



**Royal Prince Alfred (RPA) Hospital Redevelopment Project
State Significant Development (SSD) Application**



**Health
Infrastructure**



Waste Management Plan

Document Administration

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1. Purpose

The Waste Management Plan (WMP) has been prepared to support the Royal Prince Alfred Hospital (RPA) Redevelopment Project State Significant Development (SSD) application.

The Works will be undertaken by the Principal Contractor. All statements and proposals documented in this WMP are a guide only. At the time of contract award, it is the responsibility of the Contractor to prepare a detailed WMP for the Works and to ensure alignment with the legislation, health services requirements and project requirements. This WMP will be replaced by the Contractor's WMP once appointed.

The development application pathway for the RPA Redevelopment Project will consist of a State Significant Development Application (SSDA) pursuant to section 4.12(8) of the EPA Act.

This report will address the SEARs requirements as detailed in the table below:

Table 1: SEARs Requirements

Item	SEARS Requirement	Relevant Section of Report
18	<u>Waste Management</u>	
	Identify, quantity and classify the likely waste streams to be generated during construction and operation.	4.2 and 6.2
	Provide the measures to be implemented to manage, reuse, recycle, and safely dispose of this waste.	4.4, 4.9, 4.10 and 4.11
	Identify appropriate servicing arrangements for the site.	4.8 and 6.3

2. Introduction

2.1 Site Description

The Royal Prince Alfred (RPA) Hospital campus is located in Sydney's inner west suburb of Camperdown, within the City of Sydney Local Government Area. The campus is situated between the University of Sydney to the east and the residential area of Camperdown to the west. A north-south arterial road (Missenden Road) divides the campus into two distinct portions, known as the East and West Campuses. The northern boundary of the campus is defined by the Queen Elizabeth II Rehabilitation Centre and the southern extent of the campus is defined by Carillon Avenue.

The works are proposed to both the East and West Campuses, as well as some off-site works occurring within the University of Sydney.

The site comprises the following land titles:

East campus:

- Lot 1000 DP 1159799 (12 Missenden Road, Camperdown, 2050).

West campus:

- Lot 11 DP 809663 (114 Church Street, Camperdown, 2050); and
- Lot 101 DP 1179349 (68-81 Missenden Road, Camperdown 2050).

Off-site works are proposed on University of Sydney land, known as Lot 1 DP 1171804 (3 Parramatta Road, Camperdown, 2050) and Lot 1001 DP 1159799 (12A Missenden Road, Camperdown, 2050).

2.2 Project Background

In March 2019, the NSW Government announced a significant \$750 million investment for the redevelopment and refurbishment of the RPA Hospital campus. The Project will include the development of clinical and non-clinical services infrastructure to expand, integrate, transform and optimise current capacity within the hospital to provide contemporary patient centred care, including expanded and enhanced facilities.

The last major redevelopment of RPA Hospital was undertaken from 1998 to 2004 projected to 2006 service needs. Since then, significant growth has been experienced in the volume and complexity of patients, requiring significant investment to address projected shortfalls in capacity and to update existing services to align with leading models of care.

The redevelopment of RPA Hospital has been the top priority for the Sydney Local Health District since 2017 through the Asset Strategic Planning process, to achieve NSW Health strategic direction to develop a future focused, adaptive, resilient and sustainable health system.

2.3 Description of Development

Development consent is sought for:

- **Alterations and additions to the RPA Hospital East Campus**, comprising:
 - **Eastern wing:** A new fifteen (15) storey building with clinical space for Inpatient Units (IPU's), Medical Imaging, Delivery, Neonatal and Women's Health Services and a rooftop helicopter landing site (HLS);
 - **Eastern extension:** A three (3) storey extension to the east the existing clinical services building to accommodate new operating theatres and associated plant areas;
 - **Northern expansion:** A two (2) storey vertical expansion over RPA Building 89 accommodating a new Intensive Care Unit and connected with the Eastern Wing;

