other – refer to product SDS</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 (as required) 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 in the case of spills and the like.	PER, Safety Advisor/Manager, Engineers, Supervisors	Daily
Waste management will be inspected as part of the Weekly Environmental Inspection Checklist, or HSE site inspection. Raised issued to be entered in project reporting system (sorteria/ACC)	PER, Safety Advisor/Manager, Engineers, Supervisors	Weekly
All waste storage 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 provided to the project for reporting	PER	Project delivery



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 Sorteria 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 SSD 35999468 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/segreated	<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 or catchment bags	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/stand along trucks	Segregated – dedicated asphalt and masonry bin/dedicated trucks (ensure segregation)	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	60,000m3

		Manage as per requirements in the RAP		material is not contaminated). 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
Orange Bins Recycling Pty Ltd	2016/309/1
InfraBuild	872
ACT Recycling	575
Paper Trade	21059
Foodscrap	20026
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