- **Internal refurbishment:** Major internal refurbishment to existing services including Emergency Department and Imaging, circulation and support spaces;
- Enhanced Northern Entry/ Arrival including improved pedestrian access and public amenity;
- Demolition of affected buildings, structures and trees;
- Changes to internal road alignments and paving treatments; and
- Landscaping works, including tree removal, tree pruning, and compensatory tree planting including off-site on University of Sydney land.
- **Ancillary works to the RPA Hospital West Campus, comprising:**
 - A temporary HLS above an existing multi storey carpark;
 - Re-routing of existing services; and
 - Associated tree removal along Grose Street

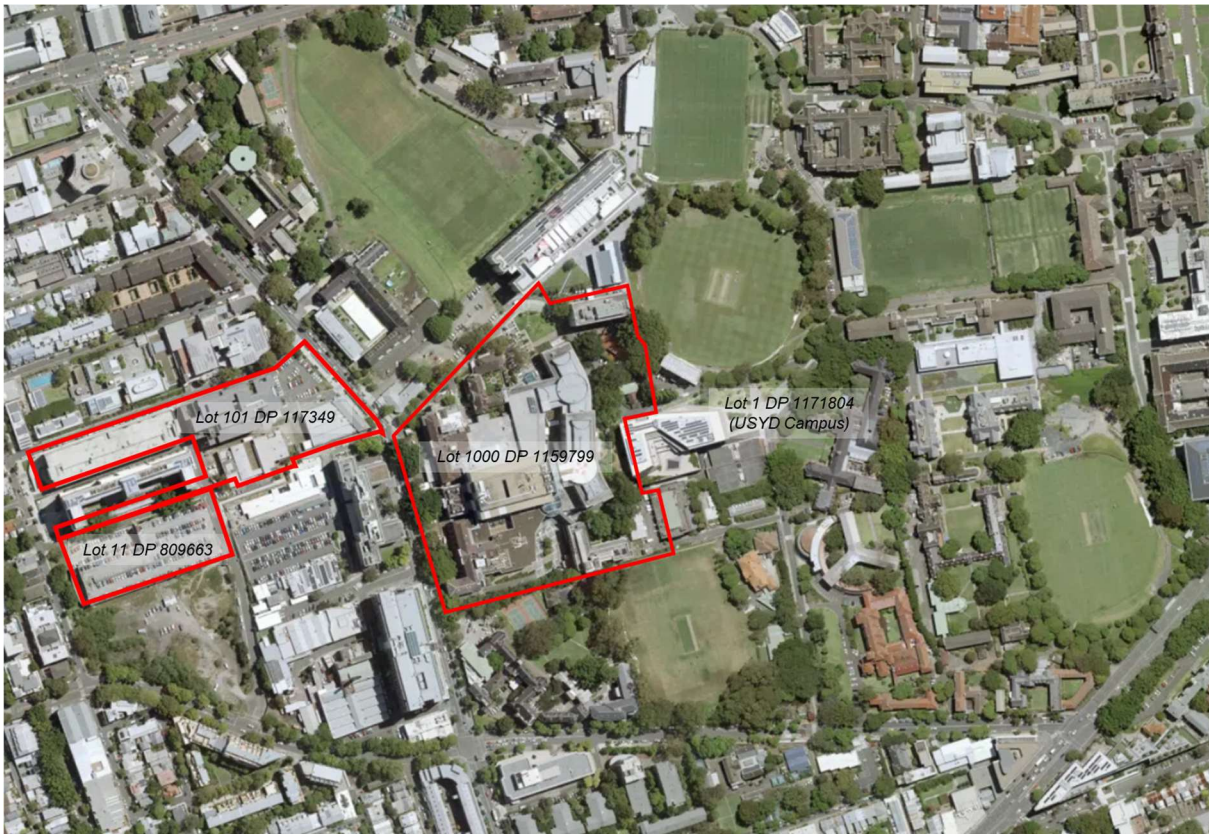


Figure 1 RPA Redevelopment Project Site Boundary

3. Legislative Requirements

The Works will be undertaken in accordance with the following legislative requirements relevant to the management of waste in New South Wales, and any others that must be complied with in carrying out the works as required:

- NSW Health – Waste Reduction and Purchasing Policy 2011-2014
- Waste Management Guidelines for Health Care Facilities

- NSW Occupational Health and Safety Act (2000)
- NSW OH&S Regulation (2001)
- Protection of the Environment Operations Act and Regulation
- Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA)
- Waste Avoidance and Resource Recovery Act
- Contaminated Land Management Act
- NSW EPA, 2014 – Waste Classification Guidelines
- NSW EPA, 2014 – The Excavated Natural Material Order
- NSW EPA, 2014 – The Excavated Public Road Material Order and The Reclaimed Asphalt Pavement Order
- NSW WorkCover, 2011 – How to Safely Remove Asbestos Code of Practice
- Australian Code for the Transport of Dangerous Goods by Road and Rail
- AS/NZS 4031:1992 (Non-reusable containers for the collection of sharp medical items used in health care areas)
- AS/NZS 4261:1994 (Reusable containers for the collection of sharp items used in human and animal medical applications)
- AS/NZS 3816:1998 (Management of clinical and related waste)
- AS/NZS 2161.10 Parts 1-3:2005 (Occupational protective gloves)
- AS/NZS 4123 Parts 1-7:2008 (Mobile waste containers)
- AS/NZS 2243 Part 3:2010 (Safety in Laboratories)
- RPS No.20 Safety Guide for Classification of Radioactive Waste (ARPANSA, 2010)
- Code for the Safe Transport of Radioactive Material (ARPANSA, 2014)
- Code of Practice for Radiation Protection in the Medical Applications of Ionizing Radiation (RPS14) (ARPANSA, 2008)
- Industry Code of Practice for the Management of Biohazardous Waste (including Clinical & Related Wastes) (WMAA, 2014)
- The Australian Council on Healthcare Standards (ACHS) EQUIP National Guidelines Standard 15 (ACHS, 2012)
- Labelling of workplace hazardous chemicals Code of Practice (SafeWork NSW, 2016)
- Code of Practice: Hazardous manual tasks (SafeWork NSW, 2016)
- PD2008_004 Community Sharps Disposal by Area Health Services
- PD2013_043 Medication Handling in NSW Public Health Facilities
- Guideline for Approval of Method to Treat Clinical Waste
- PD2017_013 Infection Prevention and Control Policy
- PD2017_010 HIV, Hepatitis B and Hepatitis C - Management of Health Care Workers Potentially Exposed
- PD2007_052 Sharps Injuries - Prevention in the NSW Public Health System
- PD2012_061 Environmental Cleaning Policy
- Infection prevention and control practice handbook. Principles for NSW public health organisations (CEC, 2016)
- Environmental Cleaning Standard Operating Procedures. Module 3.4 Environment (CEC-HAI, 2012)
- Environmental Cleaning Standard Operating Procedures. Module 6 Cleaning Agents (CEC-HAI, 2012)
- Environmentally Hazardous Chemicals Act 1985
- Environmentally Hazardous Chemicals Regulation 2017
- Protection of the Environment Administration Act and Regulations

- Code of Practice for the Safe Removal of Asbestos (NOHSC:2002 (2005))
- Guide to the Control of Asbestos Hazards in Buildings and Structures (NOHSC:3002 (1998))
- Resource and Recovery Act 2001
- Environmental Planning and Assessment Act 1979
- Local Government Act 1993
- Soil Conservation Act 1938

4. Waste Management Principles - Construction

4.1 Waste Management Principles

In accordance with NSW Health requirements for health care facilities, a detailed WMP will be developed by the Principal Contractor providing detailed information regarding the nature and volume of waste generated by the development and the means of storage and disposal of waste from the site. Waste management practices will adopt the waste hierarchy established by the Waste Avoidance and Resource Recovery Act 2001 (WARR Act) of reduce, reuse, recycle, treat and dispose.



Figure 2 Waste Hierarchy (NSW, EPA 2017)

The major components of the waste management system will include:

- Avoidance and Reduction of Waste
- Recycling and Reuse
- Segregation at the source
- Waste streams
- Handling and Storage
- Waste treatment
- Waste disposal

The Works will be undertaken by a Principal Contractor. All statements and proposals documented in this WMP are a guide only. At the time of contract award, the Contractor(s) will formulate their own WMP for the Works and ensure alignment with the legislation, health services requirements and project requirements. This WMP will be replaced by the Contractor's WMP once appointed.

4.2 Waste Estimation

Indicative quantities of waste likely to be generated during construction have been set out per the below assumptions. This will be developed in further detail by the Principal Contractor. It is expected that actual waste quantities and composition will vary depending on outcomes of detailed design, materials specification and construction planning and methods.

The quantities of waste likely to be generated during demolition have been calculated based on benchmarks provided by the UK Building Research Establishment (BRE) (refer Table 2) and benchmarked data of waste composition developed by Sustainability Victoria (refer Table 3).

Table 1: Average Volumes of Waste Produced by Different Project Types

Project Type	Average volume (m ³) of waste per 100m ²
Residential	18.1
Public buildings	20.9
Leisure	14.4
Industrial Buildings	13.0
Healthcare	19.1
Education	20.7
Commercial Other	17.4
Commercial Offices	19.8
Commercial Retail	20.9

Source: BRE (2012)

Table 2: Guide to Waste Composition and Volumes - Construction

Material	Estimated Waste %	Conversion Factor (Density) (Tonne per m ³)
Hard material	32%	1.2
Timber	24%	0.3
Plastics	15%	0.13
Cement sheet	9%	0.5
Gypsum material	6%	0.2
Metals	6%	0.9
Paper / card	4%	0.1
Vegetation	3%	0.15
Soil	1%	1.6
Other	0.3%	0.3

Source: Sustainability Victoria Waste Wise Tool Kit (2013)

Table 3: Likely Waste Quantities During Construction

Material	Average Volume/ 100m ² *	Total (m ³)	Total (Tonnes)
Hard material (32%)	6.1	3284	3941
Timber (24%)	4.6	2477	743
Plastics (15%)	2.9	1561	203
Cement sheet (9%)	1.7	915	458
Gypsum material (6%)	1.1	592	118
Metals (6%)	1.1	592	533
Paper / card (4%)	0.8	431	43
Vegetation (3%)	0.6	323	48
Soil (1%)	0.2	107	171
Other (0.3%)	0.1	54	16
Total	19.1	10,336	6274

*based on a proposed GFA of 53,833m²

Strategies will be implemented to minimise waste generation and maximise reuse and recycling.

4.3 Waste Avoidance and Reduction

The most effective strategy in the waste hierarchy is to avoid the generation of waste. Throughout the construction phase of the Project, the avoidance of waste can be achieved through a number of strategies, including but not limited to:

- Reducing materials brought to site through a thorough understanding of the design, operational requirements, required quantities and detailed project planning; and
- Inventory control, proper storage and management of materials to avoid waste from materials that are out of date or off specification and reducing the need to reorder supplies.
- Appropriate Storage and Management of materials onsite to limit the potential for damage from weather or plant which will eliminate the need for purchase of replacement products and waste generation.

4.4 Waste Recycling and Reuse

Where the generation of waste cannot be avoided, it is encouraged to promote the reuse and recycling of waste materials. This can be achieved through a variety of strategies, including but not limited to:

- Evaluating waste production processes and identifying potentially recyclable materials;
- Identifying and recycling products that can be reintroduced into the construction and operation processes;
- Separating and segregating waste, particularly recyclable material from non-recyclable;
- Proper disposal of recyclable waste such as glass, paper and aluminium; and
- Where possible, reusing materials and equipment in later stages of the construction phase and/or in different projects. For example, classifying excavated material as Virgin Excavated Natural Material (VENM) or Excavated Natural Material (ENM) to allow potential reuse off-site

The contractor's WMP will address recycling targets and monitoring strategies to enabling monthly reporting on the recycling outputs.

4.5 Waste Segregation

Segregation of various streams of waste is an important part of efficient waste management. Where possible, waste such as excavated material will be separated on-site into dedicated bins and areas for reuse and/or collection by a licensed contractor:

- General Waste – Glass, Paper & Cardboard and Aluminium
- Natural material will be classified as VENM for reuse onsite where possible or for offsite reuse.
- Excavated material (unable to be used onsite) to be sent to a recycling facility
- Waste from piling works, including waste steel and formwork

If separation is not possible on-site, the Contractor(s) shall organise the separation of waste off-site. Waste will be classified in accordance with the requirements of the NSW EPA (2014) Waste Classification Guidelines.

4.6 Waste Streaming

Throughout the construction phase of the Project, organic waste that is biodegradable will be recycled where possible. Uses of organic waste include, but are not limited to, mulch or garden compost to enhance lawns and gardens. Where reuse is not possible, organic waste will be placed in mobile bins for regular collection by a licensed contractor.

Domestic wastes such as non-biodegradable food scraps, bottles, cans and packaging – will be segregated into recyclables and non-recyclables at point of generation and collected by a licensed contractor.

4.7 Hazardous Waste

Hazardous Building Materials Surveys (HBMS) have been undertaken to the areas included within the scope of the SSDA. This survey comprised a detailed visual inspection and sample collection with the objective to locate and identify areas of suspected hazardous materials.

The outcomes of this survey and measures for dealing with hazardous waste are further noted within the HBMS report by Sydney Environmental Group (SEG). This includes the following measures to be undertaken by the Contractor:

- Development of a Hazardous Building Materials Management Plan to ensure all practicable steps are taken to prevent or minimise the risk of exposure to hazardous materials during works;
- Ensuring a copy of the hazardous building materials register is made readily available to all contractors conducting works on the site;
- Remove all hazardous building materials identified and recorded in the register prior to any demolition works of the structures identified within the site; and
- Should any previously unidentified suspected hazardous building materials be identified during demolition, works should cease, and the materials should be inspected by an experienced occupational hygienist prior to the recommencement of works.

4.8 Waste Handling and Storage

The Contractors WMP will identify storage and collection areas including loading zones and stockpile locations. Storage locations of waste will be planned to consider the changing nature of the site and construction phases. Clear signage will be provided to mark the location of different types of waste and materials.

Stockpile management strategies include, but are not limited to:

- Locating stockpiles in designated, marked areas and away from drainage lines and up-slope of sediment barriers;

- Locating stockpiles on hardstand surfaces or on plastic sheeting, and covering stockpiles or stabilising surfaces to reduce erosion; and
- Maximum stockpile height of 2 m (subject to Engineering advice).

Where applicable, liquid wastes will be stored in bunded areas protected from the weather. Containers will be labelled with name of the waste stream, composition and physical state, restricted properties and date of storage to ensure safe handling and management procedures are met.

Clearly marked waste containers with information such as name of waste, composition (solid/liquid), restricted properties of the waste (corrosive, ignitable) and date of the first waste deposited into the container.

All servicing arrangements will need to consider the safety of site users.

The Contractor shall ensure that the supply chain is responsible and accountable for maintaining a clean, clear and safe working environment. Rubbish bins should be provided to all work areas and be regularly removed to the central skip bin location for collection and transport from site to a waste recycle facility.

4.9 Waste Treatment

It is intended that no waste is treated on-site. Treatment of construction and general waste will be performed by a licensed contractor after proper removal of waste off the project site. This includes wastewater requiring offsite disposal.

4.10 Waste Disposal and Transport

Waste that cannot be recycled and/or reused will be disposed off-site by a licensed contractor to a licensed landfill or recycling facility.

Prior to disposal, waste will be classified in accordance with the requirements of the NSW EPA Waste Classification Guidelines.

All vehicles transporting waste off-site will have covered loads. A waste tracking record will be maintained of all disposals that records the waste facility name and address, type and identity of disposal vehicle, date of disposal, type and quantity of waste and method of treatment (where applicable). Contractor(s) will keep evidence of the proper disposal of waste to licensed facilities.

All vegetation and topsoil will be assessed for site suitability.

4.11 Waste Management Methods

A detailed construction waste management plan will be developed by the Contractor. The plan will provide further details of the management required for the waste types generated under the works associated with the RPAH Development.

As the design progresses, accurate estimates of quantities of building materials prior to construction will ensure that a minimum of waste is generated. Records of waste and recycling collected and disposed of will be collated throughout the construction phase by the Contractor. Unused materials in a good condition will often be collected by suppliers, facilitating the reduction of the amount of material sent to recyclers or landfill.

The Contractor will be required to achieve compliance with the EPA guidelines.

A summary of likely waste streams to be generated through Enabling Works construction are identified in the table below, a proposed method for handling, storage and reuse/disposal of each type of waste are also presented.

Table 5: Likely Waste Streams

Activity	Waste stream	Management
Site Clearing - Green Waste	Trees, shrubs, groundcover and weeds	• Reuse suitable material for mulch if it is weed free and complies with the EPA mulch exemption

Activity	Waste stream	Management
		Potential for offsite reuse or disposal to a green waste facility
Construction Waste	Concrete, metal, steel, timber, fittings, plastic, electrical and plumbing	- Segregation of recyclable wastes and storage onsite (within construction compounds) - Collection and transport to appropriate recycling facility
Site Office and Worksites	General Office Waste – paper, printer cartridges	- Segregation of recyclable wastes and storage on-site - Collection and transport to a recycler
	Domestic Wastes – food scraps, glass bottles, cans, packaging.	Segregation of recyclable wastes and storage onsite
	Septic and Sanitary systems waste	Sewerage treatment plant
Plant Maintenance and Chemicals Management	Drums and Containers	- Segregation of recyclable wastes and storage onsite (within construction compounds) - Collection and transport to a recycling facility
	Waste Oil, great, lubricants, oily rags and filters	- Segregation of recyclable wastes and storage onsite (within construction compounds) - Collection and transport to a recycling facility

The storage of waste created by the site through demolition, excavation and general construction works will be specified within the site establishment zones in the Principal Contractor's Construction Management Plan.

4.12 Hazardous Materials Management

Dangerous goods are to be managed in accordance with relevant codes of practice and standards. Material safety data sheets on all of these flammable and potentially harmful liquids will be provided by the Contractor undertaking the Works. Any hazardous materials discovered during execution of the Works should be dealt with by the Contractor in accordance with the requirements set out in the Contract.

5. Responsibilities and Training

5.1 Roles and Responsibilities

The Principal Contractor will be responsible for developing a detailed waste management plan prior to commencement of the construction works. That plan must be consistent with the approach, principles and management methods outlined in this plan.

The Contractor will also be responsible for:

- Inducting all contractors and visitors about the relevant aspects of this plan.
- Ensuring all waste management contractors have the necessary qualifications and licenses to remove waste from the site.
- Carrying out periodic audits to check compliance with the waste management plan.

5.2 Training and Induction

During construction, all site personnel and subcontractors will be inducted into the requirements of this plan in accordance to their level of responsibility. As such, the induction is expected to include the following components:

- The waste hierarchy and associated waste management principles (avoid, reuse, and recycle).
- NSW EPA Waste Classification Guidelines.
- Procedures for handling and storage of wastes.
- Location of waste disposal and storage facilities.
- Actions to be undertaken in the event of a hazardous material spill.

Staff and contractors with specific responsibilities for waste management including for the handling and disposal of hazardous waste will be given additional training as required.

6. Waste Management Principles - Operation

6.1 Waste Management Plan - Operation

Sydney Local Health District (SLHD) have a Waste Management Policy (refer Appendix 1) in place for existing SLHD facilities, including RPA Hospital. As design progresses for the Project, the existing SLHD Waste Management Policy for RPA Hospital will be updated to ensure ongoing improvements and compliance with policy and legislation in all aspects of waste management, including generation, handling, storage and disposal of all forms of waste.

6.2 Waste Streams

The following operational waste streams and estimated quantities have been provided by SLHD noting the existing waste generation streams. The waste streams generated by the proposed development will be quantified throughout detailed design with the consultant team. Increased vehicle movements are expected to be proportional to the increase in waste streams.

Table 6: Medical Waste Generation

Waste Stream	Collection Frequency	RPA Waste Generation (Kg/day)
Clinical Waste	6 x week	1111
Pharmaceutical	2 x week	6

Waste Stream	Collection Frequency	RPA Waste Generation (Kg/day)
Cytotoxic	6 x week	70
Anatomical	6 x week	39
Genetically Modified Organisms	4 x week	44

Table 7: Non-Medical Waste Generation

Waste Stream	Collection Frequency	RPA Waste Generation (Kg/day)
General Waste	6 x week	5100
Paper & Cardboard	4 x week	1236
Secure Documents	3 x week	200
Comingled Recycling	2 x week	835

6.3 Management of Clinical Waste Streams

Management of Clinical Waste Streams will be in compliance with NSW Health's PD2017_026 Clinical and Related Waste Management for Health Services (Refer Table 8 and 9):

Waste stream	Anatomical waste	Clinical sharps waste	Clinical waste (Incl. Pathological Waste)
Definition	Identifiable human body parts such as limbs, organs, placenta and recognisable or large pathological specimens resulting from investigation or treatment of a patient It does not include deceased bodies	Any clinical object capable of inflicting a penetrating injury which may or may not be contaminated with blood and or body substance. This includes needles, ampoules and any other sharp objects or instruments designed to perform penetrating procedures[1] May contain clinical material or Genetically Modified Organism (GMO)[2] waste	Clinical waste with the potential to cause injury, infection or offence: • Unrecognisable human tissue (excluding hair, teeth, nails and anatomical waste) • Bulk blood or other body fluids (or body substances) • Material and equipment visibly stained by blood or body fluids (includes incontinence pads and disposable nappies that come from an infectious patient)[3] • Lab specimens, cultures or other waste from lab investigations • Waste from medical or veterinary research • Genetically Modified Organisms (GMOs)
Bin colour	Yellow	Yellow	Yellow
Lid colour of bin	Orange	Yellow	Yellow
Plastic bin liners	Orange	N/A	Yellow
Labelling of bins and if applicable liners	Anatomical waste	Clinical sharps	Clinical waste
Symbol			
Symbol (description)	Black biological hazard	Black biological hazard	Black biological hazard
Label (if containing viable PC1 or PC2 GMOs)		Contains GMOs	Contains GMOs
Specific requirements	For incineration only	For incineration or autoclaving and shredding Sharps containers must be rigid-walled and meet the requirements specified in AS/NZS 4031 and AS/NZS 4261[4,5] Autoclave tape and bag indicators must be used to show autoclaving has been completed	For incineration or autoclaving [6] and shredding. Autoclave tape and bag indicators must be used to show autoclaving has been completed. Fluid may be able to be discharged into sewer depending on Liquid Trade Agreement between the health service and water utility All clinical waste once treated by a process acceptable to NSW Health[7] may be reclassified in accordance with the Waste Classification Guidelines[8] before recycling or disposal There are special precautions regarding disposal of waste related to cases of viral haemorrhagic fever[9]
Relevant Act/ Regulation /Australian Standard	AS/NZS 3816:1998 Management of clinical and related waste AS/NZS 4123:2008 Mobile Waste Containers	AS/NZS 3816:1998 Management of clinical and related waste AS/NZS 4123:2008 Mobile Waste Containers <i>Protection of the Environment Operations Act 1997</i> <i>Protection of the Environment Operations (Waste) Regulation 2014</i>	AS/NZS 3816:1998 Management of clinical and related waste AS/NZS 4123:2008 Mobile Waste Containers <i>Protection of the Environment Operations Act 1997</i> <i>Protection of the Environment Operations (Waste) Regulation 2014</i>
EPA licence requirements	No	No	No

Table 8: Management of clinical waste streams: anatomical, sharps and other clinical waste.

Table 9: Management of clinical waste streams: cytotoxic and pharmaceutical.

Waste stream	Cytotoxic waste	Pharmaceutical waste	Radioactive waste
Definition	Material contaminated with residues or preparations containing materials toxic or otherwise harmful to cells. This includes any residual cytotoxic drug or laboratory chemical and any discarded material or clinical waste associated with the preparation or administration or excretion of cytotoxic drugs May include Genetically Modified Organisms (GMOs) or tissues containing GMOs	Pharmaceuticals or other chemical substances specified as regulated goods in the Poisons and Therapeutic Goods Act 2008. Includes any substance specified in a Schedule of the Poisons List under the Act, as well as any therapeutic good which is unscheduled Includes expired or discarded pharmaceuticals, filters or other material contaminated by pharmaceutical products	Waste material, including sharps and clinical waste contaminated with a radioisotope which arises from the medical or research use of radionuclides, e.g. during nuclear medicine, radioimmunoassay and bacteriological procedures, and may be in solid, liquid or gaseous form, and which emits a level of radiation above the level set by regulatory authorities
Bin colour	Purple	Red	Red[1]
Lid colour of bin	Purple	Red	Red
Plastic bin liners	Purple	N/A	Red
Labelling of bins and if applicable liners	Cytotoxic waste	Pharmaceutical waste	Radioactive waste plus specific requirements below
Symbol		Nil	
Symbol (description)	White telophase	Nil	Yellow background with distinctive 'trefoil' symbol in black and the lettering 'CAUTION RADIATION' in black
Label (if containing viable PC1 or PC2 GMOs)	Contains GMOs		
Specific requirements	For incineration only Collection, transport and handling only by licensed and registered waste management companies	Storage, destruction and disposal methods must comply with PD2013_043 Medication Handling in NSW Public Health Facilities[2] Pharmaceutical waste must be incinerated at a licensed controlled waste facility. Certain pharmaceuticals may only be destroyed by authorised persons under the <i>Poisons and Therapeutic Goods Act 1966</i> [3] Pharmaceutical waste bins must be lockable	Radioactive material to be stored on-site in appropriate storage area until it decays to below the thresholds of a "radioactive substance" as defined under the Radiation Control Act and Regulation Waste is to be classified with reference to the Safety Guide for the Classification of Radioactive Waste[4] and in accordance with the EPA Waste Classification Guidelines[5] Radioactive waste must be labelled with the substance, activity level and the date at which it is measured Handling and storage to comply with a Radiation Management Plan in accordance with the Code of Practice for Radiation Protection in the Medical Applications of Ionizing Radiation (ARPANSA 2008)[6] Radioactive sharps – see page 9 [7] When radioactive waste is to be transported, health services must comply with the Code of Practice for the Safe Transport of Radioactive Material (ARPANSA 2014)[8]
Relevant Act and Regulation	AS/NZS 4123:2008 Mobile Waste Containers <i>Protection of the Environment Operations Act 1997</i> <i>Protection of the Environment Operations (Waste) Regulation 2014</i>	<i>Poisons and Therapeutic Goods Act 1966</i> <i>Poisons and Therapeutic Goods Regulation 2008</i>	AS/NZS 4123:2008 Mobile Waste Containers <i>Radiation Control Act 1990</i> <i>Radiation Control Regulation 2013</i>
EPA licence requirements	No	No	Yes - Waste Classification Guidelines Part 3: Waste containing radioactive material (EPA, 2014)

Appendix 1 – SLHD Waste Management Policy

Best for Project

AUSTRALIA

SYDNEY | BRISBANE | CANBERRA | MELBOURNE | NEWCASTLE

NEW ZEALAND

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